SICK

Top Products from SICK

2016/2017

PRODUCT CATALOGUE 2016/2017



TOP PRODUCTS FROM SICK

CORE PRODUCT SELECTION FOR FACTORY, LOGISTICS AND PROCESS AUTOMATION

Australia & New Zealand

SICK
Sensor Intelligence.





Photoelectric sensors
Detecting, verifying, positioning, counting – photoelectric sensors from SICK



Proximity sensors
Reliable, powerful, rugged. Proximity sensors from SICK.



Magnetic cylinder sensors
With millimeter precision – cylinder sensors from SICK



Identification solutions
All you can read – ensure your investment over the long term



Detection and ranging solutions
Compact, reliable detection and distance measurement at all times



Fluid sensors
Efficient instrumentation solutions for factory automation



Registration sensors
SICK registration sensors – enhancing performance through precision and speed



Distance sensors
Distance sensors from SICK – precision for measuring tasks

Foto: viastore, Stuttgart



Automation light grids
SICK automation light grids – simple integration through high flexibility



Vision
A new dimension in vision



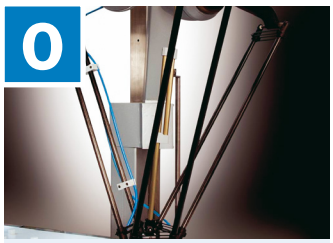
Opto-electronic protective devices
Optical protection – remove the barrier to greater productivity



Safety switches
Three product groups for tried and tested, intelligent safety solutions



sens:Control – safe control solutions
Safe control solutions for intelligent machine designs



Motor feedback systems
Measuring the speed and position with the greatest possible precision



Encoders
Perfect rotary and linear path measurement



Gas analyzers
Optimum solutions for analyzing gases in process- or emission-related applications



Dust measuring devices
Innovation solutions for measuring dust



Traffic sensors
Solutions for active traffic safety



Ultrasonic gas flow measuring devices
Ultrasonic technology by SICK: gas flow measurement at the highest level



System solutions
Outstanding solutions for demanding tasks

Inventory Key		
*	Australian preferred item	*This is our preferred product list. Other varients are available on request.*
^	New Zealand preferred item	
*^	Australian / New Zealand preferred item	
	Ordered as required	

SICK
Sensor Intelligence.

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A

WE DELIVER “SENSOR INTELLIGENCE.”

SICK sensor solutions for industrial automation is the result of exceptional dedication and experience. From development all the way to service: The people at SICK are committed to investing all their expertise in providing the very best sensors and system solutions possible.

A company with a culture of success

Over 6,500 people are on staff, with products and services available to help SICK sensor technology users increase their productivity and reduce their costs. Founded in 1946 and headquartered in Waldkirch, Germany, SICK is a global sensor specialist with more than 50 subsidiaries and representations worldwide.

Our exemplary corporate culture fosters an optimum work-life balance, thus attracting the best employees from all over the world. SICK is one of the best employers – we have been among the winners of the prestigious German “Great Place to Work” award for many years in succession.



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Innovation for the leading edge

SICK sensor systems simplify and optimize processes and allow for sustainable production. SICK operates at many research and development centers all over the world. Co-designed with customers and universities, our innovative sensor products and solutions are made to give a decisive edge. With an impressive track record of innovation, we take the key parameters of modern production to new levels: reliable process control, safety of people and environmental protection.

A corporate culture for sustainable excellence

SICK is backed by a holistic, homogeneous corporate culture. We are an independent company and our sensor technology is open to all system environments. The power of innovation has made SICK one of the technology and market leaders – sensor technology that is successful in the long term.









A

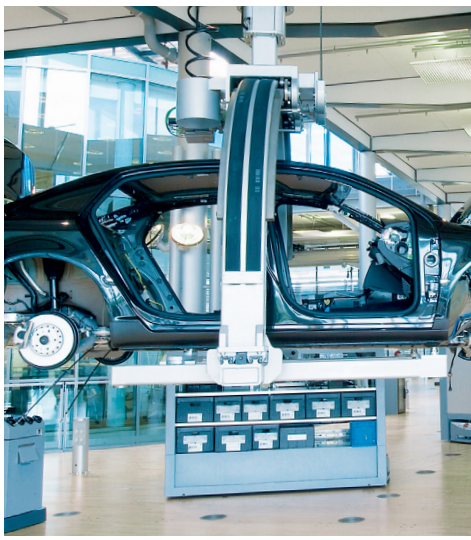
“SENSOR INTELLIGENCE.” FOR ALL REQUIREMENTS

SICK is a renowned expert in many industries, and is entirely familiar with the critical challenges they face. While speed, accuracy and availability take center stage in all industries, technical implementations vary greatly. SICK puts its vast experience to use to provide you with the solution you need.

For applications worldwide

Hundreds of thousands of installations and applications go to prove that SICK knows the different industries and their processes inside out. This tradition of uncompromising expertise is ongoing: As we move into the future, we will continue to design, implement and optimize customized solutions in our application centers in Europe, Asia and North America. You can count on SICK as a reliable supplier and development partner.









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For your specific industry

With a track record of proven expertise in a great variety of industries, SICK has taken quality and productivity to new heights. The automotive, pharmaceutical, electronics and solar industries are just a few examples of sectors that benefit from our know-how. In addition to increasing speed and improving traceability in warehouses and distribution centers, SICK solutions provide accident protection for automated guided vehicles. SICK system solutions for analysis and flow measurement of gases and liquids enable environmental protection and sustainability in, for example, energy production, cement production or waste incineration plants.

For performance across the board

SICK provides the right technology to respond to the tasks involved in industrial automation: measuring, detecting, monitoring and controlling, protecting, networking and integrating, identifying, positioning. Our development and industry experts continually create groundbreaking innovations to solve these tasks.

→ www.sick.com/industries









A

VERSATILE PRODUCT RANGE FOR INDUSTRIAL AUTOMATION

From the simple acquisition task to the key sensor technology in a complex production process: With every product from its broad portfolio, SICK offers a sensor solution that best combines cost effectiveness and safety.

→ www.sick.com/products

Photoelectric sensors

- MultiTask photoelectric sensors
- Miniature photoelectric sensors
- Small photoelectric sensors
- Compact photoelectric sensors
- Cylindrical photoelectric sensors
- Fiber-optic sensors and fibers



Proximity sensors

- Inductive proximity sensors
- Capacitive proximity sensors
- Magnetic proximity sensors



Magnetic cylinder sensors

- Analog positioning sensors
- Sensors for T-slot cylinders
- Sensors for C-slot cylinders
- Sensor adapters for other cylinder types



Registration sensors

- Contrast sensors
- Markless sensors
- Color sensors
- Luminescence sensors
- Fork sensors
- Array sensors
- Register sensors



Automation light grids

- Measuring automation light grids
- Switching automation light grids



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Opto-electronic protective devices

- Safety laser scanners
- Safety light curtains
- Safety camera systems
- Multiple light beam safety devices
- Single-beam photoelectric safety switches
- Mirror columns and device columns



Safety switches

- Electro-mechanical safety switches
- Non-contact safety switches
- Safety command devices



sens:Control – safe control solutions

- Safety controllers
- Safe sensor cascade
- Safety relays



Gas analyzers

- Gas transmitters
- In-situ gas analyzers
- Extractive gas analyzers



Dust measuring devices

- Scattered light dust measuring devices
- Transmittance dust measuring devices
- Gravimetric dust measuring devices



Analyzer solutions

- CEMS solutions
- Process solutions



A

Traffic sensors

- Tunnel sensors
- Overheight detectors
- Visual range measuring devices



Ultrasonic gas flow measuring devices

- Volume flow measuring devices
- Mass flow measuring devices
- Flow velocity measuring devices
- Gas flow meters
- Flow computers



Motor feedback systems

- Motor feedback system rotary HIPERFACE®
- Motor feedback system rotary HIPERFACE DSL®
- Motor feedback system rotary incremental
- Motor feedback system rotary incremental with commutation
- Motor feedback system linear HIPERFACE®



Encoders

- Absolute encoders
- Incremental encoders
- Linear encoders
- Wire draw encoders
- Safety encoders



Identification solutions

- Bar code scanners
- Image-based code readers
- Hand-held scanners
- RFID



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Vision

- Vision sensors
- Smart cameras
- High-end cameras



Distance sensors

- Short range distance sensors (displacement)
- Mid range distance sensors
- Long range distance sensors
- Linear measurement sensors
- Ultrasonic sensors
- Double sheet detection
- Optical data transmission
- Position finders



Detection and ranging solutions

- 2D laser scanners
- 3D laser scanners



Fluid sensors

- Level sensors
- Pressure sensors
- Flow sensors
- Temperature sensors



System solutions

- Customized analyzer systems
- Collision awareness systems
- Flexible automation systems
- Object detection systems
- Profiling systems
- Quality control systems
- Security systems
- Track and trace systems



A

Detecting



Transparent objects

Detection of transparent objects like clear plastic packaging, bottles made of glass or PET, vials and droppers or plastic wrap.

More details at: www.sick.com/clearsens


WL2SG-2


WLG4S-3


WL9G-3


WL12G-3

Capacitive proximity sensors



UF



MLG-2 Pro



MLG-2 ProNet



Ax20





Small objects

Detection of small objects with an object size from 0.015 mm to 2 mm.


W4SL-3


W9L-3


W12-2 Laser


WLL170-2


WLL180T

Inductive proximity sensors



KT3L Laser



KT8L Laser



WFL

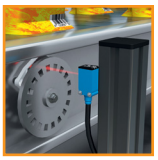


MLG-2 Pro



MLG-2 ProNet





Fast moving objects

Detection of fast moving objects in extremely fast-paced production processes.

W12-2 Laser



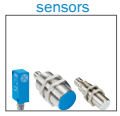
Inductive proximity sensors



Capacitive proximity sensors



Magnetic proximity sensors



MLG-2 Pro



MLG-2 ProNet



KT10



CS8



LUT9



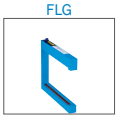
LUTM



WF



FLG





Perforated objects

Reliable detection of perforated objects such as mesh boxes or printed circuit boards.

Reflex Array



MultiLine



W2S-2



WLL170/180 with LL3



Ax20

Plastic wrapped objects

Detection of objects wrapped in plastic

Photoelectric sensors

MLG-2 Pro

MLG-2 ProNet

Uneven or shiny objects

Detection of shiny objects or objects with uneven surfaces.

Photoelectric sensors

MLG-2 Pro

MLG-2 ProNet

Contrast, color, gloss, pattern and luminescense

Detection of different optical object properties like contrast, color, luminescence or gloss, as well as patterns.

Contrast sensors

Color sensors

Luminescence sensors

Glare sensors

Pattern sensors

Metal at short distance

Non-contact detection of all kinds of metal objects whether they are made of steel, aluminum, brass, copper or other metals. Sensing ranges up to 60 mm even in dusty, dirty, or wet conditions.

Inductive proximity sensors

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Detecting

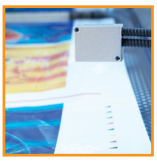


Magnets

Non-contact detection of permanent magnets through non-magnetic materials regardless of the ambient conditions.

Magnetic proximity sensors





Detection of print marks and labels

Detection of print marks on films, packages or in the printing industry. Detection of transparent, shiny or metallic labels on white, opaque or colored material.

Contrast sensors



Color sensors



Fork sensors



Pattern sensors



Register sensors





Cylinder piston position

Detection and determination of cylinder piston position

Sensors for C-slot cylinders



Sensors for T-slot cylinders



Analog positioning sensors





Zero pressure accumulation

Detection and control of the material flow on conveyor belts

ZoneControl





Zero gap detection

Detection of directly adjoining packages or work pieces thanks to innovative detection of the transition with Delta-S-Technology®.

DeltaPac





Double layer objects

Detection of foil on foil or paper on paper.

UF

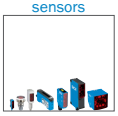




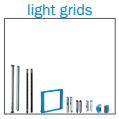
Leading edge detection

Detection of the leading edge of a moving object.

Photoelectric sensors



Switching automation light grids



Ax20



Measuring



Level

Level detection of powder, granular, liquids, solids.

Capacitive proximity sensors





Volume, dimension, contour

Detecting the leading edge in objects of varying height or shape with only one sensor.

MLG-2 Pro



MLG-2 ProNet



Position determination



Web guiding (edge positioning)

Detection of the position of a web's edge as well as detecting widths.

MLG-2 Pro



MLG-2 ProNet



Ax20



KTM Core



KTM Prime





Linear Measurement

Linear distance measurement and position detection of pistons in pneumatic cylinders.

Analog positioning sensors



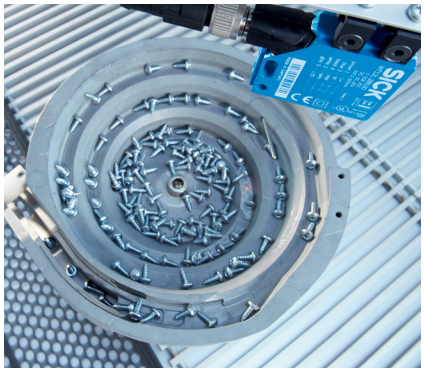
Ax20



B



PHOTOELECTRIC SENSORS







Detecting, verifying, positioning, counting – photoelectric sensors from SICK

SICK's vast range of photoelectric sensors offers precise optics and advanced technology, creating market-leading solutions with sensor intelligence. By using the latest SIRIC® and LED technologies, these sensors offer the highest level of operational reliability regardless of any interference factors. Additional sensor information can be used to simplify modern production processes.

This extensive range of photoelectric sensors is used in many automation applications around the world.

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PowerProx . . . B-29



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SELECTION GUIDE PHOTOELECTRIC SENSORS

B

Product			Housing properties								Sensor properties										Optics properties								
			Material					Design														Type of light/ light sender				Light spot geometry			
			Stainless steel	Metal	Plastic	VISTAL®	Enclosure rating IP 69K	Rectangular design	Cylindric, axial	Cylindric, radial	Photoelectric proximity sensor	Photoelectric retro-reflective sensor	Through-beam photoelectric sensor	Reflex Array	MultiLine Sensor	MultiPac	IO-Link	AutoAdapt	Switching frequency: ≥ 2kHz	AC/DC	LED: infrared light	LED: red light	Red laser light	PinPoint LED	Line-shaped light spot	Light array	Focused optics		
MultiTask photoelectric sensors																													
		DeltaPac			■			■			■						■							■						
		MultiLine Sensor			■			■			■				■									■	■					
		MultiPac			■			■			■					■								■						
		Reflex Array			■			■				■		■				■						■		■				
		TranspaTect				■		■			■							■						■						
		Glare			■			■			■											■								
		PowerProx			■			■			■												■							
Miniature photoelectric sensors																													
	W2	W2 Flat			■			■			■		■									■						■	
	W2	W2S-2			■			■			■	■	■				■							■	■			■	
	W4	W4-3			■			■			■	■	■								■			■	■				
	W4	W4-3 Glass			■			■				■						■						■						
	W4	W4S-3			■			■			■	■	■				■							■						
	W4	W4S-3 Glass			■			■				■					■	■						■						
	W4 Inox	W4S-3 Inox	■				■	■			■	■	■											■						
	W4 Inox	W4S-3 Inox Glass	■				■	■				■						■												
	W4 Inox	W4S-3 Inox Hygiene	■				■	■			■													■						
	W4 Inox	W4S-3 Inox Hygiene Glass	■				■	■				■						■						■						
	W8	W8			■			■			■	■							■			■								
	W8	W8 Laser			■			■			■								■				■							
	W8	W8 Glass		■				■				■							■			■								
		W8 Inox	■				■	■			■	■	■																	
		G6			■			■			■	■	■											■						
Small photoelectric sensors																													
		G10			■			■			■	■	■							■	■			■					
	W9-3	W9-3				■	■	■			■	■	■								■			■			■		
	W9-3	W9-3 Glass				■	■	■				■						■						■						
	W9-3	W9L-3				■	■	■			■	■	■										■							

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B

Technology			Special applications											Max. sensing range			Page
SIRIC®	V-optics	Delta-S technology	ZoneControl	Hygienic and washdown zone	Detecting transparent objects	Detecting perforated objects	Detecting small objects	Detecting uneven, shiny objects	Detecting objects wrapped in film	Detecting objects with position tolerances	Detecting high-speed objects	Zero gap detection	Explosion areas	Photoelectric proximity sensor	Photoelectric retro-reflective sensor	Through-beam photo-electric sensor	
														500 mm … 18,000 mm	5 m … 30 m	20 m … 60 m	
■		■										■		30 … 40	–	–	→ B-20
■						■		■	■					5 … 120	–	–	→ B-22
■								■	■					30 … 150	–	–	→ B-23
■					■	■		■		■				–	0 … 4.5	–	→ B-24
					■			■	■					150 … 700	–	–	→ B-26
		■												–	–	–	→ B-28
■			■											50 … 3,800	–	–	→ B-29
														1 … 115	–	0 … 0.5	→ B-32
■	■					■	■	■	■	■				1 … 150	0 … 1.2	0 … 2.5	→ B-33
■	■					■	■	■	■	■				3 … 150	0.01 … 4.5	0 … 4	→ B-36
■					■										0.01 … 4.5	–	→ B-38
■														4 … 180	0 … 5	0 … 5	→ B-39
■					■									–	0.01 … 5		→ B-41
■				■										4 … 500	0 … 5	0 … 5	→ B-42
■				■	■									–	0 … 5	–	→ B-45
■				■	■									4 … 500	–	–	→ B-47
■				■	■									–	0 … 5	–	→ B-49
											■			5 … 300	0 … 4	–	→ B-51
							■				■			5 … 300	–	–	→ B-53
							■				■			–	0 … 3	–	→ B-55
				■										0 … 950	0.01 … 6.5	0 … 45	→ B-56
					■									5 … 300	0 … 6	0 … 15	→ B-58
					■				■					20 … 2,000	0.08 … 15	0 … 40	→ B-61
■							■							20 … 800	0 … 5	0 … 10	→ B-64
■					■									–	0 … 5	–	→ B-67
■							■							25 … 400	0 … 12	0 … 60	→ B-69

SELECTION GUIDE PHOTOELECTRIC SENSORS

B

Product			Housing properties								Sensor properties										Optics properties						
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Small photoelectric sensors																											
	W12	W12-2L Laser		■			■	■			■	■	■						■				■				
	W12	W12G		■			■	■				■					■	■			■			■			
	W12	W12-3		■			■	■			■	■	■				■				■			■	■		■
		W18-3			■			■			■	■	■								■	■					
Compact photoelectric sensors																											
		W24-2		■			■	■			■	■	■							■	■						
		W34			■			■			■	■	■								■			■	■		
		W27-3			■		■	■			■	■	■							■	■			■			
		W280L-2 Long Range			■			■			■												■					
		W260-			■			■			■											■						
Cylindrical photoelectric sensors																											
		H18			■	■	■	■			■	■	■									■	■	■			
		V18 Laser		■					■	■	■	■	■										■				
		V18V	■				■		■		■	■	■								■	■					
		V180-2		■	■				■	■	■	■	■									■					■
		V18-2		■	■				■	■	■	■	■									■					■
		MH15V	■				■														■	■					
Fiber-optic sensors and fibers																											
		WLL170-2			■			■			■		■						■			■					
		WLL180T			■			■			■		■						■			■					
		WLL190T			■			■			■		■						■			■					
		WLL260			■			■			■		■						■			■					
		LL3		■	■																					■	■

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B

Technology			Special applications											Max. sensing range			Page
SIRIC®	V-optics	Delta-S technology	ZoneControl	Hygienic and washdown zone	Detecting transparent objects	Detecting perforated objects	Detecting small objects	Detecting uneven, shiny objects	Detecting objects wrapped in film	Detecting objects with position tolerances	Detecting high-speed objects	Zero gap detection	Explosion areas	Photoelectric proximity sensor	Photoelectric retro-reflective sensor	Through-beam photo-electric sensor	
														500 mm … 18,000 mm	5 m … 30 m	20 m … 60 m	
■							■							20 … 200	0 … 18	0 … 80	→ B-71
■					■									–	0 … 4	–	→ B-73
■						■	■	■		■				20 … 800	0 … 7	0 … 20	→ B-75
■													■	10 … 1,000	0 … 7	0 … 20	→ B-78
■														100 … 2,500	0 … 22	0 … 60	→ B-81
■	■					■	■	■	■	■				3 … 150	0.01 … 4.5	0 … 4	→ B-85
■									■					30 … 2,000	0.1 … 19	0 … 35	→ B-87
							■							20 … 18,000	–	–	→ B-91
							■							5 … 1,500	–	–	→ B-93
					■		■							5 … 1,000	0.01 … 12	0 … 60	→ B-95
							■							0 … 400	0.1 … 35	0 … 60	→ B-102
				■	■		■							0 … 900	0.035 … 5	0 … 20	→ B-104
							■							0 … 1,100	0.05 … 7	0 … 28	→ B-108
							■	■	■					0 … 800	0.05 … 3.7	0 … 20	→ B-111
				■										3 … 350	0 … 5	0 … 5	→ B-113
														0 … 160	–	0 … 0.7	→ B-115
														0 … 1,400	–	0 … 20	→ B-116
														0 … 480	–	0 … 0.2	→ B-118
														0 … 65	–	0 … 0.7	→ B-119
				■	■	■	■	■		■	■			–	–	–	→ B-120

B



At a glance

- Delta-S technology®: four PinPoint emitters and two receivers combined with SIRIC® and distance measurement technology
- Direction-independent object contours with radius up to 20 mm
- For conveyor speeds up to 1.2 m/s or production capacities up to 55,000 packages per hour
- Pre-configured sensors and individual setting via IO-Link
- Compact housing (42 mm x 42 mm x 45 mm) with an IP 67 enclosure rating

Your benefits

- Selective process optimization: information about the number of packages in the process enables better production monitoring
- Better space utilization: no mechanical devices are required to isolate packages, reducing the width of packaging systems and saving space
- Better time management: packages run in push-push mode, which prevents collisions and toppling, and reduces machine downtime
- Stable production for reduced energy consumption
- Fast and intuitive commissioning due to pre-configuration
- Configuration via the IO-Link enables users to customize features based on the applications
- Space-saving mounting due to compact housing

➜ www.mysick.com/en/DeltaPac

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/DeltaPac

WTD20E, IO-Link for folded boxes

- **Object speed max.:** 0.6 m/s ... 3 m/s
- **Productivity max.:** 200,000 pcs./h
- **Switch on delay Q_1 & Q_2:** 0 ms ... 255 ms
- **Time delay off Q_1:** 0 ms ... 255 ms
- **Background suppression:** ≥ 60 mm
- **Object height min.:** 30 mm (The object heigh min. is relevant only for the installation of DeltaPac above the conveyor belt.)
- **Current consumption:** ≤ 70 mA

Object width min.	Radius of the object contour	Key feature of the object	Sensing range	Output type	Connection	Model name	Part no.
≥ 10 mm	1 mm ... 2 mm	Edge	30 +/- 2 mm	PNP	Connector M12, 4-pin	WTD20EC-V2499	1073668

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WTD20E, IO-Link for rounded, rounded out and prism shaped packaging

- **Object speed max.:** 3 m/s
- **Productivity max.:** ≤ 200,000 Stk./h
- **Switch on delay Q_1 & Q_2:** 0 ms ... 255 ms
- **Time delay off Q_1:** 0 ms ... 255 ms
- **Pulse length (Q2):** 0 ms ... 63 ms
- **Background suppression:** ≥ 80 mm
- **Object height min.:** 50 mm (The object heigh min. is relevant only for the installation of DeltaPac above the conveyor belt.)
- **Current consumption:** ≤ 70 mA

Object width min.	Radius of the object contour	Key feature of the object	Sensing range	Output type	Connection	Model name	Part no.
≥ 20 mm	2 mm ... 20 mm	Rounded out body and prism shaped	30 mm ... 40 mm	PNP	Cable with connector M12, 4-pin, 270 mm	WTD20EC-V3419S01	1069260

Recommended accessories

	Material	Description	Model name	Part no.
Universal bar clamp systems (Items supplied:Universal clamp (5322626), mounting hardware)				
 Illustration may differ	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N11N for universal clamp bracket	BEF-KHS-N11N	2071081

B



At a glance

- Two logical and intelligently linked sensors with background suppression in one miniature housing offer the highest ruggedness for object detection
- Consistent, reliable detection of structures and perforated objects such as e-cards
- Consistent, reliable detection of reflective and irregular objects such as blister packs and soup sachets on conveyor belts
- Maximum sensing range 120 mm
- Simple adjustment via teach-in button

Your benefits

- The MultiLine sensor facilitates faster production sequences since the distances between objects can be reduced
- The sensor position no longer needs to be modified for format changes since the sensor is able to detect objects independently of their position. This saves time and money
- The reliable signal of the sensor from the arriving to the departing edge places less demands on the control software since it no longer needs to be debounced or evaluated
- MultiLine sensor offers high process reliability because all objects are detected independently of their structure, geometry and surface properties
- And placing the sensor into operation is as easy as pressing a button. A fast and reliable commissioning without complicated operating algorithms is thus given

→ www.mysick.com/en/MultiLine_Sensor

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/MultiLine_Sensor

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Multi-background suppression
- **Adjustment:** Single teach-in button

Sensing range max.	Light spot size (distance)	Output type	Switching mode	Connection	Model name	Part no.
5 mm ... 120 mm	5 mm x 22 mm (40 mm)	NPN	Light/dark-switching	Cable, 4-wire, 2 m	WTB4-3N1192	1059272
	5 mm x 22 mm (40 mm)	PNP	Light switching	Connector M8, 3-pin	WTB4-3P2192	1058268
			Light/dark-switching	Connector M8, 4-pin	WTB4-3P2292	1062850*

Recommended accessories

	Material	Description	Model name	Part no.
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N05 for universal clamp bracket	BEF-KHS-N05	2051611*^
		Plate N08 for universal clamp bracket	BEF-KHS-N08	2051607*^
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel 1.4571	Mounting bracket for floor mounting	BEF-W4-B	2051630*

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At a glance

- Two redundant receiver arrays from SICK
- The newest SICK chip technology
- Intense, visible red HighPower LED
- Sensing distance up to 500 mm
- Fast and precise commissioning thanks to the highly visible light spot

Your benefits

- Redundant receiver arrays provide reliable detection of shiny, gloss, dark, or irregular shaped objects without signal interruptions
- Products can be detected using a higher angle of incidence. This removes the typical mounting restrictions associated with detecting these products.
- In applications involving plastic wrapped bottles, the MultiPac replaces current solutions which require expensive mechanical height adjustment
- Allows overhead detection of product that is transported on a single conveyor belt but seperated into multiple lanes

→ www.mysick.com/en/MultiPac

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/MultiPac

WTB27-3 MultiPac

- **Connection:** Connector M12, 4-pin

Sensing range max. [1]	Output type	Model name	Part no.
30 mm ... 500 mm	PNP	WTB27-3P2483	1056384*
	NPN	WTB27-3N2483	1056385

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

Recommended accessories

	Material	Description	Model name	Part no.
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (protective housing), Zinc die cast (clamping bracket)	Protective housing for universal clamp	BEF-SG-W27	2039601
	Steel, zinc coated	Plate A for universal clamp bracket	BEF-KHS-A01	2022458
Mounting brackets and mounting plates (mounting hardware included)				
	Steel, zinc coated	Mounting bracket with hinged arm	BEF-WN-W27	2009122*
		Mounting bracket	BEF-WN-W23	2019085

B



At a glance

- Detects objects > 12 mm within a 50 mm light array, regardless of position
- Sensing range for detection from 0 m to max. 4.5 m
- Minimum distance of 0.5 m between sensor and reflector for all variants
- PinPoint technology for intense red light
- Automatic adjustment of the switching threshold when there is contamination

Your benefits

- Reduces the installation work required by up to 50% compared to light grids or multiple photoelectric sensors
- Detects objects > 12 mm within a 50 mm light array, regardless of position Three other variants are available for other objects.
- PinPoint technology and optical alignment procedure enables simple and quick commissioning
- Continuous Threshold Adjustment (CTA) ensures less downtime

→ www.mysick.com/en/Reflex_Array

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/Reflex_Array

- **Output type:** PNP

Detection height	Sensing range max.	Minimum object size	Connection	Model name	Part no.
24 mm	0 m ... 1.5 m [1]	≥ 5 mm	Cable with connector M12, 4-pin 270 mm PVC	WL27-3P3402S17	1051529
30 mm	0 m ... 4.5 m [2] 0 m ... 2 m [1]	≥ 8 mm	Cable with connector M12, 4-pin 270 mm PVC	WL27-3P3402S20	1060755
45 mm	0 m ... 3.5 m [2]	≥ 10 mm	Cable with connector M12, 4-pin 270 mm PVC	WL27-3P3402S19	1056382
50 mm	0 m ... 4.5 m [2] 0 m ... 2 m [1]	≥ 12 mm	Cable, 4-wire 2 m PVC	WL27-3P1102S16	1050825
			Connector M12, 4-pin	WL27-3P2402S18	1051577^
			Cable with connector M12, 4-pin 270 mm PVC	WL27-3P3402S13	1046538*
		≥ 16 mm		WL27-3P3402S15	1048230

[1] PL40A.

[2] PL80A.

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Recommended accessories

	Material	Description	Model name	Part no.
Device protection (mechanical) - (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (protective housing), Zinc die cast (clamping bracket)	Protective housing for universal clamp	BEF-SG-W27	2039601
Mounting brackets and mounting plates (mounting hardware included)				
	Steel, zinc coated,	Mounting bracket with hinged arm	BEF-WN-W27	2009122*
		Mounting bracket	BEF-WN-W23	2019085
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (protective housing), Zinc die cast (clamping bracket)	Plate N04 for universal clamp bracket	BEF-KHS-N04	2051610*

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^
				37 mm x 56 mm	PL40A	1012720*^
				80 mm x 80 mm	PL80A	1003865*^

B



At a glance

- High-performance SICK technology
- No reflectors required
- Existing machine parts are used as reference target
- AutoAdapt for continuous threshold adaptation in contaminated conditions
- PinPoint LED with bright and precise light spot
- Easy-to-use teach-in button
- Status LEDs visible from all sides
- Rugged metal housing (PTFE coating available on request)

Your benefits

- Reliable detection of transparent and semitransparent objects without a reflector
- Reliable detection of objects regardless of color or surface qualities
- Freedom of machine design: no mounting system for the installation of a reflector required
- Quick commissioning: there is no need to mount a reflector or precisely adjust the sensor
- High operational safety: if the background becomes contaminated, object detection will continue uninterrupted
- Machine downtime is minimized: the integrated AutoAdapt function extends the time between cleanings
- Heightened productivity: mechanical and chemical ruggedness due to the metal housing

→ www.mysick.com/en/TranspaTect

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/TranspaTect

WTF12-3, clear material detection

- **Switching mode:** Light/dark-switching
- **Adjustment:** Single teach-in button

Sensing range max. [1]	Sensing range [2]	Light spot size (distance)	Output type	Connection	Model name	Part no.
150 mm ... 700 mm	0 mm ... 400 mm [3] 0 mm ... 550 mm [4]	Ø 8 mm 300 mm	PNP	Connector M12, 4-pin	WTF12G-3P2432	1065719*
			NPN	Connector M12, 4-pin	WTF12G-3N2432	1066279

[1] Adjustable background; referring to the background with 90 % remission (based on glass-bead blasted stainless steel, equivalent to standard white DIN 5033)

[2] Adjustable background.

[3] Detection range transparent objects.

[4] Detection range non-transparent objects.

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Recommended accessories

	Material	Description	Model name	Part no.
Device protection (mechanical) - (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (protective housing), Zinc die cast (clamping bracket)	Protective housing for universal clamp	BEF-SG-W12-3	2045175*
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel	Mounting bracket, large	BEF-WG-W12	2013942*
Terminal and alignment brackets (mounting hardware included)				
	Steel, zinc coated	Clamping block for dovetail mounting	BEF-KH-W12	2013285
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (protective housing), Zinc die cast (clamping bracket)	Plate N02 for universal clamp bracket	BEF-KHS-N02	2051608*^

B



At a glance

- Object detection and differentiation on the basis of surface gloss level
- Configurable in many different operating modes to meet the requirements of any application
- Integrated alignment aid
- Integrated automation functions
- Two digital push-pull outputs and one configurable input
- Sensitivity adjusts to object properties
- IO-Link provides easy data access from the PLC
- Quick and easy configuration

Your benefits

- Quick installation via alignment mode
- Integrated key lock reduces the risk of operating errors and tampering
- Sensitivity adjustments increase the system's operational safety
- Teach-in via the single teach-in button or SOPAS configuration software facilitates quick and easy operation
- Reliable gloss identification regardless of color, labeling or structure increases operational safety
- State-of-the-art detection method makes it possible to conduct inspections at lower costs than with camera solutions
- Sensor's resistance to object fluctuations increases operational safety
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

→ www.mysick.com/en/Glare

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/Glare

- **Sensor principle:** Delta-S-Technology®
- **Type of light:** Visible red light
- **Connection:** Male connector M12, 5-pin

Sensing distance	Sensing distance tolerance	IO-Link	IO-Link functions	Adjustment	Model name	Part no.
50 mm	± 5 mm	-	-	Teach-in	OPR20G-RB111517	1065685
			Standard functions	IO-Link (Teach-in / Keylock) [1]	OPR20G-RB317537	1068822
				IO-Link (Teach-in / Keylock) [2]	OPR20G-RB417537	1068823

[1] Default: Teach-in.
[2] Default: Keylock.

Recommended accessories

	Material	Description	Model name	Part no.
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
 Illustration may differ	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N11N for universal clamp bracket	BEF-KHS-N11N	2071081

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At a glance

- Time-of-flight technology
- Laser class 1
- Sensing range for object detection: 5 cm to 3.8 m
- Switching frequency: 100 Hz
- Minimum distance between the object and background: 17 ... 35 mm
- VISTAL™ housing
- 1 or 2 switching points which can be adjusted separately
- IO-Link available as an option (distance value, 8 switching points, smart sensor functions)

Your benefits

- Measures large areas up to a sensing range of 3.8 m, e.g., multi-deep bays in storage and conveyor systems
- Reliable object detection, e.g., even with shiny or jet-black surfaces and background reflections
- Highly visible light spot simplifies alignment of the photoelectric proximity sensor
- Precise, simple adjustment with potentiometer or teach-in button
- Eye-safe thanks to laser class 1
- High levels of availability and durability. Rugged even when subjected to high mechanical loads thanks to VISTAL™ housing.
- Small housing offers great flexibility in terms of machine design
- IO-Link extends functionality

→ www.mysick.com/en/PowerProx_Distance

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/PowerProx_Distance

- **Sensor principle:** Photoelectric proximity sensor
- **Voltage type:** DC
- **Sensing range max.:** 50 mm ... 3,800 mm (Object with 6 ... 90 % remission (based on standard white to DIN 5033))
- **Light spot size (distance):** Ø 18 mm (3,800 mm)
- **Output type:** PUSH/PULL: PNP/NPN

Number of switching outputs	Switching mode	Adjustment	Input	Connection	Type	Part no.
2 (Q, /Q) [1]	Light/dark switching [1]	Single teach-in button (1 x)	Test = test input/sender off	Cable, 5-wire, 2 m, PVC	WTT12L-B1562	1072634*
				Male connector M12, 5-pin	WTT12L-B2562	1072637*
		Potentiometer (1 x)	Test = test input/sender off	Cable, 5-wire, 2 m, PVC	WTT12L-B1561	1072608*
				Male connector M12, 5-pin	WTT12L-B2561	1072611*
2 (Q1, Q2) [2]	Light switching [2]	Single teach-in button (2 x)	L/D = Light/dark switching	Cable, 5-wire, 2 m, PVC	WTT12L-B1567	1072651*
				Male connector M12, 5-pin	WTT12L-B2567	1072654*
			Test = test input/sender off	Male connector M12, 5-pin	WTT12L-B2563	1072645*
		Potentiometer (2 x)	L/D = Light/dark switching	Cable, 5-wire, 2 m, PVC	WTT12L-B1568	1072625*
				Male connector M12, 5-pin	WTT12L-B2568	1072628*
			Test = test input/sender off	Male connector M12, 5-pin	WTT12L-B2566	1072619*

[1] Q, /Q = 1 switching threshold, light/dark switching (complementary)

[2] Q1, Q2 = 2 switching thresholds, light switching.

* PowerProx Speed and Precision also available

Recommended accessories

B

	Material	Description	Model name	Part no.
Mounting brackets				
	Steel, zinc coated	Mounting bracket	BEF-WTT12L	2078538*
Terminal brackets				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N02 for universal clamp bracket	BEF-KHS-N02	2051608*^
		Plate N03 for universal clamp bracket	BEF-KHS-N03	2051609
		Plate N04 for universal clamp	BEF-KHS-N04	2051610*
	Steel, zinc coated	Mounting bar, straight, 200 mm	BEF-MS12G-A	4056054*^
		Mounting bar, straight, 300 mm	BEF-MS12G-B	4056055*^
	Steel, zinc coated	Mounting bar, L-shaped, 150 mm x 150 mm	BEF-MS12L-A	4056052*^
		Mounting bar, L-shaped, 250 x 250 mm	BEF-MS12L-B	4056053*^
	Steel, zinc coated	Mounting bar, Z-shaped, 150 mm x 70 mm x 150 mm	BEF-MS12Z-A	4056056*
		Mounting bar, Z-shaped, 150 mm x 70 mm x 250 mm	BEF-MS12Z-B	4056057*
	Aluminum	Bar clamp for bar diameter of 12 mm (fixing the mounting rod)	BEF-RMC-D12	5321878*^
	Aluminum (anodised)	Clamping block for dovetail mounting,	BEF-KH-WTT12L	2080772

	Description	Model name	Part no.
Connection modules			
	IO-Link version V1.1, Port class 2, PIN 2, 4, 5 galvanically connected, Supply voltage 18 V DC ... 32 V DC (limit values, operation in short-circuit protected network max. 8 A), Enclosure rating: IP 67	SICK Memory Stick	1064290
	IO-Link V1.1 Class A port, USB2.0 port, optional external power supply 24V / 1A, Enclosure rating: IP 20 (EN 60529)	SiLink2 Master	1061790*^

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Male connector, M12, 5-pin, straight	TPU, PUR, halogen-free, unshielded	2 m, 5-wire	DSL-1205-G02MC	6025931*^
				5 m, 5-wire	DSL-1205-G05MC	6029282*

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	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
	Female connector, M12, 5-pin, straight, UL	-	PA, unshielded		DOS-1205-G	6009719*
	Female connector, M12, 5-pin, angled, UL	-	PBT, unshielded-		DOS-1205-W	6009720*^

B



At a glance

- One of the smallest photoelectric sensors in the world
- No external amplifier required
- Variant designed to detect transparent and glossy objects
- Rugged housing with metal-reinforced fixing holes

Your benefits

- High-performance solutions for very tight spaces provide increased application flexibility
- Fast response times with a high level of accuracy and precise switching points
- The high enclosure rating and the rugged housing offer a long service life that withstands harsh environmental conditions
- Quick and easy installation since sensors can be mounted directly on machine parts

➜ www.mysick.com/en/W2_Flat

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/W2_Flat

WT2 Flat

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic

Sensing range max. [1]	Output type	Switching mode	Connection	Model name	Part no.
2 mm ... 18 mm	PNP	Light switching	Cable with connector M8, 3-pin, 200 mm, PVC	WT2F-P240	6030585
4 mm ... 115 mm	PNP	Light switching	Cable with connector M8, 3-pin, 200 mm, PVC	WT2F-P280	6030574

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

- Through beam versions also available
- No reflector versions

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At a glance

- Sensor with background suppression and without any significant black/white shift
- PinPoint 2.0 LED with extended sensing distances and high operating reserves
- A variety of application options thanks to clearly-defined laser-like or line-shaped light spots
- Detection of highly-transparent and reflective objects using sensors with V-optics
- Photoelectric retro-reflective sensor with autocollimation and a clearly visible light spot

Your benefits

- Machine design flexibility: the ultra-compact sensors offer above-average sensing distances and provide space-saving installation
- Remote setup: sensors installed in confined spaces can be set and monitored remotely via IO-Link.
- High operational reliability: ultrablack objects are detected with a degree of reflection of 1%
- Maximum reliability during object detection
- Quick and easy commissioning: the photoelectric retro-reflective sensor with autocollimation provides a clearly visible light spot for high process reliability
- Universal application options: wide range of models enclosed in a rugged housing

→ www.mysick.com/en/W2S-2

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W2S-2

WTB2S-2, fix

- **Detection principle:** Background suppression

Sensing range max. [1]	Light spot size (distance)	Output type	Switching mode	Connection	Model name	Part no.
1 mm ... 18 mm	Ø 2 mm (8 mm)	PNP	Light switching	Cable with connector M8, 3-pin, 200 mm	WTB2S-2P3110	1064395
			Light/dark-switching	Cable with connector M8, 4-pin, 200 mm	WTB2S-2P3210	1063314
		NPN	Light/dark-switching	Cable with connector M8, 4-pin, 200 mm	WTB2S-2N3210	1064400
1 mm ... 36 mm	Ø 3 mm (15 mm)	PNP	Light switching	Cable with connector M8, 3-pin, 200 mm	WTB2S-2P3130	1064575*^
			Light/dark-switching	Cable with connector M8, 4-pin, 200 mm	WTB2S-2P3230	1063517
		NPN	Light/dark-switching	Cable with connector M8, 4-pin, 200 mm	WTB2S-2N3130	1064581
1 mm ... 66 mm	Ø 4.5 mm (40 mm)	PNP	Light switching	Cable with connector M8, 3-pin, 200 mm	WTB2S-2P3160	1064607*
			Light/dark-switching	Cable with connector M8, 4-pin, 200 mm	WTB2S-2P3260	1063545*
		NPN	Light switching	Cable, 3-wire, 2 m	WTB2S-2N1360	1064609*^

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

B

WTB2S-2, adjustable

- **Detection principle:** Background suppression

Sensing range max. [1]	Light spot size (distance)	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
4 mm ... 110 mm	Ø 4.4 mm (60 mm)	PNP	Light switching	Cable	Cable with connector M8, 4-pin, 200 mm	WTB2S-2P3245	1064615
		NPN	Light switching	Cable	Cable, 4-wire, 2 m	WTB2S-2N1145	1063552
1 mm ... 150 mm	Ø 3.5 mm (50 mm)	PNP	Light/dark-switching	Potentiometer, 3 turns	Cable with connector M8, 4-pin, 200 mm	WTB2S-2P3251	1066111
		NPN	Light/dark-switching	Potentiometer, 3 turns	Cable, 4-wire, 2 m	WTB2S-2N1151	1066113

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

WTB2S-2, adjustable, line-shaped light spot

- **Detection principle:** Background suppression
- **Light spot size (distance):** 2.2 mm x 9 mm (45 mm)
- **Switching mode:** Light switching
- **Adjustment:** Cable

Sensing range max. [1]	Output type	Connection	Model name	Part no.
4 mm ... 90 mm	PNP	Cable with connector M8, 4-pin, 200 mm	WTB2S-2P3275	1064620
	NPN	Cable, 4-wire, 2 m	WTB2S-2N1175	1064621

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

WL2S-2

- **Detection principle:** Autocollimation
- **Light spot size (distance):** Ø 12 mm (250 mm)

Sensing range max. [1]	Output type	Switching mode	Connection	Model name	Part no.
0 m ... 1.2 m	PNP	Dark-switching	Cable with connector M8, 3-pin, 200 mm	WL2S-2F3130	1064593*^
		Light/dark-switching	Cable with connector M8, 4-pin, 200 mm	WL2S-2P3230	1063572
	NPN	Dark-switching	Cable, 3-wire, 2 m	WL2S-2E1330	1064596
		Light/dark-switching	Cable, 4-wire, 2 m	WL2S-2N1130	1063571

[1] P250F.

WSE2S-2

- **Light spot size (distance):** Ø 65 mm (1,500 mm)

Sensing range max.	Output type	Switching mode	Connection	Model name	Part no.
0 m ... 2.5 m	NPN	Light/dark-switching	Cable, 4-wire, 2 m	WSE2S-2N1130	1063660
	PNP	Light/dark switching	Cable with connector M8, 4-pin, 200 mm	WSE2S-2P3230	1063650
	NPN	Light switching	Cable, 3-wire, 2 m	WSE2S-2N1330	1064584
		Dark-switching	Cable, 3-wire, 2 m	WSE2S-2E1330	1064586

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WL2SG-2, clear material detection

- **Detection principle:** Autocollimation
- **Light spot size (distance):** Ø 12 mm (250 mm)
- **Adjustment:** Cable

Sensing range max. [1]	Output type	Switching mode	Connection	Model name	Part no.
0 m ... 1.2 m	PNP	Dark-switching	Cable with connector M8, 4-pin, 200 mm	WL2SG-2F3235	1063647
	NPN	Dark-switching	Cable, 4-wire, 2 m	WL2SG-2E1135	1065930

[1] P250F.

Recommended accessories

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^
				38 mm x 15 mm	PL20A	1012719*^
				56 mm x 28 mm	PL30A	1002314*^
				37 mm x 56 mm	PL40A	1012720*^
				80 mm x 80 mm	PL80A	1003865*^
	PMMA/ABS	Fine triple, screw connection, suitable for laser sensors	Screw-on, 2 hole mounting	47 mm x 47 mm	P250F	5308843*^
				18 mm x 18 mm	PL10F	5311210*
				38 mm x 16 mm	PL20F	5308844*
				56 mm x 28 mm	PL30F	5326523
	Plastic	Fine triple, chemically resistant, screw connection	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10F CHEM	5321636*
				16 mm x 38 mm	PL20F-CHEM	5326089

B



At a glance

- Best-in-class background suppression, reliable detection of critical objects and a high immunity to ambient light
- Quick and easy setup using a precise 5-turn potentiometer, control wire or teach function
- Best background suppression in its class
- PinPoint LED for brightest light spot in its class
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Low-cost integration due to optimal machine integration in areas with limited space
- Application versatility due to reliable detection of shiny or jet-black objects
- Rugged mounting system with M3 threaded metal inserts reduces maintenance costs due to a long service life
- High immunity to ambient light reduces downtime caused by false trips
- Clearly visible light spot simplifies alignment
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks

➜ www.mysick.com/en/W4-3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/W4-3

WTB4-3

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Type of light:** Visible red light

Light spot size (distance)	Sensing range max. [1]	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
Ø 7 mm (50 mm)	4 mm ... 150 mm	PNP	Light switching	Potentiometer, 5 turns	Connector M8, 3-pin	WTB4-3P2161	1028099*^
5 x 28 mm (50 mm)						WTB4-3P2171	1028123
Ø 7 mm (50 mm)			Light/dark-switching	Potentiometer, 5 turns	Connector M8, 4-pin	WTB4-3P2261	1028100*^
Ø 7 mm (50 mm)		NPN	Light switching	Potentiometer, 5 turns	Connector M8, 3-pin	WTB4-3N2161	1028104 *

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] External teach-in: pulse > 2 s with voltage Uv with PNP and M with NPN.

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WL4-3

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Light spot size (distance):** Ø 75 mm (1.5 m)

Type of light	Sensing range max. [1]	Output type	Switching mode	Connection	Model name	Part no.
Visible red light	0.01 m ... 4.5 m	PNP	Dark-switching	Connector M8, 3-pin	WL4-3F2130	1028155*
			Light/dark-switching	Connector M8, 4-pin	WL4-3P2230	1028147
		NPN	Dark-switching	Connector M8, 3-pin	WL4-3E2130	1028158

[1] PL80A.

WSE4-3

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** Ø 210 mm (2 m)

Type of light	Sensing range max.	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
Visible red light	0 m ... 4 m	PNP	Dark-switching	–	Connector M8, 3-pin	WSE4-3F2130	1028171
		NPN	Dark-switching	–	Connector M8, 3-pin	WSE4-3E2130	1028175

Recommended accessories

	Material	Description	Model name	Part no.
Device protection (mechanical) - (mounting hardware included)				
	Stainless steel 1.4571	Safety bracket for floor mounting	BEF-SW-W4S	2051497
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N08 for universal clamp bracket	BEF-KHS-N08	2051607*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Fine triple, screw connection, suitable for laser sensors	Screw-on, 2 hole mounting	47 mm x 47 mm	P250F	5308843*^
				18 mm x 18 mm	PL10F	5311210*
				38 mm x 16 mm	PL20F	5308844*
		Rectangular, screw connection	Screw-on, 2 hole mounting	37 mm x 56 mm	PL40A	1012720*^
		Round, self-adhesive	Self-adhesive	-	PL22-2	1003621

B



At a glance

- Fast and reliable setup via teach-in pushbutton
- Continuous threshold adjustment technology to detect objects in changing conditions such as temperature, contamination and reflector wear
- Versions without polarizing filters to better detect depolarizing objects such as PET bottles, CD sleeves and shrink-wrapped, glossy objects

Your benefits

- Reliable and quick setting via the push of a button
- Flat housing design eliminates alignment or mounting brackets, which saves time and money
- Low-cost machine integration due to small dimensions that enable mounting in areas with space restrictions
- Quick and easy setup due to highly visible intensive light spot
- The PinPoint LED's well-defined, intense light spot simplifies alignment
- Nearly all transparent objects can be reliably detected

→ www.mysick.com/en/W4-3_Glass

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W4-3_Glass

WLG4-3 without polarisation filter

Sensing range max. [1]	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
0.01 m ... 1.6 m	PNP	Dark switching	Single teach-in button	Connector M8, 4-pin	WLG4-3F2284	1028137

[1] PL80A.

Recommended accessories

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Fine triple, screw connection, suitable for laser sensors	Screw-on, 2 hole mounting	47 mm x 47 mm	P250F	5308843*^
				18 mm x 18 mm	PL10F	5311210*
				38 mm x 16 mm	PL20F	5308844*
				56 mm x 28 mm	PL30F	5326523
	Plastic	Fine triple, chemically resistant, screw connection	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10F CHEM	5321636*
				16 mm x 38 mm	PL20F-CHEM	5326089

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At a glance

- Best background suppression sensor in its class
- Universal use of PinPoint LED technology in all models
- BGS proximity sensor with laser-like light spot for precise detection tasks
- Reliable setting via 5-turn potentiometer, teach-in pushbutton, teach-in via cable or IO-Link
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Application versatility due to reliable detection of shiny, transparent or jet-black objects
- Very quick and easy alignment due to the highly visible, intense PinPoint LED light spot
- Rugged mounting system with M3 threaded metal inserts reduces maintenance costs due to a long service life
- Background suppression sensors with a laser-like light spot reduce costs and installation of additional protective measures by replacing laser sensors
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks

→ www.mysick.com/en/W4S-3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W4S-3

WTB4S-3

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression

Sensing range max. [1]	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
4 mm ... 120 mm	PNP	Light switching	Potentiometer, 5 turns	Connector M8, 3-pin	WTB4S-3P2131	1042056
4 mm ... 180 mm	PNP	Light/dark-switching	Potentiometer, 5 turns	Connector M8, 4-pin	WTB4S-3P2261	1042041*
		Light switching		Connector M8, 3-pin	WTB4S-3P2161	1042040*^
	NPN	Light switching	Potentiometer, 5 turns	Connector M8, 3-pin	WTB4S-3N2161	1042045

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] External teach-in: pulse > 2 s with voltage Uv with PNP and M with NPN.

B

WL4S-3

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Autocollimation

Sensing range max. [1]	Adjustment	Output type	Switching mode	Connection	Model name	Part no.
0 m ... 4 m	–	PNP	Dark-switching	Connector M8, 3-pin	WL4S-3F2130	1042065*^
			Light/dark-switching	Connector M8, 4-pin	WL4S-3P2230	1042066*
		NPN	Dark switching	Connector M8, 3-pin	WL4S-3E2130	1042071
0 m ... 5 m	Single teach-in button	PNP	Dark-switching	Cable with connector M8, 3-pin, 100 mm, PVC	WL4S-3F3132	1042075
		NPN	Dark-switching	Cable, 3-wire, 2 m, PVC	WL4S-3E1332	1042081

[1] PL80A.

WSE4S-3

- **Sensor principle:** Through-beam photoelectric sensor

Sensing range max.	Output type	Switching mode	Connection	Model name	Part no.
0 m ... 5 m	PNP	Dark-switching	Connector M8, 3-pin	WSE4S-3F2130	1052890
	NPN	Dark-switching	Connector M8, 3-pin	WSE4S-3E2130	1052876

Recommended accessories

	Material	Description	Model name	Part no.
Device protection (mechanical) - (mounting hardware included)				
	Stainless steel 1.4571	Safety bracket for floor mounting	BEF-SW-W4S	2051497
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N08 for universal clamp bracket	BEF-KHS-N08	2051607*^
Terminal and alignment brackets (mounting hardware included)				
	Plastic	Ball clamp bracket	BEF-GH-MINI01	2023160
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel (1.4301)	Mounting bracket	BEF-WK-W4	2022026

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Fine triple, screw connection, suitable for laser sensors	Screw-on, 2 hole mounting	47 mm x 47 mm	P250F	5308843*^
				18 mm x 18 mm	PL10F	5311210*
				38 mm x 16 mm	PL20F	5308844*
		Rectangular, screw connection	Screw-on, 2 hole mounting	37 mm x 56 mm	PL40A	1012720*^

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At a glance

- Continuous threshold adaption of the switching threshold compensates for environmental changes
- Single-lens autocollimation optics
- Simple setting either via teach-in push-button, cable or IO-Link
- PinPoint LED technology with a small, highly visible, well-defined light spot enables high reserve levels when using small reflectors
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Optimal detection of any kind of transparent object
- Quick and easy operation via the push of a button – automatic setting of the correct switching threshold
- Less downtime due to a Continuous Threshold Adaption which compensates for changing environmental conditions, including temperature, dust and drift effects
- The well-defined, highly visible intense light spot provides quick and reliable alignment
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks
- Easy device replacement and identification

→ www.mysick.com/en/W4S-3_Glass

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W4S-3_Glass

WLG4S-3

- **Detection principle:** Autocollimation
- **Polarisation filter:** ✔

Sensing range max. [1]	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
0.01 m ... 5 m	PNP	Light/dark switching	Single teach-in button	Connector M8, 4-pin	WLG4S-3P2232	1044186*^

[1] PL80A.

Recommended accessories

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Fine triple, screw connection, suitable for laser sensors	Screw-on, 2 hole mounting	47 mm x 47 mm	P250F	5308843*^
				18 mm x 18 mm	PL10F	5311210*
				38 mm x 16 mm	PL20F	5308844*
	Plastic	Fine triple, chemically resistant, screw connection	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10F CHEM	5321636*
				16 mm x 38 mm	PL20F-CHEM	5326089

B



At a glance

- WashDown rated for fluid tightness (IP 66, IP 67, IP 68 and IP 69K) and Ecolab certified
- Tough stainless steel housing (316L/1.4404)
- Resistant to a variety of common cleaning and disinfection agents
- Highly visible laser-like light spot due to PinPoint LED
- Teach-in via stainless steel pushbutton with a metal membrane
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Long service life in harsh conditions ensures less downtime and fewer replacement costs
- Quick and easy alignment due to highly visible PinPoint emitter LED
- Easy adjustment via a stainless steel metal membrane teach-in pushbutton
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks
- Easy device replacement and identification

→ www.mysick.com/en/W4S-3_Inox

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W4S-3_Inox

WTB4S-3V

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression

Sensing range max. [1]	Light spot size (distance)	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
4 mm ... 120 mm	Ø 2.5 mm (50 mm)	PNP	Light switching	Single teach-in button	Connector M8, 3-pin	WTB4S-3P2132V	1046397
			Light switching	Cable [2]	Connector M8, 4-pin	WTB4S-3P2235V	1045093
			Light switching	Single teach-in button	Connector M12, 4-pin	WTB4S-3P2432V	1054672
			Light/dark-switching	Single teach-in button	Connector M8, 4-pin	WTB4S-3P2232V	1046396
4 mm ... 500 mm	Ø 6.5 mm (150 mm)	PNP	Light switching	Single teach-in button	Connector M8, 3-pin	WTB4S-3P2162V	1046384
				Cable [2]	Connector M8, 4-pin	WTB4S-3P2265V	1045091*
			Light/dark-switching	Single teach-in button	Connector M8, 4-pin	WTB4S-3P2262V	1046383*
					Connector M12, 4-pin	WTB4S-3P2462V	1054675*
		NPN	Light switching	Single teach-in button	Connector M8, 3-pin	WTB4S-3N2132V	1046405
					Connector M8, 3-pin	WTB4S-3N2162V	1046392
			Light/dark-switching	Single teach-in button	Connector M12, 4-pin	WTB4S-3N2462V	1054703

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] External teach-in: pulse > 2 s with voltage Uv with PNP and M with NPN.

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Subject to change without notice

WTF4S-3V, clear material detection

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Foreground suppression
- **Light spot size (distance):** Ø 6.5 mm (150 mm)

Sensing range max. [1]	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
20 mm ... 200 mm	PNP	Light/dark-switching	Single teach-in button	Connector M8, 4-pin	WTF4S-3P2262V	1046410

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

WL4S-3V

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Autocollimation
- **Light spot size (distance):** Ø 45 mm (1.5 m)

Sensing range max. [1]	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
0 m ... 4 m	PNP	Light/dark-switching	–	Connector M8, 4-pin	WL4S-3P2230V	1045095*
0 m ... 5 m	PNP	Dark switching	Teach-in	Connector M8, 3-pin	WL4S-3F2132V	1046428
	PNP	Light/dark-switching	Single teach-in button	Connector M12, 4-pin, PVC	WL4S-3P2432V	1054715*
				Connector M8, 4-pin	WL4S-3P2232V	1046421
	NPN	Light switching	Teach-in	Connector M8, 3-pin	WL4S-3N2132V	1046432
	NPN	Light/dark-switching	Single teach-in button	Connector M12, 4-pin, PVC	WL4S-3N2432V	1054722

[1] PL80A.

WSE4S-3V

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** Ø 50 mm (2 m)

Sensing range max.	Output type	Switching mode	Connection	Model name	Part no.
0 m ... 5 m	PNP	Dark-switching	Connector M8, 3-pin	WSE4S-3F2130V	1052891
		Light/dark-switching	Connector M12, 4-pin	WSE4S-3P2430V	1054784^
	NPN	Light/dark-switching	Connector M12, 4-pin	WSE4S-3N2430V	1054786

B

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel 1.4571	Mounting bracket for wall mounting	BEF-W4-A	2051628*
		Safety bracket for floor mounting	BEF-SW-W4S	2051497
Other mounting accessories				
	-	Diameter 18 mm x 100 mm for W4S-3 Inox hygiene. Hygienic integration without holes and brackets. Cable run inside tube	BEF-MR18G-NA	4065853
Universal bar clamp systems				
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N08N for universal clamp bracket	BEF-KHS-N08N	2051616*^
	Stainless steel (1.4571)	Mounting bar, straight, 300 mm	BEF-MS12G-NB	4058915*^
	Aluminum	Bar clamp for bar diameter of 12 mm (fixing the mounting rod), 2 screws M6 x 30, 2 spring discs	BEF-RMC-D12	5321878*^
	Hygienic Design, Stainless steel V4A (1.4404, 316L), Silicone (seal)	Hygienic design telescopic tube, angled, with bayonet lock with flange, 40 mm x 125 mm x 76 mm	BEF-HDSTRWF	2067777
		Hygienic design telescopic tube, straight, with bayonet lock with flange, 40 mm x 165 mm x 40 mm	BEF-HDSTRGF	2067779*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	Plastic	Fine triple, chemically resistant, screw connection	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10FCHEM	5321636*
				38 mm x 15 mm	PL20CHEM	5321089*
				47 mm x 47 mm	P250CHEM	5321097*^
	Stainless steel V4A (1.4404, 316L)	Stainless steel reflector, hygienic design, chemically resistant, Enclosure rating IP 69K	M12-adapter thread	25 mm x 25 mm	PLH25-M12	2063403
		Stainless steel reflector, hygienic design, chemically resistant, enclosure rating IP69K	D12-adapter shaft	25 mm x 25 mm	PLH25-D12	2063404*^
		Stainless steel reflector, wash-down design, chemically resistant, Enclosure rating IP 69K	Screw-on, 2 hole mounting	14 mm x 14 mm	PLV14-A	2063405*^

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At a glance

- IP 66, IP 67, IP 68 and IP 69K enclosure rating and Ecolab certified
- Tough stainless steel housing (316L/1.4404)
- Resistant to a variety of common cleaning and disinfection agents
- Modern electrical connection available – M12 connector with pin casting
- PinPoint LED technology provides a highly visible laser-like light spot
- Teach-in via stainless steel pushbutton with a metal membrane
- Continuous threshold adjustment technology reliably detects objects in changing conditions

Your benefits

- Long service life in harsh conditions ensures less downtime and fewer replacement costs
- Reliable detection of all materials, including transparent objects in the pharmaceutical, packaging, and food and beverage industries
- Easy adjustment via a stainless steel metal membrane teach-in pushbutton
- Quick and easy alignment due to highly visible PinPoint emitter LED
- Remote monitoring and quick diagnostics via IO-Link (optional)

→ www.mysick.com/en/W4S-3_Inox_Glass

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W4S-3_Inox_Glass

WLG4S-3V

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Autocollimation
- **Light spot size (distance):** Ø 45 mm (1.5 m)

Sensing range max. [1]	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
0 m ... 5 m	PNP	Dark-switching	Cable [2]	Connector M8, 4-pin	WLG4S-3F2235V	1045098*^
		Light/ dark-switching	Single teach-in button	Connector M8, 4-pin	WLG4S-3P2232V	1046446*
				Connector M12, 4-pin	WLG4S-3P2432V	1054725*^
		Dark-switching	Cable, Single teach-in button	Connector M12, 4-pin	WLG4S-3F2434V	1054727*^
	NPN	Light/ dark-switching	Single teach-in button	Connector M12, 4-pin	WLG4S-3N2432V	1054728*^

[1] PL80A.

[2] External teach-in: pulse > 2 s with voltage Uv with PNP and M with NPN.

B

Recommended accessories

	Material	Description	Model name	Part no.
Universal bar clamp systems				
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N02N for universal clamp bracket	BEF-KHS-N02N	2051618*^
	Stainless steel (1.4571)	Mounting bar, straight, 200 mm	BEF-MS12G-NA	4058914*^
	Aluminum	Bar clamp for bar diameter of 12 mm (fixing the mounting rod)	BEF-RMC-D12	5321878*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	Plastic	Fine triple, chemically resistant, screw connection	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10FCHEM	5321636*
	Stainless steel V4A (1.4404, 316L)	Stainless steel reflector, hygienic design, chemically resistant, Enclosure rating IP 69K	M12-adapter thread	25 mm x 25 mm	PLH25-M12	2063403
		Stainless steel reflector, hygienic design, chemically resistant, enclosure rating IP69K	D12-adapter shaft	25 mm x 25 mm	PLH25-D12	2063404*^
		Stainless steel reflector, wash-down design, chemically resistant, Enclosure rating IP 69K	Screw-on, 2 hole mounting	14 mm x 14 mm	PLV14-A	2063405*^

GAU-8018467/2016-07-01
Subject to change without notice



At a glance

- Hygienic designed stainless steel housing and accessories (316L/1.4404)
- Hygienic mounting using M12-adapter thread or D12-adapter shaft
- IP 66, IP 67, IP 68 and IP 69K enclosure rating and Ecolab certified
- Resistant to a variety of common cleaning and disinfection agents
- PinPoint LED technology provides a highly visible laser-like light spot
- Teach-in stainless steel metal membrane or external teach-in

Your benefits

- Smooth hygienic housing and accessories with no grooves or crevices eliminates the potential for bacteria to grow, providing a more hygienic solution.
- Long service life in harsh conditions ensures less downtime and fewer replacement costs
- Reliable detection of all transparent objects in the pharmaceutical and food and beverage industries
- Quick and easy adjustment via a stainless steel metal membrane teach-in pushbutton
- Quick and easy alignment due to highly visible PinPoint emitter LED
- Remote monitoring and fast diagnostics via IO-Link (optional)

➜ **www.mysick.com/en/W4S-3_Inox_Hygiene**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ **www.mysick.com/en/W4S-3_Inox_Hygiene**

WSE4S-3

- **Sensor/detection principle:** Through-beam photoelectric sensor
- **Type of light:** Visible red light

Sensing range max.	Sensing range	Switching mode	Output type	Connection	Model name	Part no.
0 m ... 5 m	0 m ... 4.5 m	Dark switching	NPN	Cable with connector M8, 3-pin, 150 mm [1]	WSE4S-3E3130H	1052870
			PNP		WSE4S-3F3130H	1052882
		Light/dark switching	PNP	Cable with connector M8, 4-pin, 150 mm [1] [2]	WSE4S-3P5230H	1054896

[1] Do not bend below 0 °C

[2] Tightening torque, max.: 0.6 Nm

WL4S-3

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Autocollimation
- **Type of light:** Visible red light

Sensing range max. [1]	Sensing range [1]	Switching mode	Output type	Connection	Model name	Part no.
0 m ... 4 m	0 m ... 2.5 m	Light/dark switching	PNP	Connector M8, 4-pin [2]	WL4S-3P5230H	1057052^
0 m ... 5 m	0 m ... 3 m		NPN	Cable, 4-wire, 2 m [3]	WL4S-3N1132H	1048119

[1] PL80A

[2] Tightening torque, max.: 0.6 Nm

[3] Do not bend below 0 °C

B

WTB4S-3

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Type of light:** Visible red light

Sensing range max. [1]	Sensing range [1]	Switching mode	Output type	Connection	Model name	Part no.
4 mm ... 120 mm	10 mm ... 120 mm	Light/dark switching	PNP	Connector M8, 4-pin [2]	WTB4S-3P5232H	1054864
3 mm ... 120 mm	-	Light switching	PNP	Cable with connector M8, 4-pin, 150 mm [3]	WTB4S-3P3234H	1048097
3 mm ... 500 mm	10 mm ... 350 mm	Light/dark switching	PNP	Cable with connector M8, 4-pin, 150 mm [3]	WTB4S-3P3262H	1048094
			NPN	Cable, 4-wire, 2 m [3]	WTB4S-3N1162H	1048095
3 mm ... 120 mm	10 mm ... 120 mm	Light/dark switching	NPN	Cable, 4-wire, 2 m [3]	WTB4S-3N1132H	1048098

[1] Object with 90 % reflectance (referred to standard white DIN 5033)

[2] Tightening torque, max.: 0.6 Nm

[3] Do not bend below 0 °C

WTF4S-3

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Foreground suppression
- **Type of light:** Visible red light

Sensing range max. [1]	Sensing range	Switching mode	Output type	Connection	Model name	Part no.
20 mm ... 200 mm	-	Light switching	PNP	Cable with connector M8, 4-pin, 150 mm [2]	WTF4S-3P3264H	1048109

[1] Object with 90 % reflectance (referred to standard white DIN 5033)

[2] Do not bend below 0 °C

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Subject to change without notice



At a glance

- Hygienic designed stainless steel housing and accessories (316L/1.4404)
- Hygienic mounting using M12-adapter thread or D12-adapter shaft
- IP 66, IP 67, IP 68 and IP 69K enclosure rating and Ecolab certified
- Resistant to a variety of common cleaning and disinfection agents
- PinPoint LED technology provides a highly visible laser-like light spot
- Teach-in stainless steel metal membrane or external teach-in

Your benefits

- Smooth hygienic housing and accessories with no grooves or crevices eliminates the potential for bacteria to grow, providing a more hygienic solution.
- Long service life in harsh conditions ensures less downtime and fewer replacement costs
- Reliable detection of all transparent objects in the pharmaceutical and food and beverage industries
- Quick and easy adjustment via a stainless steel metal membrane teach-in pushbutton
- Quick and easy alignment due to highly visible PinPoint emitter LED
- Remote monitoring and fast diagnostics via IO-Link (optional)

→ www.mysick.com/en/W4S-3_Inox_Hygiene_Glass

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W4S-3_Inox_Hygiene_Glass

WLG4S-3H

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Autocollimation
- **Mechanical connection:** M12 adapter thread

Sensing range max. [1]	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
0 m ... 5 m	PNP	Dark-switching	Cable, Single teach-in button [2]	Cable with connector M8, 4-pin, 150 mm, PVC	WLG4S-3F3234H	1048121
		Light/dark-switching	Single teach-in button		WLG4S-3P3232H	1048120
	NPN	Dark-switching	Cable, Single teach-in button [2]	Cable, 4-wire, 2 m, PVC	WLG4S-3E1134H	1048124
		Light/dark-switching	Single teach-in button	Cable, 4-wire, 2 m, PVC	WLG4S-3N1132H	1048123

[1] PL80A.

[2] External teach-in: pulse > 2 s with voltage Uv with PNP and M with NPN.

B

WLG4S-3H D12 adapter shaft

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Autocollimation
- **Output type:** PNP

Sensing range max. [1]	Switching mode	Adjustment	Mechanical connection	Connection	Model name	Part no.
0 m ... 5 m	Light/dark-switching	Single teach-in button	D12 adapter shaft	Connector M8, 4-pin	WLG4S-3P5232H	1057053

[1] PL80A.

Recommended accessories

	Material	Description	Model name	Part no.
Universal bar clamp systems				
	Hygienic Design, Stainless steel V4A (1.4404, 316L), Silicone (seal)	Hygienic design telescopic tube, angled, with bayonet lock with flange, 40 mm x 125 mm x 76 mm	BEF-HDSTRWF	2067777
		Hygienic design telescopic tube, straight, with bayonet lock with flange, 40 mm x 165 mm x 40 mm	BEF-HDSTRGF	2067779*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Fine triple, screw connection, suitable for laser sensors	Screw-on, 2 hole mounting	47 mm x 47 mm	P250F	5308843*^
				18 mm x 18 mm	PL10F	5311210*
				38 mm x 16 mm	PL20F	5308844*
	PMMA/ABS	Antifog, for prevention of moisture fogging on the reflection area, screw connection	Screw-on, 2 hole mounting	56 mm x 37 mm	PL40A Antifog	5322011
	Plastic	Fine triple, chemically resistant, screw connection	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10FCHEM	5321636*
				38 mm x 15 mm	PL20CHEM	5321089*
	Stainless steel V4A (1.4404, 316L)	Stainless steel reflector, hygienic design, chemically resistant, Enclosure rating IP 69K	M12-adapter thread	25 mm x 25 mm	PLH25-M12	2063403
		Stainless steel reflector, hygienic design, chemically resistant, enclosure rating IP69K	D12-adapter shaft	25 mm x 25 mm	PLH25-D12	2063404*^
		Stainless steel reflector, wash-down design, chemically resistant, Enclosure rating IP 69K	Screw-on, 2 hole mounting	14 mm x 14 mm	PLV14-A	2063405*^

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At a glance

- Miniature housing with M3 threaded mounting holes
- Switching frequency up to 2 kHz
- Stainless steel mounting bracket (1.4301/304) BEF-W100-A included with delivery

Your benefits

- Highly flexible design and operational capabilities due to precise background suppression
- Quick and easy mounting due to the universally compatible M3 threaded mounting holes
- A fast switching frequency optimizes production processes
- All necessary accessories are included with delivery, decreasing installation and procurement costs
- Application versatility due to sensitivity adjustments, light/dark switching and a variety of connection options

→ www.mysick.com/en/W8

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W8

WTB8

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 4 turns

Sensing range max. [1]	Output type	Connection	Model name	Part no.
30 mm ... 300 mm	PNP	Cable, 3-wire, 2 m, PVC	WTB8-P1131	6033205
		Connector M8, 3-pin	WTB8-P2131	6033207*
		Connector M8, 4-pin	WTB8-P2231	6033209*
	NPN	Cable, 3-wire, 2 m, PVC	WTB8-N1131	6033204
		Connector M8, 3-pin	WTB8-N2131	6033206*
		Connector M8, 4-pin	WTB8-N2231	6033208

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

B

WL8

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Autocollimation
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 270 °

Sensing range max. [1]	Output type	Connection	Model name	Part no.
0 m ... 4 m	PNP	Connector M8, 4-pin	WL8-P2231	6033182*
	NPN	Connector M8, 4-pin	WL8-N2231	6033181

[1] PL80A.

WSE8

- **Sensor principle:** Through-beam photoelectric sensor
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 270 °

Sensing range max.	Output type	Connection	Model name	Part no.
0 m ... 10 m	PNP	Connector M8, 4-pin	WSE8-P2231	6035583
	NPN	Connector M8, 4-pin	WSE8-N2231	6035580

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel	Mounting bracket for wall mounting	BEF-W100-A	5311520*
	Steel, zinc coated	Mounting bracket for floor mounting	BEF-W100-B	5311521*
Universal bar clamp systems				
	Steel, zinc coated	Mounting bar, straight, 200 mm, without mounting hardware	BEF-MS12G-A	4056054*^
	Stainless steel (1.4571)	Mounting bar, straight, 300 mm	BEF-MS12G-NB	4058915*^
	Aluminum	Bar clamp for bar diameter of 12 mm (fixing the mounting rod), 2 screws M6 x 30, 2 spring discs	BEF-RMC-D12	5321878*^
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N08 for universal clamp bracket	BEF-KHS-N08	2051607*^
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N08N for universal clamp bracket	BEF-KHS-N08N	2051616*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^

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Subject to change without notice



At a glance

- Laser class 1
- Background suppression
- Standard miniature housing with M3 threaded mounting holes
- Switching frequency up to 2 kHz
- Light/dark switching via rotary switch
- Mounting bracket BEF-W100-A is included with delivery

Your benefits

- Highly flexible design and operational capabilities due to precise background suppression
- Reliable detection of small objects, regardless of color or surface qualities
- Rapid switching frequency reliably detects objects travelling at high speeds which allows to optimize the production processes
- Highly visible laser light spot simplifies alignment
- All necessary accessories are included with delivery, reducing installation and procurement costs

➜ www.mysick.com/en/W8_Laser

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/W8_Laser

WTB8L

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 4 turns

Sensing range max. [1]	Output type	Connection	Model name	Part no.
30 mm ... 300 mm	PNP	Connector M8, 3-pin	WTB8L-P2131	6033219*^
	NPN	Connector M8, 3-pin	WTB8L-N2131	6033218

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

B

Recommended accessories

	Material	Description	Model name	Part no.
Device protection (mechanical) - (mounting hardware included)				
	Stainless steel 1.4571	Safety bracket for floor mounting	BEF-SW-W4S	2051497
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel	Mounting bracket for wall mounting	BEF-W100-A	5311520*
	Steel, zinc coated	Mounting bracket for floor mounting	BEF-W100-B	5311521*
Universal bar clamp systems				
	Stainless steel (1.4571)	Mounting bar, straight, 300 mm	BEF-MS12G-NB	4058915*^
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N08N for universal clamp bracket	BEF-KHS-N08N	2051616*^
	Aluminum	Bar clamp for bar diameter of 12 mm (fixing the mounting rod), 2 screws M6 x 30, 2 spring discs	BEF-RMC-D12	5321878*^

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At a glance

- Autocollimation
- Standard miniature housing with M3 threaded mounting holes
- Light/dark switching selectable via rotary switch
- Adjustable sensing range
- All necessary accessories (BEF-W100-A and P250) are included with delivery

Your benefits

- Reliable object detection of transparent objects even at the shortest distances (no blind spot) or through narrow gaps
- Highly visible light spot makes alignment quick and easy
- Reliable detection of all materials, including small and/or transparent objects, min. attenuation 15 %
- All necessary accessories (bracket and reflector) are included with delivery, reducing installation and procurement costs
- M3 mounting hole provides quick installation

➜ www.mysick.com/en/W8G

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/W8G

WL8G

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Autocollimation
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 4 turns

Sensing range max. [1]	Switching output	Connection	Model name	Part no.
0 m ... 3 m	PNP	Connector M8, 4-pin	WL8G-P2231	6033188*
		Connector M8, 3-pin	WL8G-P2131	6033186*
	NPN	Connector M8, 4-pin	WL8G-N2231	6033187*

[1] PL80A.

B



At a glance

- Autocollimation
- Standard miniature housing with M3 threaded mounting holes
- Light/dark switching selectable via rotary switch
- Adjustable sensing range
- All necessary accessories (BEF-W100-A and P250) are included with delivery

Your benefits

- Reliable object detection of transparent objects even at the shortest distances (no blind spot) or through narrow gaps
- Highly visible light spot makes alignment quick and easy
- Reliable detection of all materials, including small and/or transparent objects, min. attenuation 15 %
- All necessary accessories (bracket and reflector) are included with delivery, reducing installation and procurement costs
- M3 mounting hole provides quick installation

➜ www.mysick.com/en/W8_Inox

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/W8_Inox

WTB8

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Type of light:** Visible red light
- **Connection:** Connector M8, 4-pin

Sensing range max. [1]	Sensing range [1]	Output type	Model name	Part no.
5 mm ... 150 mm	5 mm ... 100 mm	NPN, Light/dark-switching, selectable via light/dark selector	WTB8-N2211V	6041455
		PNP, Light/dark-switching, selectable via light/dark selector	WTB8-P2211V	6041459
10 mm ... 500 mm	30 mm ... 300 mm	NPN, Light/dark-switching, selectable via light/dark selector	WTB8-N2231V	6041463
		PNP, Light/dark-switching, selectable via light/dark selector	WTB8-P2231V	6041467

[1] Object with 90 % reflectance (referred to standard white DIN 5033)

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Subject to change without notice

WTE8

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Type of light:** Visible red light
- **Connection:** Connector M8, 4-pin

Sensing range max. [1]	Sensing range [1]	Output type	Model name	Part no.
0 mm ... 950 mm	0 mm ... 700 mm	NPN, Light/dark-switching, selectable via light/dark selector	WTE8-N2231V	6041471
		PNP, Light/dark-switching, selectable via light/dark selector	WTE8-P2231V	6041475

[1] Object with 90 % reflectance (referred to standard white DIN 5033)

WL8

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Type of light:** Visible red light
- **Connection:** Connector M8, 4-pin

Sensing range max. [1]	Sensing range [2]	Output type	Model name	Part no.
0.01 m ... 6.5 m	0.01 m ... 4.5 m	NPN, Light/dark-switching, selectable via light/dark selector	WL8-N2231V	6041479
		PNP, Light/dark-switching, selectable via light/dark selector	WL8-P2231V	6041483

[1] PL80A

[2] P250A

WSE8

- **Sensor principle:** Through-beam photoelectric sensor
- **Type of light:** Visible red light
- **Connection:** Connector M8, 4-pin

Sensing range max.	Sensing range	Output type	Switching mode	Model name	Part no.
0 m ... 45 m	0 m ... 20 m	NPN	Light/dark switching	WSE8-N2231V	6041487
		PNP	Light/dark switching	WSE8-P2231V	6041491

B



At a glance

- PinPoint LED for a bright, precise light spot
- Durable metal threaded inserts
- SICK ASIC technology - the result of decades of experience in photoelectric sensors
- Large, user-friendly potentiometer
- Large, bright indicator LEDs
- IP 67 enclosure rating

Your benefits

- Easy alignment and precise object detection due to a highly visible PinPoint LED
- Quick and easy mounting and high durability due to threaded metal inserts
- SICK ASIC technology provides high performance and excellent reliability
- Easy to adjust due to large, user-friendly potentiometers
- Easy to monitor due to large, bright indicator LEDs
- Easy installation with SICK accessories

→ www.mysick.com/en/G6

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/G6

GTB6

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light spot size (distance):** Ø 6 mm (100 mm)
- **Type of light:** visible red light
- **Switching mode:** Light/dark-switching
- **Adjustment:** Mechanical spindle, 5 turns

Sensing range max. [1]	Output type	Items supplied	Connection	Model name	Part no.
5 mm ... 250 mm	PNP	Stainless steel mounting bracket (1.4301/304) BEF-W100-A	Cable, 3-wire, 2 m, PVC	GTB6-P1212	1052444*^
			Connector M8, 4-pin	GTB6-P4212	1052442*^
	NPN	Stainless steel mounting bracket (1.4301/304) BEF-W100-A	Cable, 3-wire, 2 m, PVC	GTB6-N1212	1052445
			Connector M8, 4-pin	GTB6-N4212	1052443

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

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GL6

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Light spot size (distance):** Ø 8 mm (350 mm)
- **Type of light:** visible red light

Sensing range max. [1]	Output type	Switching mode	Adjustment	Items supplied	Connection	Model name	Part no.
≤ 6 m	PNP	Light/dark-switching	–	Stainless steel mounting bracket (1.4301/304) BEF-W100-A, Reflector P250	Cable, 3-wire, 2 m, PVC	GL6-P1112	1051779*^
					Connector M8, 4-pin	GL6-P4112	1051777*
					Connector M12, 4-pin, 300 mm, PVC	GL6-P7112	1053590*^
	NPN	Light/dark-switching	–	Stainless steel mounting bracket (1.4301/304) BEF-W100-A, Reflector P250	Cable, 3-wire, 2 m, PVC	GL6-N1112	1051780
					Connector M8, 4-pin	GL6-N4112	1051778

[1] PL80A.

GL6G, clear material detection

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Dual lens
- **Light spot size (distance):** Ø 8 mm (350 mm)
- **Type of light:** visible red light
- **Switching mode:** Light/dark-switching
- **Adjustment:** potentiometer, 270 °

Sensing range max. [1]	Output type	Connection	Model name	Part no.
≤ 6 m	PNP	Cable, 3-wire, 2 m	GL6G-P1212	1060812
		Connector M8, 4-pin	GL6G-P4212	1060810*^
	NPN, Open Collector	Cable, 3-wire, 2 m	GL6G-N1212	1060811
		Connector M8, 4-pin	GL6G-N4212	1060809*^

[1] PL80A.

GSE6

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** Ø 375 mm (12 m)
- **Type of light:** visible red light
- **Switching mode:** Light/dark-switching
- **Items supplied:** Stainless steel mounting bracket (1.4301/304) BEF-W100-A

Sensing range max.	Output type	Connection	Model name	Part no.
0 m ... 15 m	PNP	Cable, 3-wire, 2 m, PVC	GSE6-P1112	1052452
		Connector M8, 4-pin	GSE6-P4112	1052450*^
	NPN	Cable, 3-wire, 2 m, PVC	GSE6-N1112	1052453
		Connector M8, 4-pin	GSE6-N4112	1052451

B

Recommended accessories

	Material	Description	Model name	Part no.
Device protection (mechanical) - (mounting hardware included)				
	Stainless steel 1.4571	Safety bracket for floor mounting	BEF-SW-W4S	2051497
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel	Mounting bracket for wall mounting	BEF-W100-A	5311520*
	Steel, zinc coated	Mounting bracket for floor mounting	BEF-W100-B	5311521*
Universal bar clamp systems				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N08 for universal clamp bracket	BEF-KHS-N08	2051607*^
	Aluminum (clamp bar), stainless steel (bracket)	Clamp bar to fix G6 sensors on rods of 10 mm, clamp-on design up to 4 mm wall thickness	BEF-KHS-ISG6	2075080*
	Stainless steel 1.4301	3 mm thick protective sleeve for G6	BEF-SG-G6	2069044

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At a glance

- Maximum optical window surface combined with a small sensor housing
- Sensing range up to 1,200 mm with background suppression performance
- PinPoint LED with bright and precise light spot
- Sensor variants in all major detection principles and with DC or AC/DC power supply
- Transistor output or relay output
- Latest SICK ASIC chip technology
- Rugged sensor housing with metal sleeved mounting holes

Your benefits

- G10 focuses on the essentials the user really needs – without compromising quality, reliability or performance
- One sensor family serves all standard industrial and domestic applications
- Reliable object detection and long scanning ranges thanks to large optics and SICK ASIC technology
- Easy and fast sensor alignment due to small and highly visible PinPoint light spot
- Insensitive to dust and dirt on front lens or reflector
- Clever accessories reduce installation effort and safe time

→ www.mysick.com/en/G10

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/G10

GTB10

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Adjustment:** Potentiometer, 5 turns

Voltage type	Sensing range max. [1]	Light spot size (distance)	Type of light	Output type	Switching mode	Connection	Model name	Part no.
DC	20 mm ... 950 mm	Ø 8 mm (700 mm)	Visible red light	PNP	Light/dark-switching	Connector M12, 4-pin	GTB10-P4212	1065857^
				NPN	Light/dark-switching	Connector M12, 4-pin	GTB10-N4212	1065861
AC/DC	20 mm ... 950 mm	Ø 8 mm (700 mm)	Visible red light	Relay	-	Cable, 5-wire, 2 m	GTB10-R3812	1065862
	20 mm ... 1,200 mm	Ø 22 mm (700 mm)	Infrared light	Relay	-	Cable, 5-wire, 2 m	GTB10-R3822	1065864

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

B

GTE10

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Adjustment:** Potentiometer, 270 °

Voltage type	Sensing range max. [1]	Light spot size (distance)	Type of light	Output type	Switching mode	Connection	Model name	Part no.
DC	20 mm ... 1,300 mm	Ø 28 mm (1,400 mm)	Visible red light	PNP	Light/dark-switching	Connector M12, 4-pin	GTE10-P4212	1065867
			Visible red light	NPN	Light/dark-switching	Connector M12, 4-pin	GTE10-N4212	1065872
AC/DC	20 mm ... 1,300 mm	Ø 28 mm (1,400 mm)	Visible red light	Relay	–	Cable, 5-wire, 2 m, PVC	GTE10-R3812	1065873
	20 mm ... 2,000 mm	Ø 57 mm (1,500 mm)	Infrared light	Relay	–	Cable, 5-wire, 2 m, PVC	GTE10-R3822	1065875

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

GL10

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Light spot size (distance):** Ø 58 mm (5 m)
- **Type of light:** Visible red light

Voltage type	Sensing range max.	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
DC	0.08 m ... 15 m [1] 0.08 m ... 12 m [2]	PNP	Light/dark-switching	Potentiometer, 270 °	Connector M12, 4-pin	GL10-P4212	1065887*^
				No/fix	Connector M12, 4-pin	GL10-P4112	1065879
		NPN		Potentiometer, 270 °	Connector M12, 4-pin	GL10-N4212	1065891
				No/fix	Connector M12, 4-pin	GL10-N4112	1065884
		Relay	–	Potentiometer, 270 °	Cable, 5-wire, 2 m	GL10-03811S01	1069477*
						GL10-03812S02	1074294
AC/DC	0.08 m ... 15 m [1] 0.08 m ... 12 m [2]	Relay	–	No/fix	Cable, 5-wire, 2 m, PVC	GL10-R3712	1065897
				Potentiometer, 270 °	Cable, 5-wire, 2 m, PVC	GL10-R3812	1065898*

[1] PL80A.
[2] P250.

GL10G, clear material detection

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Voltage type:** DC
- **Light spot size (distance):** Ø 58 mm (5 m)
- **Type of light:** Visible red light
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 270 °

Sensing range max.	Output type	Connection	Model name	Part no.
0.15 m ... 12 m [1] 0.15 m ... 10 m [2]	PNP	Connector M12, 4-pin	GL10G-P4252	1065894
	NPN	Cable, 3-wire, 2 m, PVC	GL10G-N1252	1065895

[1] PL80A.
[2] P250.

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GSE10

- **Sensor principle:** Through-beam photoelectric sensor

Voltage type	Sensing range max.	Light spot size (distance)	Type of light	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
DC	0 m ... 40 m	Ø 180 mm (15 m)	Visible red light	PNP	Light/dark-switching	Potentiometer, 270 °	Connector M12, 4-pin	GSE10-P4212	1065903
				NPN	Light/dark-switching	Potentiometer, 270 °	Cable, 3-wire, 2 m, PVC	GSE10-N1212	1065905
		Ø 433 mm (15 m)	Infrared light	PNP	Light/dark-switching	Potentiometer, 270 °	Connector M12, 4-pin	GSE10-P4222	1065907
				NPN	Light/dark-switching	Potentiometer, 270 °	Cable, 3-wire, 2 m, PVC	GSE10-N1222	1065909
AC/DC	0 m ... 40 m	Ø 180 mm (15 m)	Visible red light	Relay	–	Potentiometer, 270 °	Cable, 5-wire, 2 m, PVC	GSE10-R3812	1065912
		Ø 433 mm (15 m)	Infrared light	Relay	–	No/fix	Cable, 5-wire, 2 m, PVC	GSE10-R3722	1065914

Recommended accessories

	Material	Description	Model name	Part no.
Device protection (mechanical) - (mounting hardware included)				
	Steel, zinc coated	Weather protection hood for G10	BEF-G10WSG	2071960
		Weather protection hood for reflectors PL80A, P250, PL40A	BEF-PL80AWSG	2071961
Mounting brackets and mounting plates (mounting hardware included)				
	Steel, zinc coated	Mounting bracket for wall and floor mounting for G10 DC	BEF-G10DC01	2071258
		Mounting bracket for wall and floor mounting for G10 AC/DC	BEF-G10UC01	2071259
Universal bar clamp systems				
	Die-cast zinc, steel, zinc coated	Q-Lock, bar clamp system for G10 and reflector P250	BEF-KHSQ12R01	2071260
		Q-Lock, bar clamp system for G10 and reflector P250	BEF-KHSQ12ZR01	2071262

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^
	-	Self-adhesive	Self-adhesive	50 mm x 60 mm	REF-IRF-56	5314244

B



At a glance

- High-performance sensor in ultra-rugged VISTAL™ housing
- PinPoint LED for highly visible and precise light spot
- Two emitter LEDs for best-in-class background suppression
- Variable mounting with M3 or M4 hole pattern
- Wide range of connection options

Your benefits

- Robustness with the VISTAL™ housing
- Best in class performance
- Wide variance in connection, mounting and optic

→ www.mysick.com/en/W9-3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W9-3

WTB9-3

- **Detection principle:** Background suppression
- **Mounting hole:** M3
- **Adjustment:** Potentiometer, 5 turns
- **Switching mode:** Light/dark-switching (Q = light-switching.)

Type of light	Sensing range max. [1]	Light spot size (distance)	Output type	Connection	Model name	Part no.
Visible red light	20 mm ... 350 mm	Ø 4.5 mm (75 mm)	PNP	Connector M8, 4-pin	WTB9-3P2261	1049047*
				Connector M12, 4-pin	WTB9-3P2461	1049049*^
			NPN	Connector M12, 4-pin	WTB9-3N2461	1049053*
Infrared light	20 mm ... 800 mm	Ø 40 mm (400 mm)	PNP	Connector M8, 4-pin	WTB9-3P2211S14	1052171
				Connector M12, 4-pin	WTB9-3P2411S14	1052172*^

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

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WL9-3

- **Detection principle:** Autocollimation
- **Mounting hole:** M3
- **Light spot size (distance):** Ø 45 mm (1.5 m)
- **Switching mode:** Light/dark-switching (Q = light-switching.)

Type of light	Sensing range max. [1]	Adjustment	Output type	Connection	Model name	Part no.
Visible red light	0 m ... 4 m	–	PNP	Cable, 4-wire, 2 m [2]	WL9-3P1130	1049055*
	0 m ... 5 m	Single teach-in button	PNP	Connector M12, 4-pin	WL9-3P2432	1049063*
			NPN	Connector M12, 4-pin	WL9-3N2432	1049074

[1] PL80A.

[2] Do not bend below 0°C

WSE9-3

- **Detection principle:** Through-beam photoelectric sensor
- **Mounting hole:** M3
- **Light spot size (distance):** Ø 25 mm (1 m)
- **Adjustment:** No adjustment
- **Switching mode:** Light/dark-switching (Q = light-switching.)

Type of light	Sensing range max.	Output type	Connection	Model name	Part no.
Visible red light	0 m ... 10 m	PNP	Connector M12, 4-pin	WSE9-3P2430	1049077

WTB9M4-3

- **Detection principle:** Background suppression
- **Mounting hole:** M4
- **Adjustment:** Potentiometer, 5 turns
- **Switching mode:** Light/dark-switching (Q = light-switching.)

Type of light	Sensing range max. [1]	Light spot size (distance)	Output type	Connection	Model name	Part no.
Visible red light	20 mm ... 350 mm	Ø 4.5 mm (75 mm)	PNP	Connector M8, 4-pin	WTB9M4-3P2261	1051889

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

WL9M4-3

- **Detection principle:** Autocollimation
- **Mounting hole:** M4
- **Light spot size (distance):** Ø 45 mm (1.5 m)
- **Adjustment:** Single teach-in button
- **Switching mode:** Light/dark-switching (Q = light-switching.)

Type of light	Sensing range max. [1]	Output type	Connection	Model name	Part no.
Visible red light	0 m ... 5 m	PNP	Connector M8, 4-pin	WL9M4-3P2232	1051895
			Cable, 4-wire, 2 m [2]	WL9M4-3P1132	1051894

[1] PL80A.

[2] Do not bend below 0°C

B

WSE9M4-3

- **Detecion principle:** Through-beam photoelectric sensor
- **Mounting hole:** M4
- **Light spot size (distance):** Ø 25 mm (1 m)
- **Adjustment:** No adjustment
- **Switching mode:** Light/dark-switching (Q = light-switching.)
- **Connection:** Connector M8, 4-pin

Type of light	Sensing range max.	Output type	Model name	Part no.
Visible red light	0 m ... 10 m	PNP	WSE9M4-3P2230	1051912

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates				
	PMMA, Brass (Br)	Fastening plate with threaded sleeve M3	BEF-GPM3-W9	4066039
	Steel, zinc coated	Mounting bracket (mounting hardware included)	BEF-WN-W9-2	2022855*
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N08 for universal clamp bracket	BEF-KHS-N08	2051607*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^
				38 mm x 15 mm	PL20A	1012719*^
				56 mm x 28 mm	PL30A	1002314*^
				37 mm x 56 mm	PL40A	1012720*^
				80 mm x 80 mm	PL80A	1003865*^

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At a glance

- High-performance sensor in ultra-rugged VISTAL™ housing
- Best-in-class optical performance for transparent object detection
- Continuous threshold adaption
- PinPoint LED for highly visible and precise light spot
- Variable mounting with M3 or M4 hole pattern
- Wide range of connection options

Your benefits

- Tough VISTAL™ housing provides reliable installation and operation
- Best-in-class optical performance
- Wide variety of connection, mounting and optical possibilities to solve many different applications

→ www.mysick.com/en/W9-3_Glass

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W9-3_Glass

WL9G-3

- **Mounting hole:** M3
- **Detection principle:** Autocollimation
- **Adjustment:** Single teach-in button
- **Switching mode:** Light/dark-switching (Q = light-switching.)

Sensing range max. [1]	Output type	Connection	Model name	Part no.
0 m ... 5 m	PNP	Connector M12, 4-pin	WL9G-3P2432	1049083*
		Cable, 4-wire, 2 m, PVC	WL9G-3P1132	1049081

[1] PL80A.

B

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates				
	PMMA, Brass (Br)	Fastening plate with threaded sleeve M3	BEF-GPM3-W9	4066039
	Steel, zinc coated	Mounting bracket (mounting hardware included)	BEF-WN-W9-2	2022855*

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Fine triple, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250F	5308843*^
				18 mm x 18 mm	PL10F	5311210*
				38 mm x 16 mm	PL20F	5308844*
				56 mm x 28 mm	PL30F	5326523
		Rectangular, screw connection	Screw-on, 2 hole mounting	37 mm x 56 mm	PL40A	1012720*^
				80 mm x 80 mm	PL80A	1003865*^
	Plastic	Fine triple, chemically resistant	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10F CHEM	5321636*

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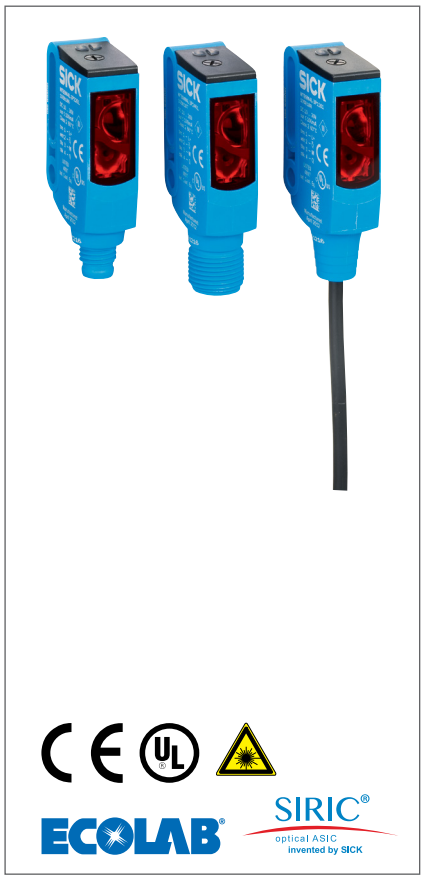

At a glance

- Tough VISTAL™ housing
- Precise laser light spot
- Photoelectric proximity sensor in laser classes 1 and 2
- Photoelectric retro-reflective sensor with autocollimation optics and polarizing filter; models available for clear material detection
- Through-beam photoelectric sensors with sensing ranges of up to 60 m
- SIRIC technology
- Connections: M8 and M12 plugs, cable as well as cable with plug
- M3 and M4 hole pattern

Your benefits

- Precise detection of small objects and object features
- Detection of objects even through small openings
- Less machine downtime due to stable VISTAL™ housing as well as the suppression of optical interference
- The longest detection and sensing ranges in its class
- Best-in-class background suppression for photoelectric proximity sensors
- No blind spots, detection of shiny objects using photoelectric retro-reflective sensors
- A wide variety of connection and mounting options
- Highly visible light spot simplifies alignment

→ www.mysick.com/en/W9L-3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W9L-3

WTB9L-3

- **Mounting hole:** M3
- **Switching mode:** Light/dark-switching (Q = light-switching.)
- **Adjustment:** Potentiometer, 5 turns

Laser class	Sensing range max. [1]	Light spot size (distance)	Output type	Connection	Model name	Part no.
1	25 mm ... 300 mm	Ø 1 mm (170 mm)	PNP	Cable, 4-wire, 2 m, PVC	WTB9L-3P1161	1058232
				Connector M12, 4-pin	WTB9L-3P2461	1058231*
			NPN	Connector M8, 4-pin	WTB9L-3N2261	1062523
				Connector M12, 4-pin	WTB9L-3N2461	1062524
2	25 mm ... 400 mm	Ø 0.9 mm (230 mm)	PNP	Cable with connector M12, 4-pin, 120 mm [2]	WTB9L-3P3491	1058153
				Connector M12, 4-pin	WTB9L-3P2491	1058151
			NPN	Connector M8, 4-pin	WTB9L-3N2491	1058149
				Cable with connector M12, 4-pin, 120 mm [2]	WTB9L-3N3491	1058152

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] Do not bend below 0 °C

B

WL9L-3

- **Light spot size (distance):** Ø 1 mm (500 mm)
- **Mounting hole:** M3
- **Switching mode:** Light/dark-switching (Q = light-switching.)
- **Adjustment:** Single teach-in button

Laser class	Sensing range max. [1]	Output type	Connection	Model name	Part no.
1	0 m ... 12 m	PNP	Cable, 4-wire, 2 m, PVC	WL9L-3P1132	1058233
			Connector M12, 4-pin	WL9L-3P2432	1058175*
		NPN	Connector M12, 4-pin	WL9L-3N2432	1058173

[1] PL80A.

WSE9L-3

- **Light spot size (distance):** Ø 1 mm (500 mm)
- **Mounting hole:** M3
- **Switching mode:** Light/dark-switching (Q = light-switching.)
- **Adjustment:** Single teach-in button

Laser class	Sensing range max.	Output type	Connection	Model name	Part no.
1	0 m ... 60 m	PNP	Cable, 4-wire, 2 m, PVC	WSE9L-3P1137	1058915
			Connector M12, 4-pin	WSE9L-3P2437	1058181
		NPN	Connector M12, 4-pin	WSE9L-3N2437	1058180

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates				
	PMMA, Brass (Br)	Fastening plate with threaded sleeve M3	BEF-GPM3-W9	4066039
	Steel, zinc coated	Mounting bracket (mounting hardware included)	BEF-WN-W9-2	2022855*
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N08 for universal clamp bracket	BEF-KHS-N08	2051607*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Fine triple, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250F	5308843*^
				56 mm x 28 mm	PL30F	5326523
		Reflector with micro-prismatic reflex tape REF-AC1000, suitable for laser sensors, see alignment note		23 mm x 23 mm	P41F	5315128

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At a glance

- Best-in-class retro-reflective laser performance in a metal housing
- Teflon® coating available
- Precise autocollimation optics
- Adjustable focus on retro-reflective sensors
- High switching frequency of 2.5 kHz
- Connection via cable or rotatable connector
- Mounting options with through holes, blind holes, oblong holes and dovetail
- Laser protection class 1 or 2

Your benefits

- Reliable object detection of small objects due to superior ASIC (application-specific integrated circuit) technology combined with innovative laser technology
- Red light laser technology provides quick and easy alignment of sensor
- Rugged metal housing (available with Teflon® coating) withstands harsh environments
- Laser protection class 1 or 2 for eye safety
- Resistance to optical interference reduces false readings and downtime
- Rotatable connector provides easy installation

IP 69K

SIRIC® optical ASIC invented by SICK

ECOLAB CDRH

➜ **www.mysick.com/en/W12-2_Laser**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ **www.mysick.com/en/W12-2_Laser**

WT12L-2

- **Detection principle:** Background suppression
- **Light spot size (distance):** Ø 0.2 mm (100 mm)
- **Adjustment:** Potentiometer
- **Output type:** PNP, NPN
- **Switching mode:** Light switching, dark-switching
- **Connection:** Connector M12, 5-pin

Focus	Laser class	Sensing range max.	Model name	Part no.
100 mm	II	30 mm ... 200 mm [1]	WT12L-2B550	1017904*
45 mm	II	30 mm ... 200 mm [1]	WT12L-2B530	1018250^
80 mm	II	30 mm ... 200 mm [1]	WT12L-2B540	1018251*
-	II	0 m ... 15 m [2]	WL12L-2B520	1018253*

[1] Objects to be sensed with 18 % reflectivity (based on DIN 5033 white standard)

[2] PL80A

B

WT12L-2

- **Detection principle:** Photoelectric retro-reflective sensor, autocollimation
- **Light spot size (distance):** Ø 0.8 mm (300 mm)
- **Adjustment:** Potentiometer
- **Output type:** PNP, NPN
- **Switching mode:** Light switching, dark-switching
- **Connection:** Connector M12, 5-pin

Focus	Laser class	Sensing range max.	Model name	Part no.
-	II	0 m ... 15 m [2]	WL12L-2B520	1018253*

[1] Objects to be sensed with 18 % reflectivity (based on DIN 5033 white standard)

[2] PL80A

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel	Mounting bracket, large	BEF-WG-W12	2013942*
Terminal and alignment brackets (mounting hardware included)				
	Steel, zinc coated	Clamping block for dovetail mounting	BEF-KH-W12	2013285
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Diecast zinc (clamp)	Plate N02 for universal clamp bracket	BEF-KHS-N02	2051608*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Fine triple, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250F	5308843*^
				18 mm x 18 mm	PL10F	5311210*
				38 mm x 16 mm	PL20F	5308844*
				56 mm x 28 mm	PL30F	5326523
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^
				38 mm x 15 mm	PL20A	1012719*^
				37 mm x 56 mm	PL40A	1012720*^
				80 mm x 80 mm	PL80A	1003865*^

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B



At a glance

- Rugged die-cast zinc housing with optional Teflon® coating
- Reliable detection of transparent objects
- Precise autocollimation optics
- Robust sensors for industrial use
- Precise PinPoint LED
- Dovetail mounting – mounting holes and oblong holes
- Highly visible status LEDs
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Reliable detection of transparent objects - from PET bottles to transparent film - due to superior ASIC (application-specific integrated circuit) technology
- High immunity to ambient conditions reduces false readings
- Red PinPoint LED provides quick and easy alignment of sensor
- Precise switching characteristics, fast response times and high performance ensure superior reliability and productivity in nearly every application type
- Withstands mechanical, thermal, chemical and electromagnetic factors, providing increased industrial reliability
- Flexible mounting and installation due to rotatable connector and versatile mounting options
- IO-Link provides easy data access from the PLC
- Quick and easy configuration

→ www.mysick.com/en/W12G

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W12G

WL12G

- **Housing material:** Metal
- **Connection:** Connector M12, 5-pin

Type of light	Sensing range max. [1]	Light spot size (distance)	Continuous threshold adaptation	Output type	Switching mode	Adjustment	Model name	Part no.
Visible red light	0 m ... 4 m	Ø 25 mm (1.5 m)	–	PNP, NPN	Light switching Dark-switching	Potentiometer, 11 turns	WL12G-3B2531	1041456*^
			✔	PNP	Light switching Dark-switching	Potentiometer, 11 turns	WL12G-3O2431	1041457*

[1] PL80A.
[2] Mode I, 10 % attenuation.
[3] Mode II, 18 % attenuation.

B

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel	Mounting bracket, large	BEF-WG-W12	2013942*
Terminal and alignment brackets (mounting hardware included)				
	Steel, zinc coated	Clamping block for dovetail mounting	BEF-KH-W12	2013285
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Diecast zinc (clamp)	Plate N02 for universal clamp bracket	BEF-KHS-N02	2051608*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Fine triple, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250F	5308843*^
				18 mm x 18 mm	PL10F	5311210*
				38 mm x 16 mm	PL20F	5308844*
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^
				38 mm x 15 mm	PL20A	1012719*^
				37 mm x 56 mm	PL40A	1012720*^
				80 mm x 80 mm	PL80A	1003865*^
	Plastic	Fine triple, chemically resistant	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10F CHEM	5321636

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At a glance

- Best-in-class optical performance due to superior OES technology
- Autocollimation with retro-reflective sensors
- Background and foreground suppression with second emitter LED on proximity sensors
- Highly visible, precise light spot and high-energy IR transmitters
- Rugged die-cast zinc housing, optional with Teflon® coating
- Mounting options with through holes, base blind holes, oblong through holes and dovetail
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Reliable detection due to superior ASIC (application-specific integrated circuit) technology and immunity to optical interference factors from the industrial environment
- PinPoint LED technology provides a bright, small and precise light spot that enables quick and easy sensor alignment
- Precise switching characteristics ensure reliable object detection, reducing downtime caused by re-adjusting sensors during recipe changes
- Wide range of products enclosed in a rugged metal housing enables application flexibility in a broad range of industrial environments
- Flexible mounting options reduce installation time
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks

→ www.mysick.com/en/W12-3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W12-3

WTF12-3

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Foreground suppression
- **Switching mode:** Light/dark-switching

Sensing range max. [1]	Light spot size (distance)	Output type	Adjustment	Connection	Model name	Part no.
30 mm ... 175 mm	Ø 2 mm (60 mm)	PNP	Potentiometer, 5 turns	Connector M12, 4-pin	WTF12-3P2431	1041404*
30 mm ... 500 mm	Ø 7 mm (300 mm)	PNP	Potentiometer, 5 turns	Connector M12, 4-pin	WTF12-3P2441	1041400

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

B

WTB12-3

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light spot size (distance):** Ø 6 mm (200 mm)
- **Switching mode:** Light/dark-switching

Sensing range max. [1]	Output type	Adjustment	Connection	Model name	Part no.
20 mm ... 350 mm	PNP	Potentiometer, 5 turns	Connector M12, 4-pin	WTB12-3P2431	1041411*^
	NPN	Double teach-in button	Connector M12, 4-pin	WTB12-3N2431	1041416*
20 mm ... 600 mm	PNP	Potentiometer, 5 turns	Connector M12, 4-pin	WTB12-3P2411	1041422*
	NPN	Potentiometer, 5 turns	Connector M12, 4-pin	WTB12-3N2411	1041427

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

WL12-3

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Autocollimation
- **Polarisation filter:** ✔
- **Light spot size (distance):** Ø 100 mm (3 m)
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 5 turns

Sensing range max. [1]	Output type	Connection	Model name	Part no.
0 m ... 7 m	PNP	Connector M12, 4-pin	WL12-3P2431	1041436*^
	NPN	Connector M12, 4-pin	WL12-3N2431	1041440*

[1] PL80A.

WSE12-3

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** Ø 220 mm (15 m)
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 5 turns

Sensing range max.	Output type	Connection	Model name	Part no.
0 m ... 20 m	PNP	Connector M12, 4-pin	WSE12-3P2431	1041459*^
	NPN	Connector M12, 4-pin	WSE12-3N2431	1041462

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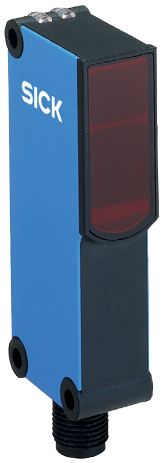
Recommended accessories

	Material	Description	Model name	Part no.
Device protection (mechanical) (Items supplied: Universal clamp (5322626), mounting hardware)				
	Stainless steel	Mounting bracket, large	BEF-SG-W12-3	2045175*
Terminal and alignment brackets (mounting hardware included)				
	Steel, zinc coated	Clamping block for dovetail mounting	BEF-KH-W12	2013285
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Diecast zinc (clamp)	Plate N02 for universal clamp bracket	BEF-KHS-N02	2051608*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^
				38 mm x 15 mm	PL20A	1012719*^
				56 mm x 28 mm	PL30A	1002314*^
				37 mm x 56 mm	PL40A	1012720*^
				80 mm x 80 mm	PL80A	1003865*^

B



At a glance

- Best-in-class optical performance due to superior OES technology
- Autocollimation optics
- Background suppression with second sender LED
- Slim, durable plastic housing
- Operation via double teach-in pushbutton or potentiometer
- Wide variety of options for operation, connection, and optics
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Reliable object detection due to best-in-class background suppression and resistance to ambient light
- A wide range of product variants provides increased user flexibility
- Less downtime in industrial environments
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks
- Easy device replacement and identification

→ www.mysick.com/en/W18-3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W18-3

WT18-3

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Connection:** Connector M12, 4-pin
- **Switching mode:** Light/dark-switching

Type of light	Sensing range max. [1]	Light spot size (distance)	Adjustment	Output type	Model name	Part no.
Visible red light	10 mm ... 600 mm	Ø 15 mm (300 mm)	Potentiometer, 4 turns	PNP	WT18-3P430	1025896*^
			Potentiometer, 4 turns	NPN	WT18-3N430	1025898
			Double teach-in button	PNP	WT18-3P431	1026032*
Infrared light	10 mm ... 1,000 mm	Ø 30 mm (600 mm)	Potentiometer, 4 turns	PNP	WT18-3P420	1025905*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

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WL18-3

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Autocollimation
- **Light spot size (distance):** Ø 40 mm (2 m)
- **Test input:** -
- **Switching mode:** Light/dark-switching
- **Polarisation filter:** ✔
- **Adjustment:** Potentiometer, 1 turn

Type of light	Sensing range max. [1]	Connection	Output type	Model name	Part no.
Visible red light	0 m ... 7 m	Connector M12, 4-pin	PNP	WL18-3P430	1025911*^
		Connector M12, 4-pin	NPN	WL18-3N430	1025915

[1] PL80A.

WS/WE18-3

- **Sensor principle:** Through-beam photoelectric sensor
- **Output type:** PNP
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 1 turn
- **Connection:** Connector M12, 4-pin

Type of light	Sensing range max.	Light spot size (distance)	Model name	Part no.
Visible red light	0 m ... 20 m	Ø 450 mm (15 m)	WS/WE18-3P430	1025923

WT18X-3

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light spot size (distance):** Ø 30 mm (600 mm)
- **ATEX marking:** EX II 3D IP67 T70 °C
  EX II 3G EEx nA II T4 X [3]
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 4 turns

Type of light	Sensing range max. [1]	Connection [2]	Output type	Model name	Part no.
Infrared light	10 mm ... 1,000 mm	Cable with connector M12, 4-pin, 0.29 m	PNP	WT18X-3P920	1029901

[1] Limit values, operation in short-circuit protected network max. 8 A

[2] Do not bend below 0°C

[3] Conformity with directives. Explosion prevention: Directive 94/9/EC

WL18X-3

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Autocollimation
- **Light spot size (distance):** Ø 40 mm (2 m)
- **ATEX marking:** EX II 3D IP67 T70 °C
  EX II 3G EEx nA II T4 X [3]
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 1 turn

Type of light	Sensing range max. [1]	Connection [2]	Output type	Model name	Part no.
Visible red light	0 m ... 7 m	Cable with connector M12, 4-pin, 0.29 m	PNP	WL18X-3P930	1029902

[1] Limit values, operation in short-circuit protected network max. 8 A

[2] Do not bend below 0°C

[3] Conformity with directives. Explosion prevention: Directive 94/9/EC

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Recommended accessories

	Material	Description	Model name	Part no.
Device protection (mechanical) (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (protective housing), Diecast zinc (clamp)	Protective housing for universal clamp	BEF-SG-W14	2058124
		Protective housing for universal clamp	BEF-SG-W27	2039601
Mounting brackets and mounting plates (mounting hardware included)				
	Steel, zinc coated	Mounting bracket with hinged arm	BEF-WN-W18	2009317
		Mounting bracket	BEF-WN-W14	2019084

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^
				38 mm x 15 mm	PL20A	1012719*^
				56 mm x 28 mm	PL30A	1002314*^
				37 mm x 56 mm	PL40A	1012720*^
				80 mm x 80 mm	PL80A	1003865*^

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At a glance

- IP 69K-tested die-cast zinc housing
- Terminal chamber protected by the housing
- Immune to ambient light and crosstalk
- Selectable PNP/NPN, light/dark output
- Variants with DC voltage and universal AC/DC voltage with UL approval
- Optional test input, time delays, alarm output and front screen heating also available in high-power version.
- M12 or terminal chamber connection: both 90° rotatable

Your benefits

- Rugged metal housing that has passed IP 69K testing offers reliability and a long service life
- Immune to ambient light and crosstalk, which improves detection security
- Long-range retro-reflective and through-beam versions have a very high operating reserve, which ensures reliable operation even when if sensor is contaminated
- Ensuring reliable operation in environments with temperatures fluctuation due to standard or high-power front lens heating (prevention and reduction of condensation water on the front lens)
- Variants with DC voltage and universal AC/DC voltage provide installation flexibility

➜ www.mysick.com/en/W24-2

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/W24-2

WT24-2, DC

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Output type:** NPN, PNP
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer

Type of light	Sensing range max. [1]	Light spot size (distance)	Connection	Alarm output	Front screen heating	Time functions	Model name	Part no.
Infrared light	100 mm ... 2,500 mm	Ø 80 mm (2,500 mm)	Connector M12, 4-pin	–	✔ [2]	✔	WT24-2B420	1017885*^

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] Static, low heat output, use in +5° C ... +15° C.

WT24-2, AC/DC

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Output type:** Relay
- **Switching mode:** Light/dark-switching (Provide suitable spark suppression for inductive or capacitive loads.)
- **Adjustment:** Potentiometer
- **Connection:** Terminal connection with M16 gland

Type of light	Sensing range max. [1]	Light spot size (distance)	Front screen heating	Time functions	Model name	Part no.
Infrared light	100 mm ... 2,500 mm	Ø 80 mm (2,500 mm)	✔ [2]	✔	WT24-2R220	1016854*^

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] Static, low heat output, use in +5° C ... +15° C.

B

WL24-2, DC

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Type of light:** Visible red light
- **Light spot size (distance):** Ø 250 mm (15 m)
- **Output type:** NPN, PNP
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer

Sensing range max. [1]	Connection	Alarm output	Front screen heating	Time functions	Model name	Part no.
0 m ... 22 m	Connector M12, 4-pin	–	✔ [2]	✔	WL24-2B440	1017879

[1] PL80A.

[2] Static, low heat output, use in +5° C ... +15° C.

WL24-2, AC/DC

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Type of light:** Visible red light
- **Light spot size (distance):** Ø 250 mm (15 m)
- **Output type:** Relay
- **Switching mode:** Light/dark-switching (Provide suitable spark suppression for inductive or capacitive loads.)
- **Adjustment:** Potentiometer
- **Connection:** Terminal connection with M16 gland

Sensing range max. [1]	Front screen heating	Time functions	Model name	Part no.
0 m ... 22 m	✔ [2]	✔	WL24-2R240	1017858*

[1] PL80A.

[2] Static, low heat output, use in +5° C ... +15° C.

WS/WE24-2, DC

- **Sensor principle:** Through-beam photoelectric sensor
- **Type of light:** Visible red light
- **Light spot size (distance):** Ø 700 mm (50 m)
- **Output type:** NPN, PNP
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer
- **Connection:** Connector M12, 4-pin
- **Time functions:** ✔

Sensing range max.	Front screen heating	Model name	Part no.
0 m ... 60 m	✔ [1]	WS/WE24-2B440	1017875

[1] Static, low heat output, use in +5° C ... +15° C.

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WS/WE24-2, AC/DC

- **Sensor principle:** Through-beam photoelectric sensor
- **Type of light:** Visible red light
- **Light spot size (distance):** Ø 700 mm (50 m)
- **Output type:** Relay
- **Switching mode:** Light/dark-switching (Provide suitable spark suppression for inductive or capacitive loads.)
- **Adjustment:** Potentiometer
- **Connection:** Terminal connection with M16 gland

Sensing range max.	Front screen heating	Time functions	Model name	Part no.
0 m ... 60 m	✔ [1]	✔	WS/WE24-2R240	1017864*

[1] Static, low heat output, use in +5° C ... +15° C.

Recommended accessories

	Material	Description	Model name	Part no.
Device protection (mechanical) - (mounting hardware included)				
	Aluminum (anodised)	Dust protection tube, air-purged	OBS-W24	2015069*^
		Weather hood	OBW-W24	2015070
	Steel, zinc coated	Weather hood for universal clamp bracket	OBW-KHS-M01	2023240
Mounting brackets and mounting plates				
	Stainless steel	Mounting bracket, small, without mounting hardware	BEF-WK-W24	4027532*
	Stainless steel (1.4301)	Mounting bracket, mounting hardware included	BEF-WN-W24	2015248*
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N04 for universal clamp bracket, steel	BEF-KHS-N04	2051610*

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	38 mm x 15 mm	PL20A	1012719*^
				37 mm x 56 mm	PL40A	1012720*^
				80 mm x 80 mm	PL80A	1003865*^

B



At a glance

- Classification: EX II 2G Ex ia op is IIC T4 according to Directive 94/9/EC (ATEX)
- Corresponds to Category 2G
- Output type: EN 60947-5-6 (NAMUR)
- Long sensing range
- Red light
- M12 or terminal chamber connection: 90° rotatable
- Durable metal housing

Your benefits

- Allows longer sensing range despite the limited factors of the norms for Category 2G (ATEX, explosive environments)
- Metal housing that has been IP 69K tested provides reliability and a long service life
- Flexible installation due to 90° rotatable connector

➜ www.mysick.com/en/WL24

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/WL24

WL24-2X

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light spot size (distance):** Ø 250 mm (15 m)

Sensing range max. [1]	Type of light	Switching output	Switching mode	Connection	Model name	Part no.
0 m ... 22 m	Visible red light	NAMUR	Light switching	Connector M12, 4-pin	WL24-2X430	1026037

[1] PL80A

WT24-2X

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light spot size (distance):** Ø 50 mm (2,000 mm)

Sensing range max. [1]	Type of light	Switching output	Switching mode	Connection	Model name	Part no.
40 mm ... 2,000 mm	Infrared light	NAMUR	Light switching	Connector M12, 4-pin	WT24-2X400	1040722

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

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At a glance

- Precise background suppression at long ranges
- Immune to ambient light and crosstalk from another sensor
- Switch selectable PNP or NPN output and light/dark switching
- Versions with DC voltage (10...30V) or universal AC/DC voltage (12 ... 240 V DC / 24 ... 240 V AC)
- Optional test input, adjustable ON and OFF time delays, alarm output
- M12 or terminal chamber connection: 90° rotatable
- UL approval

Your benefits

- Versions with IR LED provide precise object detection at sensing ranges of 2500 mm
- Immune to ambient light and crosstalk from another sensor, providing reliable operation and less downtime
- The sensor cover protects configuration components against environmental hazards
- Adjustable time delay, alarm output, test input, and universal AC/DC voltage provide additional flexibility and reduce the number of part numbers needed

→ www.mysick.com/en/W34

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W34

WT34

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light spot size (distance):** Ø 2 mm (400 mm)

Sensing range max. [1]	Type of light	Switching output	Switching mode	Connection	Model name	Part no.
100 mm ... 2,500 mm	Infrared light	NPN, PNP	Light/dark-switching	Connector M12, 4-pin	WT34-B410	1019229*^
		Relay	Light/dark-switching	Terminal connection with M16 gland	WT34-R220	1019233*^

[1] Object with 90 % reflectance (referred to standard white DIN 5033)

B

WL34

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Light spot size (distance):** Ø 250 mm (15 m)

Sensing range max. [1]	Type of light	Switching output	Switching mode	Connection	Model name	Part no.
0 m ... 22 m	Visible red light	NPN , PNP - No Timer	Light/dark-switching	Connector M12, 4-pin	WL34-B430	1019245*
		Relay - No Timer	Light/dark-switching	Terminal connection with M16 gland	WL34-R230	1019249*
0.03 m ... 22 m	Visible red light	NPN , PNP with Timer	Light/dark-switching	Connector M12, 4-pin	WL34-B440	1019246*
		Relay - No Timer	Light/dark-switching	Terminal connection with M16 gland	WL34-R240	1019250*

[1] PL80A.

WS/WE34

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** Ø 700 mm (50 m)

Sensing range max. [1]	Type of light	Switching output	Switching mode	Connection	Model name	Part no.
0 m ... 60 m	Visible red light	NPN, PNP	Light/dark-switching	Connector M12, 4-pin	WS/WE34-B430	1019254
		Relay	Light/dark-switching	Terminal connection with M16 gland	WS/WE34-R240	1019258

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates				
	Stainless steel	Mounting bracket, small, without mounting hardware	BEF-WK-W24	4027532*
	Stainless steel (1.4301)	Mounting bracket, mounting hardware included	BEF-WN-W24	2015248*

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At a glance

- Intense visible red emitter LED with consistent light spot for PinPoint versions
- Long sensing ranges with IR LED achieve up to 2500 mm
- Precise background suppression for detection of multi-colored objects
- Universal DC or DC/AC supply voltage
- Operating temperature: –40 °C – +60 °C
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Quick and easy commissioning due to a highly visible red PinPoint LED
- PinPoint technology can replace laser photoelectric proximity sensors in some applications. No laser safety regulations and a longer operating life due to PinPoint technology
- Resistant to ambient light, optical reflections, and crosstalk from other photoelectric devices
- Less contamination due to high operating reserves, reducing downtime
- Resistant to vibrations, reducing downtime
- Operation in harsh environments with temperatures as low as –40 °C
- IO-Link provides easy data access from the PLC
- Quick and easy configuration

→ www.mysick.com/en/W27-3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W27-3

WTB27-3, DC

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Adjustment:** Potentiometer

Type of light	Sensing range max. [1]	Light spot size (distance)	Switching output	Output type	Connection	Model name	Part no.
Visible red light	30 mm ... 1,100 mm	Ø 15 mm (500 mm)	Light/dark switching	PNP	Connector M12, 4-pin	WTB27-3P2441	1027744*
Infrared light	30 mm ... 1,600 mm	Ø 25 mm (800 mm)	Light/dark switching	PNP	Connector M12, 4-pin	WTB27-3P2411	1025994*^
			Light switching [4]	Relay [2]	Cable, 5-wire, 2 m [3]	WTB27-3S1511	1027762

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] [4] Provide suitable spark supression for inductive or capacitive loads

[3] Do not bend below 0 °C

WTB27-3, AC/DC

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Output type:** Relay
- **Adjustment:** Potentiometer
- **Connection:** Connector Q6, 6-pin, AC/UC-coding

Type of light	Switching mode [2]	Sensing range max. [1]	Light spot size (distance)	Time functions	Model name	Part no.
Infrared light	Light/dark-switching	30 mm ... 1,600 mm	Ø 25 mm (800 mm)	✔	WTB27-3R2611	1027763*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] Provide suitable spark suppression for inductive or capacitive loads. Relay contacts are separated from the power supply by a basic isolation of 3 mm. Depending on the application, additional isolation might have to be applied in the user's circuit.

WL27-3, DC

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Type of light:** Visible red light
- **Switching mode:** Light/dark-switching

Sensing range max. [1]	Light spot size (distance)	Output type	Adjustment	Connection	Model name	Part no.
0.1 m ... 15 m	Ø 220 mm (10 m)	PNP	-	Connector M12, 4-pin	WL27-3P2430	1027769*
		PNP	Potentiometer	Connector M12, 4-pin	WL27-3P2451	1027770*

[1] PL80A.

WL27-3, AC/DC

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Type of light:** Visible red light
- **Light spot size (distance):** Ø 220 mm (10 m)
- **Output type:** Relay

Sensing range max. [1]	Switching mode [2]	Adjustment	Connection	Time functions	Model name	Part no.
0.1 m ... 15 m	Light/dark-switching	Potentiometer	Connector Q6, 6-pin, AC/UC-coding	✔	WL27-3R2631	1027776*

[1] PL80A.

[2] Provide suitable spark suppression for inductive or capacitive loads. Relay contacts are separated from the power supply by a basic isolation of 3 mm. Depending on the application, additional isolation might have to be applied in the user's circuit.

WSE27-3, DC

- **Sensor principle:** Through-beam photoelectric sensor
- **Type of light:** Visible red light
- **Light spot size (distance):** Ø 600 mm (25 m)
- **Switching mode:** Light/dark-switching

Sensing range max.	Output type	Adjustment	Connection	Time functions	Model name	Part no.
0 m ... 35 m	PNP	–	Connector M12, 4-pin	–	WSE27-3P2430	1027790

WSE27-3, AC/DC

- **Sensor principle:** Through-beam photoelectric sensor
- **Type of light:** Visible red light
- **Light spot size (distance):** Ø 600 mm (25 m)
- **Switching mode:** Light/dark-switching

Sensing range max.	Output type	Adjustment	Connection	Model name	Part no.
0 m ... 35 m	Relay [1]	–	Connector Q6, 6-pin, AC/UC-coding	WSE27-3R2631	1027795

[1] Provide suitable spark supression for inductive or capacitive loads. Relay contacts are separated from the power supply by a basic isolation of 3 mm. Depending on the application, additional isolation might have to be applied in the user's circuit.

WTB27X, DC

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Type of light:** Infrared light
- **Light spot size (distance):** Ø 25 mm (800 mm)
- **Switching mode:** Light/dark-switching

Sensing range max. [1]	Output type	Adjustment	Connection [2]	Model name	Part no.
30 mm ... 1,600 mm	PNP	Potentiometer	Cable, 4-wire, 10 m	WTB27X-3P1811	1027988

[1] Object with 90 % reflectance (referred to standard white, DIN 5033
[2] Do not bend below 0 °C

WL27X, DC

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Type of light:** Visible red light
- **Light spot size (distance):** Ø 220 mm (10 m)
- **Switching mode:** Light/dark-switching

Sensing range max. [1]	Output type	Adjustment	Connection [2]	Model name	Part no.
0.1 m ... 15 m	PNP	Potentiometer	Cable, 4-wire, 10 m	WL27X-3P1831	1027989

[1] PL80A
[2] Do not bend below 0 °C

WSE27X, DC

- **Sensor principle:** Through-beam photoelectric sensor
- **Type of light:** Visible red light
- **Light spot size (distance):** Ø 600 mm (25 m)
- **Switching mode:** Light/dark-switching

Sensing range max.	Output type	Adjustment	Connection [1]	Model name	Part no.
0 m ... 35 m	PNP	-	Cable, 4-wire, 10 m	WSE27X-3P1830	1027991

[1] Do not bend below 0 °C

B

Recommended accessories

	Material	Description	Model name	Part no.
Device protection (mechanical)				
	Zinc plated steel (protective housing), Zinc die cast (clamping bracket)	Protective housing for universal clamp, items supplied: universal clamp (2031357), mounting hardware	BEF-SG-W27	2039601
	Steel, zinc coated	Weather hood for universal clamp bracket, mounting hardware included	OBW-KHS-M01	2023240
Mounting brackets and mounting plates (mounting hardware included)				
	Steel, zinc coated	Mounting bracket with hinged arm	BEF-WN-W27	2009122*
		Mounting bracket	BEF-WN-W23	2019085
Universal bar clamp systems (items supplied: universal clamp (2031357), mounting hardware)				
	Zinc plated steel (protective housing), Zinc die cast (clamping bracket)	Plate N04 for universal clamp bracket	BEF-KHS-N04	2051610*

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	38 mm x 15 mm	PL20A	1012719*^
				37 mm x 56 mm	PL40A	1012720*^
				80 mm x 80 mm	PL80A	1003865*^

	Connection type head A	Connection type head B	Cable	Connecting cable	Model name	Part no.
Plug connectors and cables						
	Female connector, Q6, 6-pin, angled, AC-coded, unshielded	-	-	-	DOS-1406-W	6006685
	Female connector, 6-pin, angled, AC/UC-coded, unshielded	Cable	PVC	2 m	DOL-1406-W02M	6030221
				5.5 m	DOL-1406-W05M5	6030223
				10 m	DOL-1406-W10	6030224

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At a glance

- WTT280L-2: sensing distance up to 4 m
- WLT280L-2: sensing distance up to 18 m
- Complete background suppression: very small black/white shift, insensitive against reflections from the background (e.g. shiny metal, window, safety vest)
- Visible red class 1 laser light
- Version 1: with 1 x switching output and light/dark switch, version 2: with 2 x switching outputs and light/dark switch
- Disable laser by wire
- Reliable detection also in very fast production processes thanks to the switching frequency of 1000 Hz

Your benefits

- Reliable target detection with difficult target colors, angles and color transitions (black/white shift)
- One sensor with two outputs and two status LEDs improves application flexibility and reduces the number of sensors needed
- Quick and easy comissioning with sensing distance adjustment potentiometers and status LED – one for each output
- Quick and easy alignment with a red class 1 laser light
- Rotatable connector and light/dark switch for mounting and installation flexibility

→ www.mysick.com/en/W280L-2_Long_Range

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W280L-2_Long_Range

WTT280L-2 Long Range

- **Sensor principle:** Photoelectric proximity sensor
- **Voltage type:** DC
- **Light spot size (distance):** Ø 12 mm (3 m)
- **Switching mode:** Light/dark-switching

Sensing range max.	Output type	Connection	Model name	Part no.
200 mm ... 4,000 mm [1] 200 mm ... 3,000 mm [2]	PNP	Cable, 5-wire, 2 m, PVC	WTT280L-2P1531	6048065
		Connector M12, 5-pin	WTT280L-2P2531	6048061*^
	2 x PNP	Cable, 5-wire, 2 m, PVC	WTT280L-2P1536	6048066
		Connector M12, 5-pin	WTT280L-2P2536	6048062*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] Objects to be sensed with 6 % reflectivity (based on black)

B

WLT280L-2 Long Range

- **Sensor principle:** Photoelectric proximity sensor
- **Voltage type:** DC
- **Light spot size (distance):** Ø 50 mm (18 m)
- **Switching mode:** Light/dark-switching
- **Connection:** Connector M12, 5-pin

Sensing range max. [1]	Output type	Connection	Model name	Part no.
200 mm ... 18,000 mm	2 x PNP	Connector M12, 5-pin	WLT280L-2P2536	6048069*
	2 x PNP	Cable, 5-wire, 2 m	WLT280L-2P1536	6048071

[1] Reflector P250, PL80A.

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel V2A (1.4301)	Mounting bracket	BEF-W280	5313885
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N04 for universal clamp bracket	BEF-KHS-N04	2051610*

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^
				47 mm x 47 mm	P250F	5308843*^
				18 mm x 18 mm	PL10F	5311210*
				38 mm x 16 mm	PL20F	5308844*
				56 mm x 28 mm	PL30F	5326523

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At a glance

- Long sensing ranges
- Background suppression or energetic sensory types
- Mounting bracket included in delivery
- Selectable operation mode (light/dark)
- Optional time stages
- M12 connector or terminal chamber
- DC and universal AC/DC voltage versions

Your benefits

- Reliable object detection
- Reliable in difficult ambient light conditions
- Configuration controls are protected by a cover, ensuring less damage and a longer service life
- Simplified integration due to mounting compatibility since variants for DC or DC/AC voltage supply are available in the same design
- Teach button and adjustable time delay versions simplify integration of individual systems

→ www.mysick.com/en/W260

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/W260

WT260

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Voltage type:** DC
- **Light spot size (distance):** 45 mm (1,000 mm)
- **Type of light:** Visible red light

Sensing range max. [1]	Output type	Switching mode	Connection	Model name	Part no.
5 mm ... 1,500 mm	PNP	Light/dark-switching	Connector M12, 4-pin	WT260-F470	6020980
	NPN	Light/dark-switching	Connector M12, 4-pin	WT260-E470	6021815
5 mm ... 1,700 mm	Relay	Light switching	Cable gland	WT260-R270	6020770*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

B

WT260

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Voltage type:** DC
- **Light spot size (distance):** 17 mm (300 mm)
- **Type of light:** Infrared light

Sensing range max. [1]	Output type	Switching mode	Connection	Model name	Part no.
0 mm ... 380 mm	PNP	Light/dark-switching	Connector M12, 4-pin	WT260-P460	1011540
	Relay	Light/dark-switching	Cable gland	WT260-R260	6009472*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

WL260

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Voltage type:** DC
- **Type of light:** Visible red light

Sensing range max. [1]	Output type	Switching mode	Connection	Model name	Part no.
0.01 m ... 14 m	PNP	Light/dark-switching	Connector M12, 4-pin	WL260-F470	6020977*
	NPN	Light/dark-switching	Connector M12, 4-pin	WL260-E470	6021814
0.01 m ... 15 m	Relay	Light switching	Cable gland	WL260-R270	6020768*^

[1] PL80A

WS/WE260

- **Sensor principle:** Through-beam photoelectric sensor
- **Voltage type:** DC
- **Type of light:** Visible red light

Sensing range max. [1]	Output type	Switching mode	Connection	Model name	Part no.
0 m ... 35 m	PNP	Light/dark-switching	Connector M12, 4-pin	WS/WE260-F470	6020974*
	NPN	Light/dark-switching	Connector M12, 4-pin	WS/WE260-E470	6021817
0 m ... 45 m	Relay	Light switching	Cable gland	WS/WE260-R270	6020774*^

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At a glance

- Intuitive signal strength light bar
- Best-in-class background suppression
- VISTAL “tough as steel” housing
- Long sensing range of 300 mm
- Multiple connection and configuration options with identical housing design
- PinPoint LED for highly visible and precise light spot
- DC or AC/DC power supply

Your benefits

- Light bar optimizes adjustment and sensing reliability
- Reliably detect multiple colors and objects with minimal black /white shift
- Automatically suppress detection of unwanted objects or reflections
- Durability of VISTAL housing reduces replacement costs and downtime
- Reduce costs by standardizing sensor mounting, accessories and setup procedures
- Precise detection with no need for protective measures against lasers

→ www.mysick.com/en/SureSense

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/SureSense

HTB18, DC, Signal strength light bar

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Type of light:** visible red light
- **Voltage type:** DC

Sensing range max. [1]	Adjustment	Output type	Switching mode	Connection	Type	Part no.
≤ 50 mm	None	PNP	Light/dark switching [2]	M12, 4-pin	HTB18-P4A2BAD02	1074757*
≤ 100 mm	None	PNP	Light/dark switching [2]	M12, 4-pin	HTB18-P4A2BAD04	1074758*
5 mm ... 300 mm	Potentiometer (sensing range)	PNP	Light/dark switching [2]	Cable, 4-wire, 2 m	HTB18-P1G2BB	1073432*
				M12, 4-pin	HTB18-P4A2BB	1073431*
		PNP, NPN	Light switching [3]	M12, 4-pin	HTB18-B4A2BB	1073427*
	Potentiometer (sensing range) Potentiometer (on delay)	PNP	Light/dark switching [2]	Cable, 4-wire, 2 m	HTB18-P1G2BF	1071877*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] Q1 = light switching; Q2 = dark switching.

[3] Q1 = PNP; Q2 = NPN.

NPN and M849 versions available on request

B

HTB18, AC/DC

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Type of light:** visible red light
- **Voltage type:** AC/DC

Sensing range max. [1]	Adjustment	Output type	Switching mode	Connection	Type	Part no.
5 mm ... 300 mm	Potentiometer (sensing range)	MOSFET	Dark switching	Cable, 4-wire, 2 m	HTB18-M1G2AB	1071048*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

HTB18L, DC, Signal strength light bar

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Type of light:** visible red light
- **Laser class:** I
- **Adjustment:** potentiometer (Sensing range)
- **Switching mode:** light/dark switching (Q1 = light switching.) (Q2 = dark switching.)

Sensing range max. [1]	Output type	Connection	Type	Part no.
30 mm ... 125 mm	PNP	Cable, 4-wire, 2 m	HTB18L-P1G5BB	1074785*
		M12, 4-pin	HTB18L-P4A5BB	1073611*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

NPN version available on request

HTE18, DC, Signal strength light bar

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Voltage type:** DC

Type of light	Sensing range max. [1]	Adjustment	Output type	Switching mode	Connection	Type	Part no.
Visible red light	5 mm ... 600 mm	Potentiometer (Sensitivity)	PNP	Light/dark switching [2]	Cable, 4-wire, 2 m	HTE18-P1G2BB	1074756*
					M12, 4-pin	HTE18-P4A2BB	1074755*
Infrared light	5 mm ... 1,000 mm	Potentiometer (Sensitivity)	PNP	Light/dark switching [2]	Cable, 4-wire 2 m	HTE18-P1G1BB	1071749*
					M12, 4-pin	HTE18-P4A1BB	1071746*
			PNP, NPN	Light switching [5]	M12, 4-pin	HTE18-B4A1BB	1071753*
				Dark switching [5]	M12, 4-pin	HTE18-A4A1BB	1071756*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] Q1 = light switching; Q2 = dark switching.

[3] Q1 = light switching.

[4] Q2 = alarm output.

[5] Q1 = PNP; Q2 = NPN.

NPN, M84P, NPN with delay time and AC/DC versions available on request

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HTF18, DC, Signal strength light bar

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Foreground suppression
- **Type of light:** visible red light
- **Voltage type:** DC
- **Adjustment:** potentiometer (sensing range)
- **Switching mode:** Light/dark switching (Q1 = light switching.) (Q2 = dark switching.)

Sensing range max. [1]	Output type	Connection	Type	Part no.
5 mm ... 300 mm	PNP	M12, 4-pin	HTF18-P4A2BB	1075806*
	PNP	Cable, 4-wire, 2 m	HTF18-P1G2BB	1075808*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

HTF18L, DC, Signal strength light bar

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Foreground suppression
- **Type of light:** visible red light
- **Laser class:** I
- **Switching mode:** Light/dark switching (Q1 = light switching.) (Q2 = dark switching.)

Sensing range max. [1]	Output type	Output type	Connection	Type	Part no.
30 mm ... 125 mm	Potentiometer (sensing range)	PNP	Cable, 4-wire, 2 m	HTF18L-P1G5BB	1075812*
		PNP	M12, 4-pin	HTF18L-P4A5BB	1075810*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

HL18, DC, Signal strength light bar

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Dual lens
- **Type of light:** visible red light
- **Voltage type:** DC

Polarisation filter	Sensing range max. [1]	Adjustment	Output type	Switching mode	Connection	Type	Part no.
✔	0.03 m ... 6.5 m	None	PNP	Light/dark switching [2]	Cable, 4-wire, 2 m	HL18-P1G3BA	1071757*
					M12, 4-pin	HL18-P4A3BA	1071743*
✔	0.03 m ... 6.5 m	None	PNP, NPN	Light switching [5]	Cable, 4-wire, 2 m	HL18-B1G3BA	1071765*
					M12, 4-pin	HL18-B4A3BA	1071754*
				Dark switching [5]	Cable, 4-wire, 2 m	HL18-A1G3BA	1071752*
					M12, 4-pin	HL18-A4A3BA	1071747*
		Potentiometer (off delay)	PNP	Light/dark switching [2]	Cable, 4-wire, 2 m	HL18-P1G3BD	1071773*
					M8, 4-pin	HL18-P3A3BD	1071767*
			PUSH/PULL	Light/dark switching [2]	M8, 4-pin	HL18-F3A3BD	1073695*

[1] PL80A.

[2] Q1 = light switching; Q2 = dark switching.

[3] Q1 = light switching.

[4] Q2 = health output.

[5] Q1 = PNP; Q2 = NPN.

NPN version available on request

B

HL18G, AutoAdapt, Signal strength light bar

- **Sensor/detection principle:** Photoelectric retro-reflective sensor
- **Type of light:** visible red light
- **Polarisation filter:** ✔
- **Voltage type:** DC
- **Adjustment:** potentiometer (Teach-in)
- **Switching mode:** Light/dark switching (Q1 = light switching.) (Q2 = dark switching.)

Sensing range max. [1]	Output type	Connection	Type	Part no.
0.1 m ... 3 m	PNP	Cable, 4-wire, 2 m	HL18G-P1G3BL	1071040*
	NPN	M12, 4-pin	HL18G-N4A3BL	1074765*
	PNP		HL18G-P4A3BL	1071037*

[1] PL80A.

HL18L, DC, Signal strength light bar

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Dual lens
- **Polarisation filter:** ✔
- **Laser class:** I
- **Switching mode:** Light/dark switching (Q1 = light switching.) (Q2 = dark switching.)

Sensing range max. [1]	Output type	Connection	Type	Part no.
0.1 m ... 12 m	PNP	Cable, 4-wire, 2 m	HL18L-P1G5BA	1071027*
	PNP	M12, 4-pin PVC	HL18L-P4A5BA	1071025*

[1] PL80A.

HSE18, DC, Signal strength light bar

- **Sensor/detection principle:** Through-beam photoelectric sensor
- **Voltage type:** DC

Type of light	Sensing range max.	Output type	Switching mode	Connection	Type	Part no.
Visible red light	0 m ... 25 m	PNP, NPN	Dark switching [1]	Cable, 4-wire, 2 m	HSE18-A1G2BA	1071744*
				M12, 4-pin	HSE18-A4A2BA	1071750*
			Light switching [1]	M12, 4-pin	HSE18-B4A2BA	1071751*
		PNP	Light/dark switching [2]	Cable, 4-wire, 2 m	HSE18-P1G2BA	1071842*
Infrared light	0 m ... 20 m	PNP	Light/dark switching [2]	Cable, 4-wire, 2 m	HSE18-P1G1BA	1071841*
				M12, 4-pin	HSE18-P4A1BA	1074762*
		NPN	Light/dark switching [2]	M12, 4-pin	HSE18-N4A1BA	1074763*

[1] Q1 = PNP; Q2 = NPN.
[2] Q1 = light switching; Q2 = dark switching.

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HSE18, AC/DC

- **Sensor/detection principle:** Through-beam photoelectric sensor
- **Type of light:** visible red light
- **Voltage type:** AC/DC

Type of light	Sensing range max.	Output type	Switching mode	Connection	Type	Part no.
Visible red light	0 m ... 25 m	MOSFET	Dark switching	Cable with connector Micro (1/2"-20), 4-pin 150 mm PVC	HSE18-M5B2AA	1071047*

HSE18L, DC, Signal strength light bar

- **Sensor/detection principle:** Through-beam photoelectric sensor
- **Type of light:** visible red light
- **Laser class:** I
- **Voltage type:** DC
- **Switching mode:** Light/dark switching (Q1 = light switching.) (Q2 = dark switching.)

Sensing range max.	Output type	Connection	Type	Part no.
0 m ... 60 m	PNP	Cable, 4-wire, 2 m	HSE18L-P1G5BA	1074780*
	NPN	M12, 4-pin	HSE18L-N4A5BA	1074778*
	PNP		HSE18L-P4A5BA	1074776*

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Steel, zinc coated	Mounting plate for M18 sensors	BEF-WG-M18	5321870
		Mounting bracket, M18 thread	BEF-WN-M18	5308446**
Terminal and alignment brackets (mounting hardware included)				
	Plastic (PA12), glass-fiber reinforced	Clamping block for round sensors M18, without fixed stop	BEF-KH-M18	2051481
		Clamping block for round sensors M18, with fixed stop	BEF-KHF-M18	2051482
Other mounting accessories				
	Plastic	Fixation ring for SureSense sensors	Fixation ring, SureSense	4083611
	-	Spherical bearing M18	Spherical bearing	4057409
	-	Mounting bracket	MB-BS18MM-M4	2049694

B

	Material	Description	Model name	Part no.
Universal bar clamp systems				
	Zinc diecast	Universal bar clamp for mounting bars with 12 mm diameter	BEF-KHS-KH3	5322626*^
	Zinc plated steel (sheet), Diecast zinc (clamp)	Plate N06 for universal clamp bracket, M18	BEF-KHS-N06	2051612*^
	Steel, zinc coated	Mounting bar, straight, 200 mm, steel	BEF-MS12G-A	4056054*^
		Mounting bar, straight, 300 mm, steel	BEF-MS12G-B	4056055*^
		Mounting bar, L-shaped, 150 mm x 150 mm, steel	BEF-MS12L-A	4056052*^
		Mounting bar, L-shaped, 250 x 250 mm, steel	BEF-MS12L-B	4056053*^
		Mounting bar, Z-shaped, 150 mm x 70 mm x 150 mm, steel	BEF-MS12Z-A	4056056*
		Mounting bar, Z-shaped, 150 mm x 70 mm x 250 mm, steel	BEF-MS12Z-B	4056057*
	Aluminum	Bar clamp for bar diameter of 12 mm (fixing the mounting rod)	BEF-RMC-D12	5321878*^

	Material	Description	Mounting system type	Reflective area	Type	Part no.	HL18	HL18G/T	HL18L
Reflectors									
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^	●	●	–
				38 mm x 15 mm	PL20A	1012719*^	●	●	–
				56 mm x 28 mm	PL30A	1002314*^	●	●	–
				37 mm x 56 mm	PL40A	1012720*^	●	●	–
				80 mm x 80 mm	PL80A	1003865*^	●	●	–
	PMMA/ABS	Rectangular, self-adhesive	Self-adhesive	38 mm x 15 mm	PL21A	1015172*	●	●	–
	PMMA/ABS	Fine triple, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250F	5308843*^	–	–	●
				18 mm x 18 mm	PL10F	5311210*	–	–	●
				38 mm x 16 mm	PL20F	5308844*	–	–	●
				56 mm x 28 mm	PL30F	5326523	–	–	●
				76 mm x 45 mm	PL81-1F	5325060	–	–	●

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	Material	Description	Mounting system type	Reflective area	Type	Part no.	HL18	HL18G/T	HL18L
Reflectors									
	PMMA/ABS	Fine triple, self-adhesive	Self-adhesive	Ø 23 mm	P25F-1	5319385	–	–	●
	PMMA/ABS	Reflector with microprismatic reflex tape REF-AC1000	Screw-on, 2 hole mounting	23 mm x 23 mm	P41F	5315128	–	–	●
	Plastic	Fine triple, chemically resistant	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10F CHEM	5321636*	–	–	●
				16 mm x 38 mm	PL20F-CHEM	5326089	–	–	●
	PMMA/ABS	Round, screw connection	Center hole mounting, screw-on	Ø 80 mm	C110A	5304549*^	●	●	–
		Round, self-adhesive	Self-adhesive	Ø 22 mm	PL22-2	1003621	●	●	–
	Stainless steel V4A (1.4404, 316L)	Stainless steel reflector, hygienic design, chemically resistant, enclosure rating IP69K	D12-adapter shaft	25 mm x 25 mm	PLH25-D12	2063404*^	●	●	–
Reflective tape									
	-	Suitable for laser sensors, self-adhesive, cut, see alignment note	Self-adhesive	56.3 mm x 56.3 mm	REF-AC1000-56	4063030	–	–	●
	-	Self-adhesive	Self-adhesive	50 mm x 60 mm	REF-IRF-56	5314244	●	●	–
	-	Self-adhesive, roll	Self-adhesive	50 mm x 912 mm	REF-PLUS-50	4086634*^	●	●	–

B



At a glance

- Laser emitter LED enclosed in a cylindrical M18 housing
- Laser class 1
- Fast response time
- Straight or right-angle housing
- Durable metal housing
- IP 67
- Small visible light spot to detect small objects

Your benefits

- Lowest-cost laser sensor in M18 cylindrical housing saves installation costs
- Time-saving installation and alignment with highly visible light spot
- Laser class 1 does not require increased safety measures or markings, reducing installation costs
- Fast response time ensures reliable object detection at high speeds and increases machine throughput

➜ www.mysick.com/en/V18_Laser

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/V18_Laser

VTE18L

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Switching mode:** Light/dark-switching
- **Adjustment:** Cable, Single teach-in button
- **Connection:** Connector M12, 4-pin

Housing design	Sensing range max. [1]	Light spot size (distance)	Output type	Model name	Part no.
Axial	0 mm ... 400 mm	Ø 8 mm (300 mm)	PNP	VTE18L-4P324	6027418
Radial	2 mm ... 250 mm	Ø 5 mm (200 mm)	PNP	VTE18L-4P344	6027422

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

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VL18L

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Light spot size (distance):** Ø 9 mm (35 m)
- **Switching mode:** Light/dark-switching
- **Adjustment:** Cable, Single teach-in button
- **Connection:** Connector M12, 4-pin

Housing design	Sensing range max. [1]	Output type	Model name	Part no.
Axial	0.1 m ... 35 m	PNP	VL18L-4P324	6027430*^
Radial	0.1 m ... 35 m	PNP	VL18L-4P344	6027434*

[1] P250F.

VSE18L

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** Ø 40 mm (50 m)
- **Switching mode:** Light/dark-switching
- **Adjustment:** Potentiometer, 270 °
- **Connection:** Connector M12, 4-pin

Housing design	Sensing range max.	Output type	Model name	Part no.
Axial	0 m ... 60 m	PNP	VSE18L-4P324	6027931*
Radial	0 m ... 60 m	PNP	VSE18L-4P344	6027935

B



At a glance

- IP 69K-rated cylindrical photoelectric sensors in M18 stainless steel housing
- Resistant to all common cleaning agents and certified by independent institutes
- Extended temperature range: +85° C (long-term), +100°C / 15 min. (short-term)
- Touch (smart) teach-in adjustment
- All sensor materials, including the housing, LED and lens are resistant to chemicals
- IP 69K and IP 68 according to DIN 40050
- Laser-etched part numbers
- Ecolab & JohnsonDiversey certified for chemical resistance

Your benefits

- Simple, time-saving design ensures easy mounting, alignment and replacement
- IP 69K-rated stainless steel housing has a long service life that withstands wash down environments, reducing maintenance time and costs
- Unique touch-teach feature and lock/unlock functionality allow users to control who can change the sensor setting, which reduces the chances of disturbing a proven process and saves commissioning and maintenance time
- Laser-etched part numbers ensures the part numbers will not be washed off, saving maintenance time

→ www.mysick.com/en/V18V

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/V18V

VTF18V

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Switching mode:** Light/dark-switching
- **Adjustment:** Single teach-in button
- **Connection:** Connector M12, 4-pin PPS (Griamid)

Sensing range max. [1]	Light spot size (distance)	Output type	Model name	Part no.
0 mm ... 110 mm	Ø 15 mm (100 mm)	PNP	VTF18-4P1240V	6035487
		NPN	VTF18-4N1240V	6035488

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

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VTE18V

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** E-nergetic
- **Switching mode:** Light/dark-switching
- **Adjustment:** Single teach-in button
- **Connection:** Connector M12, 4-pin PPS (Griamid)

Sensing range max. [1]	Light spot size (distance)	Output type	Model name	Part no.
0 mm ... 450 mm	Ø 60 mm (400 mm)	PNP	VTE18-4P4240V	6035489*^
		NPN	VTE18-4N4240V	6035490*
0 mm ... 900 mm	Ø 100 mm (800 mm)	PNP	VTE18-4P8240V	6035491
		NPN	VTE18-4N8240V	6035492

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

VTB18V

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Switching mode:** Light/dark-switching
- **Adjustment:** Single teach-in button
- **Connection:** Connector M12, 4-pin PPS (Griamid)

Sensing range max. [1]	Light spot size (distance)	Output type	Model name	Part no.
0 mm ... 140 mm	Ø 15 mm (130 mm)	PNP	VTB18-4P1240V	6035493*
		NPN	VTB18-4N1240V	6035494

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

VL18V, clear material detection

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Switching mode:** Light/dark-switching
- **Connection:** Connector M12, 4-pin PPS (Griamid)

Sensing range max. [1]	Light spot size (distance)	Output type	Model name	Part no.
0.035 m ... 4.5 m	Ø 60 mm (1 m)	PNP	VL18-4P2240V	6035497*^

[1] PL80A.

B

VL18V

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Switching mode:** Light/dark-switching
- **Connection:** Connector M12, 4-pin PPS (Griamid)

Sensing range max. [1]	Light spot size (distance)	Output type	Model name	Part no.
0.1 m ... 5 m	Ø 200 mm (4.5 m)	PNP	VL18-4P3140V	6035495*^
		NPN	VL18-4N3140V	6035496

[1] PL80A.

VS/VE18V

- **Sensor principle:** Through-beam photoelectric sensor
- **Switching mode:** Light/dark-switching
- **Connection:** Connector M12, 4-pin PPS (Griamid)

Sensing range max.	Light spot size (distance)	Output type	Model name	Part no.
0 m ... 20 m	Ø 600 mm (15 m)	PNP	VS/VE18-4P3140V	6035499*^
		NPN	VS/VE18-4N3140V	6035500

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Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Stainless steel	Mounting plate for M18 sensors	BEF-WG-M18N	5320948*^
		Mounting bracket, M18 thread	BEF-WN-M18N	5320947*^
Universal bar clamp systems				
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N06N for universal clamp bracket, M18,Items supplied: Universal clamp, mounting hardware	BEF-KHS-N06N	2051622*^
	Stainless steel	Mounting ring, without mounting hardware	BEF-WN-MH15-2V	4053358

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	Plastic	Fine triple, chemically resistant, screw connection	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10FCHEM	5321636*
				38 mm x 15 mm	PL20CHEM	5321089*
				47 mm x 47 mm	P250CHEM	5321097*^
	PMMA/ABS	Antifog, for prevention of moisture fogging on the reflection area, screw connection	Screw-on, 2 hole mounting	56 mm x 37 mm	PL40A Antifog	5322011

B



At a glance

- Low-cost M18 housing sensor on the market
- Long sensing distances: 100 mm, 400 mm, 800 mm (proximity sensor), 300 mm (proximity sensor with BGS), 6 m (retro-reflective sensor) and 20 m (through-beam sensor)
- Bright power and signal LEDs with 360° visibility
- Wide product portfolio solves a broad range of applications
- High switching frequencies up to 1000 Hz
- Available in a metal housing for applications in harsh environments
- Optical axis selectively axial or radial (90°)

Your benefits

- Low-cost M18 cylindrical sensor on the market reduces installation costs
- Bright red sender LED simplifies alignment and saves installation time
- Bright power and signal LEDs with 360° visibility offer quick and simple trouble-shooting, reducing maintenance time and costs
- The flat and smooth lens reduces the collection of dust and dirt, ensuring safe operation with less maintenance and fewer costs

➜ www.mysick.com/en/V180-2

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/V180-2

VTB180-2, Metal

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light spot size (distance):** Ø 15 mm (300 mm)
- **Adjustment:** Potentiometer, 4 turns

Sensing range max. [1]	Optical axis	Output type	Switching mode	Connection	Model name	Part no.
10 mm ... 350 mm	Axial	PNP	Light/dark-switching [2]	Connector M12, 4-pin	VTB180-2P42412	6043870*
		PNP	Light/dark-switching [2]	Cable, 4-wire, 2 m	VTB180-2P41112	6043869*^
	Axial	NPN	Light/dark-switching [3]	Connector M12, 4-pin	VTB180-2N42412	6043868
		NPN	Light/dark-switching [3]	Cable, 4-wire, 2 m	VTB180-2N41112	6043867

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

[2] Control wire open: dark-switching D.ON.

[3] Control wire open: light-switching L.ON.

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VL180-2, Metal

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Adjustment:** Potentiometer, 270 °

Sensing range max. [1]	Light spot size (distance)	Optical axis	Output type	Switching mode	Connection	Model name	Part no.
0.05 m ... 5.5 m	Ø 270 mm (4 m)	Radial	PNP	Light/dark-switching [2]	Connector M12, 4-pin	VL180-2P42433	6043834*^
					Cable, 4-wire, 2 m	VL180-2P41133	6043832
0.05 m ... 7 m	Ø 400 mm (6 m)	Axial	PNP	Light/dark-switching [2]	Connector M12, 4-pin	VL180-2P42431	6041819*
			NPN	Light/dark-switching [3]	Connector M12, 4-pin	VL180-2N42431	6041817
			PNP	Light/dark-switching [2]	Cable, 4-wire, 2 m	VL180-2P41131	6041818*
			NPN	Light/dark-switching [3]	Cable, 4-wire, 2 m	VL180-2N41131	6041816

[1] PL80A.

[2] Control wire open: dark-switching D.ON.

[3] Control wire open: light-switching L.ON.

VSE180-2, Metal

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** Ø 1,100 mm (20 m)
- **Adjustment:** Potentiometer, 270 ° (Receiver.)
- **Connection:** Connector M12, 4-pin

Sensing range max.	Optical axis	Output type	Switching mode	Connection	Model name	Part no.
0 m ... 25 m	Radial	PNP	Light/dark-switching [1]	Connector M12, 4-pin	VSE180-2P42434	6043850*^
		NPN	Light/dark-switching [2]	Cable, 4-wire, 2 m	VSE180-2N41134	6043847
0 m ... 28 m	Axial	PNP	Light/dark-switching [1]	Connector M12, 4-pin	VSE180-2P42432	6041823*
		NPN	Light/dark-switching [2]	Connector M12, 4-pin	VSE180-2N42432	6041821

[1] Control wire open: dark-switching D.ON.

[2] Control wire open: light-switching L.ON.

B

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates				
	Steel, zinc coated	Mounting plate for M18 sensors, without mounting hardware	BEF-WG-M18	5321870
		Mounting bracket, M18 thread, without mounting hardware	BEF-WN-M18	5308446*^
Universal bar clamp systems				
	Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	Plate N06 for universal clamp bracket, M18, Items supplied: Universal clamp (5322626), mounting hardware	BEF-KHS-N06	2051612*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	PMMA/ABS	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	P250	5304812*^
				37 mm x 56 mm	PL40A	1012720*^
				80 mm x 80 mm	PL80A	1003865*^

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At a glance

- Cylindrical M18 housing
- Three adjustable sensing distances of 100 mm, 200 mm or 400 mm
- Voltage supply of 20 to 253 V AC with TRIAC output

Your benefits

- Simple, standardized design ensures easy mounting, alignment and replacement
- For connection to alternating voltage

→ www.mysick.com/en/V18

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/V18

VT18-2, PVC

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Light spot size (distance):** 48 mm (400 mm)
- **Adjustment:** no/fix
- **Connection:** Cable, 3-wire 2 m

Sensing range max. [1]	Optical axis	Output type	Switching mode	Model name	Part no.
2 mm ... 400 mm	Axial	TRIAC	Light switching	VT18-2T1152	6011372*

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

VL18-2, PVC

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light spot size (distance):** 30 mm (3 m)
- **Adjustment:** no/fix
- **Connection:** Cable, 3-wire 2 m

Sensing range max. [1]	Optical axis	Output type	Switching mode	Model name	Part no.
0.005 m ... 3.5 m	Axial	TRIAC	Dark switching	VL18-2T2162	6011377

[1] C110A

B

VS/VE18-2, PVC

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** 800 mm (16 m)
- **Connection:** Cable, 3-wire 2 m

Sensing range max.	Optical axis	Output type	Switching mode	Model name	Part no.
0 m ... 22 m	Axial	TRIAC	Dark switching	VS/VE18-2T2132	6011380

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Steel, zinc coated	Mounting plate for M18 sensors	BEF-WG-M18	5321870
		Mounting bracket, M18 thread	BEF-WN-M18	5308446[*^]

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At a glance

- Field-tested resistance to acidic and alkaline cleaning and disinfecting agents
- Corrosion-resistant stainless steel housing 316L, certified by ECOLAB und Johnson-Diversey
- IP 69K-rated housing is resistant to wash down environments
- Available as complete family including proximity, BGS, retro-reflective and through-beam
- 3 mm chemical resistant sensor lens

Your benefits

- Field-tested, compact, stainless steel IP 69K design of the MH15V reduces downtime and replacement costs
- 3 mm flat, chemically resistant material of the sensor lens offers a long service life, reducing maintenance time and costs
- Reliable object detection, even in difficult environments reduces miscount and increases machine throughput
- Short M18 housing with flush mounting fits in tight areas, which saves machine space
- ECOLAB and JohnsonDiversey certified MH15V are suitable for hygienic environments, reducing maintenance costs
- Innovative stainless steel mounting accessories provide fast and low-cost installation

→ www.mysick.com/en/MH15V

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/MH15V

MHT15

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Switching mode:** Light switching
- **Adjustment:** Potentiometer, 270 °
- **Type of light:** Infrared light
- **Connection:** Connector M12, 4-pin

Sensing range max. [1]	Light spot size (distance)	Output type	Model name	Part no.
10 mm ... 100 mm	Ø 20 mm (100 mm)	PNP	MHT15-P3317V	1043806
10 mm ... 350 mm	Ø 50 mm (350 mm	PNP	MHT15-P3347V	1043811*
		NPN	MHT15-N3347V	1043809

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

MHTB15

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Switching mode:** Light switching
- **Adjustment:** Potentiometer, 270 °
- **Type of light:** Visible red light
- **Connection:** Connector M12, 4-pin

Sensing range max. [1]	Light spot size (distance)	Output type	Model name	Part no.
3 mm ... 300 mm	7 mm (100 mm)	PNP	MHTB15-P3367V	1046537*^
		NPN	MHTB15-N3367V	1046536

[1] Object with 90 % reflectance (referred to standard white, DIN 5033)

B

MHL15

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Switching mode:** Dark switching
- **Type of light:** Visible red light
- **Connection:** Connector M12, 4-pin

Sensing range max. [1]	Light spot size (distance)	Output type	Model name	Part no.
0.035 m ... 5 m	Ø 80 mm (3.5 m)	PNP	MHL15-P3236V	1043814*^
		NPN	MHL15-N3236V	1043812

[1] PL80A

MHL15

- **Sensor principle:** Through-beam photoelectric sensor
- **Switching mode:** Dark switching
- **Type of light:** Visible red light
- **Connection:** Connector M12, 4-pin

Sensing range max.	Light spot size (distance)	Output type	Model name	Part no.
0 m ... 5 m	Ø 65 mm (4 m)	PNP	MHSE15-P3236V	1043818*^
		NPN	MHSE15-N3236V	1043816

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Stainless steel	Mounting plate for M18 sensors	BEF-WG-M18N	5320948*^
		Mounting bracket, M18 thread	BEF-WN-M18N	5320947*^
Universal bar clamp systems				
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N06N for universal clamp bracket, M18,Items supplied: Universal clamp, mounting hardware	BEF-KHS-N06N	2051622*^
	Stainless steel	Mounting ring, without mounting hardware	BEF-WN-MH15-2V	4053358

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	Plastic	Fine triple, chemically resistant, screw connection	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10FCHEM	5321636*
				38 mm x 15 mm	PL20CHEM	5321089*
				47 mm x 47 mm	P250CHEM	5321097*^

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At a glance

- Rapid response time (50 µs)
- Switching threshold adjustment via potentiometer, or teach-in via button or cable
- Four different teach-in modes
- Simple installation
- Red or green LED emitter

Your benefits

- Reliable, rapid process detection
- Low installation costs due to short commissioning time
- Flexible teach-in modes allow the sensor to be customized according to the specific application
- Emitted light ideal for color or contrast detection
- Easy programming via simple potentiometer and switch adjustment

→ www.mysick.com/en/WLL170-2

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/WLL170-2

WLL170-2

- **Type of light:** Visible red light
- **Adjustment:** Potentiometer, 10-turn (Scale 270°.)

Response time	Sensing range max. [1]	Switching mode	Connection	Model name	Part no.
≤ 0.25 ms	0 mm ... 4,000 mm, through-beam system	PNP	Male connector, M8, 4-pin	WLL170-2P430	6029514*^
		NPN	Connector M8, 4-pin	WLL170-2N430	6029518*

[1] LL3-TB02 and tip adapter LL3-TA01.

WLL170T-2

- **Type of light:** Visible red light
- **Adjustment:** Teach-in button, cable

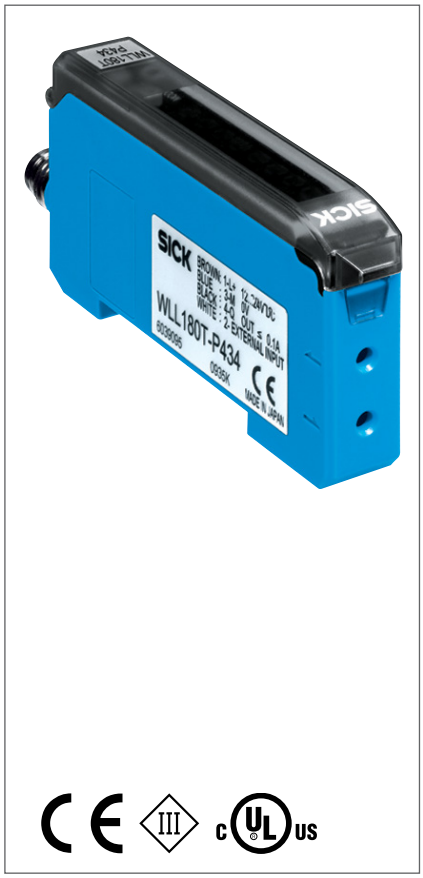
Response time	Sensing range max. [1]	Switching mode	Connection	Model name	Part no.
≤ 0.25 ms	0 mm ... 3,500 mm, through-beam system	PNP	Male connector, M8, 4-pin	WLL170T-2P430	6033950
≤ 50 µs	0 mm ... 1,600 mm, through-beam system	PNP	Connector M8, 4-pin	WLL170T-2P490	6033956
		NPN	Connector M8, 4-pin	WLL170T-2N490	6033959

[1] LL3-TB02 and tip adapter LL3-TA01.

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Steel, zinc coated	Mounting bracket	BEF-WLL170	5306574

B



At a glance

- Selectable response time up to 16 µs
- Sensing range up to 20 m (Through-beam system); up to 1400 mm (proximity system)
- Bus-compatible with anti-interference
- 2 x 4-digit display
- Adjustable hysteresis
- Rotatable display screen
- High-resolution signal processing
- Programmable time delays

Your benefits

- Reliable, rapid process detection, even under the most difficult ambient conditions, such as dust, spray or mist
- Easy commissioning and product changeover due to external teach-in
- Cross-talk is eliminated when utilizing bus configuration option
- Quick, easy setup and adjustment due to an intuitive operating menu
- Flexible parameter adjustment due to high-resolution signal processing. Hysteresis and time delays can be adapted to suit the application, e.g., when detecting tiny or transparent objects
- Easy-to-read display, even under difficult installation conditions

➜ www.mysick.com/en/WLL180T

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/WLL180T

Stand-alone

- **Type of light:** Visible red light
- **Adjustment:** Teach-in button, cable, +/– increment button, manual
- **Sensing range max.:** 0 m ... 20 m, through-beam system (Sensing range with 8 ms response time. Reduction with shorter response time (see tables LL3/WLL180T)) (LL3-TX01.)

Output type	Connection	Model name	Part no.
PNP	Male connector, M8, 4-pin	WLL180T-P434	6039095*^
NPN	Male connector, M8, 4-pin	WLL180T-N434	6039096*

Base unit

- **Type of light:** Visible red light
- **Adjustment:** Teach-in button, cable, +/– increment button, manual
- **Sensing range max.:** 0 m ... 20 m, through-beam system (Sensing range with 8 ms response time. Reduction with shorter response time (see tables LL3/WLL180T)) (LL3-TX01.)

Output type	Connection	Model name	Part no.
PNP	Male connector, M8, 4-pin	WLL180T-M434	6039101

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Expansion unit

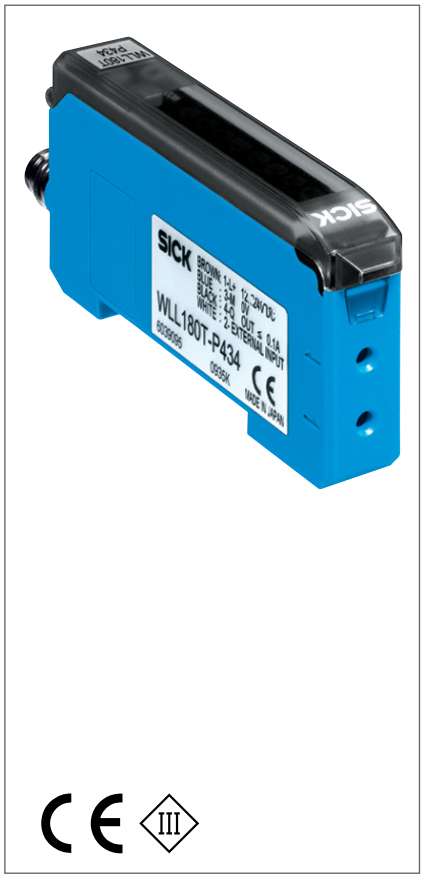
- **Type of light:** Visible red light
- **Adjustment:** Teach-in button, cable, +/– increment button, manual
- **Sensing range max.:** 0 m ... 20 m, through-beam system (Sensing range with 8 ms response time. Reduction with shorter response time (see tables LL3/WLL180T)) (LL3-TX01.)

Output type	Connection	Model name	Part no.
PNP	Male connector, M8, 4-pin	WLL180T-F434	6039102

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Steel, zinc coated	Mounting bracket	BEF-WLL170	5306574
Other mounting accessories (mounting hardware included)				
	Stainless steel	Rail end piece for block mounting	BF-EB01-W190	5313011

B



At a glance

- Sensing range up to 4 m, sensing distance up to 480 mm
- Two separately adjustable channels
- Alarm output
- Optional analog output
- Integrated counter
- Bus-compatible with anti-interference
- 2 x 4-digit display
- Red and green LED emitter

Your benefits

- Two channels can be configured independently of one another, simplifying installation
- Simple commissioning and product changeover via external teach-in
- Bus communication saves space and money, reduces wiring and eliminates interference caused by fiber-optic heads mounted close to one another
- Easy monitoring of process parameters
- Time delays can be adjusted individually to suit the application
- APC for (Automatic Power Correction) long-term, stable detection
- Alarm output for reliable detection in adverse conditions, ensuring high process reliability

➜ www.mysick.com/en/WLL190T

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/WLL190T

Stand-alone

- **Type of light:** Visible red light
- **Adjustment:** Teach-in button, cable, +/– increment button, manual
- **Sensing range max.:** 0 m ... 4 m, through-beam system

Output type	Connection	Model name	Part no.
PNP	Connector, M8, 4-pin	WLL190T-2P434	6032553*^
NPN	Connector, M8, 4-pin	WLL190T-2N434	6032554
Analogue, PNP	Connector, M8, 4-pin	WLL190T-2P532	6032557

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At a glance

- Fiber-optic cable for proximity version
- Fiber-optic cable for through-beam version
- Mounting bracket is included
- Light/dark switching
- M12 connector or easily accessible terminal connection compartment
- Models for 10 - 30 V DC or 12 - 240 V DC/ 24 – 240 V AC voltage supply

Your benefits

- A diverse range of fiber-optic cables provide reliable detection of objects, even in the tightest of spaces
- Controls are protected under a cover, reducing tampering
- Easily accessible terminal connection
- M12 connector or easily accessible terminal connection compartment simplifies electrical connection
- Assembly compatibility - DC devices and DC/AC devices available in the same design

➜ www.mysick.com/en/WLL260

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/WLL260

WLL260

- **Type of light:** Visible red light
- **Adjustment:** Potentiometer, 270°
- **Sensing range max.:** 0 mm ... 110 mm, proximity system, 0 mm ... 65 mm, proximity system, 0 mm ... 800 mm, through-beam system

Output type	Connection	Model name	Part no.
Relay	Cable gland	WLL260-R240	6009503*

B



At a glance

- Very large selection of plastic and glass fiber-optic cables.
- Fiber-optic cables resistant to chemicals and high temperature
- Threaded and smooth sleeves, bands of light (array), 90° reflection versions available
- Focused optics
- Proximity and through-beam versions available
- Plastic, protective metal or Teflon sheathing available

Your benefits

- Very large selection of fiber-optic cables with plastic and glass fibers, giving users more application flexibility
- Resistant to damage caused by mechanical and chemical stress, as well as high temperatures
- Standard and customer-specific types
- Simple installation saves time
- For detection of objects, surfaces, leading edges, and fluid levels

➜ www.mysick.com/en/LL3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/LL3

Fibers, proximity system

- **Heat resistance:** 70 °C
- **Ambient operating temperature:** -40 °C ... 70 °C
- **Fiber-optic cable cuttable :** ✔ [1]

Category fiber-optic cables	Diameter, connection	Fiber length	Minimal object diameter [2]	Bend radius, fibre-optic cable	Model name	Part no.
Threaded sleeve	1.3 mm	2,000 mm	0.015 mm	15 mm	LL3-DT01	5308076*
	2.2 mm	2,000 mm	0.015 mm	25 mm	LL3-DB01	5308074*^
90° deflection, Threaded sleeve, Long end sleeve	2.2 mm	2,000 mm	0.025 mm	25 mm	LL3-DV03	5308090
Threaded sleeve, Heat-resistant	1.3 mm	1,000 mm	0.015 mm	25 mm	LL3-DH83	5313032
Threaded sleeve	2.2 mm	10,000 mm	0.015 mm	25 mm	LL3-DB01-10	5308075

[1] FC fiber optic cable cutter included in delivery.

[2] Minimum detectable object was determined at optimal measuring distance and optimal setting.

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Fibers, through-beam system

- **Heat resistance:** 70 °C
- **Ambient operating temperature:** -40 °C ... 70 °C
- **Fiber-optic cable cuttable :** ✔ [1]

Category fiber-optic cables	Diameter, connection	Fiber length	Minimal object diameter [2]	Bend radius, fibre-optic cable	Model name	Part no.
Threaded sleeve (order 1 for a set)	2.2 mm	2,000 mm	0.5 mm	30 mm	LL3-TB01	5308050*^
		10,000 mm	0.5 mm	30 mm	LL3-TS08	5308051*
Area detection (order 1 for a set)	2.2 mm	2,000 mm	0.5 mm	25 mm	LL3-TS14	5313039

[1] FC fiber optic cable cutter included in delivery.

[2] Minimum detectable object was determined at optimal measuring distance and optimal setting.

Tip adapters

Category	Model name	Part no.
Proximity system	LL3-DA01	5308127
	LL3-DA02	5308130
Through-beam system	LL3-TA01	5308128*
	LL3-TA02	5308129

Fibre-optic cables

- Wide range of variations available
- Glass fibres with stainless steel outer sheath
- Proximity, through beam and area versions available
- Ideal for wash down and aggressive environments
- LISR40900 perfect for press part ejection detection

Category	Model name	Part no.
Proximity Beam, Threaded (5/16 x 24) with Right Angled Tip, 900mm Long	LBST32900	7020046
Proximity Beam, Threaded (5/16 x 24) with Straight Tip, 900mm Long	LBSTA32900	7020048
Through Beam, Threaded (5/16 x 24) with Straight Tip, 900mm Long (order 2 for a set)	LIST32900	7020045
Through Beam, Threaded (5/16 x 24) with Right Angle Tip, 900mm Long (order 2 for a set)	LISTA32900	7020047
Through Beam, “Flat Cable Cell” Creates 38mm Wide Beam, 900mm Long (order 2 for a set)	LISR40900	7020051

Recommended accessories

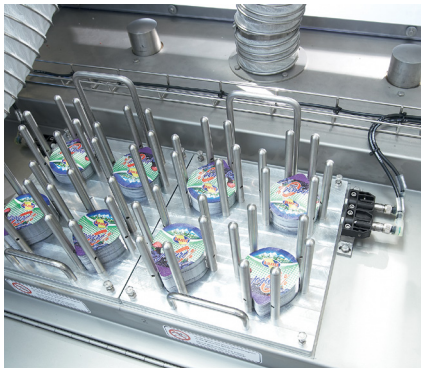
	Description	Model name	Part no.
Other mounting accessories			
	Adapter sleeve for fibers LL3 Ø 1.0 mm, included with delivery of LL3	BF-WLL160-10	5305479
	Adapter sleeve for fibers LL3 Ø 1.3 mm, included with delivery of LL3	BF-WLL160-13	5306094
	Cutter for fibers, supplied with LL3	FC	5304141

C

PROXIMITY SENSORS







Reliable, powerful, rugged. Proximity sensors from SICK.

Proximity sensors provide non-contact detection of a wide variety of objects and media. SICK's sensors are perfectly suited to industrial applications and requirements. SICK's inductive, capacitive and magnetic proximity sensors offer a long service life, extreme ruggedness and the utmost precision. SICK intelligently and reliably solves industry-specific and individual automation tasks.

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C



Selection guide proximity sensors C-124



SAM C-126
The simple and intelligent way of speed monitoring



IM Miniature C-127
Space-saving miniature inductive sensors



IME C-128
The industry standard for inductive sensors



IM Triplex C-132
Inductive sensors with triple sensing range



IM Inox C-134
Single-piece stainless steel sensors for the highest demands



IMB C-136
The rugged standard for use in harsh environments



IMF C-142
Inductive sensors for washdown environments



IMA C-144
Analog inductive sensors with triple sensing distance for continuous feedback



IQ Miniature C-146
Rectangular, small and space-saving



IQ Standard C-147
Industry-proven – the first choice for reliable detection



IQG C-148
Compact and quick to mount – for use in harsh environments



IQ Flat C-150
Low profile sensors when space is at a premium



IMP C-151
High pressure resistant sensors for hydraulic applications



CM C-152
Sensors in cylindrical housing



CQ C-154
Reliable capacitive proximity sensors enclosed in a rectangular housing



MM C-155
Magnetic proximity sensors in common M8, M12, and M18 cylindrical housing



MQ C-157
Magnetic proximity sensors in a rectangular housing

C

SELECTION GUIDE PROXIMITY SENSORS

Product	Housing																				Sensor properties					
	Material					Design			Thread size						Diameter dimensions in mm											
	Stainless steel	Nickel-plated brass	Plastic	VISTAL™	Enclosure rating IP 69k	Rectangular	Cylindrical threaded	Cylindrical smooth	M4	M5	M8	M12	M18	M30	Sleeve diameter: ≤ 4	Sleeve diameter: 6.5 ... 34	5 x 5 x 25 ... 8 x 8 x 40	8 x 16 x 4 ... 80 x 60 x 105	40 x 40 x 66 ... 80 x 40 x 105	NAMUR output	Analog output	All-metal housing	Triple sensing range	High mechanical load capability		
Inductive MultiTask sensors																										
SAM		■					■						■	■												
Inductive proximity sensors																										
IM Miniature	■						■		■	■																
IME		■					■				■	■	■	■												
IM Triplex		■					■				■	■	■	■									■			
IM Inox	■				■		■					■	■	■								■	■	■		
IMB	■				■		■				■	■	■	■										■		
IMF	■				■		■					■	■											■		
IMA		■					■				■	■	■	■							■		■			
IQ Miniature			■	■		■											■							■		
IQ Standard			■	■		■												■	■					■		
IQG			■			■													■							
IQ Flat		■	■			■												■								
IMP	■									■	■	■														
Capacitive proximity sensors																										
CM			■				■						■	■												
CQ			■			■												■								
Magnetic proximity sensors																										
MM		■					■				■	■	■							■						
MQ		■				■												■								

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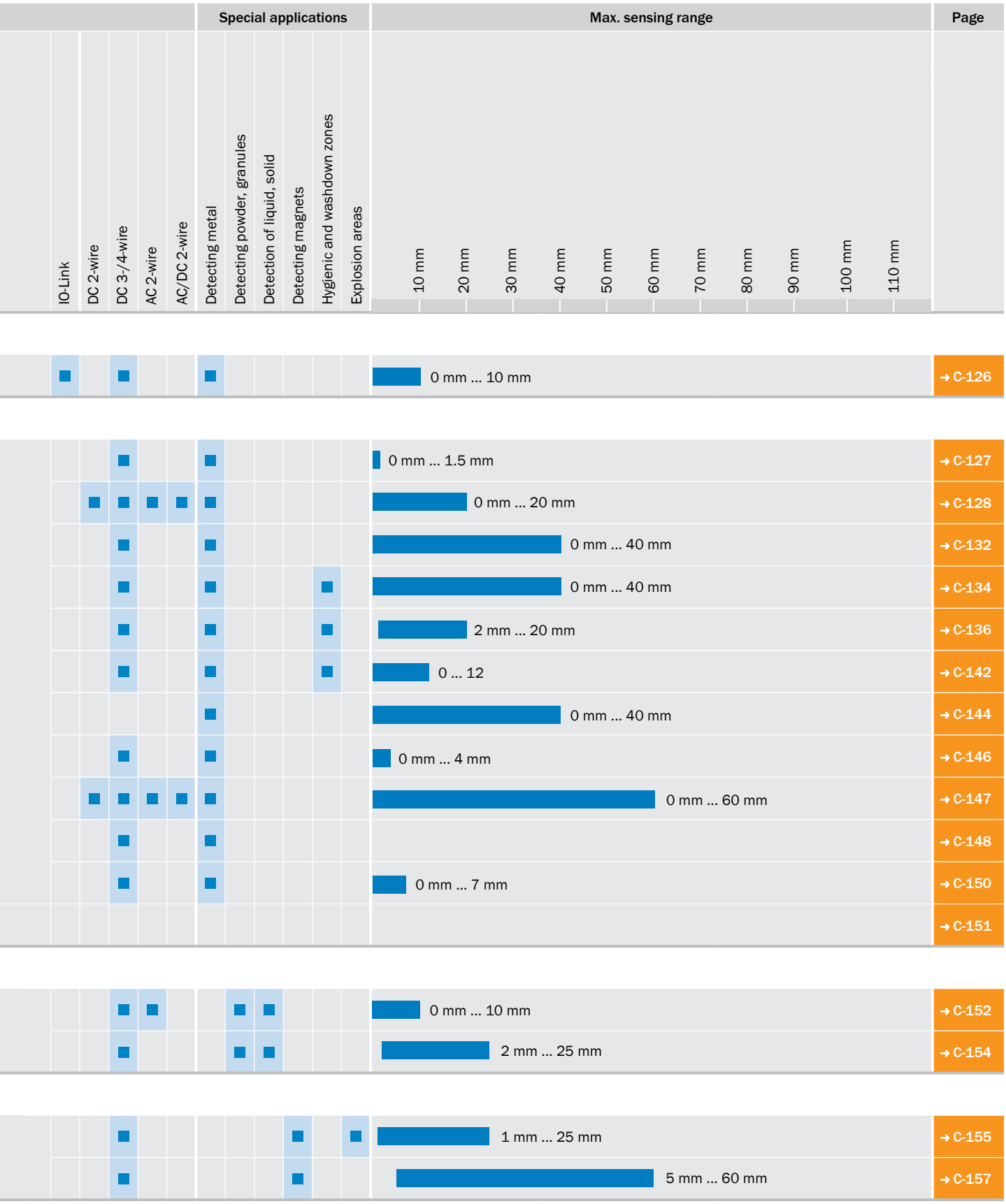
IO-Link
DC 2-wire
DC 3-/4-wire
AC 2-wire
AC/DC 2-wire
Special applications
Detecting metal
Detecting powder, granules
Detection of liquid, solid
Detecting magnets
Hygienic and washdown zones
Explosion areas
Max. sensing range
10 mm
20 mm
30 mm
40 mm
50 mm
60 mm
70 mm
80 mm
90 mm
100 mm
110 mm
Page
0 mm ... 10 mm
→ C-126
0 mm ... 1.5 mm
→ C-127
0 mm ... 20 mm
→ C-128
0 mm ... 40 mm
→ C-132
0 mm ... 40 mm
→ C-134
2 mm ... 20 mm
→ C-136
0 ... 12
→ C-142
0 mm ... 40 mm
→ C-144
0 mm ... 4 mm
→ C-146
0 mm ... 60 mm
→ C-147
→ C-148
0 mm ... 7 mm
→ C-150
→ C-151
0 mm ... 10 mm
→ C-152
2 mm ... 25 mm
→ C-154
1 mm ... 25 mm
→ C-155
5 mm ... 60 mm
→ C-157

C



At a glance

- Speed and acceleration monitoring
- Monitoring range: 6 to 12,000 pulses/min. and 0.1 to 2 pulses/sec.[2]
- Switching and pulse output
- Intelligent start-up delay
- Speed monitoring can be flexibly configured via two thresholds
- Flexible sensor settings, monitoring, extended diagnostics, and visualization thanks to IO-Link
- Sensing range: 7 mm flush
- Type M18

Your benefits

- Speed-independent detection of speed changes
- Faster detection of speed changes than conventional speed monitors
- No readjustment after speed changes necessary
- Precise and convenient configuration via software
- IO-Link provides easy data access from the PLC
- No time-consuming, individual configuration of start-up delay feature necessary
- Reliable output signal thanks to adjustable speed thresholds (hysteresis)
- No expensive counter cards necessary in PLC

➜ www.mysick.com/en/SAM

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/SAM

SAM M18

- **Housing:** M18 x 1
- **Installation type:** Flush

Sensing range S_n	Output function	Output type	Connection	Model name	Part no.
7 mm	NO	PNP	Connector M12, 4-pin	IMC18-07BPDZC0SA05	1061987

SAM M30

- **Housing:** M30 x 1
- **Installation type:** Flush

Sensing range S_n	Output function	Output type	Connection	Model name	Part no.
10 mm	NO	PNP	Connector M12, 4-pin	IMC30-10BPDZC0SA05	1061704

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At a glance

- M4 and M5 sizes available
- Small housing sizes and light weight
- Integrated LED indicator
- Rugged stainless steel housing

Your benefits

- Trouble-free installation in space-critical applications provides a high degree of design freedom, saving machine space
- Reliable detection of rapid handling and assembly processes increases throughput
- High-visibility indicator LED for simple monitoring of operational state reduces commissioning time
- High positioning accuracy increases machine throughput
- High resistance to shock and vibrations reduces maintenance costs

→ www.mysick.com/en/IM_Miniature

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/IM_Miniature

IM04

- **Housing:** M4 x 0.5
- **Installation type:** Flush

Sensing range S_n	Output function	Output type	Connection	Model name	Part no.
0.6 mm	NO	PNP	Cable, 3-wire, 2 m, PUR	IM04-0B6PS-ZU1	6020145*

IM05

- **Housing:** M5 x 0.5
- **Installation type:** Flush

Sensing range S_n	Output function	Output type	Connection	Model name	Part no.
0.8 mm	NO	PNP	Cable, 3-wire, 2 m, PVC	IM05-0B8PS-ZW1	6011591*^
			Connector M8, 3-pin	IM05-0B8PS-ZT1	6020110*

C



At a glance

- M8 to M30 sizes available
- Precise operating ranges due to ASIC technology
- Extra tough thanks to high fastener torque and hot melt adhesive filling
- Operating range from 1.5 mm to 20 mm
- IP 67 enclosure rating
- Operating temperature from –25° C to +70° C
- DC, AC and AC/DC versions available
- Customer-specific models available

Your benefits

- Reduced machine downtime
- Reduced mechanical damage
- Fewer maintenance costs due to longer service life
- High resistance to shock and vibrations

➜ www.mysick.com/en/IM_Standard

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IM_Standard

IME08

- **Thread size:** M8 x 1

Housing	Sensing range S_n	Installation type	Electrical wiring	Output type	Output function	Connection	Model name	Part no.
Standard	1.5 mm	Flush	DC 3-wire	PNP	NO	Connector M8, 3-pin	IME08-1B5PSZT0S	1040838*^
					NC		IME08-1B5P0ZT0S	1040842*^
					NO	Cable, 3-wire, 2 m	IME08-1B5PSZW2S	1040840^
				NPN	NO	Connector M8, 3-pin	IME08-1B5NSZT0S	1040846*
						Cable, 3-wire, 2 m	IME08-1B5NSZW2S	1040848
Standard	2 mm	Flush	DC 3-wire	PNP	NC	Connector M8, 3-pin	IME08-02BP0ZT0S	1040874*
					NO	Cable, 3-wire, 2 m	IME08-02BPSZW2S	1040872*
						Connector M8, 3-pin	IME08-02BPSZT0S	1040870*^
Short-body				PNP	NO	Connector M8, 3-pin	IME08-02BPSZT0K	1040869*
Standard	2.5 mm	Non-flush	DC 3-wire	PNP	NC	Connector M8, 3-pin	IME08-2N5P0ZT0S	1040858
				NPN	NO		IME08-2N5NSZT0S	1040862
				PNP			IME08-2N5PSZT0S	1040854*^
Standard	4 mm	Non-flush	DC 3-wire	PNP	NO	Connector M8, 3-pin	IME08-04NPSZT0S	1040886*^

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IME12

- **Thread size:** M12 x 1

Housing	Sensing range S_n	Installation type	Electrical wiring	Output type	Output function	Connection	Model name	Part no.
Standard	2 mm	Flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME12-02BPSZC0S	1040732*^
					NC		IME12-02BPOZC0S	1040736
				NPN	NO		IME12-02BNSZC0S	1040740*
				PNP		Cable, 3-wire, 2 m	IME12-02BPSZW2S	1040734*^
				NPN			IME12-02BNSZW2S	1040742*
			AC 2-wire	-		Cable, 2-wire, 2 m	IM12-02BAS-ZU0	7902118
Short-body			DC 3-wire	PNP		Connector M12, 4-pin	IME12-02BPSZC0K	1040731*
Standard	4 mm	Non-flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME12-04NPSZC0S	1040748*^
					NC		IME12-04NPOZC0S	1040752
				NPN	NO		IME12-04NNSZC0S	1040756*^
				PNP		Cable, 3-wire, 2 m	IME12-04NPSZW2S	1040750*^
				NPN			IME12-04NNSZW2S	1040757*
		Flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME12-04BPSZC0S	1040764*^
					NC		IME12-04BPOZC0S	1040768*
					NO	Cable, 3-wire, 2 m	IME12-04BPSZW2S	1040766
				NPN		Connector M12, 4-pin	IME12-04BNSZC0S	1040772*
		Non-flush	AC 2-wire	-	NO	Cable, 2-wire, 2 m	IM12-04NAS-ZU0	7902120*^
Short-body		Flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME12-04BPSZC0K	1040763*^
						Cable, 3-wire, 2 m	IME12-04BPSZW2K	1040765
		Non-flush	DC 3-wire	PNP		Connector M12, 4-pin	IME12-04NPSZC0K	1040747*
Standard	8 mm	Non-flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME12-08NPSZC0S	1040780*
Short-body		Non-flush		PNP		Connector M12, 4-pin	IME12-08NPSZC0K	1040779*^
						Cable, 3-wire, 2 m	IME12-08NPSZW2K	1040781

C

IME18

- **Thread size:** M18 x 1

Housing	Sensing range S_n	Installation type	Electrical wiring	Output type	Output function	Connection	Model name	Part no.
Standard	5 mm	Flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME18-05BPSZC0S	1040934*^
					NC		IME18-05BPOZC0S	1040938*
				NPN	NO		IME18-05BNSZC0S	1040942*
				PNP		Cable, 3-wire, 2 m	IME18-05BPSZW2S	1040936*
				NPN			IME18-05BNSZW2S	1040944
			AC/DC 2-wire	-	NO	Cable, 2-wire, 2 m	IM18-05BUS-ZU0	7902122*^
Short-body			DC 3-wire	PNP	NO	Connector M12, 4-pin	IME18-05BPSZC0K	1040933*^
Standard	8 mm	Non-flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME18-08NPSZC0S	1040950*^
					NC		IME18-08NPOZC0S	1040954*^
				NPN	NO		IME18-08NNSZC0S	1040958
				PNP		Cable, 3-wire, 2 m	IME18-08NPSZW2S	1040952*^
				NPN			IME18-08NNSZW2S	1040944
Standard	8 mm	Flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME18-08BPSZC0S	1040966*^
						Cable, 3-wire, 2 mz	IME18-08BPSZW2S	1040968
				NPN	NO	Connector M12, 4-pin	IME18-08BNSZC0S	1040974
Standard	8 mm	Non-flush	AC/DC 2-wire	-	NO	Cable, 2-wire, 2 m	IM18-08NUS-ZU0	7902124*^
Short-body	8 mm	Flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME18-08BPSZC0K	1040965*
		Non-flush					IME18-08NPSZC0K	1040949*^
Short-body	12 mm	Non-flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME18-12NPSZC0K	1040981
Standard		Non-flush	DC 3-wire	PNP			IME18-12NPSZC0S	1040982*^

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C

IME30

- **Thread size:** M30 x 1.5

Housing	Sensing range S_n	Installation type	Electrical wiring	Output type	Output function	Connection	Model name	Part no.
Standard	10 mm	Flush	DC 3-wire	PNP	NC	Connector M12, 4-pin	IME30-10BPOZC0S	1041002
				NPN	NO		IME30-10BNSZC0S	1041006
				PNP		Cable, 3-wire, 2 m	IME30-10BPSZW2S	1041000
			AC/DC 2-wire	-	NO	Cable, 2-wire, 2 m	IM30-10BUS-ZU0	7902126*^
Short-body		Flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME30-10BPSZC0K	1040997^
Standard	15 mm	Non-flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME30-15NPSZC0S	1041014*^
				NPN			IME30-15NNSZC0S	1041022
		Flush		PNP			IME30-15BPSZC0S	1041030*
					NC		IME30-15BPOZC0S	1041034
					NO		IME30-15BPSZW2S	1041032
					NC		IME30-15BPOZW2S	1041036
		Non-flush	AC/DC 2-wire	-	NO	Cable, 2-wire, 2 m	IM30-15NUS-ZU0	7902128^
Short-body		Flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME30-15BPSZC0K	1041029
		Non-flush					IME30-15NPSZC0K	1041014*^
Standard	20 mm	Non-flush	DC 3-wire	PNP	NO	Connector M12, 4-pin	IME30-20NPSZC0K	1041045

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Steel, zinc coated	Mounting plate for M8 sensors	BEF-WG-M08	5321722*
	Steel, zinc coated	Mounting plate for M12 sensors	BEF-WG-M12	5321869*
	Stainless steel	Mounting plate for M12 housing	BEF-WG-M12N	5320950^
	Steel, zinc coated	Mounting plate for M18 sensors	BEF-WG-M18	5321870
	Stainless steel	Mounting plate for M18 housing	BEF-WG-M18N	5320948*^
	Steel, zinc coated	Mounting plate for M30 sensors	BEF-WG-M30	5321871^
	Steel, zinc coated	Mounting bracket, M12 thread	BEF-WN-M12	5308447*^
	Stainless steel	Mounting bracket, M12 housing	BEF-WN-M12N	5320949
	Steel, zinc coated	Mounting bracket, M18 thread	BEF-WN-M18	5308446*^
	Stainless steel	Mounting bracket, M18 housing	BEF-WN-M18N	5320947*^
	Steel, zinc coated	Mounting bracket, M30 thread	BEF-WN-M30	5308445*^
	Steel, zinc coated	Mounting bracket, M8 thread	BEF-WN-M08	5321721

C



At a glance

- Triple operating ranges up to 40 mm
- Operating temperature from –25° C to +70 °C
- High switching frequencies
- M8 to M30 housings

Your benefits

- Reduced machine downtime and maintenance costs
- Large operating reserve due to triple operating range improves machine throughput – no missed targets
- Saves installation space on the machine. Less space required for the same operating range when compared with standard sensors
- Lower risk of mechanical damage due their ability to be mounted further from the target
- High level of sensitivity makes them suitable for detecting difficult parts such as wires, thin sheets, small screws – reduces design and installation time

➜ www.mysick.com/en/IM_Triplex

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IM_Triplex

IM12

- **Housing:** M12 x 1

Sensing range S_n	Installation type	Output function	Output type	Connection	Model name	Part no.
6 mm	Quasi-flush	NO	PNP	Connector M12, 4-pin	IM12-06BPS-ZC1	6027511*^
10 mm	Non-flush	NO	PNP	Connector M12, 4-pin	IM12-10NPS-ZC1	6027514

IM18

- **Housing:** M18 x 1

Sensing range S_n	Installation type	Output function	Output type	Connection	Model name	Part no.
12 mm	Quasi-flush	NO	PNP	Connector M12, 4-pin	IM18-12BPS-ZC1	6027517*^
20 mm	Non-flush	NO	PNP	Connector M12, 4-pin	IM18-20NPS-ZC1	6027519*^

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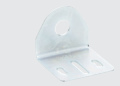
IM30

- **Housing:** M30 x 1.5

Sensing range S_n	Installation type	Output function	Output type	Connection	Model name	Part no.
22 mm	Quasi-flush	NO	PNP	Connector M12, 4-pin	IM30-22BPS-ZC1	6027521*^
40 mm	Non-flush	NO	PNP	Connector M12, 4-pin	IM30-40NPS-ZC1	6027522*^

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Steel, zinc coated	Mounting bracket, M8 thread	BEF-WN-M08	5321721
		Mounting bracket, M12 thread	BEF-WN-M12	5308447*^
		Mounting bracket, M18 thread	BEF-WN-M18	5308446*^
		Mounting bracket, M30 thread	BEF-WN-M30	5308445*^
Terminal and alignment brackets (mounting hardware included)				
	Plastic (PA12), glass-fiber reinforced	Clamping block for round sensors M8	BEF-KHF-M08	2051478
		Clamping block for round sensors M12	BEF-KHF-M12	2051480*^
		Clamping block for round sensors M18	BEF-KHF-M18	2051482

C



At a glance

- Stainless steel housing (316L/1.4404)
- Extremely watertight (IP 68/IP 69K)
- Triple sensing range
- High resistance to mechanical stress
- Watertight housing suitable for use in hygienic and wash down areas
- Resistant to aggressive cleaning agents
- Visual adjustment indicator via output LED

Your benefits

- Less machine downtime due to rugged sensor design
- Cost reduction due to long service life even under the most extreme ambient conditions
- Quick and easy installation due to adjustment indicator via LEDs
- Large operating reserve due to triple operating range
- High resistance to shock and impact due to stainless steel sensing face
- No restrictions on cleaning agents or processes, ensuring reliable operation

→ www.mysick.com/en/IM_Inox

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Ordering information

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IM12

- **Housing:** M12 x 1

Sensing range S_n	Installation type	Output function	Output type	Connection	Model name	Part no.
6 mm	Flush	NO	PNP	Connector M12, 4-pin	IM12-06BPS-NC1	6027572*^
10 mm	Non-flush	NO	PNP	Connector M12, 4-pin	IM12-10NPS-NC1	6027575^

IM18

- **Housing:** M18 x 1

Sensing range S_n	Installation type	Output function	Output type	Connection	Model name	Part no.
10 mm	Flush	NO	PNP	Connector M12, 4-pin	IM18-10BPS-NC1	6027577*^
20 mm	Non-flush	NO	PNP	Connector M12, 4-pin	IM18-20NPS-NC1	6027580*^

IM30

- **Housing:** M30 x 1.5

Sensing range S_n	Installation type	Output function	Output type	Connection	Model name	Part no.
20 mm	Flush	NO	PNP	Connector M12, 4-pin	IM30-20BPS-NC1	6027582*
40 mm	Non-flush	NO	PNP	Connector M12, 4-pin	IM30-40NPS-NC1	6027584*^

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Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Stainless steel	Mounting plate for M12 housing	BEF-WG-M12N	5320950^
		Mounting plate for M18 housing	BEF-WG-M18N	5320948*^
		Mounting bracket for M12 housing	BEF-WN-M12N	5320949
		Mounting bracket for M18 housing	BEF-WN-M18N	5320947*^
	Steel, zinc coated	Mounting bracket, M12 thread	BEF-WN-M12	5308447*^

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At a glance

- Types M08 to M30
- Extended sensing ranges: 2 to 20 mm
- Electrical wiring: DC 2/3/4-wire
- Enclosure rating: IP 68, IP 69K
- Temperature range: –40 °C to 100 °C
- Rugged stainless steel housing, sensing face made of plastic (LCP)
- Visual installation aid, IO-Link-compatible
- Resistant to oils and cooling lubricants, suitable for use outdoors

Your benefits

- Straightforward product selection as fewer sensor variants are required – one sensor suits a whole range of applications
- Stable processes thanks to extended, highly precise sensing ranges enabled through the use of the latest SICK ASIC technology
- Reduced machine downtimes thanks to longer sensor service life, even in harsh working conditions
- Quick and easy installation thanks to visual installation aid and self-locking nuts
- High degree of flexibility and communication options thanks to IO-Link
- Easy to implement customer-specific variants within the standard product portfolio

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For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IMB

IMB08 - DC 4-wire

- **Housing:** standard

Installation type	Sensing range S_n	Connection	Output type	Output function	Type	Part no.
Flush	2 mm	Male connector, M12, 4-pin	NPN	Complementary	IMB08-02BNPVC0S	1074352*
			PNP	Complementary	IMB08-02BPPVC0S	1074349*
Non-flush	4 mm	Male connector, M12, 4-pin	NPN	Complementary	IMB08-04NNPVC0S	1074353*
			PNP	Complementary	IMB08-04NPPVC0S	1074350*

IMB12 - DC 4-wire

Installation type	Sensing range S_n	Housing	Connection	Output type	Output function	Type	Part no.
Flush	4 mm	Short-body	Male connector, M12, 4-pin	NPN	Complementary	IMB12-04BNPVC0K	1074367*
				PNP	Complementary	IMB12-04BPPVC0K	1074366*
		Standard	Male connector, M12, 4-pin	NPN	Complementary	IMB12-04BNPVC0S	1074361*
				PNP	Complementary	IMB12-04BPPVC0S	1074359*
Non-flush	8 mm	Standard	Male connector, M12, 4-pin	NPN	Complementary	IMB12-08NNPVC0S	1074362*
				PNP	Complementary	IMB12-08NPPVC0S	1074360*

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IMB18 - DC 4-wire

Installation type	Sensing range S_n	Housing	Connection	Output type	Output function	Type	Part no.
Flush	8 mm	Short-body	Male connector, M12, 4-pin	NPN	Complementary	IMB18-08BNPVC0K	1074378*
				PNP	Complementary	IMB18-08BPPVC0K	1074376*
		Standard	Male connector, M12, 4-pin	NPN	Complementary	IMB18-08BNPVC0S	1074371*
				PNP	Complementary	IMB18-08BPPVC0S	1074369*
Non-flush	12 mm	Short-body	Male connector, M12, 4-pin	NPN	Complementary	IMB18-12NNPVC0K	1074379*
				PNP	Complementary	IMB18-12NPPVC0K	1074377*
		Standard	Male connector, M12, 4-pin	NPN	Complementary	IMB18-12NNPVC0S	1074372*
				PNP	Complementary	IMB18-12NPPVC0S	1074370*

IMB30 - DC 4-wire

Installation type	Sensing range S_n	Housing	Connection	Output type	Output function	Type	Part no.
Flush	15 mm	Short-body	Male connector, M12, 4-pin	NPN	Complementary	IMB30-15BNPVC0K	1074417*
				PNP	Complementary	IMB30-15BPPVC0K	1074406*
		Standard	Cable, 4-wire, 2 m, PUR	PNP	Complementary	IMB30-15BPPVU2S	1074415*
			Male connector, M12, 4-pin	NPN	Complementary	IMB30-15BNPVC0S	1074408*
				PNP	Complementary	IMB30-15BPPVC0S	1074411*
Non-flush	20 mm	Short-body	Male connector, M12, 4-pin	NPN	Complementary	IMB30-20NNPVC0K	1074418*
				PNP	Complementary	IMB30-20NPPVC0K	1074416*
		Standard	Male connector, M12, 4-pin	NPN	Complementary	IMB30-20NNPVC0S	1074409*
				PNP	Complementary	IMB30-20NPPVC0S	1074407*

Recommended accessories

	Material	Description	Type	Part no.	IMB08	IMB12	IMB18	IMB30
Universal bar clamp systems								
	Zinc diecast	Universal bar clamp for mounting bars with 12 mm diameter	BEF-KHS-KH3	5322626*^	●	●	●	●
	Stainless steel V2A (1.4301	Universal clamp bracket for mounting bars with 12 mm diameter	BEF-KHS-KH3N	5322627^	●	●	●	●
	Zinc plated steel (sheet), Diecast zinc (clamp)	Plate N05 for universal clamp bracket, M12	BEF-KHS-N05	2051611*^	–	●	–	–
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N05N for universal clamp bracket, M12	BEF-KHS-N05N	2051621*^	–	●	–	–
	Zinc plated steel (sheet), Diecast zinc (clamp)	Plate N06 for universal clamp bracket, M18	BEF-KHS-N06	2051612*^	–	–	●	–
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N06N for universal clamp bracket, M18	BEF-KHS-N06N	2051622*^	–	–	●	–
	Zinc plated steel (sheet), Diecast zinc (clamp)	Plate N10 for universal clamp bracket, M30	BEF-KHS-N10	2062372	–	–	–	●
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N11N for universal clamp bracket	BEF-KHS-N11N	2071081	●	●	●	●

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	Material	Description	Type	Part no.	IMB08	IMB12	IMB18	IMB30
	Steel, zinc coated	Mounting bar, straight, 200 mm	BEF-MS12G-A	4056054*^	●	●	●	●
		Mounting bar, straight, 300 mm	BEF-MS12G-B	4056055*^	●	●	●	●
	Stainless steel (1.4571	Mounting bar, straight, 200 mm	BEF-MS12G-NA	4058914*^	●	●	●	●
		Mounting bar, straight, 300 mm	BEF-MS12G-NB	4058915*^	●	●	●	●
	Steel, zinc coated	Mounting bar, L-shaped, 150 mm x 150 mm	BEF-MS12L-A	4056052*^	●	●	●	●
		Mounting bar, L-shaped, 250 x 250 mm	BEF-MS12L-B	4056053*^	●	●	●	●
	Stainless steel (1.4571	Mounting bar, Z-shaped, 150 mm x 70 mm x 150 mm	BEF-MS12Z-NA	4058916*^	●	●	●	●
		Mounting bar, Z-shaped, 150 mm x 70 mm x 250 mm	BEF-MS12Z-NB	4058917*^	●	●	●	●
Mounting brackets								
	Stainless steel	Mounting plate for M12 housing	BEF-WG-M12N	5320950^	–	●	–	–
		Mounting plate for M18 housing	BEF-WG-M18N	5320948*^	–	–	●	–
	Steel, zinc coated	Mounting plate for M8 sensors	BEF-WG-M08	5321722*	●	–	–	–
		Mounting plate for M12 sensors	BEF-WG-M12	5321869*	–	●	–	–
		Mounting plate for M18 sensors	BEF-WG-M18	5321870	–	–	●	–
		Mounting plate for M30 sensors	BEF-WG-M30	5321871^	–	–	–	●
	Stainless steel	Mounting plate for M12 housing	BEF-WG-M12N	5320950^	–	●	–	–
		Mounting plate for M18 housing	BEF-WG-M18N	5320948*^	–	–	●	–
	Steel, zinc coated	Mounting plate for M8 sensors	BEF-WG-M08	5321722*	●	–	–	–
		Mounting plate for M12 sensors	BEF-WG-M12	5321869*	–	●	–	–
		Mounting plate for M18 sensors	BEF-WG-M18	5321870	–	–	●	–

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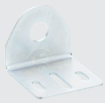
	Material	Description	Type	Part no.	IMB08	IMB12	IMB18	IMB30
	Steel, zinc coated	Mounting plate for M30 sensors	BEF-WG-M30	5321871^	–	–	–	●
Mounting plates								
	Stainless steel	Mounting bracket for M12 housing	BEF-WN-M12N	5320949	–	●	–	–
		Mounting bracket for M18 housing	BEF-WN-M18N	5320947*^	–	–	●	–
		Mounting bracket, M8 thread	BEF-WN-M08	5321721	●	–	–	–
		Mounting bracket, M12 thread	BEF-WN-M12	5308447*^	–	●	–	–
		Mounting bracket, M18 thread	BEF-WN-M18	5308446*^	–	–	●	–
		Mounting bracket, M30 thread	BEF-WN-M30	5308445*^	–	–	–	●
Alignment brackets								
	Plastic	Mounting bracket with ball-and-socket	BEF-WN-M18-ST02	5312973	–	–	●	–

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.	IMB08	IMB12	IMB18	IMB30
Plug connectors and cables										
	Female connector, M8, 3-pin, straight	Cable, open conductor heads	PP, unshielded	2 m, 3-wire	DOL-0803-G02MRN	6058504	●	–	–	–
				5 m, 3-wire	DOL-0803-G05MRN	6058505	●	–	–	–
				10 m, 3-wire	DOL-0803-G10MRN	6058506	●	–	–	–
	Female connector, M8, 3-pin, angled, with LED	Cable, open conductor heads	PP, unshielded	2 m, 3-wire	DOL-0803-L02MRN	6058787	●	–	–	–
				5 m, 3-wire	DOL-0803-L05MRN	6058788	●	–	–	–
				10 m, 3-wire	DOL-0803-L10MRN	6058789	●	–	–	–
	Female connector, M8, 3-pin, angled	Cable, open conductor heads	PP, unshielded	2 m, 3-wire	DOL-0803-W02MRN	6058507	●	–	–	–
				5 m, 3-wire	DOL-0803-W05MRN	6058508	●	–	–	–
				10 m, 3-wire	DOL-0803-W10MRN	6058509	●	–	–	–
	Female connector, M8, 3-pin, straight	Cable, open conductor heads	TPU/ PUR, halogen-free, unshielded	1 m, 3-wire	DOL-0803-G01MC	6036455	●	–	–	–
				2 m, 3-wire	DOL-0803-G02MC	6025888*^	●	–	–	–
				3 m, 3-wire	DOL-0803-G03MC	6038991*^	●	–	–	–
				5 m, 3-wire	DOL-0803-G05MC	6025889*	●	–	–	–
				10 m, 3-wire	DOL-0803-G10MC	6025890*^	●	–	–	–
				20 m, 3-wire	DOL-0803-G20MC	6036456	●	–	–	–

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	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.	IMB08	IMB12	IMB18	IMB30
Plug connectors and cables										
	Female connector, M8, 3-pin, angled	Cable, open conductor heads	TPU, PUR, halogen-free, unshielded	2 m, 3-wire	DOL-0803-L02MC	6039080	●	–	–	–
				10 m, 3-wire	DOL-0803-L10MC	6039082	●	–	–	–
				2 m, 3-wire	DOL-0803-W02MC	6025891*^	●	–	–	–
				5 m, 3-wire	DOL-0803-W05MC	6025892*	●	–	–	–
				10 m, 3-wire	DOL-0803-W10MC	6025893*	●	–	–	–
	Female connector, M12, 4-pin, straight	Cable, open conductor heads	PP, unshielded	2 m, 4-wire	DOL-1204-G02MRN	6058291	●	●	●	●
				5 m, 4-wire	DOL-1204-G05MRN	6058476	●	●	●	●
				10 m, 4-wire	DOL-1204-G10MRN	6058478	●	●	●	●
				25 m, 4-wire	DOL-1204-G25MRN	6058480	●	●	●	●
	Female connector, M12, 4-pin, angled, with 3 LEDs	Cable, open conductor heads	PP, unshielded	2 m, 4-wire	DOL-1204-L02MRN	6058482	●	●	●	●
				5 m, 4-wire	DOL-1204-L05MRN	6058483	●	●	●	●
				10 m, 4-wire	DOL-1204-L10MRN	6058484	●	●	●	●
				25 m, 4-wire	DOL-1204-L25MRN	6058485	●	●	●	●
	Female connector, M12, 4-pin, angled	Cable, open conductor heads	PP, unshielded	2 m, 4-wire	DOL-1204-W02MRN	6058474	●	●	●	●
				5 m, 4-wire	DOL-1204-W05MRN	6058477	●	●	●	●
				10 m, 4-wire	DOL-1204-W10MRN	6058479	●	●	●	●
				25 m, 4-wire	DOL-1204-W25MRN	6058481	●	●	●	●
	Female connector, M12, 4-pin, straight	Cable, open conductor heads	TPU, PUR, halogen-free, unshielded	2 m, 4-wire	DOL-1204-G02MC	6025900*^	●	●	●	●
				5 m, 4-wire	DOL-1204-G05MC	6025901*^	●	●	●	●
				10 m, 4-wire	DOL-1204-G10MC	6025902*^	●	●	●	●
				15 m, 4-wire	DOL-1204-G15MC	6034749*	●	●	●	●
				20 m, 4-wire	DOL-1204-G20MC	6034750*^	●	●	●	●
				25 m, 4-wire	DOL-1204-G25MC	6034751*^	●	●	●	●
	Female connector, M12, 4-pin, angled, with 3 LEDs	Cable, open conductor heads	TPU, PUR, halogen-free, unshielded	2 m, 4-wire	DOL-1204-L02MC	6039086	●	●	●	●
				5 m, 4-wire	DOL-1204-L05MC	6020398	●	●	●	●
				10 m, 4-wire	DOL-1204-L10MC	6039088	●	●	●	●
	Female connector, M12, 4-pin, angled	Cable, open conductor heads	TPU, PUR, halogen-free, unshielded	2 m, 4-wire	DOL-1204-W02MC	6025903*	●	●	●	●
				5 m, 4-wire	DOL-1204-W05MC	6025904*^	●	●	●	●
				10 m, 4-wire	DOL-1204-W10MC	6025905*^	●	●	●	●
				15 m, 4-wire	DOL-1204-W15MC	6034752*	●	●	●	●
				20 m, 4-wire	DOL-1204-W20MC	6034753*	●	●	●	●
				25 m, 4-wire	DOL-1204-W25MC	6034754*^	●	●	●	●
	Male connector, M12, 4-pin, straight	Cable, open conductor heads	TPU, PUR, halogen-free, unshielded	2 m, 4-wire	STL-1204-G02MC	6028077*^	●	●	●	●
				5 m, 4-wire	STL-1204-G05MC	6048170*	●	●	●	●
				10 m, 4-wire	STL-1204-G10MC	6041750*	●	●	●	●
				15 m, 4-wire	STL-1204-G15MC	6048171*	●	●	●	●
	Male connector, M12, 4-pin, angled	Cable, open conductor heads	TPU, PUR, halogen-free, unshielded	5 m, 4-wire	STL-1204-W05MC	6037472	●	●	●	●
				15 m, 4-wire	STL-1204-W15MC	6037473*	●	●	●	●
	Female connector, M8, 3-pin, straight	Male connector, M8, 3-pin, straight	TPU, PUR, halogen-free, unshielded	1 m, 3-wire	DSL-0803-G01MC	6029405	●	–	–	–
				2 m, 3-wire	DSL-0803-G02MC	6029406	●	–	–	–
				3 m, 3-wire	DSL-0803-G03MC	6037696	●	–	–	–

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	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.	IMB08	IMB12	IMB18	IMB30
Plug connectors and cables										
	Female connector, M8, 3-pin, straight	Male connector, M8, 3-pin, straight	TPU, PUR, halogen-free, unshielded	5 m, 3-wire	DSL-0803-G05MC	6032730*	●	–	–	–
				10 m, 3-wire	DSL-0803-G10MC	6032731	●	–	–	–
				20 m, 3-wire	DSL-0803-G20MC	6035805	●	–	–	–
	Female connector, M12, 4-pin, angled	Male connector, M12, 4-pin, straight	PP, unshielded	2 m, 4-wire	DSL-1204-B02MRN	6058502	●	●	●	●
				5 m, 4-wire	DSL-1204-B05MRN	6058503	●	●	●	●
	Female connector, M12, 4-pin, straight	Male connector, M12, 4-pin, straight	PP, unshielded	2 m, 4-wire	DSL-1204-G02MRN	6058499	●	●	●	●
				5 m, 4-wire	DSL-1204-G05MRN	6058500	●	●	●	●
	Female connector, M12, 4-pin, straight	Male connector, M12, 4-pin, straight	TPU, PUR, halogen-free, unshielded	5 m, 4-wire	DSL-1204-G05MC	6033245	●	●	●	●
				10 m, 4-wire	DSL-1204-G10MC	6033698	●	●	●	●
	Female connector, M12, 4-pin, straight	Screw-type terminals	PA, unshielded	-	DOS-1204-GN	6028357*^	●	●	●	●
	Female connector, M12, 4-pin, angled	Screw-type terminals	PBT, unshielded	-	DOS-1204-WN	6028358*^	●	●	●	●
	Male connector, M12, 4-pin, straight	Screw-type terminals	PA, unshielded	-	STE-1204-GN	6028359*^	●	●	●	●
			PBT, unshielded	-	STE-1204-TN	6028360	●	●	●	●

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At a glance

- Extremely watertight (IP 68/IP 69K) for wash down environments
- Stainless steel housing (316L/1.4404)
- Front cap made of PPS (FDA-certified material)
- Extended temperature range (–40 to +80 °C). Tolerates short-term temperature increases up to 100 °C
- Resistant to industrial cleaning agents, ECOLAB and JohnsonDiversey certified
- Laser etched part number

Your benefits

- Reduced machine downtime
- Hygienic process due to FDA approved material and hygienic design
- Reduced maintenance costs due to sensor's resistance to aggressive cleaning cycles
- No restrictions on cleaning agents or processes, ensuring reliable operation

➜ www.mysick.com/en/IMF

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IMF

IMF08

- **Housing:** M8 x 1
- **Connection:** Connector M12, 4-pin

Sensing range S_n	Installation type	Output function	Output type	Electrical wiring	Model name	Part no.
≤2 mm	Flush	NO	NPN	DC 3-wire	IMF08-02BNSNC0S	1076749
		Complementary	PNP	DC 4-wire	IMF08-02BPPNC0S	1076748
≤4 mm	Non-flush	NO	NPN	DC 3-wire	IMF08-04NNSNC0S	1076753
		Complementary	PNP	DC 4-wire	IMF08-04NPPNC0S	1076752

IMF12

- **Housing:** M12 x 1
- **Connection:** Connector M12, 4-pin

Sensing range S_n	Installation type	Output function	Output type	Electrical wiring	Model name	Part no.
≤4 mm	Flush	NO	NPN	DC 3-wire	IMF12-04BNSNC0S	1076671
		Complementary	PNP	DC 4-wire	IMF12-04BPPNC0S	1076674
≤8 mm	Non-flush	NO	NPN	DC 3-wire	IMF12-08NNSNC0S	1076677
		Complementary	NPN	DC 4-wire	IMF12-08NPPNC0S	1076678

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IMF18

- **Housing:** M18 x 1
- **Connection:** Connector M12, 4-pin

Sensing range S_n	Installation type	Output function	Output type	Electrical wiring	Model name	Part no.
≤8 mm	Flush	NO	NPN	DC 3-wire	IMF18-08BNSNC0S	1076664
		Complementary	PNP	DC 4-wire	IMF18-08BPPNC0S	1076665
≤12 mm	Non-flush	NO	NPN	DC 3-wire	IMF18-12NNSNC0S	1076668
		Complementary	PNP	DC 4-wire	IMF18-12NPPNC0S	1076669

IMF30

- **Housing:** M30 x 1
- **Connection:** Connector M12, 4-pin

Sensing range S_n	Installation type	Output function	Output type	Electrical wiring	Model name	Part no.
≤15 mm	Flush	NO	NPN	DC 3-wire	IMF30-15BNSNC0S	1076657
		Complementary	PNP	DC 4-wire	IMF30-15BPPNC0S	1076656
≤20 mm	Non-flush	NO	NPN	DC 3-wire	IMF30-20NNSNC0S	1076661
		Complementary	PNP	DC 4-wire	IMF30-20NPPNC0S	1076660

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Stainless steel	Mounting plate for M12 housing	BEF-WG-M12N	5320950^
		Mounting plate for M18 housing	BEF-WG-M18N	5320948*^
		Mounting bracket for M12 housing	BEF-WN-M12N	5320949
		Mounting bracket for M18 housing	BEF-WN-M18N	5320947*^

C



At a glance

- Analog output signal is proportional to distance
- Triple sensing range
- Analog current and voltage signal in one sensor
- High repeatability
- No blind zone

Your benefits

- High positioning accuracy
- High repeatability provides increased machine throughput, less wear and tear, and decreased downtime
- No blind zone – increases machine throughput and efficiency
- Current and voltage output in one sensor requires less inventory of maintenance stock, reducing costs
- Minimal temperature drift provides operational consistency

➜ www.mysick.com/en/IMA

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IMA

IMA08

- **Housing:** M8 x 1
- **Detection range:** 0 mm ... 4 mm

Installation type	Repeat accuracy typ [1) 2) 3)]	Repeatability (T_a constant)	Connection	Model name	Part no.
Quasi-flush	0.3 mm	± 0.01 mm	Connector M12, 4-pin	IMA08-04BE3ZC0K	6041782

[1)] As per IEC 60947-5-2.
[2)] Ub = DC 20 V ... 30 V.
[3)] TA = 23 °C ± 5 °C.

IMA12

- **Housing:** M12 x 1
- **Detection range:** 0 mm ... 6 mm

Installation type	Repeat accuracy typ [1) 2) 3)]	Repeatability (T_a constant)	Connection	Model name	Part no.
Quasi-flush	0.3 mm	± 0.01 mm	Connector M12, 4-pin	IMA12-06BE3ZC0K	6041792*

[1)] As per IEC 60947-5-2.
[2)] Ub = DC 20 V ... 30 V.
[3)] TA = 23 °C ± 5 °C.

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IMA18

- **Housing:** M18 x 1
- **Repeat accuracy typ:** 0.3 mm (As per IEC 60947-5-2.) (Ub = DC 20 V ... 30 V.) (TA = 23 °C ± 5 °C.)
- **Connection:** Connector M12, 4-pin

Detection range	Installation type	Repeatability (T_a constant)	Model name	Part no.
0 mm ... 10 mm	Quasi-flush	± 0.02 mm	IMA18-10BE1ZC0K	6041793*^
0 mm ... 20 mm	Non-flush	± 0.05 mm	IMA18-20NE1ZC0K	6041794

IMA30

- **Housing:** M30 x 1.5
- **Connection:** Connector M12, 4-pin

Detection range	Installation type	Repeat accuracy typ [1) 2) 3)]	Repeatability (T_a constant)	Model name	Part no.
0 mm ... 20 mm	Quasi-flush	0.3 mm	± 0.05 mm	IMA30-20BE1ZC0K	6041795
0 mm ... 40 mm	Non-flush	0.6 mm	± 0.1 mm	IMA30-40NE1ZC0K	6041796

[1)] As per IEC 60947-5-2.
[2)] Ub = DC 20 V ... 30 V.
[3)] TA = 23 °C ± 5 °C.

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Steel, zinc coated	Mounting bracket, M8 thread	BEF-WN-M08	5321721
		Mounting bracket, M12 thread	BEF-WN-M12	5308447*^
		Mounting bracket, M18 thread	BEF-WN-M18	5308446*^
		Mounting bracket, M30 thread	BEF-WN-M30	5308445*^

C



At a glance

- Long sensing range
- Rugged metal and plastic housings
- Narrow design: 5 x 5 or 8 x 8 mm
- Compact, space-saving design

Your benefits

- Trouble-free installation in space-critical applications
- Reliable detection of fast processes
- Quick installation without any fine adjustments
- Long sensing range reduces mechanical damage
- Maintenance cost reduction due to increased sensor life
- High resistance to shock and vibrations

➜ www.mysick.com/en/IQ_Miniature

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IQ_Miniature

IQ08

- **Housing:** 8 mm x 8 mm x 40 mm

Sensing range S_n	Installation type	Output function	Output type	Connection	Model name	Part no.
2 mm	Flush	NO	PNP	Connector M8, 3-pin	IQ08-02BPSKT0S	1055494
				Cable, 3-wire, 2 m, PVC	IQ08-02BPSKW2S	1055490

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At a glance

- Long sensing range up to 60 mm
- DC, AC and AC/DC versions available
- Wide range of housing and mounting options
- Variety of connection options including terminal, cable (flying leads) and connector types
- Customer-specific models and value add options are available

Your benefits

- Increased machine throughput with less machine downtime
- Maintenance cost reduction and reduced mechanical damage due to long sensing range
- Reduced maintenance cost due to longer service life
- Time-saving quick and easy installation

→ www.mysick.com/en/IQ_Standard

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Ordering information

Other models and accessories → www.mysick.com/en/IQ_Standard

IQ10

- **Output function:** NO
- **Housing:** 10 mm x 16 mm x 28 mm
- **Electrical wiring:** DC 3-wire

Sensing range S_n	Installation type	Output type	Connection	Model name	Part no.
3 mm	Flush	PNP	Connector M8, 3-pin	IQ10-03BPSKT0S	1055453
			Cable, 3-wire, 2 m, PVC	IQ10-03BPSKW2S	1055447*

IQ12

- **Output function:** NO
- **Housing:** 12 mm x 26 mm x 40 mm
- **Electrical wiring:** DC 3-wire

Sensing range S_n	Installation type	Output type	Connection	Model name	Part no.
4 mm	Flush	PNP	Connector M8, 3-pin	IQ12-04BPSKT0S	1055432
			Cable, 3-wire, 2 m, PVC	IQ12-04BPSKW2S	1055428

IQ80

Sensing range S_n	Installation type	Output function	Output type	Housing	Electrical wiring	Connection	Model name	Part no.
50 mm	Flush, non-flush, overflush	Complementary	PNP	80 mm x 40 mm x 112 mm	DC 4-wire	Connector M12, 4-pin	IQ80-50BPP-KC0	6026473*
60 mm	Non-flush	NC or NO	PNP, NPN	80 mm x 40 mm x 105 mm	AC/DC 2-wire	Terminal connection with M20 gland	IQ80-60NUP-KK0	7902138*

C



At a glance

- Housing design: 40 mm x 40 mm
- Increased sensing ranges: 20 mm, flush and 40 mm, non-flush
- Electrical configuration: DC 3-wire, DC 4-wire
- Ambient temperature range: –25 °C to 85 °C
- Enclosure rating: IP 68, IP 69K
- Push-lock mounting system
- Four corner LEDs
- Sensor head can be rotated in five directions

Your benefits

- Reliable, cost-effective detection
- Easy to mount in one second flat without the need for additional tools
- The four corner LEDs ensure that the sensor status can be identified from any viewing direction, whatever the mounting position
- Can be easily adapted to numerous applications
- Long sensor service life, even in harsh environments that are subjected to severe weather conditions
- Stable processes thanks to extensive sensing ranges

→ www.mysick.com/en/IQG

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Ordering information

Other models and accessories → www.mysick.com/en/IQG

Short-body

- **Connection:** connector M12, 4-pin
- **Dimensions (W x H x D):** 40 mm x 40 mm x 66 mm

Sensing range S_n	Installation type	Electrical wiring	Output function	Output type	Connection diagram	Type	Part no.
20 mm	Flush	DC 4-wire	Complementary	NPN	Cd-009	IQ40-20BNPKC0K	1071560
				PNP	Cd-009	IQ40-20BPPKC0K	1071553
40 mm	Non-flush	DC 4-wire	Complementary	PNP	Cd-009	IQ40-40NPPKC0K	1071552
				NPN	Cd-009	IQ40-40NNPKC0K	1071864

Standard-body

- **Connection:** Cable gland
- **Dimensions (W x H x D):** 40 mm x 40 mm x 118 mm

Sensing range S_n	Installation type	Electrical wiring	Output function	Output type	Connection diagram	Type	Part no.
20 mm	Flush	DC 4-wire	Complementary	NPN	Cd-030	IQ40-20BNPKK0S	1071861
				PNP	Cd-030	IQ40-20BPPKK0S	1071860
40 mm	Non-flush	DC 4-wire	Complementary	PNP	Cd-030	IQ40-40NPPKK0S	1071863
				NPN	Cd-030	IQ40-40NNPKK0S	1071865

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Standard-body

- **Connection:** connector M12, 4-pin
- **Dimensions (W x H x D):** 40 mm x 40 mm x 132 mm

Sensing range S_n	Installation type	Electrical wiring	Output function	Output type	Connection diagram	Type	Part no.
20 mm	Flush	DC 4-wire	Complementary	PNP	Cd-009	IQ40-20BPPKC0S	1071862
40 mm	Non-flush	DC 4-wire	Complementary	PNP	Cd-009	IQ40-40NPPKC0S	1071866

Recommended accessories

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, straight	Cable, open conductor heads	TPU, PUR, halogen-free, unshielded	2 m, 4-wire	DOL-1204-G02MC	6025900*^
				5 m, 4-wire	DOL-1204-G05MC	6025901*^
				10 m, 4-wire	DOL-1204-G10MC	6025902*^
	Female connector, M12, 4-pin, angled, with 3 LEDs	Cable, open conductor heads	TPU, PUR, halogen-free, unshielded	2 m, 4-wire	DOL-1204-L02MC	6039086
				5 m, 4-wire	DOL-1204-L05MC	6020398
				10 m, 4-wire	DOL-1204-L10MC	6039088
	Female connector, M12, 4-pin, angled	Cable, open conductor heads	TPU, PUR, halogen-free, unshielded	2 m, 4-wire	DOL-1204-W02MC	6025903*
				5 m, 4-wire	DOL-1204-W05MC	6025904*^
				10 m, 4-wire	DOL-1204-W10MC	6025905*^
	Female connector, M12, 4-pin, straight	Screw-type terminals	PA, unshielded	-	DOS-1204-G	6007302*
	Female connector, M12, 4-pin, angled	Screw-type terminals	PBT, unshielded	-	DOS-1204-W	6007303*

C



At a glance

- Flat, compact design
- Long sensing range up to 7mm
- Easily visible indication LEDs
- Available in a plastic (IQ04 and IQ06) and metal housing (IQ20 and IQ25)

Your benefits

- Reduced mechanical damage due to space-saving flat housing, which does not protrude from sensor
- Time-saving simple installation with one or two screws
- No restrictions on machine design

→ www.mysick.com/en/IQ_Flat

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Ordering information

Other models and accessories → www.mysick.com/en/IQ_Flat

IQ04

- **Housing:** 8 mm x 16 mm x 4 mm
- **Sensing range S_n:** 1.5 mm

Electrical wiring	Output function	Output type	Connection	Model name	Part no.
DC 3-wire	NC	PNP	Cable, 3-wire, 2 m, PVC	IQ04-1B5PSKW2S	6042017
		PNP	Cable, 3-wire, 2 m, PVC	IQ04-1B5POKW2S	6042018

IQ06

- **Housing:** 10 mm x 30 mm x 6 mm
- **Sensing range S_n:** 3 mm

Electrical wiring	Output function	Output type	Connection	Model name	Part no.
DC 3-wire	NC	PNP	Cable, 3-wire, 2 m, PUR	IQ06-03BPSKU2S	6042022
		PNP	Cable, 3-wire, 2 m, PUR	IQ06-03BPOKU2S	6042023

IQ20

- **Housing:** 20 mm x 32 mm x 8 mm
- **Sensing range S_n:** 7 mm

Electrical wiring	Output function	Output type	Connection	Model name	Part no.
DC 3-wire	NO	NPN	Cable with connector M8, 3-pin, 0.3 m, PUR	IQ20-07BNSDP0S	6042044
DC 4-wire	Complementary	PNP	Cable with connector M12, 4-pin, 0.3 m, PUR	IQ20-07BPPDQ0S	6042045*

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At a glance

- Pressure resistant up to 500 bar
- Expected service life of up to 1 million pressure cycles
- Expanded temperature range of up to 100 °C
- Sensing range of 1 mm flush
- IP 68
- Stainless steel housing with active surface made from stable high-performance ceramic
- State-of-the-art ASIC technology from SICK
- Gas-tight at the sensor face

Your benefits

- Reduced maintenance costs
- Extremely resilient and durable
- Up to 50 times longer service life compared to conventional sensors under pressure cycles
- Simple compensation of cylinder tolerances
- Simple integration due to small design
- Controlled piston deceleration
- Increased piston service life due to collision prevention at the end of the work cycle

→ www.mysick.com/en/IMP

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Ordering information

Other models and accessories → www.mysick.com/en/IMP

IMP05

- **Sensing range S_n:** 1 mm

Thread size	Electrical wiring	Output function	Output type	Connection	Model name	Part no.
M5 x 0.5	DC 3-wire	NO	PNP	Cable, 3-wire, 2 m	IMP05-01BPSVU2S	6050109

IMP08

- **Sensing range S_n:** 1.5 mm

Thread size	Electrical wiring	Output function	Output type	Connection	Model name	Part no.
M8 x 1	DC 3-wire	NO	PNP	Cable, 3-wire, 2 m	IMP08-1B5PSVU2S	6050111

IMP12

- **Sensing range S_n:** 1.5 mm

Thread size	Electrical wiring	Output function	Output type	Connection	Model name	Part no.
M12 x 1	DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMP12-1B5PPVC0B	6050117
					IMP12-1B5PPVC0C	6050123
					IMP12-1B5PPVC0D	6050129
					IMP12-1B5PPVC0F	6050135

IMP14

- **Sensing range S_n:** 3 mm

Thread size	Electrical wiring	Output function	Output type	Connection	Model name	Part no.
M14 x 1.5	DC 3-wire	NO	PNP	Connector M12, 4-pin	IMP14-03BPSVC0S	6050137

C



At a glance

- Cylindrical housing
- Detects powders, granulates, liquids and solids.
- Best-in-class electromagnetic compatibility
- 4-wire DC (CM18 and CM30) and 2-wire AC versions (CM30)
- Supply voltage: 10 ... 40 VDC (CM18 and CM30), 20 V... 250 VAC (CM30)
- Short-circuit reverse polarity and power-up pulse suppression protection
- LED status indicator
- IP 67 enclosure rating

Your benefits

- Durable housing withstands harsh industrial applications, reducing maintenance costs and downtime
- Quick and easy adjustment of the switching point saves installation and setup time
- Application flexibility
- Solves applications where other sensing technologies cannot provide a solution
- High shock and vibration resistance increases sensor life and reduces maintenance costs
- Non-contact level measurement, even through container or tank walls, reduces installation and setup time

➜ www.mysick.com/en/CM

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Ordering information

Other models and accessories ➜ www.mysick.com/en/CM

CM18

- **Housing:** M18 x 1
- **Electrical wiring:** DC 4-wire

Sensing range S_n	Installation type	Output function	Output type	Connection	Model name	Part no.
8 mm	Flush	Complementary	PNP	Connector M12, 4-pin	CM18-08BPP-EC1	6058145
12 mm	Non-flush	Complementary	PNP	Connector M12, 4-pin	CM18-12NPP-EC1	6058149

CM30

- **Housing:** M30 x 1.5
- **Electrical wiring:** DC 4-wire

Sensing range S_n	Installation type	Output function	Output type	Connection	Model name	Part no.
16 mm	Flush	Complementary	PNP	Connector M12, 4-pin	CM30-16BPP-EC1	6058153
25 mm	Non-flush	Complementary	PNP	Connector M12, 4-pin	CM30-25NPP-EC1	6058157

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Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Steel, zinc coated	Mounting bracket, M18 thread	BEF-WN-M18	5308446*^
		Mounting bracket, M18 thread	BEF-WN-M18N	5320947*^
		Mounting bracket, M30 thread	BEF-WN-M30	5308445*^
Terminal and alignment brackets (mounting hardware included)				
	Plastic (PA12), glass-fiber reinforced	Clamping block for round sensors M12, without fixed stop	BEF-KH-M12	2051479
		Clamping block for round sensors M12, with fixed stop	BEF-KHF-M12	2051480*
		Clamping block for round sensors M18, without fixed stop	BEF-KH-M18	2051481
		Clamping block for round sensors M18, with fixed stop	BEF-KHF-M18	2051482

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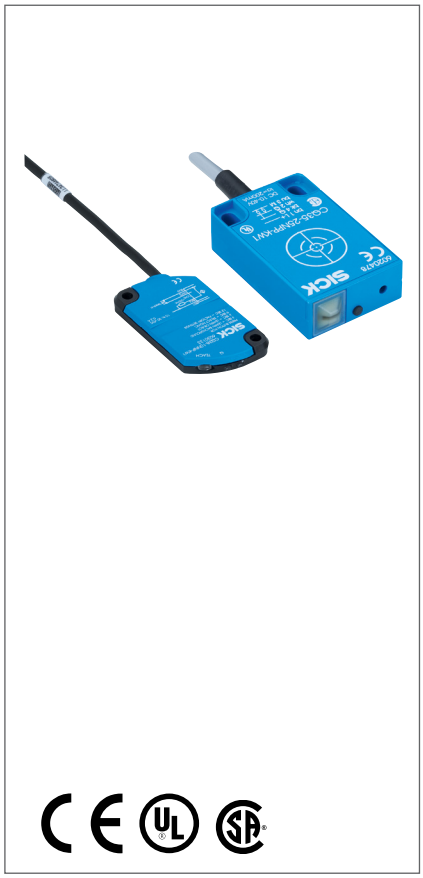

At a glance

- Rectangular housing
- Detects powders, granulates, liquids and solids.
- Best-in-class high electromagnetic compatibility
- Electrical design: DC 4-wire
- Supply voltage: CQ35 10 ... 40 VDC and CQ28 10...30 VDC
- Short-circuit, reverse polarity and power-up pulse suppression protection

Your benefits

- Non-contact level measurement, even through container or tank walls, which eliminates drilling holes and thus reduces installation time
- Durable housing withstands harsh industrial applications, reducing maintenance costs
- Quick and easy adjustment of the switching point - via pushbutton, remote teach for the CQ28 and via potentiometer for CQ35 - saves time
- Simple and safe detection alternative to photoelectric and inductive sensors in applications such as detecting product in a sealed box, container or tank

→ www.mysick.com/en/CQ

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Ordering information

Other models and accessories → www.mysick.com/en/CQ

CQ28

- **Installation type:** Non-flush

Sensing range S_n	Output function	Housing	Output type	Connection	Model name	Part no.
10 mm	NC or NO	28 mm x 46 mm x 5.5 mm	NPN	Cable, 4-wire, 2 m, PVC	CQ28-10NNP-KW1	6030133
			PNP	Cable, 4-wire, 2 m, PVC	CQ28-10NPP-KW1	6030132

CQ35

- **Installation type:** Non-flush

Sensing range S_n	Output function	Housing	Output type	Connection	Model name	Part no.
25 mm	Complementary	35 mm x 15 mm x 69.5 mm	PNP	Connector M12, 4-pin	CQ35-25NPP-KC1	6020479*

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel 1.4571	Mounting bracket for wall mounting	BEF-W4-A	2051628*
		Mounting bracket for floor mounting	BEF-W4-B	2051630*
Terminal and alignment brackets (mounting hardware included)				
	Plastic	Ball clamp bracket	BEF-GH-MINI01	2023160

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At a glance

- Reliable detection of permanent magnets through non-ferromagnetic materials such as stainless steel, aluminum, plastic or wood
- Precise switching point and exact hysteresis
- Reliable object detection in high temperature zones
- Small housing design with large operating ranges
- Resistant to dust, dirt, and vibrations, increasing sensor life and reducing maintenance costs

Your benefits

- Non-contact operation eliminates interference from dirt, dust and vibrations, increasing sensor life and reducing maintenance costs
- Space-saving installation due to small design
- Large operating ranges with reliable switching increase throughput
- Non-contact, universal detection through several substances, including plastic containers and pipes protective PTFE walls and non-magnetic metal walls

→ www.mysick.com/en/MM

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Ordering information

Other models and accessories → www.mysick.com/en/MM

MM12

- **Housing:** M12 x 1
- **Output function:** NO

Sensing range S_n	Output type	Connection	Model name	Part no.
60 mm	PNP	Connector M12, 4-pin	MM12-60APS-ZCK	1040070*

MM18

- **Housing:** M18 x 1
- **Output function:** NO

Sensing range S_n	Output type	Connection	Model name	Part no.
70 mm	PNP	Connector M12, 4-pin	MM18-70APS-ZCK	1040072*

C

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware				
	Steel, zinc coated	Mounting plate for M8 sensors	BEF-WG-M08	5321722*
		Mounting plate for M12 sensors	BEF-WG-M12	5321869*
		Mounting plate for M18 sensors	BEF-WG-M18	5321870
	Stainless steel	Mounting plate for M12 housing	BEF-WG-M12N	5320950^
	Steel, zinc coated	Mounting bracket, M12 thread	BEF-WN-M12	5308447*^
		Mounting bracket, M18 thread	BEF-WN-M18	5308446*^
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N05N for universal clamp bracket, M12	BEF-KHS-N05N	2051621*^
	Zinc plated steel (sheet), Diecast zinc (clamp)	Plate N06 for universal clamp bracket	BEF-KHS-N06	2051612*^
Magnets				
	Barium ferrite	Magnet diameter 30x10mm depth	MAG-3010-B	7901785

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At a glance

- Long sensing ranges in a small, compact rectangular plastic housing with an IP 67 enclosure rating
- Detection of permanent magnets through non-ferromagnetic materials such as stainless steel, aluminum, plastic, or wood
- Solves high-temperature applications by installing the temperature-resistant magnet in the high-temperature area and the sensor behind an insulated area
- Non-contact operation that is resistant to dust, dirt, shock and vibration
- Precise switching point and hysteresis
- Sensing range up to 60 mm
- High switching frequency
- Short-circuit, reverse polarity protection and power-up pulse suppression

Your benefits

- Non-contact operation eliminates interference from dirt, dust, shock and vibrations, reducing maintenance costs
- Long sensing range with reliable switching reduces miscounts and increases machine throughput
- Easy to install, low-cost sensor solution saves installation time and costs
- Compact plastic housing saves machine space

→ www.mysick.com/en/MQ

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Ordering information

Other models and accessories → www.mysick.com/en/MQ

- **Output function:** NO

Sensing range S_n	Output type	Connection	Model name	Part no.
60 mm	PNP	Cable, 3-wire, 2 m, PUR/PVC	MQ10-60APS-KU0	7900278

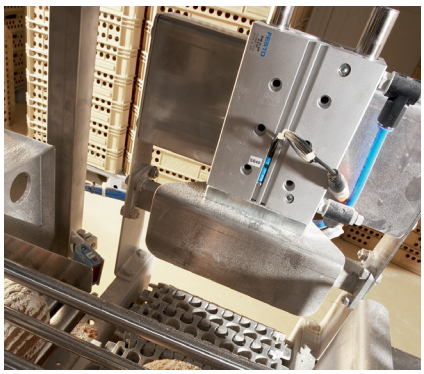
Recommended accessories

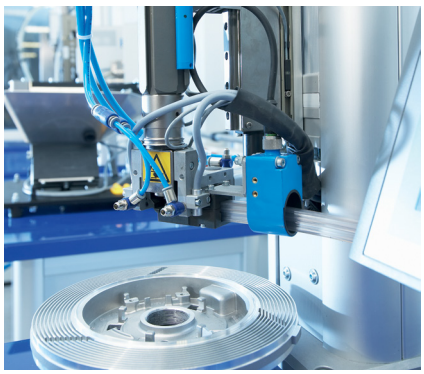
	Material	Description	Model name	Part no.
Magnets				
	Barium ferrite	Magnet diameter 30x10mm depth	MAG-3010-B	7901785

D

MAGNETIC CYLINDER SENSORS







With millimeter precision – cylinder sensors from SICK

Detecting, measuring, positioning, quality control – all crucial tasks in industrial automation. Machinery is becoming ever smaller, yet still offering unprecedented performance levels. Innovative cylinder sensors from SICK were developed for faster and more accurate detection of piston positions in compact pneumatic cylinders. This results in broader fields of application for pneumatic cylinders plus new potential for machinery and production plants. And with our huge range of magnetic cylinder sensors to choose from, we can meet your every need. With features like ease of handling, the option of an analog output, optimum switching characteristics, suitability for use in the food and beverage industry, support for the latest IO-Link technology, and universal mounting options with our comprehensive range of adapters, magnetic cylinder sensors from SICK are equipped for all installation locations and conditions.

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D

Selection guide magnetic cylinder sensors D-160



MPS D-162
The superior analog sensor for the T-slot



MPA D-163
Precision and versatility up to 1,007 millimeters



MZ2Q-C D-165
Magnetic cylinder sensors with two individually adjustable switching points



MZ2Q-T D-167
Magnetic cylinder sensors with two individually adjustable switching points



MZC1 . . . . . .D-169
Drop-in, install, done



RZC1. . . . . .D-170
Drop-in, install, done



MZT8. . . . . .D-172
Compact, resistant, easily installed



MZT7. . . . . .D-175
Maximize what matters



RZT7. . . . . .D-176
Maximize what matters

SELECTION GUIDE MAGNETIC CYLINDER SENSORS

D

Product		Standard application	Housing properties																				
		Principle of operation		Direct mounting		Mounting via adapter							Housing material		Special features				Switching output/ output function				
		Measuring	Detecting	T-slot	C-slot	T-slot	Roundbody cylinder	Dove tail groove cylinder	Profile cylinder	Tie-rod cylinder	SMC rail EDQ2 (T-/C-slot)	Plastics	Aluminum	For lifting cylinder	Enclosure rating IP 69K	Vistal®	Combination screw	PNP	NPN	Reed			
Analog positioning sensors																							
	MPS	■		■		■	■	■			■	■		■									
	MPA	■					■			■			■										
Sensors for C-slot cylinders																							
	MZ2Q-C		■		■		■				■	■		■				■	■				
Sensors for T-slot cylinders																							
	MZ2Q-T		■	■			■	■	■	■	■	■						■	■				
	MZC1		■		■									■	■	■	■	■	■				
	**RZC1**				■		■				■	■			■					■			
	MZT8		■	■			■	■	■	■	■	■			■		■	■	■				
	MZT7			■				■	■	■	■	■						■	■				
	RZT7		■	■			■	■	■	■	■	■								■			

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Sensor properties																			Page
			Special features					Measuring ranges											
	Normally closed	Normally open	IO-Link	Analog output	Teach-in	ASIC from SICK	2 adjustable switching points	100 mm	200 mm	300 mm	400 mm	500 mm	600 mm	700 mm	800 mm	900 mm	1,000 mm		
			■	■	■			32 mm ... 256 mm (in 32-mm increments)											→ D-162
			■	■	■			107 mm ... 1,007 mm (in 36-mm increments)											→ D-163
		■	■		■		■												→ D-165
		■	■		■		■												→ D-167
		■				■													→ D-169
		■																	→ D-170
	■	■				■													→ D-172
		■																	→ D-175
		■																	→ D-176

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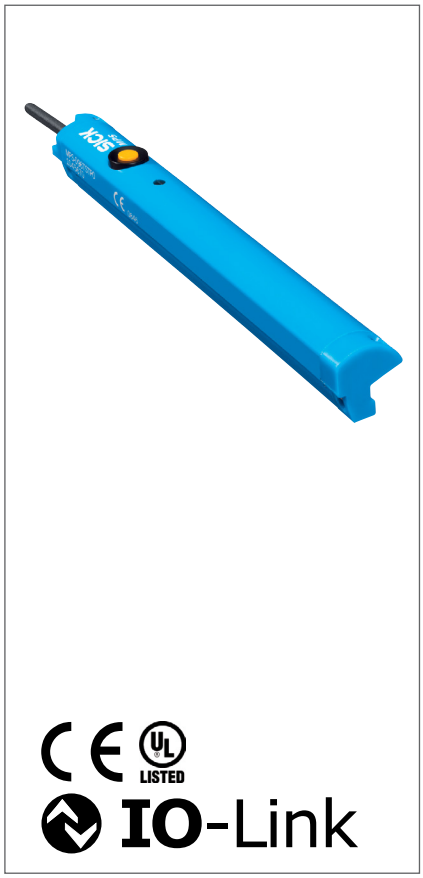

At a glance

- Analog positioning sensor for pneumatic and hydraulic cylinders with T-slot
- Measuring lengths from 32 mm to 256 mm in 32 mm steps
- Output signals 4 mA to 20 mA as well as 0 V to 10 V in a single sensor
- Superior precision: 0.05 mm resolution typ., 0.1 mm repeatability typ., 0.3 mm linearity typ., 1 ms measurement rate typ.
- Electric setting of zero point and end point via teach-in button (optional)

Your benefits

- Convenient installation and sensor replacement due to drop-in installation
- Maximum flexibility through measuring ranges from 32 mm to 256 mm
- Increased machine performance thanks to the sensor's minimal blind zone
- Easy analog output setup: adjustable zero and end point can be taught via single button
- Selectable installation direction to optimize cabling
- Simple commissioning due to "in-range" indicator
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link save time and money

IO-Link

➜ www.mysick.com/en/MPS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/MPS

MPS-Analog

- **Output function:** Analog
- **Teach-in:** ✔
- **Cable material:** PUR

Measuring range	Housing length	Connection	Model name	Part no.
32 mm [1]	45 mm	Cable with connector M8, 4-pin, 0.3 m [2]	MPS-032TSTP0	1045666
64 mm [1]	77 mm	Cable with connector M8, 4-pin, 0.3 m [2]	MPS-064TSTP0	1045668*
96 mm [1]	109 mm	Cable with connector M8, 4-pin, 0.3 m [2]	MPS-096TSTP0	1045670
128 mm [1]	141 mm	Cable with connector M8, 4-pin, 0.3 m [2]	MPS-128TSTP0	1045672
256 mm [1]	269 mm	Cable with connector M8, 4-pin, 0.3 m [2]	MPS-256TSTP0	1050551

[1] ± 1 mm.

[2] Do not bend below 0 °C.

Recommended accessories

	Material	Description	Model name	Part no.
Brackets for cylinder sensors				
	Aluminum	Mounting bracket for mounting on SMC rails CDQ2 (only MPS-32THTP0)	BEF-KHZ-CT45	2061698
		Mounting bracket for cylinder with dovetail slot, without mounting hardware	BEF-KHZ-ST1	2022703
		Mounting bracket for mounting on SMC rails ECDQ2 (T-slot), without mounting hardware	BEF-KHZ-TT1	2046439
		Mounting bracket for mounting on SMC rails CDQ2 (T-slot), without mounting hardware	BEF-KHZ-TT2	2046440

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At a glance

- Analog positioning sensor that can be mounted with adapters on various cylinders thanks to its universal housing, e.g., cylinders with T-slot, round and tie rod cylinders
- Measuring lengths from 107 mm to 1,007 mm in 36 mm steps
- Output signals 4 mA to 20 mA as well as 0 V to 10 V in a single sensor
- Linearity of 0.5 mm at a sample rate of 1.15 ms and an resolution of 0.06 mm
- Electric setting of zero point and end point via teach-in button
- IP 67 enclosure rating

Your benefits

- Maximum flexibility through measuring ranges from 107 mm to 1,007 mm
- Increased machine performance thanks to the sensor's minimal blind zone
- Saves time due to configurable start and end points via intelligent Teach Pad
- A rugged aluminum housing, the capacitive Teach Pad and the anti-kink cable guarantees a long operational lifetime of the sensor and reduces maintenance costs
- Time savings through simple commissioning and diagnostics thanks to a 4-color LED display
- Analog power, voltage signal and IO-Link in a single sensor reduces the range of variants and thereby lowers warehousing costs
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link save time and money

→ www.mysick.com/en/MPA

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/MPA

- **Output function:** Analog, IO-Link
- **Teach-in:** ✔
- **Cable material:** PUR

Measuring range	Housing length	Connection	Model name	Part no.
107 mm [1]	109 mm	Cable with connector M8, 4-pin, 0.3 m [2]	MPA-107THTP0	1059442
395 mm [1]	397 mm	Cable with connector M8, 4-pin, 0.3 m [2]	MPA-395THTP0	1059458
575 mm [1]	577 mm	Cable with connector M8, 4-pin, 0.3 m [2]	MPA-575THTP0	1059467
827 mm [1]	829 mm	Cable with connector M8, 4-pin, 0.3 m [2]	MPA-827THTP0	1059474
1,007 mm [1]	1,009 mm	Cable with connector M8, 4-pin, 0.3 m [2]	MPA-1007THTP0	1059479

[1] ± 1 mm.

[2] Do not bend below 0 °C.

Recommended accessories

	Material	Description	Model name	Part no.
Brackets for cylinder sensors				
	Aluminum alloy (adapter), Stainless steel V2A (mounting-/fixing screw)	For tie-rod cylinder (diameter tie-rod max. 18 mm)	BEF-KHZPZ1MPA	2065578
	Stainless steel V2A (bracket/mounting screw), Brass (fixing screw/sliding nut)	For T-slot cylinders	BEF-KHZT01MPA	2065575
Mounting brackets and mounting plates				
	Stainless steel V2A (bracket/mounting screw), Brass (fixing screw)	Braket for low mounting	BEF-WNL01MPA	2065973*
		Braket for lateral mounting	BEF-WNZ01MPA	2065577
Magnets				
	Strontium ferrite	Magnet with mounting hole for M4 countersunk screw, Ø 20 mm, height 6.5 mm	MAG-2006-B	7901784*^
	Barium ferrite	Magnet without mounting hole for M4 countersunk screw, Ø 30 mm, height 10 mm	MAG-3010-B	7901785
		Magnet with mounting hole for M5 countersunk screw, Ø 31 mm, height 15 mm	MAG-3015-B	7901786*
	Barium ferrite with plastic coating	Magnet with mounting hole for M5 countersunk screw, Ø 36 mm, height 19.5 mm	MAG-3515-B	7902086

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At a glance

- Magnetic cylinder sensor for all conventional pneumatic cylinders, linear slides, and grippers with C-slots
- Easy adjustment of two switching points via teach-in pushbutton
- Detection range up to 50 mm stroke
- Drop-in mounting from above simplifies handling and assembly

Your benefits

- One sensor with two adjustable switching points reduces installation time and costs
- Highest levels of flexibility thanks to a detection zone up to 50 mm
- Reliable solution for precise pneumatic applications due to intuitive and accurate definition of two switching points
- Convenient installation and sensor replacement due to drop-in installation
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

D

→ www.mysick.com/en/MZ2Q-C

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/MZ2Q-C

MZ2Q

- **Output function:** NO

IO-Link	Output type	Connection	Model name	Part no.
–	PNP	Cable with connector M8, 4-pin, 0.3 m	MZ2Q-FTZPS-KP0	1029846

MZ2Q-SMC

- **For SMC cylinder:** ✔
- **Output function:** NO

IO-Link	Output type	Connection	Model name	Part no.
–	PNP	Cable with connector M8, 4-pin, 0.3 m	MZ2Q-CSSPSKP0	1042238

MZ2Q-Festo

- **For Festo cylinder:** ✔
- **Output function:** NO

IO-Link	Output type	Connection	Model name	Part no.
–	PNP	Cable with connector M8, 4-pin, 0.3 m	MZ2Q-CFSPSKP0	1042242

Recommended accessories

	Material	Description	Model name	Part no.
Brackets for cylinder sensors				
	Zinc diecast	Mounting bracket for integrated profile cylinder/tie-rod cylinder, mounting hardware included	BEF-KHZ-PT1	2022702*
	Plastic, nickel silver	Mounting bracket on round body cylinder with piston diameter of 8 mm to 130 mm, without mounting hardware	BEF-KHZ-RT1-130	5311506
		Mounting bracket on round body cylinder with diameter of 8 mm to 25 mm, without mounting hardware	BEF-KHZ-RT1-25	5311171
		Mounting bracket on round body cylinder with diameter of 8 mm to 63 mm, without mounting hardware	BEF-KHZ-RT1-63	5311172^
	Aluminum	Mounting bracket for cylinder with dovetail slot, without mounting hardware	BEF-KHZ-ST1	2022703

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At a glance

- Magnetic cylinder sensor for all conventional pneumatic cylinders, linear slides, and grippers with T-slots
- Easy adjustment of two switching points via teach-in pushbutton
- Detection range up to 50 mm stroke
- Drop-in mounting from above simplifies handling and assembly

Your benefits

- One sensor with two adjustable switching points reduces installation time and costs
- Highest levels of flexibility thanks to a detection range up to 50 mm
- Reliable solution for precise pneumatic applications due to intuitive and accurate definition of two switching points
- Convenient installation and sensor replacement due to drop-in installation
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

D

→ www.mysick.com/en/MZ2Q-T

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/MZ2Q-T

MZ2Q-T

- **IO-Link:** -
- **Supply voltage:** 12 V DC ... 30 V DC
- **Output function:** NO

Output type	Connection	Model name	Part no.
PNP	Cable with connector M8, 4-pin, 0.3 m	MZ2Q-FTZPS-KP0	1029846
NPN	Cable, 4-wire, 2 m	MZ2Q-FTZNS-KU0	1048103

MZ2Q-T IO-Link

- **IO-Link:** ✔
- **Supply voltage:** 15 V DC ... 30 V DC
- **Output function:** NO

Output type	Connection	Model name	Part no.
PNP	Cable with connector M12, 4-pin, 0.3 m	MZ2Q-TSLPS-KQ0	1042228

Recommended accessories

	Material	Description	Model name	Part no.
Brackets for cylinder sensors				
	Zinc diecast	Mounting bracket for integrated profile cylinder/tie-rod cylinder, mounting hardware included	BEF-KHZ-PT1	2022702*
	Plastic, nickel silver	Mounting bracket on round body cylinder with piston diameter of 8 mm to 130 mm, without mounting hardware	BEF-KHZ-RT1-130	5311506
		Mounting bracket on round body cylinder with diameter of 8 mm to 25 mm, without mounting hardware	BEF-KHZ-RT1-25	5311171
		Mounting bracket on round body cylinder with diameter of 8 mm to 63 mm, without mounting hardware	BEF-KHZ-RT1-63	5311172^
	Aluminum	Mounting bracket for cylinder with dovetail slot, without mounting hardware	BEF-KHZ-ST1	2022703

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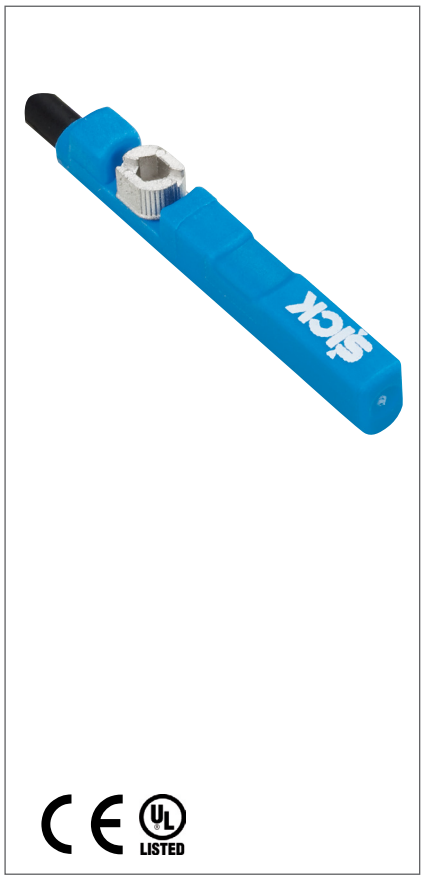

At a glance

- Fits into all commonly used cylinders, linear slides and grippers with C-slots, such as, Festo or SMC
- Complete range with PNP / NPN, PUR and PVC cable, M8 and M12 connector
- Combined Allen and flathead installation screw
- Very short sensor housing, making it easier to install on short stroke cylinders
- LED function indicator
- IP 67 / IP 68 / IP 69K enclosure rating (depending on type)

Your benefits

- Reduced maintenance cost as the sensor keeps its position under shock and vibration and does not move out
- Increased machine throughput thanks to SICK' s proprietary GMR technology (giant magneto resistive) as well as the SICK-ASIC (application specific integrated circuit) that ensure precise one-time switching while eliminating false signals
- Flexible installation via Allen wrench or flathead screwdriver
- Time saving single-hand mounting with ¼-turn installation.
- Convenient installation and sensor replacement due to drop-in installation – installer does not need to disassemble the cylinder from the machine for sensor replacement.
- Extremely rugged VISTAL-housing - rated for IP67 respectively IP 68 and IP 69K, enlarging sensor life time

→ www.mysick.com/en/MZC1

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/MZC1

MZC1 – 7 mm

- **Overrun distance typ.:** 7 mm
- **Output function:** NO

Output type	Connection type	Enclosure rating	Cable material	Model name	Part no.
PNP	Cable with connector M8, 3-pin, 0.3 m	IP 68	PUR	MZC1-4V3PS-KP0	1059752

Recommended accessories

	Material	Description	Model name	Part no.
Brackets for cylinder sensors				
	Aluminum	Mounting bracket for mounting on SMC rails ECDQ2 (C-slot), without mounting hardware	BEF-KHZ-TC1	2046441
		Mounting bracket for mounting on SMC rails CDQ2 (C-slot)	BEF-KHZ-TC2	2046442

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At a glance

- Fits into all commonly used cylinders, linear slides and grippers with C-slots, such as, Festo or SMC
- Complete range with Reed 3-wire, Reed 2-wire, and Reed 120V version
- Combined Allen and flathead installation screw
- Very short sensor housing, making it easier to install on short stroke cylinders
- LED function indicator
- IP 67 / IP 68 / IP 69K enclosure rating (depending on type)

Your benefits

- Reduced maintenance cost as the sensor keeps its position under shock and vibration and does not move out
- Flexible installation via Allen wrench or flathead screwdriver
- Time saving single-hand mounting with ¼-turn installation
- Convenient installation and sensor replacement due to drop-in installation – installer does not need to disassemble the cylinder from the machine for sensor replacement
- Extremely rugged VISTAL-housing - rated for IP67 respectively IP 68 and IP 69K, enlarging sensor life time

➜ www.mysick.com/en/RZC1

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/RZC1

AC/DC 3-wire

- **Electrical wiring:** AC/DC 3-wire
- **Voltage drop:** < 0.5 V
- **Output current I_a:** ≤ 500 mA

Supply voltage	Connection	Enclosure rating	Model name	Part no.
5 V AC/DC ... 30 V AC/DC	Cable with connector M8, 3-pin, 0.3 m	IP 67 [1]	RZC1-04ZRS-KP0	1059747

[1] According to EN 60529 (IP67/IP68)
[2] According to DIN 40050 (IP69K)

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Recommended accessories

	Material	Description	Model name	Part no.
Brackets for cylinder sensors				
	Aluminum	Mounting bracket for mounting on SMC rails ECDQ2 (C-slot), without mounting hardware	BEF-KHZ-TC1	2046441
		Mounting bracket for mounting on SMC rails CDQ2 (C-slot)	BEF-KHZ-TC2	2046442

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At a glance

- Fits into all commonly used cylinders, linear slides and grippers with T-slots and it can be also applied to multiple cylinders types such as round, tie-rod, integrated profile or dove-tail cylinders with mounting brackets
- Complete range with PNP/ NPN, PUR and PVC cable, M8 and M12 connector
- Combined Allen and flathead installation screw
- Very short sensor housing to install on short stroke cylinders
- LED function indicator
- IP 67 / IP 68 / IP 69K enclosure rating (depending on type)

Your benefits

- Best-in-class switching performance for precise piston position
- Reduced maintenance cost as the sensor keeps its position under shock and vibration and does not move out
- Increased machine throughput thanks to SICK' s proprietary GMR technology (giant magneto resistive) as well as the SICK-ASIC (application specific integrated circuit) that ensure precise one-time switching while eliminating false signals
- Flexible installation via Allen wrench or flathead screwdriver
- Time saving single-hand mounting with ¼-turn installation.
- Convenient installation and sensor replacement due to drop-in installation – installer does not need to disassemble the cylinder from the machine for sensor replacement.
- Extremely rugged housing - rated for IP67 respectively IP 68 and IP 69K, enlarging sensor life time

➜ www.mysick.com/en/MZT8

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/MZT8

MZT8 - overrun distance short - Temperature-resistant up to 100 °C

- **Ambient temperature operation:** 0 °C ... +100 °C
- **Overrun distance typ.:** 3 mm
- **Supply voltage:** 10 V DC ... 24 V DC
- **Output current I_a:** ≤ 50 mA
- **Magnetic field sensitivity:** 2.6 mT

Output type	Output function	Connection type	Cable material	Enclosure rating	Model name	Part no.
PNP	NO	Cable, 3-wire, 2 m	PVC	IP 68, IP 69K	MZT8-2V6PSTKW0	1073269
		Cable, 3-wire, 5 m	PVC	IP 68, IP 69K	MZT8-2V6PSTKWB	1073270
		Cable with connector M8, 3-pin, 0,3 m	PVC	IP 68, IP 69K	MZT8-2V6PSTKP0	1073268

MZT8 - overrun distance long

- **Ambient temperature operation:** –30 °C ... +80 °C
- **Overrun distance typ.:** 9 mm
- **Supply voltage:** 10 V DC ... 30 V DC
- **Output current I_a:** ≤ 200 mA
- **Magnetic field sensitivity:** 2.8 mT

Output type	Output function	Connection type	Cable material	Enclosure rating	Model name	Part no.
PNP	NO	Cable, 3-wire, 2 m	PUR	IP 68, IP 69K	MZT8-28VPS-KU0	1048049^
		Cable, 3-wire, 5 m	PVC	IP 67, IP 69K	MZT8-28VPS-KWB	1057030
		Cable with connector M8, 3-pin, 0.3 m	PUR	IP 68	MZT8-28VPS-KP0	1048048
NPN	NO	Cable, 3-wire, 2 m	PUR	IP 68, IP 69K	MZT8-28VNS-KUA	1068535

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MZT8 - overrun distance short

- **Ambient temperature operation:** –30 °C ... +80 °C
- **Overrun distance typ.:** 3 mm
- **Supply voltage:** 10 V DC ... 30 V DC
- **Output current I_a:** ≤ 200 mA
- **Magnetic field sensitivity:** 2.6 mT

Output type	Output function	Connection type	Cable material	Enclosure rating	Model name	Part no.
PNP	NC	Cable, 3-wire, 2 m	PUR	IP 68, IP 69K	MZT8-03VP0-KU0	1044931
		Cable, 3-wire, 10 m	PUR	IP 68, IP 69K	MZT8-03VP0-KUD	1060429
		Cable with connector M8, 3-pin, 0.3 m	PUR	IP 68	MZT8-03VP0-KP0	1044930
	NO	Cable, 3-wire, 2 m	PUR	IP 68, IP 69K	MZT8-03VPS-KU0	1044469
		Cable, 3-wire, 3 m	PUR	IP 68, IP 69K	MZT8-03VPS-KUA	1044466
		Cable, 3-wire, 5 m	PUR	IP 68, IP 69K	MZT8-03VPS-KUB	1044470^
		Cable with connector M8, 3-pin, 0.3 m	PUR	IP 68	MZT8-03VPS-KP0	1044458*^
		Cable with connector M8, 3-pin, 0.75 m	PUR	IP 68	MZT8-03VPS-KPD	1044461
NPN	NO	Cable, 3-wire, 2 m	PUR	IP 68, IP 69K	MZT8-03VNS-KU0	1044934
		Cable, 3-wire, 3 m	PUR	IP 68, IP 69K	MZT8-03VNS-KUA	1068912
		Cable with connector M8, 3-pin, 0.3 m	PUR	IP 68	MZT8-03VNS-KP0	1044932
		Cable with connector M8, 3-pin, with knurled nuts, 0.5 m	PUR	IP 68	MZT8-03VNS-KR0	1044935

MZT8 VIA

- **Ambient operating temperature:** –30 °C ... +80 °C
- **Special features:** Visual installation aid/LED indicator (yellow); Power LED (green)
- **Overrun distance typ.:** 3 mm
- **Magnetic field sensitivity, min.:** 2.6 mT

Output type	Output function	Connection type	Cable material	Enclosure rating	Model name	Part no.
PNP	NO	Cable, 3-wire, 2 m	PVC	IP 68, IP 69K	MZT8-2V6PSAKU0	1073265
		Cable, 3-wire, 5 m	PVC	IP 68, IP 69K	MZT8-2V6PSAKUB	1073266
		Cable, 3-wire, 10 m	PVC	IP 68, IP 69K	MZT8-2V6PSAKUD	1073267
		Cable with connector M8, 3-pin, 0,3 m	PVC	IP 68	MZT8-2V6PSAKP0	1073264

MZT8 ATEX, Namur, 1G, 1D

- **Supply voltage:** 8.2 V DC ... 20 V DC [1)]
- **Output current I_a:** ≤ 60 mA [1)]
- **Overrun distance typ.:** 9 mm
- **Magnetic field sensitivity, min.:** 2.8 mT

Output type	Connection type	Cable material	Enclosure rating	Model name	Part no.
NAMUR [1)]	Cable, 2-wire, 2 m	PVC	IP 67	MZT8-2V8-N-KW0	1069424
	Cable, 2-wire, 3 m	PVC	IP 67	MZT8-2V8-N-KWA	1070456
	Cable, 2-wire, 5 m	PVC	IP 67	MZT8-2V8-N-KWB	1070461
	Cable, 2-wire, 6 m	PVC	IP 67	MZT8-2V8-N-KWDS01	1070462
	Cable, 2-wire, 7 m	PVC	IP 67	MZT8-2V8-N-KWDS02	1070463
	Cable, 2-wire, 10 m	PVC	IP 67	MZT8-2V8-N-KWDS03	1070464

[1)] According NAMUR EN 60947-5-6. Using of isolated switch amplifier with certificates of conformity for explosion areas is recommended (U ≤ 20 V; I ≤ 60 mA; P ≤ 100 mW).

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Switching unit MZT8 NAMUR

Figure	Description	Model name	Part no.
	Switching unit MZT8 NAMUR, 115 V, 1.5 VA, 3-pin	EN2-2EX-1	6041096
	Switching unit MZT8 NAMUR, 24 V, 0.7 W, 2-pin	EN2-2EX-3	6041095

MZT8 ATEX, 3G, 3D

- **Supply voltage:** 10 V DC ... 26 V DC [1)]
- **Output current I_a:** ≤ 50 mA [1)]
- **Overrun distance typ.:** 9 mm
- **Magnetic field sensitivity, min.:** 2.8 mT

Output type	Output function	Connection type	Cable material	Enclosure rating	Model name	Part no.
PNP	NO	Cable, 3-wire, 2 m	PVC	IP 67	MZT8-03VPS-KWX	1073405
		Cable with connector M8, 3-pin, with knurled nuts, 0.3 m	PVC	IP 67	MZT8-03VPS-KRX	1073406
		Cable with connector M12, 3-pin, with knurled nuts, 0.3 m	PVC	IP 67	MZT8-03VPS-KQX	1073407

[1)] Depend on ambient temperature. For details see operating instructions under „performance data of the sensor“.

Recommended accessories

	Material	Description	Model name	Part no.
Brackets for cylinder sensors				
	Zinc diecast	Mounting bracket for integrated profile cylinder/tie-rod cylinder, mounting hardware included	BEF-KHZ-PT1	2022702*
	Plastic, nickel silver,	Mounting bracket on round body cylinder with piston diameter of 8 mm to 130 mm, without mounting hardware	BEF-KHZ-RT1-130	5311506
		Mounting bracket on round body cylinder with diameter of 8 mm to 25 mm, without mounting hardware	BEF-KHZ-RT1-25	5311171
		Mounting bracket on round body cylinder with diameter of 8 mm to 63 mm, without mounting hardware	BEF-KHZ-RT1-63	5311172^
	Aluminum	Mounting bracket for cylinder with dovetail slot, without mounting hardware	BEF-KHZ-ST1	2022703
		Mounting bracket for mounting on SMC rails CDQ2 (T-slot)	BEF-KHZ-TT2	2046440
		Mounting bracket for mounting on SMC rails ECDQ2 (T-slot)	BEF-KHZ-TT1	2046439

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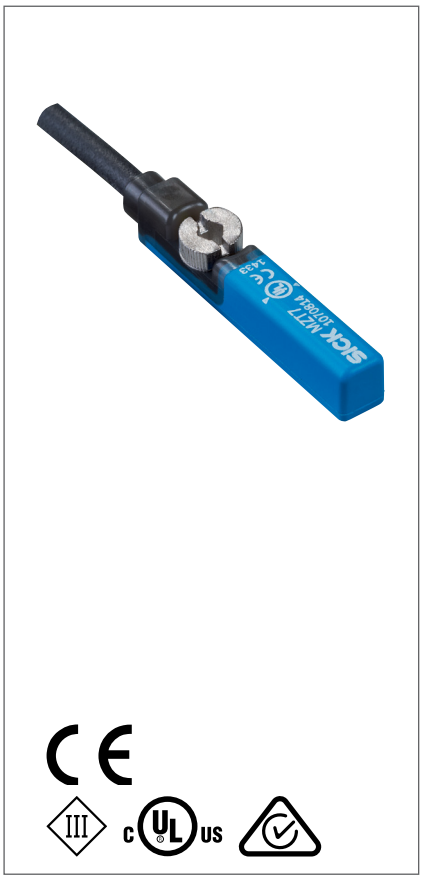


At a glance

- Can be used in all standard cylinders, linear slides, and grippers using the T-slot and – with the help of adapters – in round rod, tie-rod, profile cylinders and dovetail groove cylinders
- Easy to insert the sensor into the slot
- Locking screw combines an Allen key and slotted screw
- LED for indicating the output state
- IP 67 enclosure rating

Your benefits

- A sensor for a wide range of applications: The sensor design fits into all standard T-slots used around the world, regardless of the cylinder profile or manufacturer
- Simple mounting: Thanks to the retaining ribs on the side, the sensor holds its position even before the screw is tightened, ensuring that it does not fall out
- Fast mounting: The sensor is fixed quickly and securely in the slot simply by rotating the locking screw a quarter turn
- The rugged locking screw holds the sensor in the required position, even when exposed to shocks and vibrations
- It is easy to replace the sensor during servicing without removing the end caps

→ www.mysick.com/en/MZT7

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

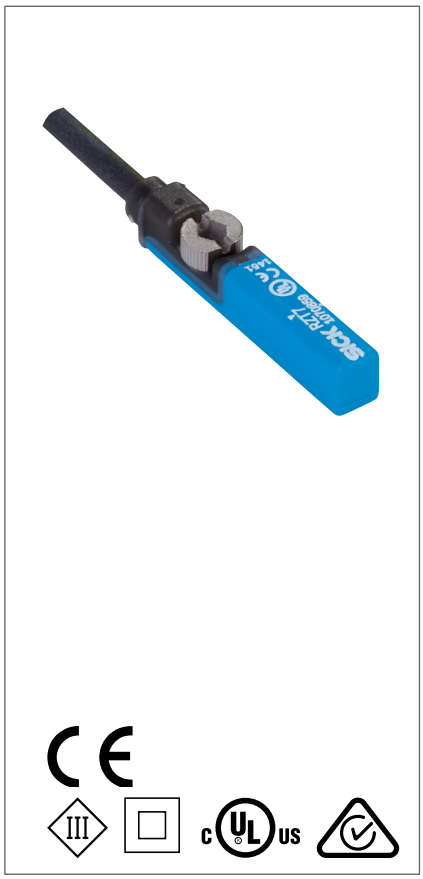
Other models and accessories → www.mysick.com/en/MZT7

MZT7

- **Magnetic field sensitivity, min.:** 3 mT

Output type	Output function	Connection type	Cable material	Enclosure rating	Type	Part no.
PNP	NO	Cable, 3-wire, 2 m	PUR	IP 65, IP 67	MZT7-03VPS-KU0	1070829
		Cable, 3-wire, 5 m	PUR	IP 65, IP 67	MZT7-03VPS-KUB	1070833
		Cable with connector M8, 3-pin, 0.3 m	PUR	IP 65, IP 67	MZT7-03VPS-KP0	1070814
	NC	Cable, 3-wire, 2 m	PUR	IP 65, IP 67	MZT7-03VP0-KU0	1070830
		Cable with connector M8, 3-pin, 0.3 m	PUR	IP 65, IP 67	MZT7-03VP0-KP0	1070818
NPN	NO	Cable, 3-wire, 2 m	PUR	IP 65, IP 67	MZT7-03VNS-KU0	1070831
		Cable, 3-wire, 5 m	PUR	IP 65, IP 67	MZT7-03VNS-KUB	1070835
	NC	Cable, 3-wire, 2 m	PUR	IP 65, IP 67	MZT7-03VN0-KU0	1070832
		Cable with connector M8, 3-pin, 0.3 m	PUR	IP 65, IP 67	MZT7-03VN0-KP0	1070820

D



At a glance

- Can be used in all standard cylinders, linear slides, and grippers using the T-slot and – with the help of adapters – in round rod, tie-rod, profile cylinders and dovetail groove cylinders
- Easy to insert the sensor into the slot
- Locking screw combines an Allen key and slotted screw
- LED for indicating the output state
- IP 67 enclosure rating
- Supply voltage up to 230 V

Your benefits

- A sensor for a wide range of applications: The sensor design fits into all standard T-slots used around the world, regardless of the cylinder profile or manufacturer
- Simple mounting: Thanks to the retaining ribs on the side, the sensor holds its position even before the screw is tightened, ensuring that it does not fall out
- Fast mounting: The sensor is fixed quickly and securely in the slot simply by rotating the locking screw a quarter turn
- The rugged locking screw holds the sensor in the required position, even when exposed to shocks and vibrations
- It is easy to replace the sensor during servicing without removing the end caps

→ www.mysick.com/en/RZT7

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/RZT7

AC/DC 2-wire

- **Electrical wiring:** AC/DC 2-wire
- **Continuous current I_a:** ≤ 100 mA

Supply voltage	Protection class	Output function	Connection	Cable material	Enclosure rating [1]	Type	Part no.
5 V AC/DC ... 30 V AC/DC	III	NO	Cable, 2-wire, 2 m	PUR	IP 65, IP 67	RZT7-03ZUS-KU0	1070861
			Cable, 2-wire, 5 m	PUR	IP 65, IP 67	RZT7-03ZUS-KUB	1070863
			Cable with connector M8, 3-pin, 0.3 m	PUR	IP 65, IP 67	RZT7-03ZUS-KP0	1070855
5 V AC/DC ... 120 V AC/DC	II	NC	Cable, 2-wire, 2 m	PVC	IP 65, IP 67	RZT7-03ZV0-KW0	1070866
5 V AC/DC ... 230 V AC/DC	II	NO	Cable, 2-wire, 2 m	PUR	IP 65, IP 67	RZT7-03ZWS-KU0	1070869
			Cable, 2-wire, 5 m	PUR	IP 65, IP 67	RZT7-03ZWS-KUB	1070870

[1] According to EN 60529.

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AC/DC 3-wire

- **Electrical wiring:** AC/DC 3-wire
- **Continuous current I_a:** ≤ 500 mA, ≤ 300 mA, DC, AC

Supply voltage	Protection class	Output function	Connection	Cable material	Enclosure rating [1]	Type	Part no.
5 V AC/DC ... 30 V AC/DC	III	NO	Cable, 3-wire, 2 m	PUR	IP 65, IP 67	RZT7-03ZRS-KU0	1070850
			Cable, 3-wire, 5 m	PUR	IP 65, IP 67	RZT7-03ZRS-KUB	1070851
			Cable, 3-wire, 10 m	PVC	IP 65, IP 67	RZT7-03ZRS-KWD	1070854
			Cable with connector M8, 3-pin, 0.3 m	PUR	IP 65, IP 67	RZT7-03ZRS-KP0	1070847

[1] According to EN 60529.

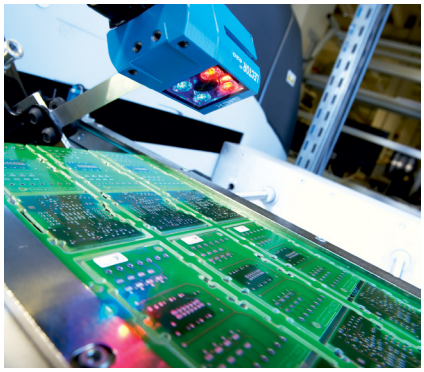
Recommended accessories

	Material	Description	Model name	Part no.
Brackets for cylinder sensors				
	Zinc diecast	Mounting bracket for integrated profile cylinder/tie-rod cylinder, mounting hardware included	BEF-KHZ-PT1	2022702*
	Aluminum	Mounting bracket for cylinder with dovetail slot, without mounting hardware	BEF-KHZ-ST1	2022703
		Mounting bracket for mounting on SMC rails CDQ2 (T-slot)	BEF-KHZ-TT2	2046440
		Mounting bracket for mounting on SMC rails ECDQ2 (T-slot)	BEF-KHZ-TT1	2046439
	Plastic Aluminum	Mounting bracket on round body cylinder with piston diameter of 12 mm [1]	BEF-KHZ-RT-12	2077681
		Mounting bracket on round body cylinder with piston diameter of 16 mm [1]	BEF-KHZ-RT-16	2077680
		Mounting bracket on round body cylinder with piston diameter of 20 mm [1]	BEF-KHZ-RT-20	2077679
	Plastic Aluminum	Mounting bracket on round body cylinder with piston diameter of 25 mm [1]	BEF-KHZ-RT-25	2077678
		Mounting bracket on round body cylinder with piston diameter of 32 mm [1]	BEF-KHZ-RT-32	2077677
		Mounting bracket on round body cylinder with piston diameter of 40 mm [1]	BEF-KHZ-RT-40	2077676
	Plastic Aluminum	Mounting bracket on round body cylinder with piston diameter of 50 mm [1]	BEF-KHZ-RT-50	2077675
		Mounting bracket on round body cylinder with piston diameter of 63 mm [1]	BEF-KHZ-RT-63	2077674
	Stainless steel, die cast	Mounting bracket on round body cylinder with piston diameter of 8 mm ... 25 mm	BEF-KHZ-RT1-25	2077682
		Mounting bracket on round body cylinder with piston diameter of 8 mm ... 63 mm	BEF-KHZ-RT1-63	2077683
		Mounting bracket on round body cylinder with piston diameter of 8 mm ... 130 mm	BEF-KHZ-RT1-130	2077684

[1] Ambient temperature min 0 °C max 50 °C.

IDENTIFICATION SOLUTIONS







All you can read – ensure your investment over the long term

Product traceability and anti-counterfeiting solutions require reliable automatic identification products. SICK offers the three most common industrial identification technologies: laser-based scanners for 1D codes, image-based 1D and 2D code readers, and RFID readers. Integrated interfaces enable the readers to communicate inside industrial networks and innovative functionality makes commissioning and operation easy.

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E

Selection guide identification solutions **E-180**


CLV61x **E-184**
Reliable decoding, simple integration


CLV62x **E-186**
Powerful scanner – flexible use


CLV63x **E-188**
Intelligent scanning solution for logistics and automation


CLV64x **E-190**
Dynamic, multi-functional


CLV65x **E-192**
Always in auto focus


ICR80x **E-194**
Easy, small and light


Lector®62x **E-196**
Clever. Simple. Industrial.


Lector®63x **E-198**
Intelligent. Flexible. Intuitive.


Lector®64x **E-200**
High efficiency for code reading applications


Lector®65x **E-202**
Nonstop code reading flexibility


IDM12x **E-206**
The entry level scanner


IDM14x **E-208**
Versatility made easy – from high density to standard range codes


IDM16x **E-210**
Industrial mobile reliability


IDM24x **E-212**
Convenient and secure identification of 2D codes


IDM26x **E-214**
Reliable 2D code identification in harsh environments


RFH6xx **E-216**
Intelligent RFID communication


RFU63x **E-218**
Intelligent technology ensures easy integration


RFID Tags & Accessories **E-220**


Connectivity 4DPro **E-222**

SELECTION GUIDE IDENTIFICATION SOLUTIONS

E

Product			IDpro	Focussing			Supported code type					
			4Dpro compliance	Fixed focus	Dynamic focus	Auto focus	1D code	Stacked code	2D code	OCR	RFID tags	
Bar code scanners												
	CLV61x	CLV610 Mid Range	■	■			■					
		CLV612 Short Range	■	■			■					
		CLV615 Long Range	■	■			■					
	CLV62x	CLV620 Mid Range	■	■			■					
		CLV621 Long Range	■	■			■					
		CLV622 Short Range	■	■			■					
	CLV63x	CLV630 Long Range	■	■			■					
		CLV631 Mid Range	■	■			■					
		CLV632 Short Range	■	■			■					
	CLV64x	CLV640 Standard Density	■		■		■					
		CLV642 High Density	■		■		■					
	CLV65x	CLV650 Standard Density	■			■	■					
		CLV651 Low Density	■			■	■					
Image-based code readers												
	ICR	ICR80x		■			■	■	■	■		
	LECTOR®62x	LECTOR®620 ECO	■			■ [3]	■	■	■			
		LECTOR®620 Professional	■			■ [3]	■	■	■			
		LECTOR®620 High Speed	■			■ [3]	■	■	■			
		LECTOR®620 DPM Plus	■			■ [3]	■	■	■			
		LECTOR®620 OCR	■			■ [3]	■	■	■	■		
	LECTOR®63x LECTOR®64x	LECTOR®632 Flex	■	■ [5]			■	■	■			
		LECTOR®642 Flex	■	■ [5]			■	■	■			
	LECTOR®65x	LECTOR®652 Flex	■	■ [5]			■	■	■			
		LECTOR®652 Dynamic Focus	■		■		■	■	■			
		LECTOR®654 Flex	■	■ [5]			■	■	■			
		LECTOR®654 Dynamic Focus	■		■		■	■	■			

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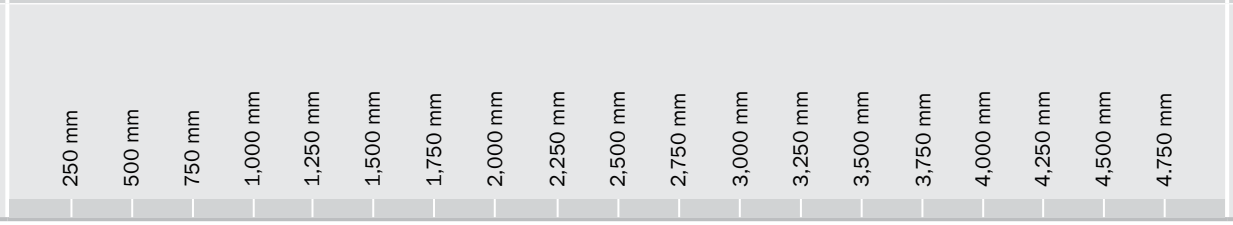
E

Reading distance/scanning range [1]	Page
	
60 mm ... 365 mm	→ E-184
43 mm ... 93 mm	→ E-184
25 mm ... 330 mm	→ E-184
60 mm ... 365 mm	→ E-186
60 mm ... 730 mm	→ E-186
55 mm ... 200 mm	→ E-186
58 mm ... 742 mm [2]	→ E-188
87 mm ... 455 mm [2]	→ E-188
58 mm ... 288 mm [2]	→ E-188
58 mm ... 840 mm [2]	→ E-190
30 mm ... 338 mm	→ E-190
125 mm ... 1,625 mm	→ E-192
155 mm ... 930 mm [2]	→ E-192
60 mm ... 330 mm	→E-194
40 mm ... 1,500 mm	→ E-196
40 mm ... 1,500 mm	→ E-196
30 mm ... 500 mm	→ E-196
30 mm ... 500 mm	→ E-196
30 mm ... 300 mm	→ E-196
300 mm ... 2,200 mm [4]	→ E-198
300 mm ... 2,200 mm [4]	→ E-200
300 mm ... 2,200 mm [4]	→ E-202
670 mm ... 2,000 mm	→ E-202
300 mm ... 2,200 mm [4]	→ E-202
670 mm ... 2,000 mm	→ E-202

SELECTION GUIDE IDENTIFICATION SOLUTIONS

Product		IDpro	Focussing			Supported code type					
		4Dpro compliance	Fixed focus	Dynamic focus	Auto focus	1D code	Stacked code	2D code	OCR	RFID tags	
Hand-held scanners											
	IDM12x		■			■	■				
	IDM14x		■			■	■				
	IDM16x		■			■	■				
	IDM24x		■			■	■	■			
	IDM26x		■			■	■	■			
RFID											
	RFH6xx	■								■	
	RFU63x	■								■	

[1] For details see reading field diagram online.
[2] Depending on the scanner design.
[3] During teach-in.
[4] Depending on lens and illumination.
[5] Manually adjustable focus using different lens accessories

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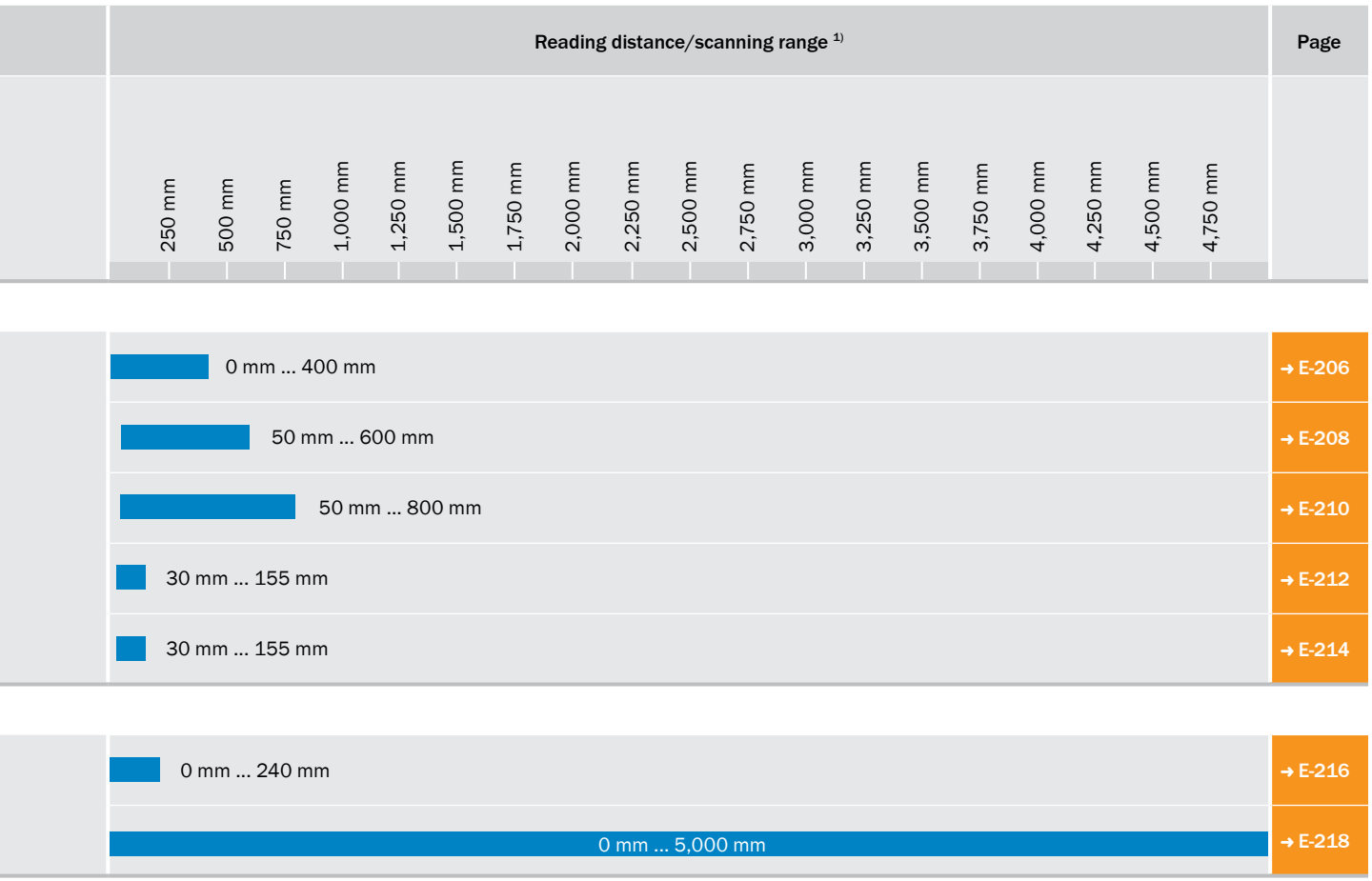
Reading distance/scanning range 1)
Page
250 mm
500 mm
750 mm
1,000 mm
1,250 mm
1,500 mm
1,750 mm
2,000 mm
2,250 mm
2,500 mm
2,750 mm
3,000 mm
3,250 mm
3,500 mm
3,750 mm
4,000 mm
4,250 mm
4,500 mm
4,750 mm
0 mm ... 400 mm
→ E-206
50 mm ... 600 mm
→ E-208
50 mm ... 800 mm
→ E-210
30 mm ... 155 mm
→ E-212
30 mm ... 155 mm
→ E-214
0 mm ... 240 mm
→ E-216
0 mm ... 5,000 mm
→ E-218



At a glance

- Optimized reading field for intralogistics applications
- Available with SICK CAN sensor network
- Configuration with SOPAS, the configuration tool for all new SICK products
- Available in different versions (CAN, Fieldbus) for use in almost any application
- Adjustable scanning frequency of up to 1000 scans/second
- Compact design

Your benefits

- A suitable scanner version for any CLV61x application
- An optimized reading field for container identification on a conveyor belt, in combination with the intuitive
- SOPAS user interface, enables quick and easy integration into your conveyor system
- Compact design enables installation even in applications with limited space
- Less programming time required for the control system, since data can be transmitted to the control system in the desired format
- Depending on the version, the CLV61x bar code scanner can be used as a multiplexer in any SICK CAN sensor network, so additional multiplexers are not required
- The optional configuration cloning module in combination with the quick-release mounting bracket enables very fast replacement time in the event of a fault

→ www.mysick.com/en/CLV61x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/CLV61x

Code resolution	Reading distance		Version
	Front	Side	
0.2 mm ... 1 mm	60 mm ... 365 mm [1] (depending on type)	60 mm ... 365 mm [1]	**CLV610 Mid Range**
0.35 mm ... 1 mm	60 mm ... 730 mm [1]	60 mm ... 730 mm [1]	**CLV612 Long Range**
0.15 mm ... 0.5 mm	55 mm ... 200 mm [1]	55 mm ... 200 mm [1]	**CLV615 Short Range**

[1] For details see reading field diagram.

- **Focus:** Fixed focus

Version	Connection type	Reading field	Scanner design	Enclosure rating	Front screen	Model name	Part no.
CLV610 Mid Range	Cable	Front	Line scanner	IP 65	Glass	CLV610-C0000	1057125
CLV610 Long Range	Cable	Side	Line scanner	IP 65	Glass	CLV615-F2000	1058334

- **Focus:** Fixed focus

Version	Connection type	Reading field	Scanner design	Enclosure rating	Front screen	Model name	Part no.
CLV615 Dual Port Long Range	Cable	Side (105°)	Line scanner	IP 65	Glass	CLV610-C0000	1057125
CLV618 Dual Port Long Range	Cable	Side (105°)	Line scanner	IP 65	Glass	CLV615-F2000	1058334

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Bracket with adapter board	Mounting bracket	2042902*
Modules			
	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256*^
	Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals, including trigger unit functionality for external illumination of Lector®65x	CDB650-204	1064114*
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, male connector/female connector, 5-pin)	CDF600-2100	1058965*
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 1 x D-Sub, female connector, 9-pin)	CDF600-2103	1058966
	Modular connection module for one sensor	CDM420-0001	1025362*

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, D-Sub	Male connector	Shielded	2 m	Connection cable (male connector-female connector)	2041834*
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	Ethernet, shielded	2 m, 4-wire, AWG26	SSL-2J04-G02ME	6034414*^



At a glance

- CAN, Ethernet TCP/IP, PROFINET, and EtherNet/IP available on board, no additional gateway needed (depending on variant)
- SMART620 code reconstruction technology
- Flexible sorting, filtering, and logical functions
- Advanced, easy-to-use SOPAS configuration software
- High scanning frequency of up to 1,200 Hz
- Small housing
- Advanced remote diagnostics and network monitoring capabilities available over Ethernet
- IP 65 or IP 69K rated (depending on type)

Your benefits

- High read rate on damaged and obscured codes using SMART620 code recognition technology
- Increased scanner intelligence enables sophisticated configuration of logical operations, reducing the control system programming effort. Data is then delivered in the desired format
- No supplementary Ethernet gateway required with Ethernet models – lowers costs
- The CLV62x scanner can be used as a multiplexer in any CAN scanner network from SICK – no supplementary multiplexer necessary
- Real-time decoding at very high speeds
- Small size and simple setup enables fast installation, even in compact machines

➜ www.mysick.com/en/CLV62x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/CLV62x

Code resolution	Reading distance		Version
	Front	Side	
0.2 mm ... 1 mm	60 mm ... 365 mm [1] (depending on type)	60 mm ... 365 mm [1]	**CLV620 Mid Range**
0.35 mm ... 1 mm	60 mm ... 730 mm [1]	60 mm ... 730 mm [1]	**CLV621 Long Range**
0.15 mm ... 0.5 mm	55 mm ... 200 mm [1]	55 mm ... 200 mm [1]	**CLV622 Short Range**

[1] For details see reading field diagram.

- **Focus:** Fixed focus

Version	Connection type	Reading field	Scanner design	Enclosure rating	Front screen	Model name	Part no.
CLV620 Mid Range	Cable	Front	Line scanner	IP 65	Glass	CLV620-0000	1040288*^
			Raster scanner	IP 65	Glass	CLV620-1000	1041548
	Ethernet	Front	Line scanner	IP 65	Glass	CLV620-0120	1041547*
			Raster scanner	IP 65	Glass	CLV620-1120	1041549

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Bracket with adapter board	Mounting bracket	2042902*
Modules			
	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256*^
	Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals, including trigger unit functionality for external illumination of Lector®65x	CDB650-204	1064114*
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, male connector/female connector, 5-pin)	CDF600-2100	1058965*
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 1 x D-Sub, female connector, 9-pin)	CDF600-2103	1058966
	Modular connection module for one sensor	CDM420-0001	1025362*

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, D-Sub	Male connector	Shielded	2 m	Connection cable (male connector-female connector)	2041834*
	Male connector, M12, 4-pin, straight, D-coded, shielded	Male connector, RJ45, 8-pin, straight	Ethernet, shielded	2 m, 4-wire, AWG26	SSL-2J04-G02ME	6034414*^



At a glance

- Integrated pushbuttons for auto setup and reading diagnostics
- Integrated LED bar graph
- CAN, Ethernet TCP/IP, PROFINET, and EtherNet/IP available on board, no additional gateway needed (depending on variant)
- Enhanced SMART code reconstruction technology
- Flexible sorting, filtering, and logical functions
- Advanced, easy-to-use SOPAS configuration software
- High scanning frequency of up to 1,200 Hz
- Advanced remote diagnostics and network monitoring capabilities available over Ethernet

Your benefits

- Intelligent auto setup and multi-function pushbuttons save time during commissioning
- Easily execute firmware updates using the microSD memory card: no need for a PC
- Enhanced SMART technology reads damaged and partially obscured codes, increasing read rates
- Increased scanner intelligence enables sophisticated configuration of logical operations, reducing the control system programming effort. Data is then delivered in the desired format
- Real-time decoding at very high speeds
- Increased reading reliability due to high-performance computing power and a high scanning frequency

➜ www.mysick.com/en/CLV63x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/CLV63x

Code resolution	Reading distance			Version
	Front	Side	Oscillating mirror	
0.35 mm ... 1 mm	60 mm ... 735 mm [1] 77 mm ... 718 mm [1] (depending on type)	44 mm ... 683 mm [1]	45 mm ... 659 mm [1]	**CLV630 Long Range**
0.25 mm ... 0.5 mm	90 mm ... 450 mm [1] (depending on type)	74 mm ... 412 mm [1]	78 mm ... 397 mm [1] (depending on type)	**CLV631 Mid Range**
0.2 mm ... 0.5 mm	60 mm ... 285 mm [1] (depending on type)	44 mm ... 256 mm [1]	45 mm ... 245 mm [1]	**CLV632 Short Range**

[1] For details see reading field diagram.

- **Focus:** Fixed focus

Version	Connection type	Reading field	Scanner design	Heating	Enclosure rating	Front screen	Model name	Part no.
CLV630 Long Range	Cable	Front	Line scanner	Optional	IP 65	Glass	CLV630-0000	1040706*
		Oscillating mirror	Line scanner	Optional	IP 65	Glass	CLV630-6000	1041976*
	Ethernet	Front	Line scanner	Optional	IP 65	Glass	CLV630-0120	1041969*
		Oscillating mirror	Line scanner	Optional	IP 65	Glass	CLV630-6120	1041977*

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CLV630 with heating

Version	Description
CLV630	CLV630 bar code scanners have heated versions with separate part numbers. Heater plate and scanner are always delivered as a completely mounted unit. The heating cannot be retrofitted. Ambient operating temperature : -35 °C ... 35 °C Additional circuit board (2055071) with 3A fuse should be used with CDM420-0001 (1025362). Please contact product manager for CLV part numbers.

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Hanger-shaped mounting bracket, Mounting hardware included	Mounting bracket	2042800*^
Modules			
	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256*^
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, male connector/female connector, 5-pin)	CDF600-2100	1058965*
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 1 x D-Sub, female connector, 9-pin)	CDF600-2103	1058966
	Modular connection module for one sensor	CDM420-0001	1025362*

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, D-Sub	Male connector	Shielded	2 m	Connection cable (male connector-female connector)	2041834*
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	Ethernet, shielded	2 m, 4-wire, AWG26	SSL-2J04-G02ME	6034414*^



At a glance

- Dynamic focus adjustment enables extended depth of field
- Integrated pushbuttons for auto setup and reading diagnostics
- CAN, Ethernet TCP/IP, PROFINET, and EtherNet/IP available on board, no additional gateway needed (depending on variant)
- Enhanced SMART code reconstruction technology
- Flexible sorting, filtering, and logical functions
- Advanced, easy-to-use SOPAS configuration software
- Integrated LED bar graph
- Advanced remote diagnostics and network monitoring capabilities available over Ethernet

Your benefits

- Economical, as only one CLV64x is required for all focus positions
- Intelligent auto setup and multi-function pushbuttons save time during commissioning
- Teach-in of match code possible via the pushbuttons
- Easily execute firmware updates using the microSD memory card: no need for a PC
- No supplementary Ethernet gateway required with Ethernet models – lowers costs
- Enhanced SMART technology reads damaged and partially obscured codes, increasing read rates
- Increased scanner intelligence enables sophisticated configuration of logical operations, reducing the control system programming effort. Data is then delivered in the desired format
- Real-time decoding at very high speeds

➜ www.mysick.com/en/CLV64x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/CLV64x

Code resolution	Reading distance			Version
	Front	Side	Oscillating mirror	
0.2 mm ... 1 mm	60 mm ... 840 mm [1] (depending on type)	44 mm ... 738 mm [1]	45 mm ... 798 mm [1] (depending on type)	**CLV640 Standard Density**
0.15 mm ... 0.25 mm	30 mm ... 345 mm [1]	–	–	**CLV642 High Density**

[1] For details see reading field diagram.

- **Focus:** dynamic focus control

Version	Connection type	Reading field	Scanner design	Heating	Enclosure rating	Front screen	Model name	Part no.
CLV640 Standard Density	Cable	Front	Line scanner	Optional	IP 65	Glass	CLV640-0000	1042014
		Oscillating mirror	Line scanner	Optional	IP 65	Glass	CLV640-6000	1042022
	Ethernet	Front	Line scanner	Optional	IP 65	Glass	CLV640-0120	1042015
		Oscillating mirror	Line scanner	Optional	IP 65	Glass	CLV640-6120	1042023*

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CLV640 with heating

Version	Description
CLV640	CLV640 bar code scanners have heated versions with separate part numbers. Heater plate and scanner are always delivered as a completely mounted unit. The heating cannot be retrofitted. Ambient operating temperature : -35 °C ... 35 °C Additional circuit board (2055071) with 3A fuse should be used with CDM420-0001 (1025362). Please contact product manager for CLV part numbers.

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Hanger-shaped mounting bracket, Mounting hardware included	Mounting bracket	2042800*^
Modules			
	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256*^
	Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals, including trigger unit functionality for external illumination of Lector®65x	CDB650-204	1064114*
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, male connector/female connector, 5-pin)	CDF600-2100	1058965*
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 1 x D-Sub, female connector, 9-pin)	CDF600-2103	1058966
	Modular connection module for one sensor	CDM420-0001	1025362*

	Connection type head A	Connection type head B	Signal type	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, D-Sub	Male connector	Shielded	2 m	Connection cable (male connector-female connector)	2041834*
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	Ethernet, shielded	2 m, 4-wire, AWG26	SSL-2J04-G02ME	6034414*^



At a glance

- Huge depth of field due to auto focus
- Integrated pushbuttons for auto setup and reading diagnostics
- CAN, Ethernet TCP/IP, PROFINET, and EtherNet/IP available on board, no additional gateway needed (depending on variant)
- Enhanced SMART code reconstruction technology
- Flexible sorting, filtering, and logical functions
- Integrated web server provides remote diagnostics and monitoring
- Advanced, easy-to-use SOPAS configuration software
- Integrated LED bar graph

Your benefits

- Economical, as auto focus means no versions or additional light barriers are required for focus adjustment
- Intelligent auto setup and multi-function pushbuttons save time during commissioning
- Easily execute firmware updates using the microSD memory card: no need for a PC
- Enhanced SMART technology reads damaged and partially obscured codes, increasing read rates
- Increased scanner intelligence enables sophisticated configuration of logical operations, reducing the control system programming effort. Data is then delivered in the desired format
- Integrated web server provides remote diagnostics and monitoring, no additional software required

➜ www.mysick.com/en/CLV65x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/CLV65x

Code resolution	Reading distance			Version
	Front	Oscillating mirror	Front, with polarizing filter	
0.25 mm ... 1 mm	140 mm ... 1,625 mm [1]	125 mm ... 1,570 mm [1]	160 mm ... 1,400 mm [1]	**CLV650 Standard Density**
0.5 mm	170 mm ... 930 mm [1]	155 mm ... 880 mm [1]	–	**CLV651 Low Density**

[1] For details see reading field diagram.

- **Focus:** Auto focus
- **Scanner design:** Line scanner
- **Enclosure rating:** IP 65
- **Front screen:** Glass

Version	Connection type	Reading field	Heating	Model name	Part no.
CLV650 Standard Density	Cable	Front	Optional	CLV650-0000	1041290*
		Oscillating mirror	Optional	CLV650-6000	1042124*
	Ethernet	Front	Optional	CLV650-0120	1042121*
		Oscillating mirror	Optional	CLV650-6120	1042125*^

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Subject to change without notice

CLV650 with heating

Version	Description
CLV650	CLV650 bar code scanners have heated versions with separate part numbers. Heater plate and scanner are always delivered as a completely mounted unit. The heating cannot be retrofitted. Ambient operating temperature : -35 °C ... 35 °C Additional circuit board (2055071) with 3A fuse should be used with CDM420-0001 (1025362). Please contact product manager for CLV part numbers.

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Hanger-shaped mounting bracket, Mounting hardware included	Mounting bracket	2042800*^
Modules			
	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256*^
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, male connector/female connector, 5-pin)	CDF600-2100	1058965*
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 1 x D-Sub, female connector, 9-pin)	CDF600-2103	1058966
	Modular connection module for one sensor	CDM420-0001	1025362*

	Connection type head A	Connection type head B	Signal type	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, D-Sub	Male connector	Shielded	2 m	Connection cable (male connector-female connector)	2041834*
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	Ethernet, shielded	2 m, 4-wire, AWG26	SSL-2J04-G02ME	6034414*^



At a glance

- Omni-directional code reading
- Optical alignment
- Extremely compact
- Lightweight
- USB and RS-232 versions
- RoHS and WEEE compliant
- Triggering via button, presentation mode, serial commands or hardware trigger via SICK connection technology

Your benefits

- Fast and reliable 1D and 2D code ident fication
- Read multiple code types with one device, accommodating future code changes
- Easy and fast installation and configurtion
- No moving parts and a large reading field reduce adjustments
- Small size makes it easy to integrate in limited spaces

➜ www.mysick.com/en/ICR80x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/ICR80x

- **Focus:** Fixed focus
- **Reading field:** Front

Version	Connection type	Model name	Part no.
ICR803-A Smart Focus	Serial	ICR803-A0201	6034210
	USB	ICR803-A0271	6034212
ICR803-B Standard Range	Serial	ICR803-B0201	6034211
	USB	ICR803-B0271	6034213

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Recommended accessories

	Description	Model name	Part no.
Modules			
	Small connection module for 5-V hand-held scanners, CLV50x and ICR80x	CDB405-001	1027093
Power supply			
	Universal AC adapter, input 100 ... 240 V AC, output 5 V DC, including the power cable with European plug (does not fulfill medical standard EN 60601/IEC 60601)	PS-050-2400D1-EU	6034941
	Australian power cord connector	AUS Power Cable	6034357

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, D-Sub-HD, 15-pin	Male connector, RJ45	RS-232 TTL, unshielded	2 m, straightened cable	RS232 cable	6034935
	Male connector, USB-A	Male connector, RJ45	USB, unshielded	2.3 m, straightened cable	USB cable	6028232
	Male connector, D-Sub, 9-pin	Male connector, RJ45	RS-232 TTL, unshielded	2.4 m, coiled cable	RS232 TTL spiral cable	6012109
	Female connector, D-Sub, 9-pin, straight	Male connector, RJ45	RS-422 TTL, unshielded	2.4 m, straightened cable	DB9 (Power P9) 2.4M	6028186

E



At a glance

- Decoding of all common 1D, 2D, and stacked codes, as well as optical character recognition (depending on type)
- Flexible interfaces: serial interface, USB, and Ethernet
- Function buttons, aiming laser, focus adjustment, auto-setup, and green feedback LED
- Industrial, compact housing with swivel connector
- MicroSD memory card for storing images and backup copies of parameters

Your benefits

- Intelligent decoding algorithms ensure optimal reading performance, good read rates, and high throughput
- ID*pro* facilitates quick and easy integration into many industrial networks
- Intuitive setup with aiming laser, focus adjustment, and auto-setup reduces training and installation time and costs
- Simple mounting thanks to a compact housing and swivel connector, even when space is limited
- Quick and efficient analysis of reading performance and code quality
- Cloning systems create backup copies of parameters, ensuring short machine downtimes in the event of malfunctions
- Proven SICK LifeTime Services

→ www.mysick.com/en/Lector62x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/Lector62x

- **Reading field:** Side
- **Sensor resolution:** 752 px x 480 px (WVGA)
- **Lens:** Integrated

Version	Focal length	Internal lighting	Enclosure rating	Model name	Part no.
Lector®620 Professional	7 mm	Red, blue	IP 65	ICR620S-T11503 Professional	1050589
			IP 67	ICR620S-T11504 Professional	1054375
		Infrared	IP 65	ICR620S-T16503 Professional	1058623
Lector®620 High Speed	7 mm	Red, blue	IP 65	ICR620H-T11503 High Speed	1055890
Lector®620 DPM Plus	7 mm	Red, blue	IP 65	ICR620D-T11503 DPM Plus	1055891
Lector®620 OCR	7 mm	Red, blue	IP 65	ICR620C-T11503S50 OCR	1062803

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket (simple bracket), Mounting hardware included	Mounting bracket	2020410*^
Modules			
	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256*^
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, male connector/female connector, 5-pin)	CDF600-2100	1058965*
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 1 x D-Sub, female connector, 9-pin)	CDF600-2103	1058966

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 17-pin, straight	Male connector, D-Sub-HD, 15-pin, straight	Power, serial, CAN, digital I/Os, unshielded	2 m	Connection cable (male connector-female connector)	2055419*
	Male connector, M12, 4-pin, D-coded	Male connector, M12, 4-pin, D-coded	Ethernet, shielded	2 m, 4-wire	SSL-1204-G02ME	6034420
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	Ethernet, shielded	2 m, 4-wire, AWG26	SSL-2J04-G02ME	6034414*^
	Male connector, USB-A	Male connector, Micro-B	USB 2.0	2 m	USB cable	6036106*



At a glance

- Code reader with 2 megapixel sensor
- Flexible optics and filter design
- Integrated, changeable high-power lighting
- Intuitive user interface, including flexible result string with code analytics options
- Function buttons, aiming laser, beeper and feedback indicator
- MicroSD card

Your benefits

- High-resolution sensor and intelligent processing ensure outstanding reading performance, even under difficult reading conditions
- Flexible optical design and high-power illumination enable small codes to be read at high speeds or in applications with a large reading distance
- Fast, straightforward commissioning thanks to the intuitive user interface, function button for rapid device setup, integrated illumination and aiming laser
- Direct results monitoring thanks to acoustic signal and colored feedback spot on the object
- Few machine downtimes in the event of faults on the production line, thanks to straightforward cloning function using microSD memory card

➜ www.mysick.com/en/

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/

- **Version:** Lector632 Flex
- **Sensor resolution:** 1,600 px x 1,200 px
- **Enclosure rating:** IP 67

Lens	Model name	Part no.
Exchangeable (C-mount), to be ordered separately as accessory	V2D632R-MXCXB0 Flex	1075881*
Exchangeable (S-mount), to be ordered separately as accessory	V2D632R-MXSXB0 Flex	1067380

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket with screws, L-shaped for sliding nuts mounting including skew angle display	Mounting bracket	2078970
Terminal and alignment brackets			
	Distance bracket and light extension connector for mounting integratable lighting, length 15 mm, used with compact C-mount lenses with focal length of 12 mm or 25 mm and S-mount lens with focal length 25mm	Distance bracket	2079501*
Modules			
	Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals, including trigger unit functionality for external illumination of Lector®65x	CDB650-204	1064114*
Illuminations			
	Integratable lighting, lighting color white, suitable for S-mount and compact C-mount lenses with a focal length of 25 mm and 35 mm	VI55I-WH2023M0	2078431*
Lens and accessories (Other lighting/lens combinations available)			
	Compact C-mount 2/3", focal length 25 mm, aperture 8	C-mount lens	2079343*
	Lens protective hood, enclosure rating IP 67, length 37.7 mm, PMMA , used with compact C-mount lenses with focal length of 12 mm or 25 mm and S-mount lens with focal length 25mm	Optics protection cover	2079127*

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 17-pin, straight, A-coded	Male connector, M12, 17-pin, straight, A-coded	Power, serial, CAN, digital I/Os, shielded	2 m	Connection cable (male connector-male connector)	6053230
	Male connector, M12, 8-pin, straight, X-coded	Male connector, RJ45, 8-pin, straight	Gigabit Ethernet, shielded	2 m, AWG26	Connection cable (male connector-male connector)	6049728*



At a glance

- 1,7 megapixel resolution; high frame repetition rate of 40 Hz
- Integrated high-power LED illumination
- Function buttons, aiming laser, optical and audible feedback signal
- Intelligent, rapid decoding algorithms

Your benefits

- Highly flexible code position, object height, and transport speed due to a large field of view and large depth of field
- Cost-effective, straightforward, modular integration of multiple devices adapted to the width of the conveyor belt
- Minimum training and installation work due to intuitive device equipment that includes function buttons, auto setup, integrated illumination, an aiming laser, an acoustic feedback signal, and a green feedback LED
- Intelligent decoding algorithms ensure maximum reading performance and high package throughput, even with codes that are difficult to read
- SICK IDpro platform facilitates quick and easy integration into numerous industrial networks

→ www.mysick.com/en/Lector64x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/Lector64x

- **Reading field:** Side
- **Sensor resolution:** 1,600 px x 1,088 px
- **Lens:** Exchangeable (C-mount), to be ordered separately as accessory

Version	Light source	Enclosure rating	Model name	Part no.
Lector®642 Flex	Lighting LEDs: - (to be ordered separately as accessory) aiming laser: visible red light (λ = 630 nm ... 680 nm) Lens : Exchangeable (C-mount), to be ordered separately as accessory	IP 65	V2D642R-MCXXA6 Flex	1070119

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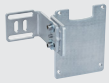
Recommended accessories

	Description	Model name	Part no.
Modules			
	Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals, including trigger unit functionality for external illumination of Lector®65x	CDB650-204	1064114*
Mounting brackets			
	Mounting bracket with screws including skew angle display	Mounting bracket	2069169*
	Mounting bracket set consisting of mounting angle, cooling plate and screw including skew angle display	Mounting bracket	2069171
Lens and accessories			
	Optics kit 01 incl. lens with focal distance 12,5 mm, white illumination, spacer and optics protective hood	Optic kit 01	1064791*
	Optics kit 02 incl. lens with focal distance 16 mm, white illumination, spacer and optics protective hood	Optic kit 02	1064792
	Optics kit 03 incl. lens with focal distance 25 mm, white illumination, spacer and optics protective hood	Optic kit 03	1064793*
	Optics kit 04 incl. lens with focal distance 35 mm, white illumination, spacer and optics protective hood	Optic kit 04	1064794
	Optics kit 05 incl. lens with focal distance 50 mm, white illumination, spacer and optics protective hood	Optic kit 05	1064776
	Optics kit 06 incl. lens with focal distance 75 mm, white illumination, spacer and optics protective hood	Optic kit 06	1064777

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, M8, 4-pin, straight	Male connector, USB-A, 4-pin, straight	USB 2.0, unshielded	2 m	Connecting cable (male connector-male connector)	6051164*
	Female connector, M12, 17-pin, straight, A-coded	Male connector, M12, 17-pin, straight, A-coded	Power, serial, CAN, digital I/Os, shielded	3 m, 17-wire	Connection cable (male connector-female connector)	6051194*
	Male connector, M12, 8-pin, straight, X-coded	Male connector, RJ45, 8-pin, straight	Gigabit Ethernet, shielded	2 m, AWG26	Connection cable (male connector-male connector)	6049728*



At a glance

- 2/4 megapixel resolution; high frame repetition rate of 40 Hz
- Dynamic focus adjustment from object to object
- Integrated high-power LED illumination
- Function buttons, aiming laser, optical and acoustic feedback signal
- Intelligent, rapid decoding algorithms

Your benefits

- Highly flexible code position, object height, and transport speed due to a large field of view and dynamic focus
- Cost-effective, straightforward, modular integration of multiple devices adapted to the width of the conveyor belt
- Minimum training and installation work due to intuitive device equipment that includes function buttons, auto setup, integrated illumination, an aiming laser, an acoustic feedback signal, and a green feedback LED
- Intelligent decoding algorithms ensure maximum reading performance and high package throughput, even with codes that are difficult to read
- SICK ID*pro* platform facilitates quick and easy integration into numerous industrial networks

→ www.mysick.com/en/Lector65x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/Lector65x

- **Reading field:** Side
- **Enclosure rating:** IP 65

Version	Sensor resolution	Lens	Focal length	Internal lighting	Model name	Part no.
Lector®652 Flex	2,048 px x 1,088 px	Exchangeable (C-mount), to be ordered separately as accessory	–	–	V2D652R-MCXXA6 Flex	1063404
Lector®652 Dynamic Focus	2,048 px x 1,088 px	Integrated	54 mm	White	V2D652R-MEWHA6 Dynamic Focus	1063405
Lector®654 Flex	2,048 px x 2,048 px	Exchangeable (C-mount), to be ordered separately as accessory	–	–	V2D654R-MCXXA6 Flex	1060892*
Lector®654 Dynamic Focus	2,048 px x 2,048 px	Integrated	54 mm	White	V2D654R-MEWHA6 Dynamic Focus	1060893

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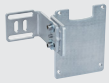
Recommended accessories

	Description	Model name	Part no.
Modules			
	Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals, including trigger unit functionality for external illumination of Lector®65x	CDB650-204	1064114*
Mounting brackets			
	Mounting bracket with screws including skew angle display	Mounting bracket	2069169*
	Mounting bracket set consisting of mounting angle, cooling plate and screw including skew angle display	Mounting bracket	2069171
Lens and accessories			
	Optics kit 01 incl. lens with focal distance 12,5 mm, white illumination, spacer and optics protective hood	Optic kit 01	1064791*
	Optics kit 02 incl. lens with focal distance 16 mm, white illumination, spacer and optics protective hood	Optic kit 02	1064792
	Optics kit 03 incl. lens with focal distance 25 mm, white illumination, spacer and optics protective hood	Optic kit 03	1064793*
	Optics kit 04 incl. lens with focal distance 35 mm, white illumination, spacer and optics protective hood	Optic kit 04	1064794
	Optics kit 05 incl. lens with focal distance 50 mm, white illumination, spacer and optics protective hood	Optic kit 05	1064776
	Optics kit 06 incl. lens with focal distance 75 mm, white illumination, spacer and optics protective hood	Optic kit 06	1064777

	Connection type head A	Connection type head B	Signal type	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, M8, 4-pin, straight	Male connector, USB-A, 4-pin, straight	USB 2.0, unshielded	2 m	Connecting cable (male connector-male connector)	6051164*
	Female connector, M12, 17-pin, straight, A-coded	Male connector, M12, 17-pin, straight, A-coded	Power, serial, CAN, digital I/Os, shielded	3 m, 17-wire	Connection cable (male connector-female connector)	6051194*
	Male connector, M12, 8-pin, straight, X-coded	Male connector, RJ45, 8-pin, straight	Gigabit Ethernet, shielded	2 m, AWG26	Connection cable (male connector-male connector)	6049728*

AT HAND: ALL THE HAND-HELD SCANNERS YOUR HEART DESIRES

For anyone who has their work cut out reading code, SICK now offers a complete range of hand-held scanners, so you can choose the right device for every requirement. Select the appropriate model:

E

WHERE WILL THE HAND-HELD SCANNER BE USED?



GENERAL PURPOSE

Offices, sales, and clean environments

What type of code should be read?

- 1D codes
- 1D codes + stacked codes
- 1D codes + stacked codes + 2D codes





INDUSTRIAL

Noisy, dusty, and harsh environments

What type of code should be read?

- 1D codes
- 1D codes + stacked codes
- 1D codes + stacked codes + 2D codes
- directly marked codes



8011993/2014-07-24
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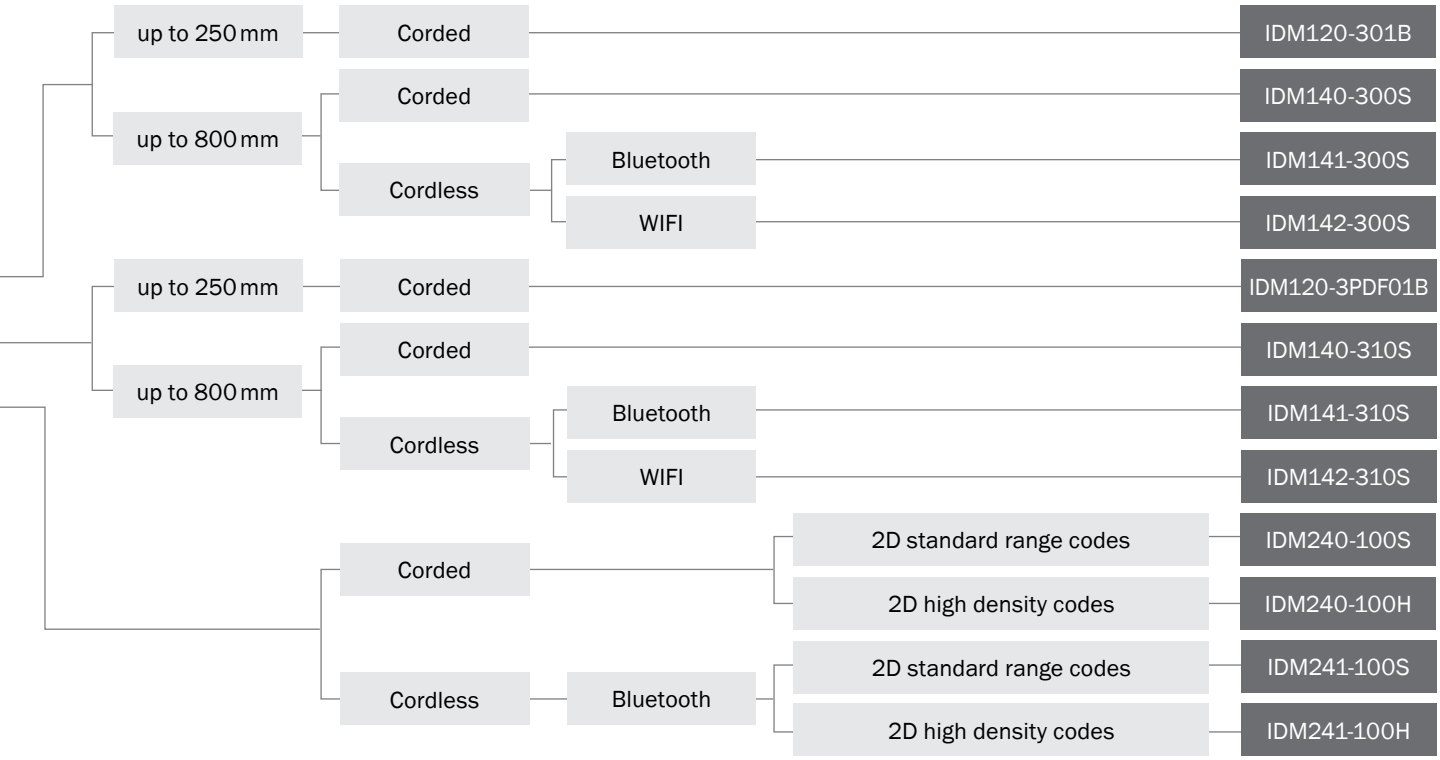
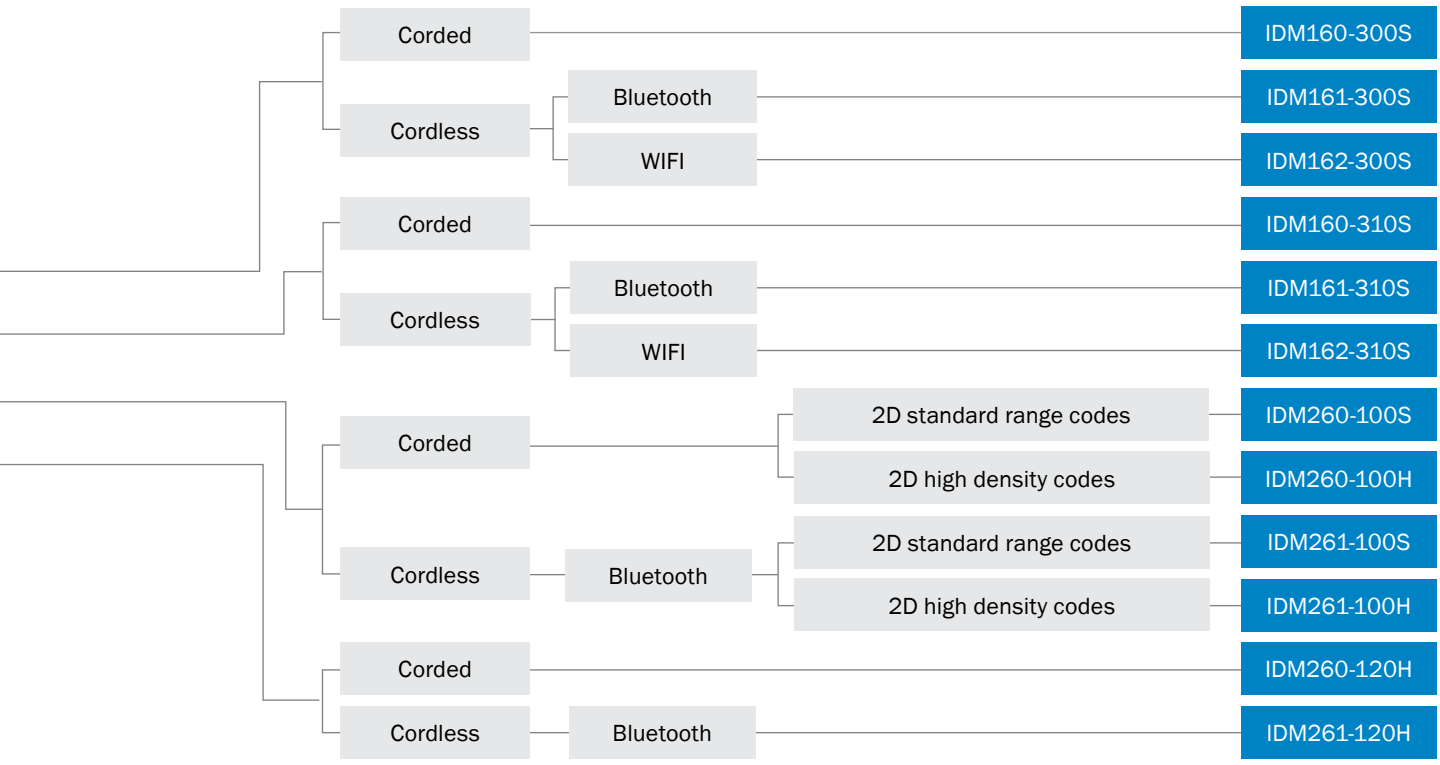
Reading distance







At a glance

- Reading at contact and distances up to 25 cm
- Identification of all popular 1D codes, with PDF version, also stacked codes
- Scan rate up to 300 scans/second
- Withstands 25 drops from 1.5 m height
- Extremely lightweight, only 106 g
- Connection as PS/2 and USB keyboard wedge, serial USB or via
- RS-232 TTL
- P 41 enclosure rating

Your benefits

- Designed for contact and close-range detection, providing flexible operation
- Increased productivity thanks to short scan time
- Low-cost solution for identifying various code sizes
- High degree of user comfort thanks to ergonomic housing, light weight and optional presentation mode
- The most popular industrial interfaces allow flexible connectivity to PS/2,
- USB and RS-232 TTL, for example
- Reliable identification reduces the need to manually input data

➜ www.mysick.com/en/IDM12x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IDM12x

- **Version:** Short Range

Sub product family	Field of application	Items supplied	Included in delivery	Model name	Part no.
IDM120 Standard	Entry level	Kit	6050059 IDM120-301B 6041540 Connection cable 6036722 Power supply unit	IDM120 RS-232 Kit	1061156
			6050059 IDM120-301B 6036728 Connection cable	IDM120 USB Kit	6050056

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Recommended accessories

	Description	Model name	Part no.
Other mounting accessories			
	Desk holder	Table mount	6036723^
	Tripod mount for general purpose hand-held scanners	Tripod mount	6036724

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, M12, 8-pin, straight, X-coded	Male connector, RJ45, 8-pin, straight	Gigabit Ethernet, shielded, AWG26	2 m	Connection cable	6045195
	Female connector, male connector, Mini-DIN, Mini-DIN	Male connector, RJ45	PS/2, unshielded, straightened cable	2 m	Connection cable	6045194
	Female connector, D-Sub, 9-pin, straight	Male connector, RJ45	RS-232 TTL, unshielded, straightened cable	1.8 m	Connection cable	6045196

E



At a glance

- Reading distance up to 320 mm
- Identifies all popular linear bar codes
- Scan rate up to 500 scans/second
- Withstands 25 drops from 1.6 m height
- Highly visible scan line
- IP 41 enclosure rating

Your benefits

- Increased productivity thanks to high scan rate
- Reliable identification reduces the need to manually input data
- Lightweight, ergonomic design ensures user comfort
- Highly dependable thanks to rugged housing and non-moving parts
- Easy targeting with higly visible scan line for correct aiming

➜ www.mysick.com/en/IDM14x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IDM14x

- **Version:** Mid Range
- **Code resolution:** ≥ 0.076 mm
- **Reading distance:** 50 mm ... 600 mm (for details see reading field diagram)
- **Supported code type:** 1D, 1D, Stacked (depending on type)

Sub product family	Field of application	Items supplied	Included in delivery	Model name	Part no.
IDM140 Corded	General purpose	Kit	6054538 IDM140-300S 6041540 Connection cable 6036722 Power supply unit	IDM140-300S RS-232 Power Kit	1070948
			6054538 IDM140-300S 6036728 Connection cable	IDM140-300S USB Kit	6054539
IDM141 Bluetooth	General purpose, cordless	Kit	6041540 Connection cable 6053628 Base station 6054550 IDM141-300S 6036722 Power supply unit	IDM141-300S RS-232 Kit	6054552
			6036728 Connection cable 6053628 Base station 6054550 IDM141-300S 6036722 Power supply unit	IDM141-300S USB Kit	6054551
IDM142 WIFI	General purpose, cordless	Kit	6054562 IDM142-300S 6036728 Connection cable 6041266 Charging station 6036722 Power supply unit	IDM142-300S USB Kit	6054563

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Recommended accessories

	Description	Model name	Part no.
Other mounting accessories			
	Desk holder	Table mount	6036723^
Power supply units and power cord connectors			
	Power supply, input AC 100 ... 240 V, output DC 5 V/2 A (necessary when using RS-232 TTL cable, does not fulfill medical standard EN 60601/ IEC 60601))	Power supply unit	6036722

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, USB-A	Male connector, RJ45	USB, unshielded, straightened cable	1.8 m	Connection cable	6036728*



At a glance

- Identification of all popular 1D codes, with PDF version also stacked codes
- Compact housing with up to IP 65 withstanding 50 drops from 2 m on concrete
- Good read feedback via LED, beeper and vibrator
- Supports all popular corded and cordless interfaces as well as industrial fieldbuses via SICK connectivity
- Tool-free exchange of cable and battery
- Corded and cordless versions available

Your benefits

- Increased productivity and throughput thanks to fast and reliable identification
- Reduced costs thanks to 2-in-1 scan engine: covering standard and high-density codes with a single device
- High reliability thanks to industrial grade and rugged housing
- Intuitive good read feedback for noisy industrial environment via vibration, beeper and LED
- Higher user comfort through ergonomic housing design, well balanced and light weight
- High flexibility and operator mobility with corded and cordless versions
- Quick integration in most corded and cordless PC or industrial networks

➜ www.mysick.com/en/IDM16x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IDM16x

- **Version:** Long Range
- **Code resolution:** ≥ 0.076 mm
- **Reading distance:** 50 mm ... 800 mm (for details see reading field diagram)
- **Supported code type:** 1D, 1D, Stacked (depending on type)

Sub product family	Field of application	Items supplied	Included in delivery	Model name	Part no.
IDM160 Corded	Industrial	Kit	6054544 IDM160-300S 6045196 Connection cable 6036722 Power supply unit	IDM160-300S RS-232 Power Kit	1070949
			6054544 IDM160-300S 6045195 Connection cable	IDM160-300S USB Kit	6054545*
IDM161 Bluetooth	Cordless, industrial	Kit	6054556 IDM161-300S 6041540 Connection cable 6053629 Base station 6036722 Power supply unit	IDM161-300S RS-232 Kit	6054558
			6054556 IDM161-300S 6036728 Connection cable 6053629 Base station 6036722 Power supply unit	IDM161-300S USB Kit	6054557
IDM162 WIFI	Cordless, industrial	Kit	6054566 IDM162-300S 6036728 Connection cable 6045198 Charging station 6036722 Power supply unit	IDM162-300S USB Kit	6054567

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Recommended accessories

	Description	Model name	Part no.
Other mounting accessories			
	Desk holder	Table mount	6045192
	Tripod mount for industrial hand-held scanner	Tripod mount	6045193

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, M12, 8-pin, straight, X-coded	Male connector, RJ45, 8-pin, straight	Gigabit Ethernet, shielded, AWG26	2 m	Connection cable	6045195
	Female connector, male connector, Mini-DIN, Mini-DIN	Male connector, RJ45	PS/2, unshielded, straightened cable	2 m	Connection cable	6045194
	Female connector, D-Sub, 9-pin, straight	Male connector, RJ45	RS-232 TTL, unshielded, straightened cable	1.8 m	Connection cable	6045196



At a glance

- Identification of all current 1D, stacked, and 2D codes
- Reliable, secure, and fast code reading
- Compact design, weighs only 150 g
- Manual operation and hands-free operation in presentation mode
- Corded and cordless variants available

Your benefits

- Only one device for a wide range of different code types
- Fast and accurate identification without manual data entry
- Simple and ergonomic operation, even in scanning-intensive applications
- Flexible application possibilities due to various operating options
- Cordless variant ensures mobility in all applications

➜ www.mysick.com/en/IDM24x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IDM24x

Code resolution	Reading distance		Supported code type	Sub product family
	Standard Range	High Density		
≥ 0.08 mm [1] ≥ 0.13 mm [2] (depending on type)	30 mm ... 155 mm [2] [3]	35 mm ... 90 mm [2] [3]	1D, 2D, Stacked	**IDM240 Corded**
	30 mm ... 155 mm [2] [3] (depending on type)	35 mm ... 90 mm [2] [3]	1D, 2D, Stacked	**IDM241 Bluetooth**

[1] Valid for Code 39.

[2] Valid for Data Matrix code.

[3] For details see reading field diagram.

Sub product family	Field of application	Version	Items supplied	Included in delivery	Model name	Part no.
IDM240 Corded	General purpose	Standard Range	Kit	6050643 IDM240-100S 6036728 Connection cable	IDM240-100S USB Kit	6050644
				6050643 IDM240-100S 6041540 Connection cable 6036722 Power supply unit	IDM240-100S RS-232 Power Supply Kit	1064986
IDM241 Bluetooth	General purpose, cordless	Standard Range	Kit	6053048 IDM241-100S 6036728 Connection cable 6053628 Base station 6036722 Power supply unit	IDM241-100S USB Kit	6053049
				6053048 IDM241-100S 6041540 Connection cable 6053628 Base station 6036722 Power supply unit	IDM241-100S RS-232 Kit	6053050

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Recommended accessories

	Brief description	Model name	Part no.
Other mounting accessories			
	Desk holder	Table mount	6045192
	Tripod mount for general purpose hand-held scanners	Tripod mount	6036724
Power supply units and power cord connectors			
	Power supply, input AC 100 ... 240 V, output DC 5 V/2 A (necessary when using RS-232 TTL cable, does not fulfill medical standard EN 60601/ IEC 60601))	Power supply unit	6036722

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, USB-A	Male connector, RJ45	USB, unshielded, straightened cable	1.8 m	Connection cable	6036728*



At a glance

- Identification of all current 1D, stacked, and 2D codes
- Reliable, secure, and fast code reading
- Rugged, stable housing with IP 65 enclosure rating
- Supports all common corded and cordless interfaces as well as industrial fieldbuses via SICK connectivity
- Good read feedback via LED, beeper, and vibration
- Decoding algorithms ideal for direct part marked codes (depending on type)

Your benefits

- Only one device for a wide range of different code types
- Fast and accurate identification without manual data entry
- Highly reliable thanks to industrial enclosure rating and rugged housing
- Simple and flexible integration in industrial fieldbus networks using SICK connectors
- Simple, intuitive operation thanks to multiple read confirmation
- Direct expert advice all over the world from the SICK sales and service network
- Low contrast or highly reflective DPM codes are identified reliably

➜ www.mysick.com/en/IDM26x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IDM26x

Code resolution	Reading distance		Supported code type	Sub product family
	Standard Range	High Density		
≥ 0.08 mm [1] ≥ 0.13 mm [2] (depending on type)	30 mm ... 155 mm [2] [3]	35 mm ... 90 mm [2] [3]	1D, 2D, Stacked	**IDM260 Corded** **IDM261 Bluetooth**

[1] Valid for Code 39.

[2] Valid for Data Matrix code.

[3] For details see reading field diagram.

Sub product family	Field of application	Version	Items supplied	Included in delivery	Model name	Part no.
IDM260 Corded	Industrial	Standard Range	Kit	6050652 IDM260-100S 6045195 Connection cable	IDM260-100S USB Kit	6050653
				6050652 IDM260-100S 6045196 Connection cable 6036722 Power supply unit	IDM260-100S RS-232 Power Supply Kit	1064990
IDM261 Bluetooth	Industrial, cordless	Standard Range	Kit	6053054 IDM261-100S 6036728 Connection cable 6053629 Base station 6036722 Power supply unit	IDM261-100S USB Kit	6053055
				6053054 IDM261-100S 6041540 Connection cable 6053629 Base station 6036722 Power supply unit	IDM261-100S RS-232 Kit	6053056*
		High Density	Kit	1070925 IDM261-120H 6053629 Base station 6036722 Power supply unit	IDM261-120H Basic Kit (1D, 2D, Stacked & DPM)	1070926

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Recommended accessories

	Brief description	Model name	Part no.
Other mounting accessories			
	Desk holder	Table mount	6045192
	Tripod mount for industrial hand-held scanner	Tripod mount	6045193
Power supply units and power cord connectors			
	Power supply, input AC 100 ... 240 V, output DC 5 V/2 A (necessary when using RS-232 TTL cable, does not fulfill medical standard EN 60601/ IEC 60601))	Power supply unit	6036722

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, M12, 8-pin, straight, X-coded	Male connector, RJ45, 8-pin, straight	Gigabit Ethernet, shielded, AWG26	2 m	Connection cable	6045195

E



At a glance

- 13.56 MHz RFID write/read device for ranges up to 240 mm
- Transponder communication according to ISO/IEC 15693 standard
- Compact, industrial design with integrated antenna
- Embedded protocols allow interfacing with standard industrial fieldbus technologies
- Powerful micro-processor executes internally configurable logic
- Flexible trigger control
- Supports parameter cloning via microSD memory card
- Built-in diagnostics

Your benefits

- Reliable identification ensures maximum throughput
- Adapts to changing needs, ensures investment over the long term
- Simple integration saves installation time
- A wide range of functionality ensures flexible solutions
- Maintenance-free
- Uses same connectivity and configuration software as SICK's bar code scanners and image-based code readers – compatible through standardized ID*pro* platform

➜ www.mysick.com/en/RFH6xx

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/RFH6xx

- **Product category:** write/read device with integrated antenna
- **Frequency band:** HF (13.56 MHz)
- **RFID standard:** ISO/IEC 15693, ISO 18000-3 Mode 1
- **Radio approval:** Global (EN 300330-2 V1.5.1) (FCC Part 15)

Version	Scanning range	Connection type	Model name	Part no.
RFH620 Short Range	Max. 150 mm [1]	Cable	RFH620-1000001	1044838
		Ethernet	RFH620-1001201	1044839
RFH630 Mid Range	Max. 240 mm [1]	Cable	RFH630-1000001	1054747
		Ethernet	RFH630-1102101	1054746*

[1] With RFID ISO card transponder in plane parallel alignment to read/write device antenna; depending on dimensions and quality of transponder.

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket, Mounting hardware included	Mounting bracket	2048551
Modules			
	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256*^
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, male connector/female connector, 5-pin)	CDF600-2100	1058965*
	Fieldbus proxy/gateway for connecting one identification sensor to PROFINET-IO networks (interface 2 x M12, female connector/female connector, 4-pin)	CDF600-2200	1062460*
RFID transponder			
	HF transponder, PA 6, diameter 50 mm, NXP ICODE SLIX	Disc (50 mm)	6033781
RFID antennas			
	Industrial RFID HF antenna, cable length 3.62 m, diameter 30 mm, length 48 mm	RFA312-3733	1065473

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, D-Sub	Male connector	Shielded	2 m	Connection cable (male connector-female connector)	2041834*
	Female connector, M12, 17-pin, straight	Male connector, D-Sub-HD, 15-pin, straight	Power, serial, CAN, digital I/Os, unshielded	2 m	Connection cable (male connector-female connector)	2055419*
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	Ethernet, shielded	2 m, 4-wire, AWG26	SSL-2J04-G02ME	6034414*^



At a glance

- UHF RFID read/write unit for industrial applications
- With or without integrated antenna, depending on the type (up to four external antennas can be connected)
- Standard-compliant transponder interface (ISO/IEC 18000-6C/EPC G2C1)
- Supports common industrial data interfaces and fieldbuses
- MicroSD memory card for device parameter cloning
- Several diagnostic and service options available

Your benefits

- Intelligent technology allows stand-alone usage
- Highest reading/writing performance
- Flexible integration in common industrial fieldbuses via ID*pro* compatibility
- Less maintenance time due to an integrated cloning back-up system using microSD memory card
- Easily adapts to application requirements via SOPAS parameter setting tool
- Free usable feedback LED quickly provides read results and diagnostic information directly to the user

➜ www.mysick.com/en/RFU63x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/RFU63x

- **Version:** Long Range
- **Frequency band:** UHF (860 ... 960 MHz)
- **RFID standard:** EPCglobal UHF Class 1 Generation 2, ISO/IEC 18000-6 C

Product category	Scanning range	Radio approval	Model name	Part no.
Write/read device with integrated antenna	Typ. 5 m [1]	Australia (AS/NZ4268)	RFU630-13102	1058775*

[1] Depending on transponder used and ambient conditions.

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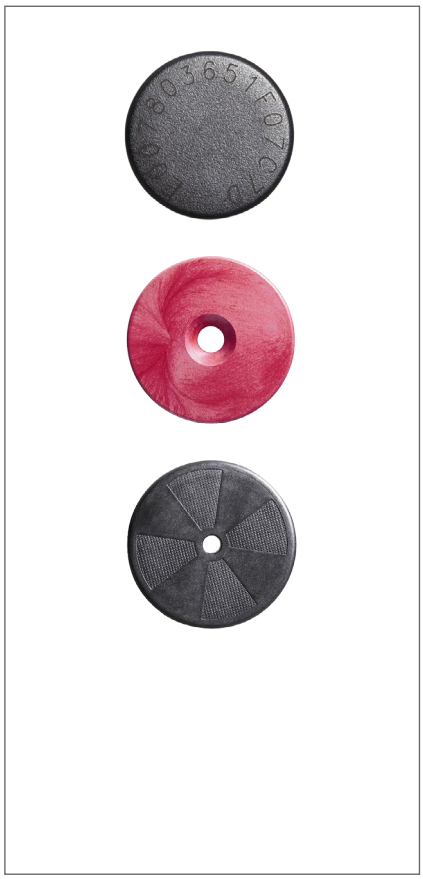
Recommended accessories

	Description	Model name	Part no.
Modules			
	Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals, including trigger unit functionality for external illumination of Lector®65x	CDB650-204	1064114*
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, male connector/female connector, 5-pin)	CDF600-2100	1058965*
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 1 x D-Sub, female connector, 9-pin)	CDF600-2103	1058966
	Fieldbus proxy/gateway for connecting one identification sensor to PROFINET-IO networks (interface 2 x M12, female connector/female connector, 4-pin)	CDF600-2200	1062460*
Power supply units and power cord connectors			
	Power supply unit with pre-assembled M12 female connector, 17-pin	Power supply	2062249
RFID transponder			
	UHF transponder, global, thermoplastic, 51.5 mm x 47.5 mm x 10 mm, Impinj Monza 4 QT	On-metal Transponder (52 mm x 48 mm x 10 mm)	6052346
	UHF Transponder, ETSI, Nylon, 51 mm x 36.3 mm x 7.5 mm, NXP G2XM	On-metal Transponder High Temp ETSI	6050780

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 17-pin, straight	Male connector, D-Sub-HD, 15-pin, straight	Power, serial, CAN, digital I/Os, unshielded	0.9 m	Connection cable (male connector-female connector)	2049764
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	Ethernet, shielded, AWG26	2 m, 4-wire	SSL-2J04-G02ME	6034414*^
	Male connector, USB-A	Male connector, Micro-B	USB 2.0, unshielded	2 m	USB cable	6036106*



At a glance

- ISO cards
- Various coin and disc sizes
- Paper and glass tags
- Tags for on metal
- High (+140) or low (-40) temperature tags available
- Up to IP68 rating
- IC: NXP ICODE SLI SL2
- IC: TI Tag-it HF-I Plus

Ordering information

	Description	Model name	Part no.
RFID transponder / HF			
	HF transponder, PVC, 85.6 mm x 54 mm x 0.76 mm, NXP ICODE SLIX	RFID ISO CARD 1	6037848
	HF transponder, PVC, 85.6 mm x 54 mm x 0.76 mm, TI Tag-it-HF-I plus	RFID ISO CARD 2	6037846
	HF transponder, modified thermoplastic, diameter 16 mm, NXP ICODE SLIX	RFID COIN 16MM	6041592
	HF transponder, PPS, diameter 22 mm, TI Tag-it HF-I plus	RFID COIN 22MM	6033173
	HF transponder, PA 6, diameter 50 mm, NXP ICODE SLIX	RFID DISC 50MM	6033781
	HF transponder, PA 6, diameter 30 mm, NXP ICODE SLIX	RFID DISC 30MM	6034740
	HF transponder, polyamid, 25 mm x 12,5 mm x 5 mm, NXP ICODE SLI	RFID ON METAL	6039051
	HF transponder, glass, length 21.7 mm, diameter 4 mm, NXP ICODE SLI	RFID GLASS TAG	6039237

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	Description	Model name	Part no.
RFID transponder / UHF			
	UHF transponder, global, thermoplastic, 51.5 mm x 47.5 mm x 10 mm, Impinj Monza 4 QT	On-metal Transponder (52 mm x 48 mm x 10 mm	6052346
	UHF Transponder, ETSI, Nylon, 51 mm x 36.3 mm x 7.5 mm, NXP G2XM	On-metal Transponder High Temp ETSI	6050780
	UHF transponder, plastic, ETSI, 224 mm x 24 mm x 8 mm, NXP UCODE G2XM	RFT661-5653	6034277
	UHF transponder, plastic, global, 27 mm x 27 mm x 6 mm, Impinj Monza 4QT	On-metal Transponder (27 mm x 27 mm x 6 mm)	6052186
	UHF transponder, global, high memory, 41 mm x 11 mm x 5.15 mm, NXP UCODE 12C	High memory transponder (41 mm x 11 mm x 5.15 mm)	6054025
	UHF Transponder, FCC, Nylon, 51 mm x 36.3 mm x 7.5 mm, Alien Higgs 3	On-metal Transponder High Temp FCC	6053159
	UHF transponder, plastic, ETSI, 63 mm x 10 mm x 4 mm, Alien Higgs 3	On-metal Transponder (63 mm x 10 mm x 4 mm)	6053373
	UHF transponder, FCC, plastic, 63 mm x 10 mm x 4 mm, Alien Higgs 3	On-metal Transponder (63 mm x 10 mm x 4 mm)	6053374
	UHF transponder, ETSI, PPA, Durchmesser 55 mm, Dicke 13 mm, NXP UCODE G2XM	On-metal Transponder ETSI Disk on spacer	6051350
	UHF transponder, FCC, PPA, diameter 55 mm, thickness 3 mm, NXP UCODE G2XM	On-metal Transponder FCC Disk on spacer	6051351
	UHF transponder, special label for wooden pallets, 73 mm x 14 mm x 0.3 mm, Impinj Monza 4QT	Special label	6054385

E



At a glance

- Suitable for connection with line scanners, hand held scanners, Lector and RFID
- Flexible fieldbus integration via connection modules
- Reduces integration effort with flexible product exchanges
- Easy access to connection modules allowing sensor to be embedded in machinery

Your benefits

- Rotatable plug units for flexible mounting
- Secure investment due to Ethernet on board
- Same modular connection system for all 4Dpro devices
- Easy operation with & without PC
- Standardized diagnostic function for fast exchange in the event of machine incident
- Parameter cloning function for minimum downtime in the event of machine incident

Ordering information

Brief description	Model name	Part no.
Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256*^
Modular connection module for one sensor	CDM420-0001	1025362*
Modular connection module for two sensors	CDM420-0004	1028487*
Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, male connector/female connector, 5-pin)	CDF600-2100	1058965*
Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 1 x D-Sub, female connector, 9-pin)	CDF600-2103	1058966
Fieldbus proxy/gateway to connect to a EtherCAT network	CDF600-0300	1052291*

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Recommended accessories

	Description	Model name	Part no.
Modules			
	Stores parameters of sensors for CDB620/CDM420 for rapid changeover, allows an extra 4 I/Os	CMC600-101	1042259*
Power supply			
	Power Supply for CDM420-0001 11W	CMP400	2029468*
	Power Supply for CDM420-0004 25W	CMP490	2030091*
Display modules			
	Visualization of read results and read diagnosis data	CMD400	2029466
Fieldbus modules			
	Profibus Fieldbus/Gateway PCB for CDM420	CMF400-1001	1026241
	Devicenet Fieldbus/Gateway PCB for CDM420	CMF400-2101	1026242
	Ethernet TCP / IP Fieldbus/Gateway PCB for CDM420	CMF400-3101	1026357

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
Plug connectiors and cables					
	Female connector, D-Sub, 9-pin, straight, unshielded	Female connector, D-Sub, 9-pin, straight	0.14 m, ribbon cable	RIBBON CABLE	2058003
	Male connector, D-Sub, 9-pin	Male connector, D-Sub, 15-pin	0.3 m	ADAPTER CABLE	2057709*
	Female connector	Male connector	0.25 m	ComPro adapter	2030490

E



F

DETECTION AND RANGING SOLUTIONS







Compact, reliable detection and distance measurement at all times

Laser measurement technology devices can be used for a wide range of applications. These devices detect both 2D and multi-dimensional contour data and can process information either externally or in the sensor itself. They are ideal for indoor and outdoor applications, including anti-collision in harbors, classification in traffic, detection in building automation, or position evaluation in navigation.

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F

	Selection guide detection and ranging solutions	**F-226**
	**TiM3xx** Incredibly good in detection	**F-228**
	**TiM5xx** Complete measurement accuracy	**F-230**
	**LMS1xx** Works in all weather conditions – compact and economical	**F-232**
	**LMS4xx** Fast and exact level and shape measurement	**F-234**
	**LMS5xx** More than meets the eye. Powerful unit for big solutions.	**F-236**
	**LD-MRS** Multi-layer scanner for harsh environmental conditions	**F-240**

SELECTION GUIDE DETECTION AND RANGING SOLUTIONS

F

Product			Principle of operation			Applications											
			Detection	Measurement	Multi-echo technology	Level measurement	Checking height	Area monitoring	Checking presence	Collision prevention	Position detection	Electronic routing	Range finding	Shape recognition	Classification		
2D laser scanners																	
	TiM series	TiM3xx	■				■	■	■	■							
		TiM5xx		■			■	■		■	■		■				
	LMS series	LMS1xx	■	■	■	■	■	■	■	■	■	■	■	■	■		
		LMS4xx	■	■		■	■		■					■			
		LMS5xx	■	■	■	■	■	■		■	■	■	■	■	■		
		LD-MRS	■	■	■			■		■	■	■	■		■		

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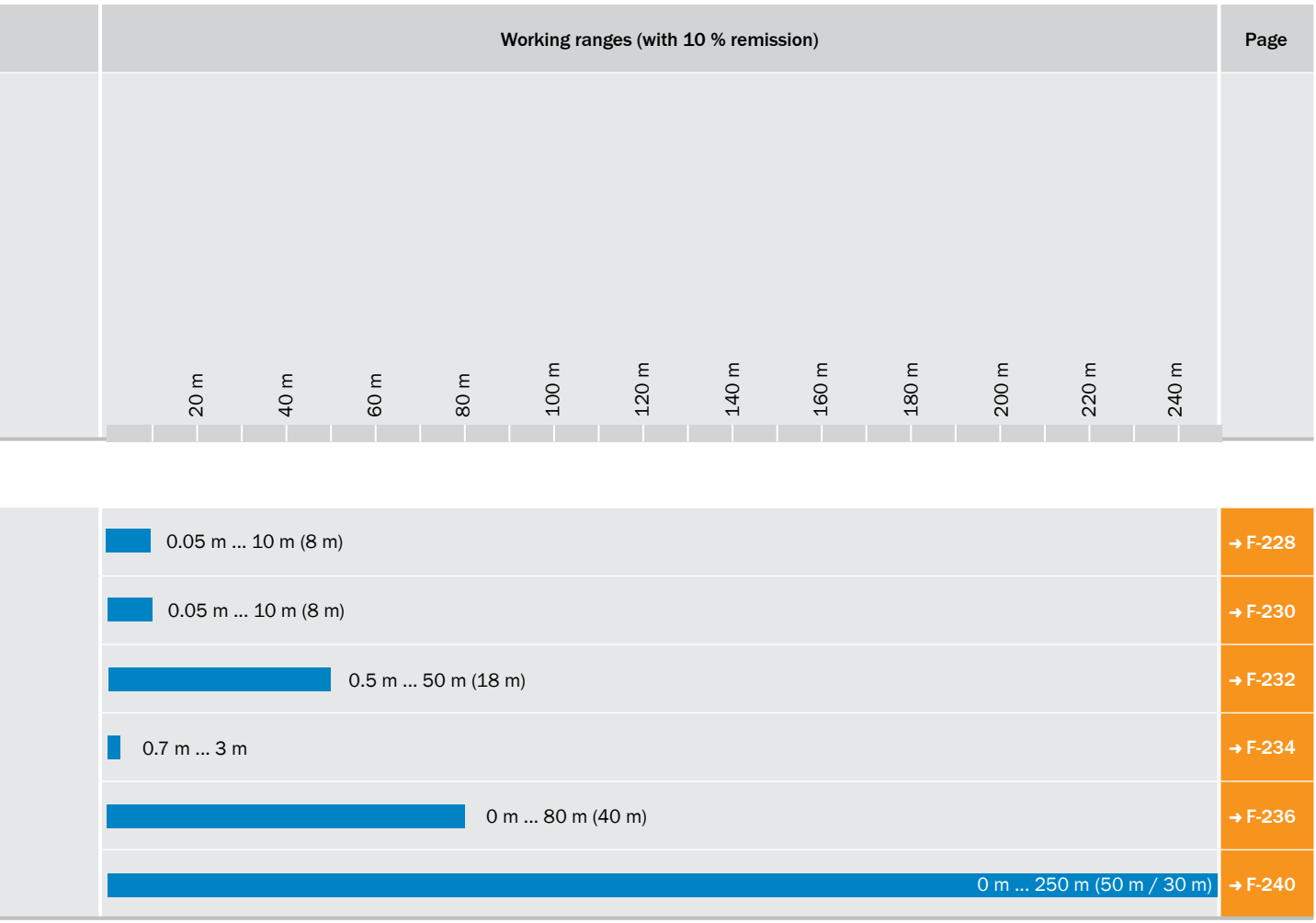
Working ranges (with 10 % remission)
Page
20 m
40 m
60 m
80 m
100 m
120 m
140 m
160 m
180 m
200 m
220 m
240 m
0.05 m ... 10 m (8 m)
→ F-228
0.05 m ... 10 m (8 m)
→ F-230
0.5 m ... 50 m (18 m)
→ F-232
0.7 m ... 3 m
→ F-234
0 m ... 80 m (40 m)
→ F-236
0 m ... 250 m (50 m / 30 m)
→ F-240

F



At a glance

- Configure without a PC using “touch and teach”
- Small, lightweight and economical measurement sensor
- Field evaluation using intelligent algorithms
- Set parameter interface is accessible while device is mounted
- One of the smallest laser scanners on the market
- Proven industrial design
- Low power consumption (typ. 3.5 W)

Your benefits

- Low cost of ownership
- Easily hidden from view due to small dimensions
- Low installation costs and exchange time due to M12 x 12 or D-Sub connector
- Long operation for battery-driven vehicles
- Preconfigured fields ensure short installation time
- Reduced hardware costs since only one sensor can be used for large anti-collision fields (up to 235 qm)
- No wiring necessary between sender and receiver

→ www.mysick.com/en/TiM3xx

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/TiM3xx

Field of view	Angular resolution	Max. range with 10 % reflectivity	Switching inputs	Sub product family
270°	1°	2 m	4 / 0 (depending on type)	**TiM31x**
			4	**TiM32x**
		8 m	4 (PNP)	**TiM35x**
	0.33°	8 m	4 (PNP)	**TiM36x**

- **Version:** Short Range
- **Field of application:** Indoor
- **Object remission:** 4 % ... > 1,000 %, reflectors
- **Housing color:** Light blue (RAL 5012)

Sub product family	Electrical connection	Switching outputs	Model name	Part no.
TiM31x	1 x 15-pin D-sub HD male connector (0.9 m)	3 (plus 1 x “device ready”)	TIM310-1030000	1052627*
	1 x M12 12-pin male connector (0.8 m)	3 (PNP, plus 1 x “device ready”)	TIM310-1130000	1056550
TiM32x	1 x 15-pin D-sub HD male connector (0.9 m)	3 (plus 1 x “device ready”)	TIM320-1031000	1063467
	1 x M12 12-pin male connector (0.8 m)	3 (PNP, plus 1 x “device ready”)	TIM320-1131000	1062219
TiM35x	1 x “Ethernet” connection, 4-pin M12 female connector, 1 x connection “Power”, 12-pin, M12 male connector, 1 x Micro USB female connector, type B	3 (PNP, plus 1 x “device ready”)	TIM351-2134001	1067299*
TiM36x	1 x “Ethernet” connection, 4-pin M12 female connector, 1 x connection “Power”, 12-pin, M12 male connector, 1 x Micro USB female connector, type B	3 (PNP, plus 1 x “device ready”)	TIM361-2134101	1071399

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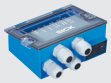
Recommended accessories

	Description	Model name	Part no.
Mounting brackets/plates			
	1 piece, Mounting set 2, fender and alignment aid - suitable for TiM31x and TiM32x	Mounting kit 2	2061776*
	Mounting kit with sun shade/weather protection - suitable for TiM35x and TiM36x	Mounting kit 2	2068398*
Modules			
 Illustration may differ	Small connection module for one sensor, 4 cable glands (only for TiM3xx-10xxxxx)	CDB730-001	1055981
Cleaning agent			
	Plastic cleaner and care product, anti-static, 0.5 liter	Plastic cleaner	5600006

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, D-Sub-HD, 15-pin, straight	Cable	Power, serial, CAN, digital I/Os, shielded	2 m, 15-wire, AWG26	Extension cable 2 m (female connector-open)	2043413*
	Male connector, USB-A	Male connector, Micro-B	USB 2.0, unshielded	2 m	USB cable	6036106*

F



At a glance

- Monitoring area of up to 235 m² with just one sensor
- High ambient light tolerance due to HDDM technology
- Rugged housing with up to an IP 67 enclosure rating
- Low power consumption of just 3 W
- Compact design with a housing height of just 86 mm maximum
- Integrated Ethernet interface
- Long sensing range of up to max. 10 m
- Industry-standard design and M12 male connector

Your benefits

- Reliable object detection independent of the surface and ambient light
- Rugged IP 67 housing withstands both indoor and outdoor conditions
- Easy integration into compact automated guided vehicles (AGV) due to small size
- Ethernet interface makes easy implementation and remote maintenance possible
- Can determine additional information such as object size, shape, etc. due to measured data output
- Low implementation costs due to scalability: Sensor telegram is identical to sensor telegrams for laser measurement sensors in the SICK portfolio

→ www.mysick.com/en/TiM5xx

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/TiM5xx

Field of view	Angular resolution	Max. range with 10 % reflectivity	Switching inputs	Sub product family
270°	1°	8 m	0	**TiM55x**
	0.33°	0.05 m ... 8 m	0	**TiM56x**

- **Version:** Short Range
- **Field of application:** Outdoor
- **Switching outputs:** 1 (“SYNC”/”device ready”)
- **Object remission:** 4 % ... > 1,000 %, reflectors

Sub product family	Electrical connection	Housing color	Model name	Part no.
TiM55x	1 x “Ethernet” connection, 4-pin M12 female connector 1 x connection “Power/Synchronization output” 5-pin, M12 male connector 1 x Micro USB female connector, type B	Gray (RAL 7032)	TIM551-2050001	1060445
TiM56x	1 x “Ethernet” connection, 4-pin M12 female connector, 1 x connection “Power/Synchronization output” 5-pin, M12 male connector, 1 x Micro USB female connector, type B	Gray (RAL 7032)	TIM561-2050101	1071419

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets/plates			
	Mounting kit with sun shade/weather protection - suitable for TiM55x and TiM56x	Mounting kit	2068398*

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight, A-coded	Cable	Shielded	5 m, 4-wire	Connecting cable (female connector-open)	6036159*
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	PUR, shielded	5 m, 4-wire, AWG26	Connection cable (male connector-male connector)	6034415*^
	Male connector, USB-A	Male connector, Micro-B	-	2 m	USB cable	6036106*

F



At a glance

- Small, light and economical measurement system
- Real-time output of measurement data via Ethernet interface
- Number of switching outputs can be expanded via external CAN module
- Parameterisation interface accessible from the front while device mounted
- Rugged housing
- Field evaluation using intelligent algorithms

Your benefits

- Lightweight housing makes it easy to mount
- No wiring between sender and receiver
- Advanced filtering technology rigorously reduces false trips caused by outdoor environmental factors like fog, rain and snow
- Optional external CAN I/O module increases number of switching outputs for greater application flexibility
- Fast, easy commissioning due to SOPAS software

➜ www.mysick.com/en/LMS1xx

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/LMS1xx

Field of view	Max. range with 10 % reflectivity	Switching inputs	Sub product family
270°	18 m	2	**LMS10x**
			LMS11x
		4	**LMS12x**
			LMS13x
		2	**LMS15x**

- **Version:** Short Range
- **Object remission:** 2 % ... > 1,000 %, reflectors

Sub product family	Field of application	Electrical connection	Switching outputs	Housing color	Model name	Part no.
LMS10x	Indoor	1 x system plug with screw terminal block	3	Light blue (RAL 5012)	LMS100-10000	1041113*
LMS11x	Outdoor	1 x M12 circular plug-in connector	3	Gray (RAL 7032)	LMS111-10100	1041114*
LMS15x	Outdoor	1 x M12 circular plug-in connector	3	Gray (RAL 7032)	LMS151-10100	1047607*

Recommended accessories

	Description	Model name	Part no.
Device protection (mechanical)			
	Weather hood, 190°	Weather hood	2046459
	Weather hood, 270°	Weather hood	2046458

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	Description	Model name	Part no.
Mounting brackets/plates			
	Standard mounting set for 190°/270° weather hood	Mounting bracket	2046025
	1 , Mounting bracket for rear mounting on wall or machine	Mounting kit 1a	2034324*
	1 , Mounting bracket for rear mounting on wall or machine with protection of optics hood	Mounting kit 1b	2034325*^
	Mounting bracket, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)	Mounting kit 2	2039302
	Mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)	Mounting kit 3	2039303
Terminal and alignment brackets			
	Quick-action lock system for weather hood 190°/270°	Quick clamp	2046989*
Modules/gateways			
	External CAN extension module for up to 8 additional outputs	Fieldbus module	6038825
Test and monitoring tools			
	Scan finder, receiver to localize infra red scans	LS80b	6020756

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight, A-coded	Cable	Shielded	5 m, 8-wire	Connecting cable (female connector-open)	6036153*
				10 m, 8-wire	Connecting cable (female connector-open)	6028420
	Female connector, M12, 5-pin, straight, A-coded	Cable	Shielded	5 m, 4-wire	Connecting cable (female connector-open)	6036159*
				10 m, 4-wire	Connecting cable (female connector-open)	6036160*
	Male connector, M12, 8-pin, straight, A-coded	Cable	Shielded	5 m, 8-wire	Connecting cable (male connector-open)	6036155*
				10 m, 8-wire	Connecting cable (male connector-open)	6036156*
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	PUR, shielded	5 m, 4-wire, AWG26	SSL-2J04-G05ME	6034415*^
				10 m, 4-wire, AWG26	SSL-2J04-G10ME	6030928*^
	Female connector, D-Sub, 9-pin, straight	Male connector, M8, 4-pin, straight	TPU, PVC, unshielded	2 m	DSL-8D04G02M-025KM1	6021195*^
				10 m	DSL-8D04G10M-025KM1	2027649*^

F



At a glance

- The Level Control feature, which is integrated into the sensor, features a gap-free scanning surface that can detect objects in containers, without any impairment from a shadow. Smaller objects, regardless of color, are detected at any place in the container.
- Large dynamic measurement range of 0.7 m to 3 m
- High ambient light immunity
- Rugged design
- High angular resolution
- Ideal for vision applications on pallets

Your benefits

- The integrated Level Control feature replaces a number of sensors and drastically reduces the effort required for wiring and programming
- Reliable detection at high conveyor speeds
- Neither shading nor artificial lighting is necessary
- Simple, flexible installation at positions beyond the robot collision area
- High accuracy detection and positioning measurements in real-time provide rapid data capture

→ www.mysick.com/en/LMS4xx

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/LMS4xx

Field of view	Max. range with 10 % reflectivity	Switching inputs	Sub product family
270°	3 m	4	**LMS40x**

- **Version:** Short Range

Sub product family	Field of application	Object remission	Switching outputs	Housing color	Model name	Part no.
LMS40x	Indoor	4.5 % ... 100 %	5 (4 x PNP / analog 1 x 4 mA ... 20 mA)	Light blue (RAL 5012)	LMS400-2000	1041725
		6.5 % ... 200 %			LMS400-1000	1027897

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Recommended accessories

	Description	Model name	Part no.
Modules/gateways			
	Modular connection module for one sensor, Supported products: CLV48x, CLV49x, CLX49x, LMS400	CDM490-0001	1025363
	Modular connection module for one sensor, Host and AUX interface available on face plate, Supported products: CLV48x, CLV49x, CLX49x, LMS400	CDM490-0101	1025365

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, D-Sub, 15-pin, straight	Male connector, D-Sub, 15-pin, straight	Shielded	3 m, 15-wire	Connecting cable for CLV/X490 to CDM 490	2020302
	Female connector, D-Sub, 9-pin, straight	Female connector, D-Sub, 9-pin, straight	Unshielded	3 m	Data connection cable (RS-232) to PC	2014054
	Female connector, Molex	Male connector, D-Sub, 9-pin	Unshielded	3 m	Connection cable (plug-plug)	2031372
	Male connector, RJ45	Male connector, RJ45	Ethernet, unshielded	10 m	Connection cable (male connector-male connector)	2030467
	Male connector, female connector, D-Sub-HD, 15-pin, straight	Male connector, D-Sub-HD, 15-pin, straight Female connector, RJ45	CAN, unshielded	3 m	Connection hood	2030535
	Male connector, D-Sub-HD, 15-pin, straight	Male connector, round plug	CAN, shielded	0 m	Connection hood	2030439

F



At a glance

- Powerful and efficient laser measurement sensor for ranges of up to 80 m
- Outstanding performance in adverse environmental conditions due to multi-echo technology
- Up to IP 67 enclosure rating, built-in heater for outdoor versions, highly compact design
- Low power consumption
- Fast signal processing
- Multiple I/Os
- Synchronization of multiple sensors possible

Your benefits

- Superior performance in a vast range of applications
- Smallest sensor with highest accuracy in its class
- Comprehensive range of lines and models to suit all performance and price requirements
- Fast, reliable object detection in nearly any weather conditions
- Low power consumption reduces total cost of ownership
- Best price/performance ratio in this sensor class on the market
- Fast, easy commissioning due to SOPAS software
- Self-monitoring functions increase system availability

➜ www.mysick.com/en/LMS5xx

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/LMS5xx

Field of view	Max. range with 10 % reflectivity	Switching inputs	Sub product family
190°	26 m	2 4 (Encoder) (depending on type)	**LMS500**
	40 m / 26 m (depending on type)	2 4 (Encoder) (depending on type)	**LMS511**
	40 m	2	**LMS531**

- **Version:** Mid Range
- **Object remission:** 2 % ... > 1,000 %, reflectors

Sub product family	Field of application	Variant	Resolution power	Spot size	Electrical connection	Switching outputs	Housing color	Model name	Part no.
LMS500	Indoor	PRO	High Resolution	4.7 mrad	1 x system plug with screw terminal block	6	Light blue (RAL 5012)	LMS500-20000 PRO	1047468*
LMS511	Outdoor	PRO	Standard Resolution	11.9 mrad	4 x M12 circular plug-in connector	6	Gray (RAL 7032)	LMS511-10100 PRO	1046135*
			High Resolution	4.7 mrad	4 x M12 circular plug-in connector	6	Gray (RAL 7032)	LMS511-20100 PRO	1047782^

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LMS251 - Direct replacement to the LMS2xx Series

Description	Model name	Part no.
Outdoor Standard Resolution, 1 Echo Pulse Technology, 190deg Field of View, 75Hz Scanning with Heater on Board	(LMS2xx Direct Replacement)	1057767
Electrical Adapter Box for LMS251 (Conversion box from LMS2xx to LMS251)	LMS251 Adapter	2063074
Existing LMS2xx Bracket when replacing LMS221/ 211 with an LMS251	Adjustment Bracket LMS2xx	2018303*
Adapter Bracket when replacing LMS2xx with an LMS251 or attaching the Electrical Adapter Box to LMS251, LMS5xx	Adapter Bracket	2059271
Pole Mounting Adapter can be used in conjunction with (2018303) and (2059271)	Pole Bracket	2018304

LMS5xx Adapter Kits to change over from LMS2xx Series

Description	Model name	Part no.
Includes: Adapter Box (2063034) + Adapter Bracket (2059271) + Adjustable Bracket (2018303)	LMS5xx Kit 1	1059092
Includes: Adapter Box (2063034) + Adapter Bracket (2059271) + Adjustable Bracket (2018303) + Weatherhood (2063050)	LMS5xx Kit 2	1059093
Electrical Adapter Box for LMS5xx PRO (Conversion box from LMS2xx to LMS5xx PRO)	LMS5xx Pro Adapter	2063034*

Recommended accessories

	Description	Model name	Part no.
Device protection (mechanical)			
	Protection hood	Protective hood	2056850
	Protection hood for LMS5xx, adapter kit 1059092 must be used to mount the LMS	Protection hood	PROF511
	Weather hood (180°), vertical mounting	Weather hood	2063050*
Mounting brackets/plates			
	1, Mounting bracket for direct mounting, from the rear, on wall or machine, not adjustable	Mounting kit 1	2015623*
	Mounting bracket for rear mounting on wall or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623)	Mounting kit 2	2015624*
	Mounting bracket for rear mounting on wall, floor, or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623) and 2 (2015624)	Mounting kit 3	2015625*

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	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight, A-coded	Cable	RS-232, RS-422, shielded	5 m, 8-wire	Connecting cable (female connector-open)	6036153*
	Male connector, M12, 8-pin, straight, A-coded	Cable	Shielded	5 m, 8-wire	Connecting cable (male connector-open)	6036155*
	Female connector, M12, 5-pin, straight, A-coded	Cable	Shielded	5 m, 4-wire	Connecting cable (female connector-open)	6036159*
				10 m, 4-wire	Connecting cable (female connector-open)	6042565*
				20 m, 4-wire	Connecting cable (female connector-open)	6042564*
	Female connector, M12, 12-pin, straight, A-coded	Cable	RS-232, RS-422, shielded	5 m, 12-wire	Connecting cable (female connector-open)	6042735*
				10 m, 12-wire	Connecting cable (female connector-open)	6042736*
				20 m, 12-wire	Connecting cable (female connector-open)	6042737
	Male connector, M12, 12-pin, straight, A-coded	Cable	Shielded	5 m, 12-wire	Connecting cable (male connector-open)	6042732
				10 m, 12-wire	Connecting cable (male connector-open)	6042733
				20 m, 12-wire	Connecting cable (male connector-open)	6042734
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	Ethernet, shielded	5 m, 4-wire, AWG26	SSL-2J04-G05ME	6034415*^
				10 m, 4-wire, AWG26	SSL-2J04-G10ME	6030928*^
				20 m, 4-wire, AWG26	SSL-2J04-G20ME	6036158*
	Male connector, USB-A, straight	Male connector, Mini-USB, straight	USB, shielded	3 m, 4-wire	Connection cable (male connector-male connector)	6042517

F



At a glance

- Simultaneous measurement on 4 layers
- Excellent outdoor capabilities with multi-pulse technology
- Compact and lightweight design. Volume is less than 1 liter, weight is approximately 1 kg
- Wide temperature range with low power consumption: -40 °C to +70 °C at 8 W
- Operation possible even with supply voltages from 9 V DC

Your benefits

- 4-layer laser scanner technology provides reliable, trouble-free detection of objects, even on a slope
- Easy sensor integration due to compact design
- Lower power consumption reduces costs
- Real-time output of measurement data
- IP 69K-rated housing provides accurate measurements in all weather conditions

➜ www.mysick.com/en/LD-MRS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/LD-MRS

Field of view	Max. range with 10 % reflectivity	Sub product family
85 °, operating angle with 4 measurement layers, 25° work area expansion with 2 measurement layers (total 110°)	50 m	**LD-MRS4**
	30 m	**LD-MRS4 HD**
85°, operating angle with 8 measurement layers, 25° work area expansion with 4 measurement layers (total 110°)	50 m	**LD-MRS8**

- **Version:** Long Range
- **Field of application:** Outdoor
- **Housing color:** Gray (RAL 7032), Black (RAL 9005)

Sub product family	Operating range	Electrical connection	Model name	Part no.
LD-MRS4	0.5 m ... 250 m	Circular plug-in connector	LD-MRS400001	1045046
LD-MRS4 HD			LD-MRS400102 HD	1047145
LD-MRS8	0.5 m ... 300 m	Circular plug-in connector	LD-MRS800001S01	1069408

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Recommended accessories

	Description	Model name	Part no.
Mounting systems			
	Bracket for LD-MRS, alignment adjustable in 2 axes	Alignment bracket	1047429

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, round socket, 4-pin, straight	Cable	Shielded	2 m	Connection cable (male connector-male connector)	2049823
				8 m	Connection cable (male connector-male connector)	2049824
				20 m	Connection cable (male connector-male connector)	2049825
	Male connector, round plug, straight	Male connector, RJ45, straight	Ethernet, shielded	2 m	Connection cable (male connector-male connector)	2049826
				8 m	Connection cable (male connector-male connector)	2049827
				20 m	Connection cable (male connector-male connector)	2049828*
	Male connector, round plug, 12-pin, straight	Male connector, D-Sub, 9-pin, straight	Shielded	2 m	Connection cable (male connector-male connector)	2049829
				8 m	Connection cable (male connector-male connector)	2049830
	Male connector, D-Sub	Male connector	Shielded	2 m	Cable splitter	2049831

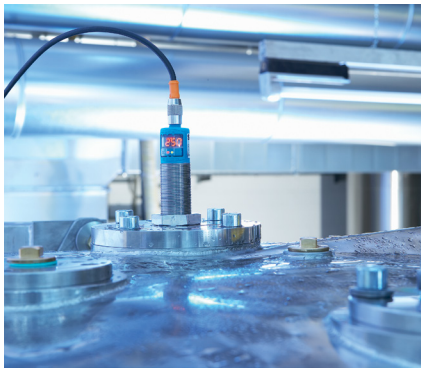
F



G

FLUID SENSORS







Efficient instrumentation solutions for factory automation

Optimized control of process parameters is the main driver for increasing efficiency and reducing input of valuable resources. Whether it's pressure measurement, temperature measurement, level control or flow metering – SICK offers a wide range of solutions for measuring process variables for liquids, gases and bulk solids and protecting against overfill and dry run. SICK devices are rugged and easy to use. Innovative sensor technology enables accurate, universal measurement independent of material type.

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G


LFP Inox G-244
The clean solution


LFP Cubic G-246
Flexible up to the probe tip


LFP Cubic Compact. G-247
Flexible up to the probe tip


LFV200 . . . . . .G-248
The point level sensor for all kinds of liquids


LFV300 . . . . . .G-249
Flexible and robust – tuning forks for all kinds of liquids


LBV300 . . . . . .G-250
Universal vibration limit switch for bulk materials


UP56. . . . . .G-251
Tough, non-contact, pressure-resistant


MHF15. . . . . .G-253
Simple, compact and robust


PBS G-254
Universal pressure switch


PBS Hygienic G-256
The compact pressure switch for hygienic applications


PBT. G-257
All-around pressure transmitter


PFT. G-258
The flexible solution


PHT. G-259
A clean solution


LFH. G-260
At a high level


PAC50 . . . . . .G-261
Turns pressure into colours


FFU. G-262
Non-contact flow measurement


Bulkscan LMS511 . . . . . .G-263
Laser volume flowmeter


TBT. G-264
Well-proven temperature measurement


TBS. G-265
Temperature monitoring made easy


TCT. G-266
Compact, rugged tough, precise temperature measurement


TSP. G-267
Efficient and space saving temperature measurement



At a glance

- Level monitoring in hygienic applications
- Manually cutable monoprobe made from stainless steel 1.4404 up to 4,000 mm long with Ra ≤ 0.8 µm
- Process temperature up to 150 °C, process pressure up to 16 bar
- CIP/SIP resistant
- IP 67 and IP 69K enclosure rating
- Interchangeable hygienic process connections
- 3 in 1: combined display, analog output and binary output
- Analog output 4 mA ... 20 mA / 0 V ... 10 V, switchable, plus two binary outputs

Your benefits

- Robust design increases service life
- High flexibility due to cutable probe and interchangeable connection concept
- Cost savings due to multiple output signals: one system for both level detection and continuous level monitoring
- Time and cost savings due to low maintenance and quick commissioning
- No calibration or recalibration required for commissioning, thus saving time and costs

➜ www.mysick.com/en/LFP_Inox

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/LFP_Inox

- **Enclosure rating:** IP 67: EN 60529, IP 69K: EN 40050
- **Process connection:** G ¾ A
- **Output signal:** 1x PNP + 1x PNP/NPN + 4 mA ... 20 mA / 0 V ... 10 V
- **Process temperature:** –20 °C ... +150 °C
- **Process pressure:** –1 bar ... 16 bar
- **Housing material:** 303
- **Electrical connection:** Round connector M12 x 1, 5-pin

Housing design	Probe length	Model name	Part no.
with PMMA viewing window	300 mm	LFP0300-G1NMB	1053288
	500 mm	LFP0500-G1NMB	1052070*
	1,000 mm	LFP1000-G1NMB	1052075*^
	2,000 mm	LFP2000-G1NMB	1052085*
	3,000 mm	LFP3000-G1NMB	1065347
	4,000 mm	LFP4000-G1NMB	1065357

LFP Inox and Cubic now available with remote head and probe configuration. Please discuss with your local SICK sales representative.

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Recommended accessories

	Description	Model name	Part no.
Flanges			
	Hygienic process connection adapter, collar connector (DIN 11864-1) DN 25 Form A with grooved union nut	BEF-HA-641D25-LFP1	2058795
	Hygienic process connection adapter, collar connector (DIN 11864-2) DN 25 Form A	BEF-HA-642D25-LFP1	2058823
	Hygienic process connection adapter, collar clamp connector (DIN 11864-3) BKS DN 25 Form A	BEF-HA-643D25-LFP1	2058821
	Hygienic process connection adapter, conical connector (DIN 11851) DN 25 with grooved union nut	BEF-HA-851D25-LFP1	2058138
	Hygienic process connection adapter, conical connector (DIN 11851) DN 40 with grooved union nut, material 1.4404 (Ra<= 0.8 µm)	BEF-HA-851D40-LFP1	2058139
	Hygienic process connection adapter, conical connector (DIN 11851) DN 50 with grooved union nut	BEF-HA-851D50-LFP1	2058141
	Hygienic process connection adapter, conical connector (DIN 11851) DN 65 with grooved union nut	BEF-HA-851D65-LFP1	2063328
	Hygienic process connection adapter, Tri-Clamp 1'' and 1 ½''	BEF-HA-TCLI10-LFP1	2058808
	Hygienic process connection adapter, Tri-Clamp 2"	BEF-HA-TCLI20-LFP1	2058824*
	Hygienic process connection adapter, Varivent Connector Type N	BEF-HA-VARTYN-LFP1	2058822
	Welded flange/welded connector, process connection Tri-Clamp 1", Stainless steel 1.4404	BEF-FL-TCLI10-LFV2	5321678
	Welded flange/welded connector, process connection Tri-Clamp 2", Stainless steel 1.4404	BEF-FL-TCLI20-LFV2	5321679
Terminal and alignment brackets			
	1 piece, Centering for bypass- and immersion tube installation with diameter 40 mm ... 100 mm, PTFE	BEF-FL-BYRD40-LFP1	2059612
Mounting systems			
	Coaxial tube for LFP with process connection G 3/4, process connection of coaxial tube G 3/4, material 1.4571/316TI, for probe length 2000 mm	LFPCT-2000G1	2065703*
	Spare cable probe for LFP Cubic, length 4 m	BEF-ER-SS4000-LFPC	2078195
Hardware			
	Weather protection cover for LFP Inox, material: 304	APR-WP-LFP001-0001	2069530*

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At a glance

- No mechanical moving parts
- Manually cutable and exchangeable monoprobe with lengths from 200 mm up to 2,000 mm
- Immune to deposit formation
- Process temperature up to 100 °C; process pressure up to 10 bar
- Small inactive areas, ideal for small containers
- Accurate measurement, even when liquid type changes
- 3 in 1: combined display, analog output (acc. NAMUR NE 43) and binary output
- High enclosure rating of IP 67, rotatable housing

Your benefits

- Rugged design increases service life
- High flexibility due to cutable and exchangable monoprobe
- Cost savings due to multiple output signals: one system for both level detection and continuous level monitoring
- Time and cost savings due to low maintenance and quick commissioning
- No calibration or recalibration required for commissioning, thus saving time and costs
- Compact and rotatable housing ensures flexible installation
- No crosstalk when several sensors are mounted next to each other
- Advanced technology enables adjustment-free measurement of oil- and water-based liquids

➜ www.mysick.com/en/LFP_Cubic

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/LFP_Cubic

- **Enclosure rating:** IP 67: EN 60529
- **Output signal:** 1x PNP + 1x PNP/NPN + 4 mA ... 20 mA / 0 V ... 10 V
- **Process temperature:** –20 °C ... +100 °C
- **Process pressure:** –1 bar ... 10 bar
- **Housing material:** Plastic PBT
- **Electrical connection:** Round connector M12 x 1, 5-pin

Process connection	Probe type	Probe length	Model name	Part no.
G ¾ A	Mono rod probe	300 mm	LFP0300-A4NMB	1057074
		500 mm	LFP0500-A4NMB	1057076*
		1,000 mm	LFP1000-A4NMB	1057081
		2,000 mm	LFP2000-A4NMB	1057091*
	Rope probe	4,000 mm	LFP4000-E4NMB	1066788*

LFP Inox and Cubic now available with remote head and probe configuration. Please discuss with your local SICK sales representative.

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IO-Link

At a glance

- No mechanical moving parts
- Manually cutable and exchangeable monoprobe with lengths from 200 mm up to 2,000 mm
- Immune to deposit formation
- Process temperature up to 100 °C; process pressure up to 10 bar
- Small inactive areas, ideal for small containers
- Accurate measurement, even when liquid type changes
- 3 in 1: combined display, analog output (acc. NAMUR NE 43) and binary output
- High enclosure rating of IP 67, rotatable housing

Your benefits

- Rugged design increases service life
- High flexibility due to cutable and exchangable monoprobe
- Cost savings due to multiple output signals: one system for both level detection and continuous level monitoring
- Time and cost savings due to low maintenance and quick commissioning
- No calibration or recalibration required for commissioning, thus saving time and costs
- Compact and rotatable housing ensures flexible installation
- No crosstalk when several sensors are mounted next to each other
- Advanced technology enables adjustment-free measurement of oil- and water-based liquids

→ www.mysick.com/en/LFP_Cubic

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories → www.mysick.com/en/LFP_Cubic

- **Enclosure rating:** IP 67: EN 60529
- **Output signal:** 1x PNP + 1x PNP/NPN + 4 mA ... 20 mA / 0 V ... 10 V
- **Process temperature:** –20 °C ... +100 °C
- **Process pressure:** –1 bar ... 10 bar
- **Housing material:** Plastic PBT
- **Electrical connection:** Round connector M12 x 1, 5-pin

Brief description	Model name	Part no.
LFP Cubic Compact	LFP0025-A4NMB	1060171*
Centering Set for LFP Cubix Coaxial Tubes *Please note: Probe over 2,000 mm requires 2x centering sets*	Probe Centering Set	2067855

Brief description	Probe length	Model name	Part no.
Cubic Probe	3,000 mm	WR-P-3000	WRP0001
	4,000 mm	WR-P-4000	WRP0002
	5,000 mm	WR-P-5000	WRP0003
	6,000 mm	WR-P-6000	WRP0004
Cubic Coaxial Tube	3,000 mm	WR-CT-3000	WRP0005
	4,000 mm	WR-CT-4000	WRP0006



At a glance

- Housing made of 316L stainless steel
- Two electrical output versions available
- Commissioning without filling
- Process temperature up to 150 °C
- Immune to deposit formation
- Very high repeatability
- Aseptic versions with polished surface, CIP and SIP resistant
- Tube extension up to 6 m

Your benefits

- Easy installation and commissioning, no calibration necessary
- Easy operation and integration, saves time
- Maintenance-free sensor, reduces downtime
- Testing in place possible – no mounting required, which reduces installation time
- Flexible and robust system for a multitude of applications
- Universal technology works in all kinds of liquids
- Economical solution for vertical mounting
- Can be used in containers and pipes regardless of the mounting situation

➜ www.mysick.com/en/LFV200

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/LFV200

LFV200

- **Process connection:** G ¾ A PN 64
- **Process pressure:** –1 bar ... 64 bar
- **Housing material:** Stainless steel 1.4404, PEI
- **Probe length:** 38 mm

Enclosure rating	Output signal	Process temperature	Electrical connection	EHEDG approval	Model name	Part no.
IP 67	1x PNP	–40 °C ... +100 °C	Round connector M12 x 1, 4-pin	✔	LFV200-XXSGBTPM	6036351*
		–40 °C ... +150 °C	Round connector M12 x 1, 4-pin	-	LFV200-XXTGBTPM	6036355
				✔	LFV200-XXHCNTPM	6036534

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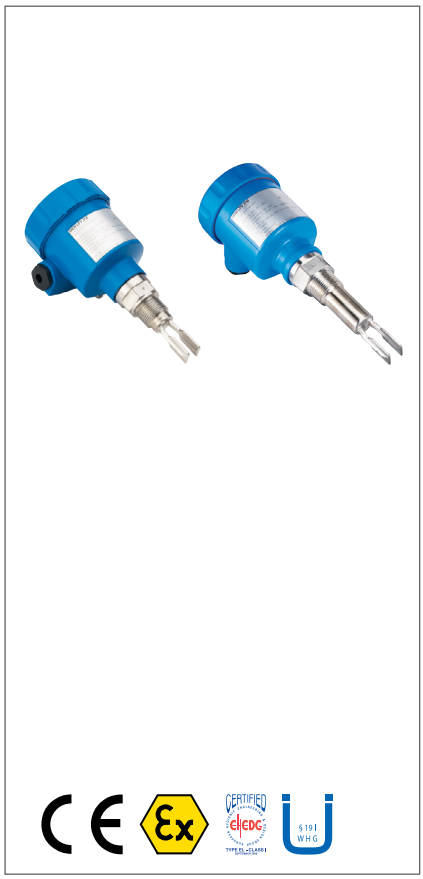

At a glance

- Several housing materials and electrical outputs available
- Commissioning without filling
- Process temperature up to 250 °C
- Immune to deposit formation
- Very high repeatability
- Aseptic versions according to EHEDG and FDA available, CIP and SIP resistant
- ATEX certification available
- Tube extension up to 6 m

Your benefits

- Easy installation and commissioning, no calibration necessary
- Easy operation and integration, saves time
- Maintenance-free sensor, reduces downtime
- Testing in place possible – no mounting required, which reduces installation time
- Flexible and tough system for a multitude of applications
- Universal technology works in all kinds of liquids

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→ www.mysick.com/en/LFV300

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/LFV300

LFV310

- **Enclosure rating:** IP 66 / IP 67
- **Process connection:** G ¾ A PN 64 / 316L
- **Process pressure:** –1 bar ... 64 bar
- **Electrical connection:** M20 x 1.5
- **Probe length:** 66 mm

Output signal	Process temperature	Housing material	WHG approval	ATEX	Model name	Part no.
1 x PNP/NPN	–50 °C ... +150 °C	Aluminum	–	–	LFV310-XXGBVXMTX	6037751
		Plastic	–	–	LFV310-XXGBVX8TX	6037752

LFV330

- **Enclosure rating:** IP 66 / IP 67
- **Process connection:** G ¾ A PN 64 / 316L
- **Process pressure:** –1 bar ... 64 bar
- **Electrical connection:** M20 x 1.5

Output signal	Process temperature	Housing material	Probe length	ATEX	Model name	Part no.
Double relay (DPDT)	–50 °C ... +150 °C	Plastic	100 mm	–	LFV330-XXNBVXPRX0100	6038973



At a glance

- Rugged device design
- Commissioning without filling
- Process temperature up to 250 °C
- Immune to deposit formation
- Very high repeatability
- Aseptic versions according to EHEDG and FDA available, CIP and SIP resistant
- ATEX certification available
- Tube- (6 m) and wire-lengthened (80 m) variants available

Your benefits

- Easy installation and commissioning, no calibration necessary
- Easy operation and integration, saves time
- Maintenance-free sensor, reduces downtime
- Testing in place possible – no mounting required, which reduces installation time
- Flexible and tough system for a multitude of applications
- Universal technology works in all kinds of liquids

➜ www.mysick.com/en/LBV300

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/LBV300

LBV310

- **Enclosure rating:** IP 66
- **Process connection:** G 1½ A PN 25 / 316L
- **Process pressure:** –1 bar ... 25 bar
- **Electrical connection:** M20 x 1.5
- **Probe length:** 220 mm

Output signal	Process temperature	Housing material	WHG approval	ATEX	Model name	Part no.
1 x PNP/NPN	–50 °C ... +150 °C	Plastic	–	–	LBV310-XXAGDTKMX	6038016
Double relay (DPDT)			–	–	LBV310-XXAGDRKMX	6038011
Transistor output PNP/ NPN		Stainless steel (electropolished) 316L	–	–	LBV310-XXAGDT8MX	6038018
	–50 °C ... +250 °C		–	–	LBV310-XXBGDT8MX	6038066

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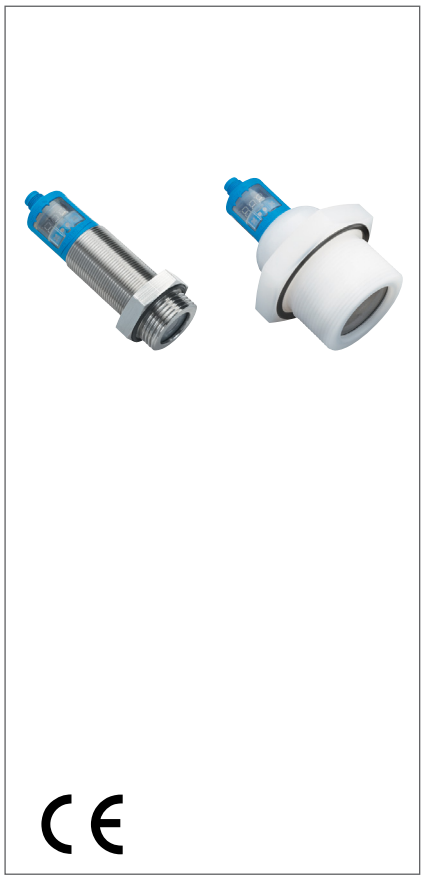

At a glance

- Non-contact level measurement up to 3.4 m operating distance / 8.0 m limit scanning distance
- Pressure resistant up to 6 bar (87 psi)
- Transducer protected by PVDF cover for increased resistance
- 3 in 1: continuous level measurement, level switch and display
- Analog output switchable between 4 mA ... 20 mA and 0 V ... 10 V
- Process connector thread G 1 and G 2
- IP 67 enclosure rating
- Easy to set parameters, also via connect+

Your benefits

- Non-contact measurement in pressurized containers – no wear over time
- Easy to set parameters, saving time
- Flexible measurement system for different container sizes – standardization and stock reduction
- One product for point level and continuous applications, reduces the number of sensors required

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➜ www.mysick.com/en/UP56

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/UP56

UP56-211

- **Process connection:** G 1 A PN 6
- **Process temperature:** –25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar
- **Operating distance:** 30 mm ... 250 mm
- **Limiting scanning distance:** 30 mm ... 990 mm (At 6 bar gauge.)
- **Electrical connection:** Round connector M12 x 1, 5-pin

Enclosure rating	Housing material	Output signal	Model name	Part no.
IP 67	Stainless steel 1.4571, PBT, TPU	1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V	UP56-211118	6041658

UP56-212

- **Process connection:** G 1 A PN 6
- **Process temperature:** –25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar
- **Operating distance:** 85 mm ... 350 mm
- **Limiting scanning distance:** 85 mm ... 1,500 mm (At 6 bar gauge.)
- **Electrical connection:** Round connector M12 x 1, 5-pin

Enclosure rating	Housing material	Output signal	Model name	Part no.
IP 67	Stainless steel 1.4571, PBT, TPU	1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V	UP56-212118	6041659

UP56-213

- **Process connection:** G 1 A PN 6
- **Process temperature:** –25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar
- **Operating distance:** 200 mm ... 1,300 mm
- **Limiting scanning distance:** 200 mm ... 5,000 mm (At 6 bar gauge.)
- **Electrical connection:** Round connector M12 x 1, 5-pin

Enclosure rating	Housing material	Output signal	Model name	Part no.
IP 67	Stainless steel 1.4571, PBT, TPU	1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V	UP56-213118	6041660

UP56-214

- **Process connection:** G 2 A PN 6
- **Process temperature:** –25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar
- **Operating distance:** 350 mm ... 3,400 mm
- **Limiting scanning distance:** 350 mm ... 8,000 mm (At 6 bar gauge.)
- **Electrical connection:** Round connector M12 x 1, 5-pin

Enclosure rating	Housing material	Output signal	Model name	Part no.
IP 67	Stainless steel 1.4571, PBT, TPU	1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V	UP56-214118	6041693*

Recommended accessories

	Description	Model name	Part no.
Programming and configuration tools			
	Tool for visualization, configuration and cloning, 3-digit LED display, supply voltage: DV 9 V ... 30 V	Connect+ adapter (CPA)	6037782*

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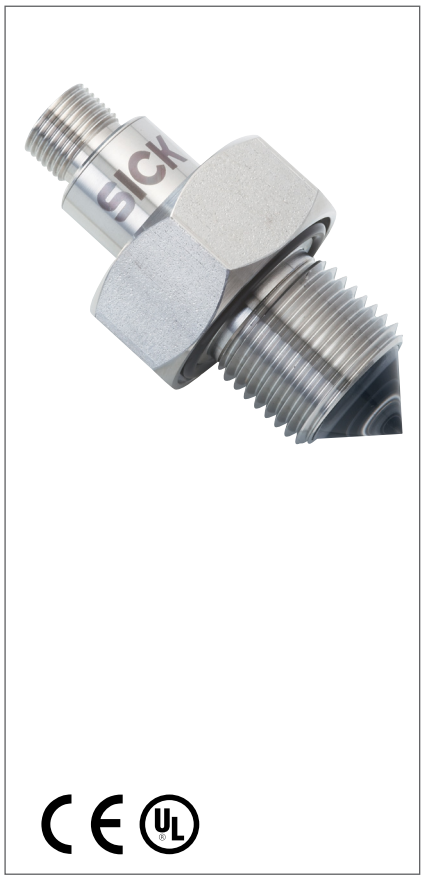

At a glance

- Robust level monitoring in liquid without additional requirements
- Small, compact design; no medium calibration required
- Process temperature up to 55 °C, process pressure up to 16 bar
- IP 67 and IP 69K enclosure rating
- Process connection G ½
- Highly medium resistant due to stainless steel housing 1.4404, polysulfone apex
- Output available as PNP or NPN transistor
- FDA-compliant, UL

Your benefits

- Small, compact sensor ideal for difficult installation conditions with limited space
- Quick commissioning without medium calibration saves time and money
- No moving mechanical parts reduce maintenance and eliminate the need to recalibrate -- even after long periods of use.

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→ www.mysick.com/en/MHF15

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/MHF15

- **Enclosure rating:** IP 67: EN 60529, IP 69K: EN 40050
- **Process connection:** G ½
- **Process temperature:** –25 °C ... +55 °C
- **Process pressure:** –0.5 bar ... 16 bar
- **Housing material:** Stainless steel 1.4404
- **Electrical connection:** Round connector M12 x 1, 4-pin

Output signal	Switching mode	Model name	Part no.
1x PNP	Normally open	MHF15-21NG1HSM	1052273
	Normally closed	MHF15-21NG1PSM	1052237*



At a glance

- Electronic pressure switch with display for monitoring pressure in liquids and gases
- Precise sensor technology with stainless steel membrane
- Integrated process connections manufactured from high-quality stainless steel
- Pressure values indicated on display. Output states are indicated separately via wide-angle LEDs.
- Unit of pressure value in display can be switched
- Min/max memory
- Password protection

Your benefits

- Quick and easy setup and operation due to three large pushbuttons and clear display
- Perfect display readability and optimal cable routing due to rotatable housing
- No compromises: Individual solutions through a variety of configurations
- Universal application due to fully welded, highly durable stainless steel membrane
- Saves space and costs: no adapters required due to broad range of standard process connections
- Highly reliable due to application of proven technologies and high-quality materials, water resistance according to IP 65 and IP 67 as well as excellent overpressure safety
- Ultimate system availability: IO-Link enables fast, reliable parameter setting when changing over products

➜ www.mysick.com/en/PBS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/PBS

- **Pressure type:** Gauge pressure
- **Process temperature:** –20 °C ... +85 °C
- **Accuracy:** ≤ ± 1 % of span
- **Pressure port:** Standard

Output signal	Electrical connection	Process connection	Seal	Measuring range	Model name	Part no.
2x PNP	Plug M12 x 1, 4-pin, IP 67	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 2.5 bar	PBS-RB2X5SG1SSNAMA0Z	6038860
				0 bar ... 10 bar	PBS-RB010SG1SSNAMA0Z	6038862*
				0 bar ... 25 bar	PBS-RB025SG1SSNAMA0Z	6038863
				0 bar ... 100 bar	PBS-RB100SG1SSNAMA0Z	6038865
				0 bar ... 250 bar	PBS-RB250SG1SSNAMA0Z	6038866
				0 bar ... 400 bar	PBS-RB400SG1SSNAMA0Z	6041099
				0 bar ... 600 bar	PBS-RB600SG1SSNAMA0Z	6038867
	M12 x 1,4-pin, IP 67	G 1/2 B flush mounted	NBR	0 bar ... 100 bar	PBS-CB4X0SN1SS0AMA0Z	6049161
				0 bar ... 16 bar	PBS-RB016SF2FSNAMA0Z	6049845
				0 bar ... 10 bar	PBS-RB025SG2SS0BMA0Z	6049071
				0 bar ... 2.5 bar	PBS-RB2X5SF2FSNAMA0Z	6050186
		G 1/4 female	Without seal	0 bar ... 400 bar	PBS-RB400SG2SS0AMA0Z	6039495

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Output signal	Electrical connection	Process connection	Seal	Measuring range	Model name	Part no.
1x PNP + 4 ... 20 mA	Plug M12 x 1, 4-pin, IP 67	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 2.5 bar	PBS-RB2X5SG1SSNBMA0Z	6038886*
				0 bar ... 10 bar	PBS-RB010SG1SSNBMA0Z	6038888*
				0 bar ... 25 bar	PBS-RB025SG1SSNBMA0Z	6038889
				0 bar ... 100 bar	PBS-RB100SG1SSNBMA0Z	6038891
				0 bar ... 250 bar	PBS-RB250SG1SSNBMA0Z	6038892
				0 bar ... 400 bar	PBS-RB400SG1SSNBMA0Z	6041724
				0 bar ... 600 bar	PBS-RB600SG1SSNBMA0Z	6038893
2x PNP + 4...20 mA	Plug M12 x1, 5-pin	G 1/4 (female)	Without seal	0 bar ... 1 bar	PBS-RB1X0SG2SS0D5A0Z	6045265
				0 bar ... 10 bar	PBS-RB010SG2SS0D5A0Z	6039123*
				0 bar ... 100 bar	PBS-RB100SG2SS0D5A0Z	6042526
1 x PNP + 4 mA ... 20 mA	Round connector M12 x 1, 4-pin, IP 67	G ¼ A according to DIN 3852-E	NBR	0 bar ... 1 bar	PBS-RB1X0SG1SSNBMA0Z	6038885*

Please Note:
Throughout our portfolio of pressure devices we can provide an extensive range of options and configurations readily available as per your request. These include;

- -1....+600 Bar Range (Measurement ranges include Mpa, psi, kg/cm2)
- Temperature Ranges: -30....+150°C (+200°C options)
- Pressure Types: Gauge (Relative), Absolute, Compound (+/- relative)
- Pressure Port Size Variations (on request)
- Process Connections: Male, Female, Flush Mount Membrane
- Output Signal Options: Analogue; 4...20mA, 0...10V, 0....5V, Digital; PNP, NPN, IO-Link
- Electrical Connection: M12-4 pin, L-connector, Flying Leads

To discuss these configuration options, please contact your local sales representative or call customer service for any assistance needed



At a glance

- Hygienically-graded pressure switch with display for the food and beverage industry
- Wetted parts are made from stainless steel 1.4435
- Individually programmable switching outputs and analog output
- Pressure values are indicated on the display
- Unit of pressure value in the display can be switched
- Output states are indicated separately via large LEDs

Your benefits

- Safe hygienic operation due to flush-mounted, highly resistant stainless steel membrane and hygienic process connections
- Suitability for CIP and SIP ensures high system availability
- Safe and easy setup with three large pushbuttons and legible, rotatable display
- Rotatable housing for optimum cable routing
- Wide range of available configurations enable customer-specific solutions
- High reliability: Corrosion-resistant design of wetted parts and housing with IP 65 and IP 67 enclosure ratings
- Ultimate system availability: IO-Link enables fast, reliable parameter setting when changing over products

➜ www.mysick.com/en/PBS_Hygienic

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/PBS_Hygienic

- **Pressure type:** Gauge pressure
- **Output signal:** 1 x PNP + 4 mA ... 20 mA
- **Electrical connection:** Round connector M12 x 1, 4-pin
- **Seal:** Without seal
- **Process temperature:** –20 °C ... +100 °C, +135 °C for max. 1 h
- **Accuracy:** ≤ ± 1 % of span

Output signal	Electrical connection	Process connection	Seal	Measuring range	Model name	Part no.
1 x PNP + 4 mA ... 20 mA	Plug M12 x 1, 4-pin	G 1 hygienic flush-mounted	Wetted parts: EPDM, Not wetted parts: EPDM	0 bar ... 25 bar	PBSH-RB025SHGEEBMA0Z	6051845
				0 bar ... 10 bar	PBS-RB010SG1SSNAMA0Z	6051844
				0 bar ... 2.5 bar	PBS-RB025SG1SSNAMA0Z	6051842
				0 bar ... 1 bar	PBS-RB100SG1SSNAMA0Z	6051840

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At a glance

- Pressure measurement ranges from 0 bar ... 1 bar up to 0 bar ... 600 bar
- Gauge, absolute, and compound measurement ranges
- A large variety of available process connections
- No moving parts: No mechanical wear, fatigue-proof, maintenance-free
- Circularly welded, hermetically sealed stainless steel membrane
- Output signal 4 mA ... 20 mA, 0 V ... 5 V or 0 V ... 10 V
- Electrical connection M12 x 1, L-connector acc. to DIN 175301-803 A or flying leads

Your benefits

- Compact size takes up less space
- Simple and cost-saving installation
- Available in a wide selection of configurations, enabling a perfect match to individual customer requirements
- Robust design enables higher reliability
- Excellent price/performance ratio

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→ www.mysick.com/en/PBT

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/PBT

- **Pressure type:** Gauge pressure
- **Process temperature:** 0 °C ... +80 °C
- **Accuracy:** ≤ ± 1 % of span
- **Pressure port:** Standard

Output signal	Electrical connection	Process connection	Seal	Measuring range	Model name	Part no.
4 mA ... 20 mA	Round connector M12 x 1, 4-pin, IP 67	G ¼ A according to DIN 3852-E	NBR	0 bar ... 600 bar	PBT-RB600SG1SSNAMA0Z	6038660
				0 bar ... 400 bar	PBT-RB400SG1SSNAMA0Z	6038656*
				0 bar ... 250 bar	PBT-RB250SG1SSNAMA0Z	6038652
				0 bar ... 100 bar	PBT-RB100SG1SSNAMA0Z	6038648
				0 bar ... 40 bar	PBT-RB040SG1SSNAMA0Z	6038644
				0 bar ... 25 bar	PBT-RB025SG1SSNAMA0Z	6038640
				0 bar ... 10 bar	PBT-RB010SG1SSNAMA0Z	6038615*
				0 bar ... 6 bar	PBT-RB6X0SG1SSNAMA0Z	6041617
				0 bar ... 4 bar	PBT-RB4X0SG1SSNAMA0Z	6038633*
				0 bar ... 1 bar	PBT-RB1X0SG1SSNAMA0Z	6038716
4 mA ... 20 mA	L-connector acc. to DIN 175301-803 A, IP 65	G ¼ A according to DIN 3852-E	NBR	0 bar ... 10 bar	PBT-RB010SG1SSNALA0Z	6040974*



At a glance

- Measurement ranges from 0 mbar ... 100 mbar up to 0 bar ... 600 bar
- Gauge, absolute, and compound measurement ranges
- Variant with flush-mounted membrane available
- Process temperature up to 150 °C (optional)
- Large variety of commonly used process connections
- High shock and vibration resistance
- Accuracy 0.5 % or 0.25 %
- Output signal 4 mA ... 20 mA, 0 V ... 5 V, or 0 V ... 10 V
- Zero and span adjustable
- Electrical connection M12 x 1, L-connector according to DIN 175301-803 A or flying leads

Your benefits

- Reliable and highly accurate measurement technology
- Wide application range
- No mechanical wear, fatigue-proof, maintenance-free as no moving parts
- Simple and cost-saving installation
- Optimal solution for individual requirements due to very versatile configurability

➜ www.mysick.com/en/PFT

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/PFT

- **Pressure type:** Gauge pressure
- **Electrical connection:** Round connector M12 x 1, 4-pin, IP 67
- **Process temperature:** –30 °C ... +100 °C
- **Accuracy:** ≤ ± 0.5 % of span

Output signal	Process connection	Seal	Measuring range	Pressure port	Model name	Part no.
4...20 mA	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 0.1 bar	Standard	PFT-SRBX10SG1SSAAMSSZ	6038719
			0 bar ... 0.25 bar	Standard	PFT-SRBX25SG1SSAAMSSZ	6049657
			0 bar ... 0.4 bar	Standard	PFT-SRBX40SG1SSAAMSSZ	6044387
			0 bar ... 1 bar	Standard	PFT-SRB1X0SG1SSAAMSSZ	6038723
			0 bar ... 10 bar	Standard	PFT-SRB010SG1SSAAMSSZ	6038735
			0 bar ... 100 bar	Standard	PFT-SRB100SG1SSAAMSSZ	6038746
4...20 mA	G 1/2 B flush-mounted with O-ring	With flush-mounted membrane: wetted parts: CrNi-steel + NBR O-Ring	0 bar ... 10 bar	–	PFT-FRB010SF20SSAMSSZ	6038812
			0 bar ... 100 bar		PFT-FRB100SF20SSAMSSZ	6038815

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At a glance

- Robust and precise pressure measurement technology
- Flush-mounted, hermetically sealed stainless steel membrane with roughness Ra < 0.4 µm
- Wetted parts stainless steel 1.4435, housing stainless steel 1.4571
- CIP/SIP resistant
- Large range of hygienic process connectors
- Stainless steel housing with enclosure rating of up to IP 68
- Field housing available (IP 67)

Your benefits

- Perfectly suited for demanding hygienic applications in the food and beverage, pharmaceutical and cosmetics industries
- Safe hygienic operation through EHEDG and 3-A certifications
- High reliability due to robust design and use of high-grade materials
- Withstands CIP/SIP, ensuring high system availability and reliability
- Transmitter housing is easily cleaned
- Versatile configurability optimizes solutions

G

→ www.mysick.com/en/PHT

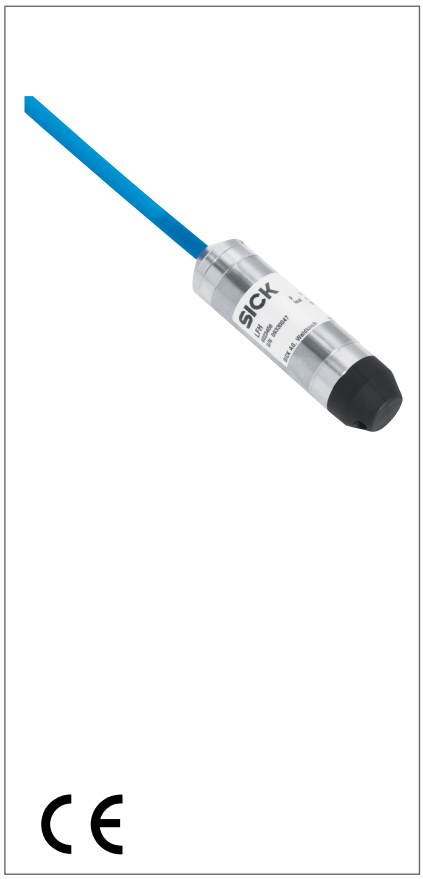
For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/PHT

- **Pressure type:** Gauge pressure
- **Output signal:** 4 mA ... 20 mA
- **Seal:** Without seal
- **Process temperature:** –20 °C ... +150 °C
- **Accuracy:** ≤ ± 0.5 % of span

Electrical connection	Process connection	Measuring range	Model name	Part no.
Plug M12 x 1, 4-pin, IP 67	Tri-Clamp 1 ½''	0 bar ... 0.60 bar	PHT-RBX60ST10S0AMS0Z	6039292
		0 bar ... 1 bar	PHT-RB1X0ST10S0AMS0Z	6039293
		0 bar ... 2.5 bar	PHT-RB2X5ST10S0AMS0Z	6039294
		0 bar ... 6 bar	PHT-RB6X0ST10S0AMS0Z	6039295
		0 bar ... 10 bar	PHT-RB010ST10S0AMS0Z	6039296
		0 bar ... 25 bar	PHT-RB025ST10S0AMS0Z	6039297
	Varivent Connector Type F	0 bar ... 1 bar	PHT-RB1X0SVF0S0AMS0Z	6039342
		0 bar ... 2.5 bar	PHT-RB2X5SVF0S0AMS0Z	6039343
		0 bar ... 6 bar	PHT-RB6X0SVF0S0AMS0Z	6039344
		0 bar ... 10 bar	PHT-RB010SVF0S0AMS0Z	6039345
		0 bar ... 25 bar	PHT-RB025SVF0S0AMS0Z	6039346
Field housing IP 67	Tri-Clamp 1 ½''	0 bar ... 1 bar	PHT-RB1X0ST10S0AFT0Z	6039405
		0 bar ... 2.5 bar	PHT-RB2X5ST10S0AFT0Z	6039406
		0 bar ... 6 bar	PHT-RB6X0ST10S0AFT0Z	6039407
		0 bar ... 10 bar	PHT-RB010ST10S0AFT0Z	6039408
		0 bar ... 25 bar	PHT-RB025ST10S0AFT0Z	6039409



At a glance

- Immersion depth up to 100 m
- Available with various cable lengths
- Measuring ranges from 0 bar ... 0.1 bar up to 0 bar ... 25 bar
- Stainless steel membrane
- Hermetically sealed stainless steel housing with PA protection cap
- Cable made from PUR, FEP-cable for aggressive media optionally available
- Optional temperature measurement with integrated Pt100 element
- Optional surge protection

Your benefits

- Enables level measurement under difficult conditions where other measurement technologies fail
- Rugged and reliable through robust mechanical design and high-grade materials
- For cleaning purposes the probe can easily be taken out of the liquid
- No openings required in the wall of the vessel

→ www.mysick.com/en/LFH

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/LFH

LFH-SB

- **Enclosure rating:** IP 68
- **Output signal:** 4 mA ... 20 mA
- **Process temperature:** –10 °C ... +50 °C
- **Electrical connection:** Cable PUR

Measuring range	Cable length	Model name	Part no.
0 bar ... 0.4 bar	10 m	LFH-SBX40G1AS10SZ0	6040943*
0 bar ... 0.6 bar	10 m	LFH-SBX60G1AS10SZ0	6040947
0 bar ... 1 bar	10 m	LFH-SB1X0G1AS10SZ0	6040950
	20 m	LFH-SB1X0G1AS20SZ0	6040952

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IO-Link

At a glance

- Electronic pressure switch for pneumatic applications
- Large display shows system pressure, output states and set switching points
- Three large function keys and intuitive menu navigation
- Measuring range for gauge pressure (vacuum and overpressure)
- Individually programmable switching outputs and optional analog output
- Installation on a mounting rail, wall or in a control panel

Your benefits

- Bi-color display (green/red) clearly shows the output state to recognize whether the pressure is within the target range
- Quick overview of important system parameters due to advanced display functions
- Intuitive operation allows simple and quick commissioning
- Pressure connections on the back and bottom, various mounting options and configurable output signals provide installation flexibility
- High reliability due to the rugged design (IP 65/IP 67 enclosure rating) and proven technology
- Low storage costs since a few product variants are able to meet a broad range of application requirements.
- Reduced downtime when changing the format or replacing the sensor thanks to IO-Link.

➜ www.mysick.com/en/PAC50

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/PAC50

- **Pressure type:** Gauge pressure
- **Process temperature:** 0 °C ... +60 °C
- **Accuracy:** ≤ ± 1.5 % of span≤ ± 2 % of span incl. temperature error

Output signal	Process connection	Measuring range	Model name	Part no.
PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	2 x G ¼	0 bar ... 10 bar	PAC50-DGB	1062984
2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V	PIF 4 mm + G ¼	0 bar ... 10 bar	PAC50-DCC	1062991
2 x PNP/NPN/Push-Pull	PIF 4 mm + G ¼	0 bar ... 10 bar	PAC50-DCA	1062989
	2 x G ¼	0 bar ... 10 bar	PAC50-DGA	1062983
		0 bar ... 6 bar	PAC50-CGA	1062970

Recommended accessories

	Material	Description	Model name	Part no.
Mounting systems				
	Mounting element: polycarbonate, screws: steel, zinc-coated	Wall-mounting kit, mounting element for wall-mounting of pressure switch PAC50	BEF-MA-WLMNTS-PAC5	2069198
	Panel-mounting frame and mounting element: polycarbonate, screws: steel, zinc-coated	Switch panel installation kit, for installation of the PAC50 pressure switch in a switch panel. Maximum thickness of switch panel 5 mm	BEF-MA-CTRLPS-PAC5	2069200



At a glance

- Flow sensor for conductive and non-conductive liquids
- Compact design with no moving parts
- Process temperature up to 80 °C, process pressure up to 16 bar
- High chemical resistance due to seal-free sensor design
- Large display with membrane keyboard
- Integrated teaching tube detection

Your benefits

- Reduced maintenance costs
- Adjustable measuring ranges reduces the number of variants
- Ability to be used with conductive and non-conductive liquids reduces variants and lowers storage costs
- Straight measuring tube reduces pressure loss, thus reducing energy costs
- Sensor without seals increases process reliability and availability
- Flexible measurement system for all industries

➜ www.mysick.com/en/FFU

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/FFU

Process pressure	Nominal width measuring tube	Maximum flow	Process connection	Model name	Part no.
Max. 16 bar	NW 15	0.9 l/min ... 36 l/min	G ¾	FFUS15-1G1I0	6041249
	NW 10	0.3 l/min ... 21 l/min	G ½	FFUS10-1G1I0	6041737*
Max. 10 bar	NW 25	5 l/min ... 240 l/min	G 1 ¼	FFUS25-1G1I0	6041739*
	NW 20	3.5 l/min ... 60 l/min	G 1	FFUS20-1G1I0	6041738

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At a glance

- Non-contact measurment of volume and mass flow of bulk material
- Laser pulses with high angular resolution ensure outstanding image resolution
- 5-echo pulse evaluation produces highly reliable measurements
- Offers non-contact belt monitoring
- Integrated center-of-gravity calculator
- Robust structure for harsh ambient conditions
- Can also measure at low temperatures thanks to integrated heater
- Compact housing with enclosure rating IP67

Your benefits

- Maximizes conveyor throughput
- Reduces maintenance costs by preventing belt slippage
- Increases the conveyor belt's service life
- Reduces loading time
- Increases efficiency by optimizing belt capacity
- Simple installation
- Low maintenance costs
- Offers savings through minimized energy consumption

→ www.mysick.com/en/LMS511

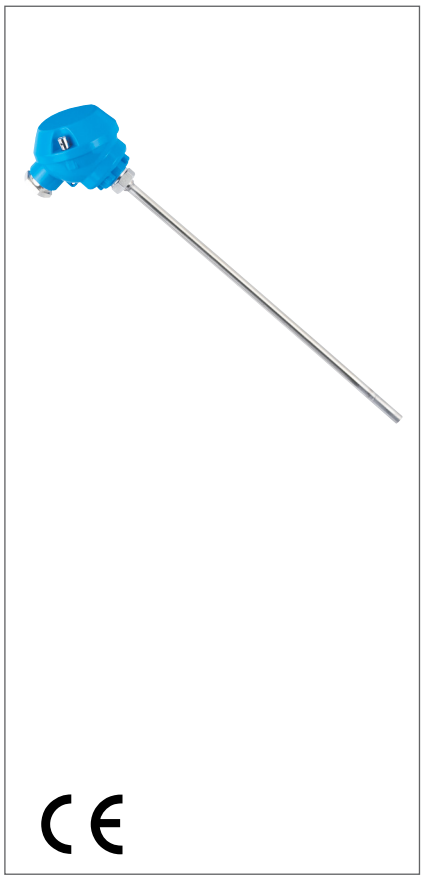
For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/LMS511

- **Light source:** Infrared (905 nm)
- **Laser class:** 1 (IEC 60825-1 (2007-6)), eye-safe
- **Field of view:** 190 °
- **Scanning frequency:** 35 Hz, 50 Hz, 75 Hz
- **Heating:** Yes
- **Operating range:** 0.5 m ... 10 m
- **Amount of evaluated echoes:** 5
- **Enclosure rating:** IP 67 (EN 60529, Section 14.2.7)

Model name	Part no.
LMS511-20190	1059529*



At a glance

- Pt100 element, accuracy class A according to IEC 60751
- Measuring ranges –50 °C ... +150 °C and –50 °C ... +250 °C
- Wetted parts made from corrosion resistant stainless steel 1.4571
- Various mechanical adaptations and insertion lengths
- Pt100 (4-wire) or 4 mA ... 20 mA (2-wire)
- Cable gland M16 x 1.5

Your benefits

- Reliable operation through rugged design and high-quality materials
- Good long-term stability, accuracy and linearity
- Quick and safe installation
- Convenient system integration even in narrow installation spaces
- Optimal solutions for individual requirements

➜ www.mysick.com/en/TBT

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/TBT

- **Measuring range:** –50 °C ... +150 °C
- **Electrical connection/enclosure rating:** Cable gland M16 x 1.5, IP 65

Output signal	Process connection	Insertion length/ diameter of probe	Model name	Part no.
4 mA ... 20 mA, 2-wire ($R_A \leq (L^+ - 10\ V) / 0.028\ A$ [Ohm])	Without process connection	150 mm / 6 mm	TBT-1AAZZ1506GZ	6043041
		350 mm / 6 mm	TBT-1AAZZ3506GZ	6043043
Pt100, 4-wire	Thread G ¼ B	250 mm / 6 mm	TBT-1PAG12506GZ	6043018
	Compression fitting G ½ B, stainless steel ferrule	100 mm / 6 mm	TBT-1PASE1006GZ	6043034

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At a glance

- Large display
- Individually programmable transistor outputs PNP or NPN, optional analog output 4 mA ... 20 mA or 0 V ... 10 V
- Round connector M12 x 1
- Measuring ranges –20 °C ... +80 °C
- Pt1000 element, accuracy class A (IEC 60751)
- Various insertion lengths and connection threads
- Wetted parts made from corrosion-resistant stainless steel 1.4571
- Enclosure rating IP 65 and IP 67

Your benefits

- Quick and safe set-up through superior ease of use
- Compact dimensions and rotatable housing facilitate integration
- Very reliable: splash-proof housing, high-grade materials, rugged design, and field-proven technology
- Very good long-term stability, accuracy and linearity
- Quick response time
- Versatile configuration allows for optimal solutions for specific requirements

G

→ www.mysick.com/en/TBS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/TBS

- **Electrical connection:** Round connector M12 x 1, 4-pin
- **Seal:** NBR

Output signal	Process connection	Insertion length/ diameter of probe	Model name	Part no.
1 x PNP 1 x 4 mA ... 20 mA	Thread G ¼ A, according to DIN 3852-E	250 mm / 6 mm	TBS-1BSG12506NM	6048672
2 x PNP	Thread G ¼ A, according to DIN 3852-E	150 mm / 6 mm	TBS-1ASG11506NM	6048663

- **Electrical connection:** Round connector M12 x 1, 5-pin
- **Output signal:** 2 x PNP1 x 4 mA ... 20 mA
- **Seal:** NBR

Process connection	Insertion length/diameter of probe	Model name	Part no.
Thread G ¼ A, according to DIN 3852-E	150 mm / 6 mm	TBS-1DSG11506NE	6048679



At a glance

- Pt100 element, accuracy class A (IEC 60751)
- Measuring ranges –50 °C ... +150 °C and –50 °C ... +250 °C
- Wetted parts made from corrosion resistant stainless steel 316L
- Output signal Pt100 (4-wire)
- Various mechanical adaptations and insertion lengths, also available with thermowell
- Circular connector M12x1 (IP 67) or L-connector according to DIN EN 175301-803 A (IP 65)

Your benefits

- Reliable operation through rugged design and high-quality materials
- Good long-term stability, accuracy and linearity
- Quick and safe installation
- Convenient system integration through compact dimensions and industry-standard output signals
- Optimal solutions for individual requirements

➜ www.mysick.com/en/TCT

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/TCT

- **Measuring range:** –50 °C ... +150 °C
- **Electrical connection/enclosure rating:** Plug M12 x 1, 4-pin, IP 67

Output signal	Process connection	Insertion length/ diameter of probe	Model name	Part no.
4-wire	Thread G 1/4 B	50 mm / 3 mm	TCT-1PAG10503MZ	6043165
2-wire	Without process connection	150 mm / 6 mm	TCT-1AAZZ1506MZ	6043204
	Thread G 1/4 B		TCT-1AAG11506MZ	6043213
	Thread G 1/2 B	25 mm / 3 mm	TCT-1AAGE0253MZ	6043216
	Thermowell G 1/2 B	100 mm / 6 mm	TCT-1AATE1006MZ	6043238

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At a glance

- Platinum element (Pt100 or Pt1000, 2-wire), accuracy class B according to IEC 60751
- Measuring range -30 °C ... +130 °C
- Various connection threads and insertion lengths
- Wetted parts made from stainless steel 1.4305
- Circular connector M12 x 1 (IP 67)

Your benefits

- Reliable operation through rugged design and high-quality materials
- Good long-term stability
- Easy installation
- Convenient system integration through very compact dimensions

G

➜ www.mysick.com/en/TSP

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/TSP

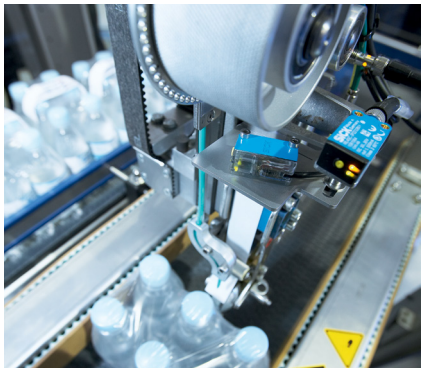
- **Measuring range:** –50 °C ... +150 °C
- **Electrical connection/enclosure rating:** Plug M12 x 1, 4-pin, IP 67

Output signal	Process connection	Insertion length/ diameter of probe	Model name	Part no.
2-wire	Thread G 1/4 B	30 mm / 5 mm	TSP-1PAG10305MZ	6042938*
		60 mm / 6 mm	TSP-1PAG10606MZ	6042941
			TSP-1PAN40606MZ	6042953
	Thread 1/4'' NPT		TSP-1MAN40606MZ	6042969

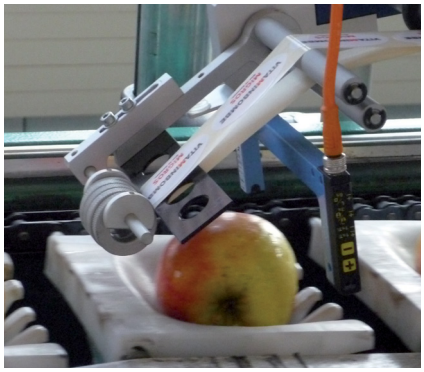


H

REGISTRATION SENSORS







SICK registration sensors – enhancing performance through precision and speed

The variety of tasks in automated production processes today, such as in packaging and printing machines, require sensors with the highest performance standards. Typical applications are the detection of visible and non-visible marks, labels and colors at high speeds as well as the detection of small parts and precise positioning. SICK offers a wide range of contrast, markless, color, luminescence, fork and array sensors to solve this wide spectrum of demanding tasks.

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H

Selection guide registration sensors **H-270**



KTM Prime **H-274**
Mini, easy, speedy



KTM Inox. **H-276**
Mini, easy, speedy



KT5. . . . . . .**H-277**
Contrast sensor in standard metal housing



KT8L **H-278**
Laser contrast sensor and CAN communication



CSM **H-279**
Mini, easy, smart



CS8 . . . . . .**H-281**
High-performance color sensing



LUTM **H-282**
Small, intelligent luminescence sensor



LUT8 . . . . . .**H-283**
For universal use with easy adjustment



LUT1 . . . . . .**H-284**
Compact sensor for long sensing distances



LUT9 . . . . . .**H-285**
The new standard for high-performance luminescence sensors



UF **H-287**
The clear choice for detecting transparent labels



WF **H-288**
WFnext - it's next for high-speed applications



WFS **H-289**
Agile and flexible – ideal mounting for labeling applications

SELECTION GUIDE REGISTRATION SENSORS

Contrast sensors, markless sensors, color sensors, luminescence sensors

H

Product	Standard applications				Sensor properties										
	Task				Sensing distance [1]										
	Detection of contrast marks, contrast differences	Detection of recurrent design	Color detection	Detection of fluorescent marks, objects	10 mm	12.5 mm	20 mm	40 mm	50 mm	60 mm	80 mm	90 mm	150 mm	20 µs	35 µs
Contrast sensors															
 KTM Prime	■					■									■
 KTM Inox	■					■									■
 KT5	■				■		■	■							
 KT8L	■				■									■	
Color sensors															
 CSM			■			■									
 CS8			■			■				■					
Luminescence sensors															
 LUTM				■		■									
 LUT8				■	■		■		■			■			
 LUT1				■	■		■		■			■			
 LUT9				■	■		■		■			■	■		

[1] For advanced operating range see product information.

[2] Specific data see product information.

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Response time (µs)							Special features		Object properties: Light sender						Object properties: Light spot size in mm [2]			Page
50 µs	75 µs	85 µs	125 µs	145 µs	200 µs	250 µs	Ethernet TCP/IP	IO-Link	LED: white	LED: green	LED: red, green	LED: red, green, blue	UV-LED	LED: blue	Small (0.8 x 4 ... 1.5 x 6.5)	Medium (2 x 4 ... 13 x 13)	Large (20 x 50 ... 60 x 3)	
■								■	■			■			■			→ H-274
								■	■			■			■			→ H-276
■										■	■	■			■			→ H-277
												■			■			→ H-278
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					■								■			■		→ H-284
		■	■					■					■	■		■		→ H-285

H

SELECTION GUIDE REGISTRATION SENSORS

Fork sensors

Product		Standard applications			Housing properties									
		Task			Fork width				Fork depth					
		Detection of transparent labels	Detection of opaque labels	Object detection	2 mm	3 mm	5 mm / 15 mm	30 mm / 50 mm / 80 mm / 120 mm	42 mm	59 mm / 60 mm	69 mm	95 mm	124 mm	
Fork sensors														
	UF	■	■			■					■			
	WF		■	■	■		■	■	■	■		■		
	WFS		■			■			■					

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	Sensore properties														Page
	Response time					Minimum detectable object (MDO)				Adjustment				Special features	
	50 µs	100 µs	125 µs	250 µs	300 µs	0.05 mm	0.2 mm	0.8 mm	2 mm	Teach-in	Teach-in dynamic/static	Manuel (+/– button)	Without	IO-Link	
				■	■						■	■			→ H-287
		■					■			■		■			→ H-288
	■								■		■	■		■	→ H-289



At a glance

- Small, tried-and-tested housing, also available in stainless steel
- High grayscale resolution
- Very large dynamic range means reliable detection of contrasts on glossy materials
- Static and dynamic teach-in in a single variant
- Switching frequency: 15 kHz (type-dependent)
- KTM Prime with IO-Link function

Your benefits

- Small housing allows installation even where space is limited
- Three-color LED technology allows a reliable process, with contrast marks detected even in conditions with weak contrast ratios
- Good contrast resolution and a very large dynamic range ensure good detection performance on glossy materials, thus increasing the range of application possibilities
- Various teach-in methods enable more flexible commissioning
- Enhanced diagnostics and visualization of sensor parameters, as well as quick and easy format changes, since parameter settings can be downloaded via IO-Link
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Long service life, even in harsh environments, thanks to stainless steel housing; as a result, excellent system throughput and low spare parts costs

➜ www.mysick.com/en/KTM

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/KTM

KTM Prime

- **Housing material:** ABS (plastic)
- **Response time:** 35 µs (Signal transit time with resistive load.)

Sensing distance	Light source	Adjustment	Light spot size	Connection type	Switching output	Model name	Part no.
12.5 mm	LED red, green, blue [1) 2)]	2-point teach-in static/ dynamic + proximity to mark	1.5 mm x 6.5 mm	Connector M8, 4-pin	PNP	KTM-WP11181P	1062199*
				Cable with connector M12, 4-pin	PNP	KTM-WP11182P	1062201
				Connector M8, 4-pin	NPN	KTM-WN11181P	1062200
				Cable with connector M12, 4-pin	NPN	KTM-WN11182P	1062150
				Connector M8, 4-pin	NPN	KTM-WN117A1P	1061787*
				Connector M8, 4-pin	PNP	KTM-WP117A1P	1061770

[1)] Average service life of 100,000 h at T_A = +25 °C.

[2)] Wave length: 470 nm, 525 nm, 625 nm.

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Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates				
	Stainless steel	Adapter plate KT3 to KTM, fastening screws included	BEF-AP-KTMS01	2068786
		Mounting bracket for wall mounting, mounting hardware included	BEF-W100-A	5311520*
	Steel, zinc coated	Mounting bracket for floor mounting, mounting hardware included	BEF-W100-B	5311521*
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N08 for universal clamp bracket	BEF-KHS-N08	2051607*^

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At a glance

- Small, tried-and-tested housing, also available in stainless steel
- High grayscale resolution
- Very large dynamic range means reliable detection of contrasts on glossy materials
- Static and dynamic teach-in in a single variant
- Switching frequency: 15 kHz (type-dependent)
- KTM Prime with IO-Link function

Your benefits

- Small housing allows installation even where space is limited
- Three-color LED technology allows a reliable process, with contrast marks detected even in conditions with weak contrast ratios
- Good contrast resolution and a very large dynamic range ensure good detection performance on glossy materials, thus increasing the range of application possibilities
- Various teach-in methods enable more flexible commissioning
- Enhanced diagnostics and visualization of sensor parameters, as well as quick and easy format changes, since parameter settings can be downloaded via IO-Link
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Long service life, even in harsh environments, thanks to stainless steel housing; as a result, excellent system throughput and low spare parts costs

➜ www.mysick.com/en/KTM

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/KTM

KTM Inox

- **Housing material:** Stainless steel 316L
- **Response time:** 35 µs (Signal transit time with resistive load.)

Sensing distance	Light source	Adjustment	Light spot size	Connection type	Switching output	Model name	Part no.
11.5 mm	LED red, green, blue [1) 2)]	2-point teach-in static/ dynamic + proximity to mark	1.5 mm x 6.5 mm	Cable with connector M12, 4-pin	PNP	KTM-WP1A182V	1052956
					NPN	KTM-WN1A182V	1062148
					PNP, IO-Link	KTM-WP1A7A2V	1062147

[1)] Average service life of 100,000 h at T_A = +25 °C.

[2)] Wave length: 470 nm, 525 nm, 625 nm.

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates				
	Stainless steel	Adapter plate KT3 to KTM, fastening screws included	BEF-AP-KTMS01	2068786
		Mounting bracket for wall mounting, mounting hardware included	BEF-W100-A	5311520*
	Steel, zinc coated	Mounting bracket for floor mounting, mounting hardware included	BEF-W100-B	5311521*
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N08 for universal clamp bracket	BEF-KHS-N08	2051607*^

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At a glance

- Best contrast resolution thanks to RGB LED technology
- Intuitive 10-segment bar display indicates the detection reliability
- Dynamic or static teach-in method or manual potentiometer
- Switching frequency of 10 kHz
- Automatic gloss adjustment for highly reflective materials
- Various sensing distances and light spot directions
- M12 plug can be rotated 90°

Your benefits

- Able to process all packaging materials (yellow mark/white background), resulting in high machine throughput
- Reliable operation, even with jittering and high gloss materials
- High positioning accuracy improves packaging quality
- Simple teach-in and highly visible light spot ensure easy setup
- A range of sensing distances, light spot directions and 180° rotatable plug enables optimal integration
- Interchangeable lenses for maximum mounting flexibility
- Application-specific teach-in processes

→ www.mysick.com/en/KT5

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories → www.mysick.com/en/KT5

Light source	Adjustment	Sensing distance	Light spot size	Light spot direction	Switching output	Model name	Part no.
LED green [1) 2)]	Manual adjustment, potentiometer	10 mm [3)]	1.2 mm x 4.2 mm	Vertical [4)]	PNP	KT5G-2P1111	1015993*
					PNP	KT5G-2P1151	1016195
LED red, green, blue [1) 6)]	Dynamic teach-in	10 mm [3)]	1.2 mm x 4.2 mm	Vertical [4)]	PNP	KT5W-2P1113	1016629*
					NPN	KT5W-2N1113	1016630*
	Static 2-point teach-in	10 mm [3)]	1.2 mm x 4.2 mm	Vertical [4)]	PNP	KT5W-2P1116	1018044*
					NPN	KT5W-2N1116	1018045*
	Static 2-point teach-in with manual fine adjustment	10 mm [3)]	1.2 mm x 4.2 mm	Vertical [4)]	PNP	KT5W-2P1116D	1026538*
					NPN	KT5W-2N1116D	1026540

[1)] Average service life of 100,000 h at T_A = +25 °C.
[2)] Wave length: 520 nm.
[3)] From front edge of lens.
[4)] In relation to long side of housing.
[5)] Wave length: 525 nm, 640 nm.
[6)] Wave length: 470 nm, 525 nm, 640 nm.



At a glance

- Wide range of operating distances between 30 mm and 800 mm
- Small and precise laser light spot (Class II)
- Fast switching frequency of 17 kHz
- Analog output
- Simple teach-in
- Detection reliability displayed in the bar graph display

Your benefits

- Wide range of applications with sensing distances up to 800 mm
- Precise detection of the smallest marks and objects, e.g., 1 x 1 mm²
- Adjusts itself to specific applications, opening up a wide range of uses
- Reliable operation, even with unsteady objects

➜ www.mysick.com/en/KT8

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/KT8

- **Light source:** Laser
- **Sensing distance:** 150 mm [1]
- **Type of light:** Visible red light
- **Response time:** 30 µs [2]
- **Light spot size:** Ø 0.3 mm

Light spot direction	Switching output	Model name	Part no.
Round	PNP	KT8L-P3656	1041262
	NPN	KT8L-N3656	1041263

[1] From front edge of lens.

[2] Signal transit time with resistive load

Recommended accessories

	Material	Description	Model name	Part no.
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Steel, zinc coated	Plate K for universal clamp bracket	BEF-KHS-K01	2022718

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At a glance

- Color sensor in a new miniature housing
- Static and automatic teach-in method using control panel or IO-Link
- Improved gloss behavior
- Switching frequency of 2 kHz
- 12.5 mm (± 3 mm) sensing distance
- RGB light source
- Remote monitoring and rapid diagnostics using IO-Link
- Compatibility with older color sensors thanks to M12 pigtail

Your benefits

- Fast, seamless integration into existing applications thanks to a new miniature housing, saving time and money
- Increased switching frequency for improved machine productivity
- Enhanced process reliability thanks to gloss suppression and improved color resolution
- Flexible application possibilities thanks to a wide range of color tolerances
- Enhanced, intelligent diagnostics and visualization, as well as quick and easy format changes, thanks to IO-Link function
- Improved tolerance range for sensing distance
- Simple, static teach-in method cuts down on installation time
- Rapid conversion thanks to mounting brackets available

H

→ www.mysick.com/en/CSM

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/CSM

- **Light source:** LED red, green, blue (Average service life of 100,000 h at T_A = +25 °C.) (Wave length: 470 nm, 525 nm, 640 nm.)
- **Response time:** 250 µs (Signal transit time with resistive load.)
- **Switching frequency:** 2 kHz (With light/dark ratio 1:1.)
- **Connection type:** Male connector M12, 4-pin

Sensing distance	Sensing distance tolerance	Light spot size	Light spot direction	Switching output	Model name	Part no.
12.5 mm [1]	± 3 mm	1.5 mm x 6.5 mm	Vertical	PNP	CSM-WP11122P	1067291
				PNP, IO-Link	CSM-WP117A2P	1067294*
				NPN	CSM-WN11122P	1067293

[1] From front edge of lens.

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates				
	Stainless steel	Adapter plate KT3 to KTM, fastening screws included	BEF-AP-KTMS01	2068786
		Mounting bracket for wall mounting, mounting hardware included	BEF-W100-A	5311520*
	Steel, zinc coated	Mounting bracket for floor mounting, mounting hardware included	BEF-W100-B	5311521*
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N08 for universal clamp bracket	BEF-KHS-N08	2051607*^

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At a glance

- One (CS8-1) or four (CS8-4) colors can be saved
- 12.5 mm or 60 mm sensing distance
- Fast response time up to 85 µs
- High resolution color
- Bar graph display shows the correlation of the colors
- Extremely precise light spot and high resolution
- Metal housing with two light exits (interchangeable)

Your benefits

- Identify and store up to four colors. No need to reprogram the sensor for change-overs, reducing downtime.
- High resolution colors can be matched exactly for better process reliability
- Maintains the extreme precision of the light spot, enabling a consistent object detection
- A bar graph display provides information about the color quality and detection reliability, ensuring simple process monitoring
- Broad spectrum of color tolerances enables more flexible use
- Fast response times at high speeds for reliable detection
- Detection reliability is not affected by varying temperatures

➜ www.mysick.com/en/CS8

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories ➜ www.mysick.com/en/CS8

- **Light source:** LED red, green, blue (Average service life of 100,000 h at T_A = +25 °C.) (Wave length: 470 nm, 525 nm, 640 nm.)
- **Response time:** 1,000 µs, 500 µs, 145 µs (Signal transit time with resistive load.)
- **Switching frequency:** 0.5 kHz / 1 kHz / 3.5 kHz (With light/dark ratio 1:1.), adjustable
- **Connection type:** Male connector M12, 8-pin

Sensing distance	Sensing distance tolerance	Light spot size	Light spot direction	Switching output	Model name	Part no.
12.5 mm [1]	± 3 mm	2 mm x 4 mm	Vertical	PNP	CS84-P1112	1028226
				NPN	CS84-N1112	1028230
60 mm [1]	± 9 mm	13 mm x 13 mm	–	PNP	CS84-P3612	1028227*
				NPN	CS84-N3612	1028231

[1] From front edge of lens.

Recommended accessories

	Material	Description	Model name	Part no.
Universal bar clamp systems (Items supplied: Universal clamp and mounting hardware included)				
	Steel, zinc coated	Plate K for universal clamp bracket	BEF-KHS-K01	2022718

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	TPU, PVC, shielded	2 m, 8-wire	DOL-1208-G02MA	6020633*
				5 m, 8-wire	DOL-1208-G05MA	6020993*^



At a glance

- Luminescence sensor in a miniature housing
- Static and dynamic teach-in methods in a single variant
- Reliable detection even at a low level luminescence
- Improved gloss behavior
- Switching frequency of 4 kHz
- 12.5 mm + / - 3 mm sensing distance
- Remote monitoring and rapid analysis using IO-Link function
- Compatibility with older LUT sensors thanks to M12 pigtail

Your benefits

- Miniature housing enables installation in small spaces
- Quick and easy commissioning saves time and costs
- Increased switching frequency for improved machine productivity
- Enhanced process reliability thanks to gloss suppression
- Highly flexible during commissioning thanks to a range of teach-in methods
- Enhanced, intelligent diagnostics and visualization of sensor parameters, as well as quick and easy format changes, thanks to IO-Link function
- Improved tolerance range at longer detection distances
- Rapid conversion thanks to mounting brackets available

H

CE

IO-Link

➜ www.mysick.com/en/LUTM

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/LUTM

Scanning range	Operating range	Light spot size	Receiving range	Switching output	Model name	Part no.
12.5 mm [1]	8 mm ... 20 mm	2 mm x 2.5 mm [2]	450 nm ... 750 nm	PNP	LUTM-UP11162P	1067295
				PNP, IO-Link	LUTM-UP117A2P	1067297
				NPN	LUTM-UN11162P	1067296

[1] From front edge of lens.

[2] At sensing distance.

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates				
	Stainless steel	Adapter plate KT3 to KTM, fastening screws included	BEF-AP-KTMS01	2068786
		Mounting bracket for wall mounting, Mounting hardware included	BEF-W100-A	5311520*
	Steel, zinc coated	Mounting bracket for floor mounting, mounting hardware included	BEF-W100-B	5311521*
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N08 for universal clamp bracket	BEF-KHS-N08	2051607*^

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At a glance

- Tough metal housing
- Simple sensitivity adjustment in 8 stages
- Bar graph display provides information about the luminescence intensity
- Sensing distances selectable through interchangeable lenses
- Additional optical filters suppress background luminescence
- Fiber-optic cable connection (with 20 mm lens)
- Switching and analog output

Your benefits

- An 8-step rotary switch easily adjusts to accurately determine the switching output position for different materials
- Bar graph display provides continual process control through easy visualization of the luminescence intensity
- Filters ensure that background luminescence is reliably suppressed, ensuring greater process reliability
- Interchangeable lenses for different sensing distances provide flexibility

➜ www.mysick.com/en/LUT8

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories ➜ www.mysick.com/en/LUT8

Scanning range	Operating range	Light spot size	Receiving filters	Receiving range	Model name	Part no.
20 mm [1]	10 mm ... 40 mm	3 mm x 9 mm	KV 418 (standard)	450 nm ... 750 nm	LUT8U-11201	1047042
50 mm [1]	20 mm ... 70 mm	5 mm x 15 mm	KV 418 (standard)	450 nm ... 750 nm	LUT8U-11301	1047043

[1] From front edge of lens.

Recommended accessories

	Description	Model name	Part no.
Lens and accessories			
	Lens, 10 mm scanning distance, M25 x 0.75	OBJ-LUT3-10	2016348
	Lens, 20 mm scanning distance, M25 x 0.75	OBJ-LUT3-20	2016349
	Lens, 50 mm scanning distance, M25 x 0.75	OBJ-LUT3-50	2016350
Reference materials			
	Crayon, red fluorescence	LUM-FT	1004460
	Writing chalk, red fluorescence	LUM-KLK	1002959



At a glance

- Infinite switching threshold adjustment using touch-sensitive keypad
- Long sensing distances up to 150 mm
- Transmitter LED UV (375 nm) or blue (470 nm)
- Fast switching speed 600 Hz or 6 kHz

Your benefits

- Robust metal housing is reliable and ideal for tough environment conditions
- High detection reliability ensures the process: Blue transmitter LED excites red luminophores especially well. The UV LED is well-suited for blue, green or yellow marks.
- Visible light spot of the LUT1B version makes accurate alignment easy

➜ www.mysick.com/en/LUT1

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/LUT1

Light source	Scanning range	Operating range	Light spot size	Response time	Switching output	Model name	Part no.
LED blue [1] [2]	50 mm [4]	15 mm ... 60 mm	5 mm x 5 mm	85 µs [5]	PNP/NPN	LUT1B-31325	1027593
	150 mm [4]	60 mm ... 160 mm	6 mm x 14 mm	850 µs [5]	PNP/control output	LUT1B-41235	1024126
UV-LED [3]	150 mm [4]		12 mm x 12 mm	85 µs [5]	PNP	LUT1U-11331	1024128

[1] Average service life of 100,000 h at TA = +25 °C

[2] Wave length: 470 nm.

[2] Wave length: 375 nm.

[4] From front edge of lens.

[5] Signal transit time with resistive load.

Recommended accessories

	Description	Model name	Part no.
Reference materials			
	Crayon, red fluorescence	LUM-FT	1004460
	Writing chalk, red fluorescence	LUM-KLK	1002959



At a glance

- Simple teach-in
- Operating range up to 250 mm
- Version with IO-Link for remote monitoring
- Bar graph display provides information about the luminescence intensity
- High speed (6.5 kHz), standard (2.5 kHz), high resolution (500 Hz) models
- Additional optical filters suppress background luminescence
- Fiber-optic cable connection (with 20 mm lens)
- Switching and analog output

Your benefits

- Simple sensitivity adjustment via teach-in for optimum adaptation to the application
- Long sensing distance tolerance leads to less mechanical height adjustments of the sensor on the machine
- Using IO-Link, the sensor can be configured and monitored by the central control system, enabling simple, cost-effective diagnostics and data collection
- Bar graph display provides continual process control through easy visualization of the luminescence intensity
- Filters ensure that background luminescence is reliably suppressed, ensuring greater process reliability
- Interchangeable lenses for different sensing distances and the second light exit provide flexibility
- High detection reliability ensures the process and reduces downtime
- Select speed or high resolution, making it ideal for any application.

➜ www.mysick.com/en/LUT9

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories ➜ www.mysick.com/en/LUT9

LUT9x-xx3xx

- **Sensing distance:** 50 mm (From front edge of lens.)

Light source	Light spot size	Operating range	Light emission	Receiving range	Switching output	Model name	Part no.
UV-LED [1) 2)]	5 mm x 15 mm	20 mm ... 70 mm	Long side	450 nm ... 750 nm	PNP/NPN	LUT9U-11306	1046712

[1)] Average service life of 100,000 h at T_A = +25 °C.
[2)] Wave length: 375 nm.

LUT9x-xx6xx

- **Sensing distance:** 150 mm (From front edge of lens.)

Light source	Light spot size	Operating range	Light emission	Receiving range	Switching output	Model name	Part no.
Blue LED [1) 3)]	5 mm x 12 mm	50 mm ... 250 mm	Long side	610 nm ... 750 nm	PNP/NPN	LUT9B-11626	1047056

[1)] Average service life of 100,000 h at T_A = +25 °C.
[2)] Wave length: 375 nm.
[3)] Wave length: 470 nm.

Recommended accessories

	Description	Model name	Part no.
Lens and accessories			
	Lens, 10 mm scanning distance, M25 x 0.75	OBJ-LUT3-10	2016348
	Lens, 20 mm scanning distance, M25 x 0.75	OBJ-LUT3-20	2016349
	Lens, 50 mm scanning distance, M25 x 0.75	OBJ-LUT3-50	2016350
Reference materials			
	Crayon, red fluorescence	LUM-FT	1004460
	Writing chalk, red fluorescence	LUM-KLK	1002959
Fiber-optic cables			
	Length, fiber-optic cable: 1,000 mm Min. bend radius: 40 mm	LLUV8-1000	2017099
	Length, fiber-optic cable: 500 mm Min. bend radius: 40 mm	LLUV8-500	2017098

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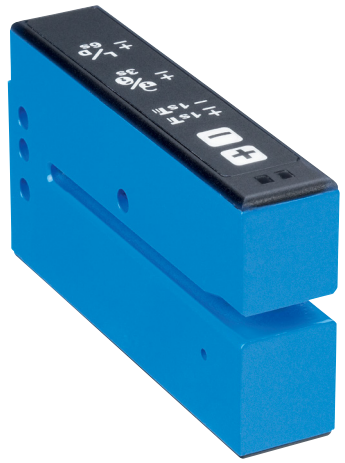


At a glance

- Detection of transparent, opaque or printed labels
- Unaffected by metallic foils and labels
- Fast response time of 250 µs
- Simple and accurate adjustment via “+”/”–”-buttons or teach-in
- Rugged, IP 65 aluminum housing

Your benefits

- Reliable label detection, regardless if labels are transparent, opaque or have a printed design, ensuring greater flexibility with one sensor
- Fast response times enable precise detection – even at high web speeds
- The aluminum housing meets all requirements for use in harsh industrial conditions
- Setting the switching threshold using the +/- push buttons or teach-in
- Ultrasonic technology prevents false detection, which may be caused by ambient light or shiny surfaces

→ www.mysick.com/en/UF

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

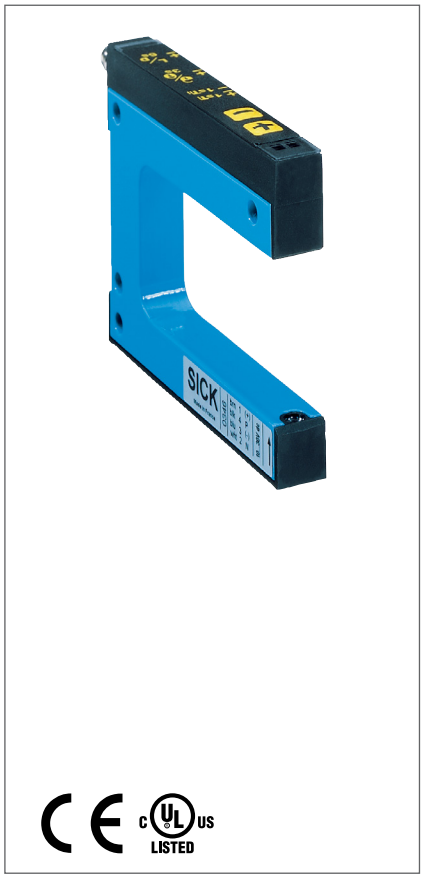
Other models and accessories → www.mysick.com/en/UF

- **Fork width:** 3 mm
- **Fork depth:** 69 mm

Response time	MDO	Adjustment	Connection type	Switching output	Model name	Part no.
250 µs [1]	Gap between labels: 2 m Size of labels: 2 mm [2]	Manual (“+”/”-” button)	Male connector M8, 4-pin	PNP/NPN	UFN3-70B413	6049678*^

[1] Signal transit time with resistive load.

[2] Minimum detectable object.



At a glance

- Infrared light source
- Simple and accurate adjustment via teach-in or manually via “+”/”–” buttons
- Fast response time (max. 100 µs)
- PNP and NPN switching output
- Light/dark switching function
- 21 different models with different fork widths and depths
- Rugged, IP 65 aluminum housing

Your benefits

- Fast response time and fine resolution ensure reliable detection even at high speeds
- Infrared light source provides excellent ambient light immunity
- User friendly setting via teach-in or “+”/”–” button
- A wide range of different fork sizes enables flexible installation
- The aluminum housing meets all requirements for use in harsh industrial conditions

➜ www.mysick.com/en/WF

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/WF

- **Response time:** 100 µs (Signal transit time with resistive load.)
- **MDO:** 0.2 mm (Minimum detectable object.)
- **Switching output:** PNP/NPN

Fork width	Adjustment	Fork depth	Model name	Part no.
2 mm	Manual (“+”/”–” button)	42 mm	WF2-40B410	6028428*
3 mm	Manual (“+”/”–” button)	60 mm	WF3T-B4210	6020874*^
5 mm	Teach-in	59 mm	WF5-60B416	6028458*
15 mm	Manual (“+”/”–” button)	42 mm	WF15-40B410	6028430*
50 mm	Manual (“+”/”–” button)	59 mm	WF50-60B410	6028440
80 mm	Teach-in	59 mm	WF80-60B416	6028462*

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At a glance

- Optimized housing with slim fork shape
- Dynamic teach-in IO Link or control panel and manual fine adjustment with “+”/“-” buttons
- Light/dark switching function
- Fast response time of 35 µs
- PNP or NPN
- IP 65 plastic housing
- Switching output also during teach-in active
- IO-Link version 1.1

Your benefits

- Slim design allows flexible mounting close to the dispenser of the label which ensures higher accuracy in the process
- Compact housing ensures space-saving installation
- User friendly adjustment allows easy and quick start-up
- IO Link or external teach-in allows automatic threshold adjustment via the PLC during the process which ensures reliable detection all the time
- Short and fast response times enables precise detection - even at high web speeds
- IO-Link provides easy data access from the PLC
- Quick and easy integration using function blocks
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

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➜ www.mysick.com/en/WFS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/WFS

- **Response time:** 35 µs (Signal transit time with resistive load.)
- **MDO:** Size of labels: 2 mm, Gap between labels: 2 mm (Depends on the label thickness.)

Fork width	Adjustment	Fork depth	Switching mode	Model name	Part no.
3 mm	IO-Link Manual (“+”/”-” button) Dynamic teach-in Static teach-in	42 mm	NPN	WFS3-40N41C	6053766
3 mm	IO-Link Manual (“+”/”-” button) Dynamic teach-in Static teach-in	42 mm	PNP	WFS3-40P41C	6053765

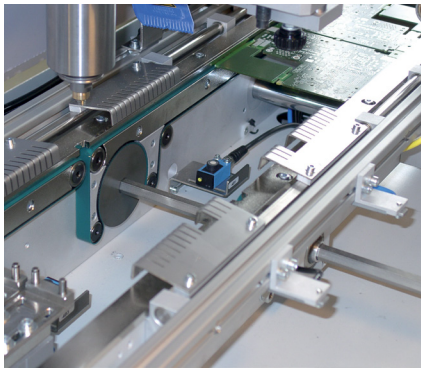


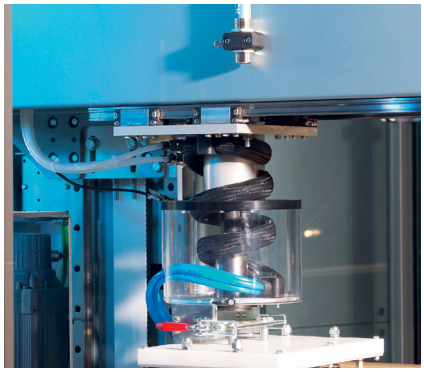
I

DISTANCE SENSORS



Photo: viastore, Stuttgart





Distance sensors from SICK – precision for measuring tasks

SICK has a wide range of optic and ultrasonic solutions that measure from sub-microns to kilometers. They solve measuring, detecting and positioning applications using triangulation and time-of-flight modes. Sensors using triangulation are ideal for short-range, highly precise measurement. They can inspect miniature parts, thickness and shape, etc. Time-of-flight sensors work at longer distances, are not influenced by reflectivity or ambient light – perfect for positioning AS/RS, rail cars and gantry cranes.

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Selection guide distance sensors I-292



OD Mini I-296
Compact, lightweight sensor for precise measurement



OD Value I-297
Simply accurate measurement



OD Max I-299
Two sensors in one controller for high accuracy measurement calculations



OD Precision I-300
Three sensor heads with one controller unit: measuring each dimension with high precision



DT20 Hi I-302
Reliable, accurate distance measurement up to 1 m



Dx35 . . . . . I-303
Larger than life performance – flexible measurement and detection up to 35 m



Dx50 . . . . . I-305
Measuring distances – reliable, precise and versatile



Dx100 . . . . . I-307
Leading in versatility and flexibility



Dx500 . . . . . I-309
Most precise sensor without a reflector



DME5000 . . . . . I-310
Most precise distance measurement



OLM100 . . . . . I-312
Great flexibility in a small housing



UM12 . . . . . I-314
Small sensor, great benefits



UM18 . . . . . I-315
Simple setup, perfect detection



UM30 . . . . . I-317
The universal application solver



UC4 . . . . . I-319
Small, precise, ultrasonic



UC12 . . . . . I-321
Ultrasonic technology housed in an industry-proven design



UD18-2 . . . . . I-323
Double layer and splice detection



ISD400 . . . . . I-325
Wireless communication – fast and easy



TPCC I-327
Keep cool

SELECTION GUIDE DISTANCE SENSORS

Product	Principle of operation					
	Triangulation	Time-of-flight	Optical linear	Ultrasonic	Optical data transmission	
Short range distance sensors (displacement)						
 OD Mini	■					
 OD Value	■					
 OD Max	■					
 OD Precision	■					
Mid range distance sensors						
 DT20 Hi		■				
 Dx35		■				
 Dx50		■				
Long range distance sensors						
 Dx100		■				
 Dx500		■				
 DME5000		■				
Linear measurement sensors						
 OLM100			■			

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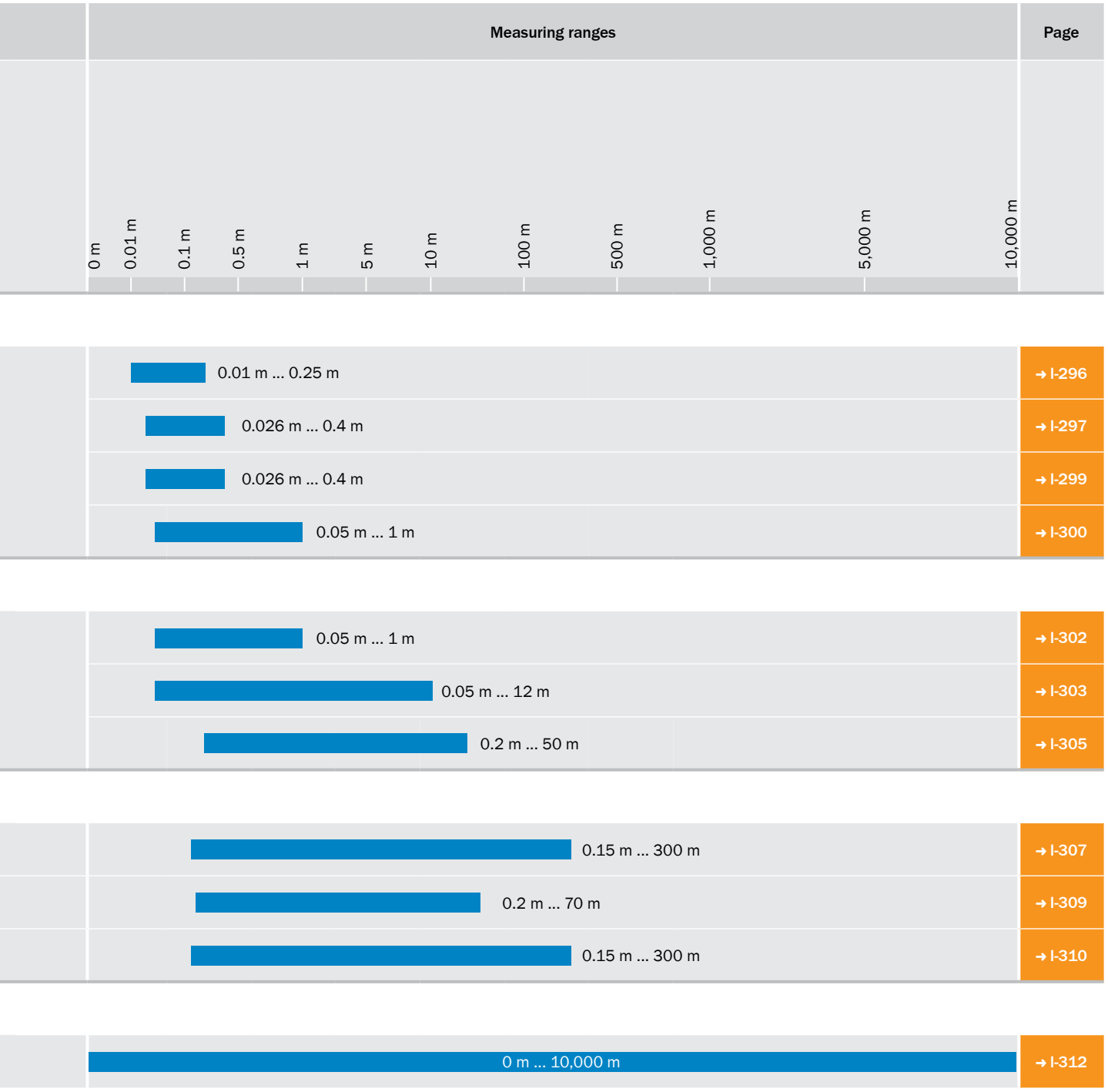
Measuring ranges
Page
0 m
0.01 m
0.1 m
0.5 m
1 m
5 m
10 m
100 m
500 m
1,000 m
5,000 m
10,000 m
0.01 m ... 0.25 m
→ I-296
0.026 m ... 0.4 m
→ I-297
0.026 m ... 0.4 m
→ I-299
0.05 m ... 1 m
→ I-300
0.05 m ... 1 m
→ I-302
0.05 m ... 12 m
→ I-303
0.2 m ... 50 m
→ I-305
0.15 m ... 300 m
→ I-307
0.2 m ... 70 m
→ I-309
0.15 m ... 300 m
→ I-310
0 m ... 10,000 m
→ I-312

Product		Principle of operation					
		Triangulation	Time-of-flight	Optical linear	Ultrasonic	Optical data transmission	
	UM12				■		
	UM18				■		
	UM30				■		
	UC4				■		
	UC12				■		
	UD18-2				■		
Optical data transmission							
	ISD400					■	

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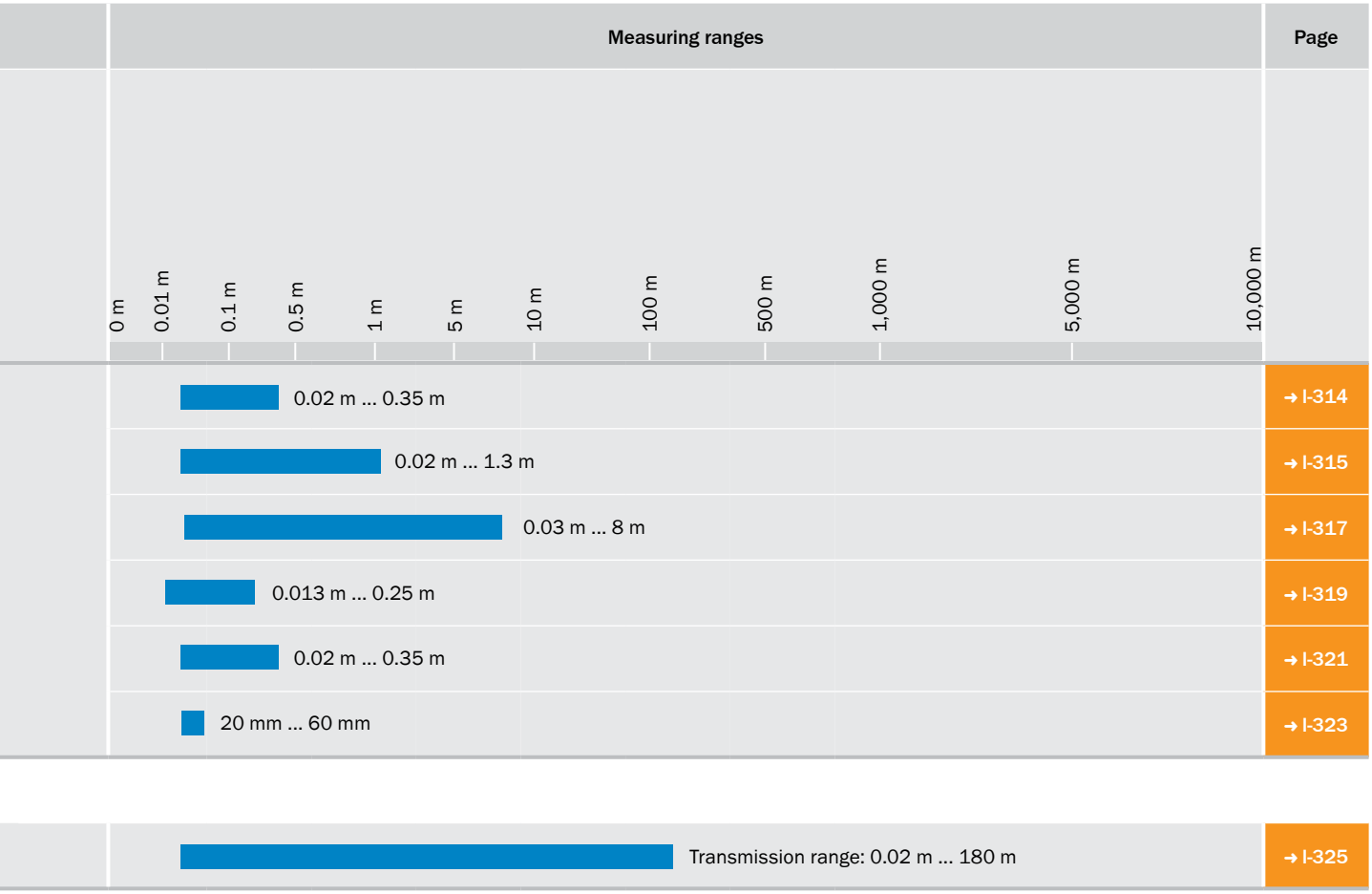
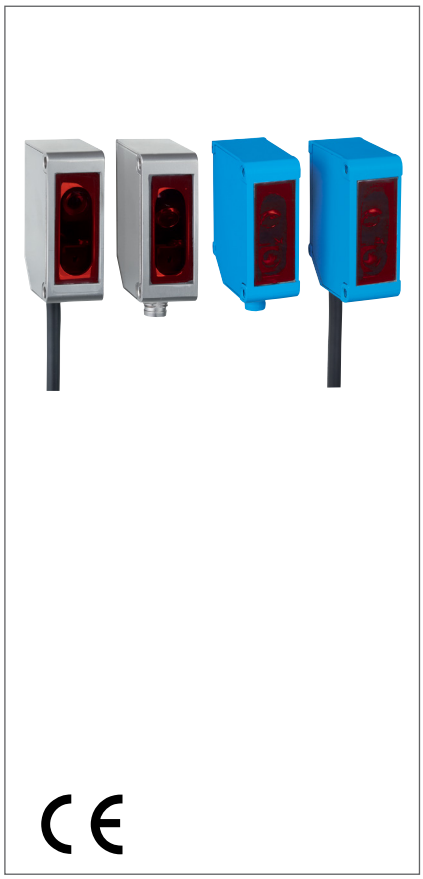

Measuring ranges
Page
0 m
0.01 m
0.1 m
0.5 m
1 m
5 m
10 m
100 m
500 m
1,000 m
5,000 m
10,000 m
0.02 m ... 0.35 m
→ I-314
0.02 m ... 1.3 m
→ I-315
0.03 m ... 8 m
→ I-317
0.013 m ... 0.25 m
→ I-319
0.02 m ... 0.35 m
→ I-321
20 mm ... 60 mm
→ I-323
Transmission range: 0.02 m ... 180 m
→ I-325



At a glance

- Compact, robust housing
- Integrated amplifier unit, no additional unit necessary
- Display and LEDs on device for visualization of current status
- Wide range of interfaces available
- Simple teach-in using display or external teaching input
- CMOS receiver unit for precise, fast measurement in the µm range
- Different measuring ranges enabling measurement from 10 mm up to 250 mm

Your benefits

- Cost-saving commissioning through simple operating concept and display
- Small installation size and low weight also allow use in highly dynamic applications
- Reduction in cabling, as no additional amplifier unit is necessary
- High machine throughput thanks to reliable measurement, regardless of brightness and color of surface
- The wide range of available interfaces enables simple integration into industrial networks
- Optimum performance even at high production speeds

➜ www.mysick.com/en/OD_Mini

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/OD_Mini

Sub product family	Housing material	Measurement range	Data interface	Connection type	Switching output	Model name	Part no.
OD Mini Prime	Stainless steel housing with PPSU lens	10 mm ... 20 mm	1 x 4 mA ... 20 mA (< 300 Ω)	Cable with connector M12, 5-pin 30 cm	1 x PNP/NPN, selectable	OD1-B015H05I25	6050496
				Male connector M8, 4-pin	–	OD1-B015H05I14	6050495
		50 mm ... 150 mm	1 x 4 mA ... 20 mA (< 300 Ω)	Cable with connector M12, 5-pin 30 cm	1 x PNP/NPN, selectable	OD1-B100H50I25	6050512
				Male connector M8, 4-pin	–	OD1-B100H50I14	6050511

Recommended accessories

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M8, 4-pin, straight	Cable	TPU, PVC, unshielded	2 m, 4-wire	DOL-0804-G02M	6009870
				5 m, 4-wire	DOL-0804-G05M	6009872^
	Female connector, M12, 5-pin, straight	Cable	TPU, PVC, unshielded	2 m, 5-wire	DOL-1205-G02M	6008899
				5 m, 5-wire	DOL-1205-G05M	6009868

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At a glance

- Several measurement ranges from 26 mm ... 34 mm to 100 mm ... 500 mm
- CMOS receiving element for measurement independent of surface
- Easy, LED-based user and teach-in concept
- Wide range of models and a wide range of standard interfaces
- Laser technology for precise measurement of very small objects
- Compact stand-alone device
- Excellent price-performance ratio

Your benefits

- Reliable measurement independent of surface, minimizes machine downtime
- Extremely simple sensor teach-in makes setup faster and more costeffective
- Minimal space requirements and less wiring due to its compact, standalone design
- Many measurement ranges and output interfaces make it ideal for cost-effective integration into any production environment
- Low investment costs make consistent, regular quality inspection possible
- Non-contact measurement technology from a safe distance allows the inspection to be carried out directly during the production process
- Wear and damage-free inspection, due to non-contact measurement

→ www.mysick.com/en/OD_Value

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/OD_Value

Measuring frequency: 2 kHz

- **Response time:** 1 ms / 10 ms / 35 ms
  (Automatic sensitivity adjustment ≤ 4 ms, 6 ms for the models with measuring range of 100 mm ... 400 mm.)
- **Switching output:** 2 x PNP (100 mA)
  (PNP: HIGH = VS - (< 2 V) / LOW = < 2 V; NPN: HIGH = < 2 V / LOW = VS.)
- **Connection type:** Male connector M12, 8-pin

Measuring range	Resolution [1]	Repeatability [1) 2) 3) 4)]	Linearity [1) 4) 5) 6)]	Typ. light spot size (distance)	Data interface [7]	Model name	Part no.
26 mm ... 34 mm, 6 % ... 90 % remission	2 µm ... 2 µm	6 µm	± 8 µm	0.1 mm x 0.1 mm (30 mm)	4 mA ... 20 mA (≤ 300 Ω)	OD2-P30W04I0	6036580
40 mm ... 60 mm, 6 % ... 90 % remission	5 µm ... 5 µm	15 µm	± 20 µm	0.5 mm x 1 mm (50 mm)	4 mA ... 20 mA (≤ 300 Ω)	OD2-P50W10I0	6036597
60 mm ... 180 mm, 6 % ... 90 % remission	30 µm ... 30 µm	90 µm	± 120 µm	1 mm x 1.5 mm (120 mm)	4 mA ... 20 mA (≤ 300 Ω)	OD2-P120W60I0	6036629*

[1] At averaging function medium.
[2] 6 % ... 90 % remission.
[3] Constant ambient conditions.
[4] For best performance consider warm up time ≤ 5 minutes.
[5] Measurement on 90 % remission (ceramic, white)
[6] When calibrated in the application regularly.
[7] Resolution analog output 16 bit.

Recommended accessories

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	PVC, shielded	2 m, 8-wire	DOL-1208-G02MF	6020663
				5 m, 8-wire	DOL-1208-G05MF	6020664*
	Female connector, M12, 8-pin, straight	-	Shielded	-	DOS-1208-GA	6028369*

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At a glance

- Several measurement ranges from 24 ... 26 mm up to 250 mm ... 450 mm
- CMOS receiving element for measurment independent of surface
- High measurement frequency and high linearity
- Variety of selectable integrated calculations based on values from two sensors
- Laser technology for precise measurement or detection of very small objects
- Several output options

Your benefits

- Minimum machine downtime due to its reliability on any surface, regardless of brightness or color
- Highly accurate measurement, even during the production process, ensures high product quality
- High measuring frequency of 10 kHz increases processing speeds and reduces cycle times
- Reduce the cost to change your process by making a reference measurement using two sensors
- Comparatively low investment costs for challenging measuring tasks
- An easy-to-read LC display and simple push-button keypad programming ensures simple setup and servicing
- Reduced material costs, when using the distance sensors to control cost relevant production processes

→ www.mysick.com/en/OD_Max

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/OD_Max

Measuring frequency: 10 kHz

- **Response time:** 0.5 ms (Automatic sensitivity adjustment ≤ 2 ms)
- **Connection type:** 0.5 m cable with connector (Extendable by cable to max. 10 m, Sensor must be connected to controller unit)

Measuring range	Resolution [1]	Repeatability [2]	Linearity [3]	Typ. light spot size (distance)	Model name	Part no.
25 mm ... 35 mm, 6 % ... 90 % remission	1 µm	3 µm	± 10 µm	30 µm x 100 µm (30 mm)	OD30-05T1	6028959
65 mm ... 105 mm, 6 % ... 90 % remission	5 µm	15 µm	± 40 µm	70 µm x 290 µm (85 mm)	OD85-20T1	6028958*
250 mm ... 450 mm, 6 % ... 90 % remission	50 µm	150 µm	± 200 µm	300 µm x 700 µm (350 mm)	OD350-100T1	6028957

[1] Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256

[2] Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256; constant ambient conditions

[3] Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror

Recommended accessories

	Brief description	Model name	Part no.
Controller unit			
	Controller Unit for OD Max, Analogue + 5 x PNP	AOD-P1	6028960*

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 10-pin, straight	Male connector, M12, 10-pin, straight	Unshielded	5 m, 10-wire	DSL-1210-G05M	6028944



At a glance

- Many measurement ranges from 24 mm ... 26 mm up to 300 mm ... 700 mm
- CMOS receiving element for measurement independent of surface
- High measuring accuracy and frequency
- Glass thickness measurement with just one sensor head
- Different light spot sizes
- Integrated calculations for up to three sensors
- Stand alone use via RS-422

Your benefits

- Non-contact measurement improves quality inspection during production
- Surface-independent measurement algorithms ensure minimum machine downtime, regardless of surface gloss or color
- Reduced processing times as a result of the high measuring frequency of up to 10 kHz
- Simple, cost-effective solution for challenging measuring tasks due to a variety of sensor models
- Optional stand-alone operation via RS-422 means the OD Precision offers maximum performance at lower investment costs
- High visibility LC display enables simple, cost-effective setup
- Many interfaces for simple integration into an existing production environment

➜ www.mysick.com/en/OD_Precision

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/OD_Precision

OD Precision sensor head

- **Response time:** 0.1 ms (Time needed for automatic sensitivity adjustment is calculated as: sampling period x 20. At default setting 100 µs (10kHz) this is <= 2ms.) (Default setting for OD5-350x100 and OD5-500x200 = 0.8 ms, 1.25 kHz likewise, all other types = 0.1 ms / 10 kHz.)

Note	Measuring range	Resolution	Repeatability	Linearity	Typ. light spot size (distance)	Model name	Part no.
OD Precision sensor head can be used with AOD5-P/N1 or stand-alone via RS-422	24 mm ... 26 mm, 6 % ... 90 % remission; at default settings	0.02 µm ... 0.02 µm [3]	0.06 µm [4]	± 1.6 µm [1]	25 µm x 35 µm (25 mm)	OD5-25T01	6035975
					100 µm x 700 µm (25 mm)	OD5-25W01	6035976

[1] Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror; averaging set to: 4096.

[2] Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror; averaging set to: 4096; constant ambient conditions.

[3] Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256, for OD25-x: 4096.

[4] Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256, for OD25-x: 4096; constant ambient conditions.

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Note	Measuring range	Resolution	Repeatability	Linearity	Typ. light spot size (distance)	Model name	Part no.
OD Precision sensor head can be used with AOD5-P/N1 or stand-alone via RS-422	25 mm ... 35 mm, 6 % ... 90 % remission; at default settings	0.2 µm ... 0.2 µm [1]	0.6 µm [2]	± 8 µm [1]	30 µm x 100 µm (30 mm)	OD5-30T05	6035977
					260 µm x 1,000 µm (30 mm)	OD5-30W05	6035978
	65 mm ... 105 mm, 6 % ... 90 % remission; at default settings	1 µm ... 1 µm [1]	3 µm [2]	± 20 µm [1]	70 µm x 290 µm (85 mm)	OD5-85T20	6035979
					260 µm x 1,200 µm (85 mm)	OD5-85W20	6035980
	250 mm ... 450 mm, 6 % ... 90 % remission; at default settings	5 µm ... 5 µm [1]	15 µm [2]	± 160 µm [1]	700 µm x 2,400 µm (350 mm)	OD5-350W100	6035981
	300 mm ... 700 mm, 6 % ... 90 % remission; at default settings	10 µm ... 10 µm [1]	30 µm [2]	± 400 µm [1]	1,000 µm x 3,700 µm (500 mm)	OD5-500W200	6035982

[1] Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror; averaging set to: 4096.

[2] Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror; averaging set to: 4096; constant ambient conditions.

[3] Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256, for OD25-x: 4096.

[4] Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256, for OD25-x: 4096; constant ambient conditions.

OD Precision controller unit

- **Note:** OD Precision sensor head can be used with AOD5-P/N1 or stand-alone via RS-422

Model name	Part no.
AOD5-P1	6035985

Recommended accessories

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 12-pin, straight	Cable	PVC, shielded	5 m, 12-wire	DOL-1212-G05M	6035988
	Female connector, M12, 12-pin, straight	Male connector, M12, 12-pin, straight	PVC, shielded	2 m, 12-wire, twisted pair	DSL-1212-G02M	6035986
				5 m, 12-wire, twisted pair	DSL-1212-G05M	6035987
	Male connector, 50-pin, straight	Cable	PVC	3 m, 50-wire	IO-EXP-AOD5	6035990
	Male connector, 12-pin	Terminal connector, 12-pin	Unshielded	-	TERM.-AOD5	6035989



At a glance

- Four measuring ranges from 50 mm up to 1,000 mm
- Very high linearity of up to ± 0.5 mm
- CMOS receiving element enables accurate distance measurement independent of color or shininess
- Red laser
- Scaleable analog and switching output
- Display with easy to use setup menu
- Advanced settings (e.g., averaging function, external laser-off, etc.)

Your benefits

- Reliable, precise measurement, independent of surface, increases production quality
- Reliable and consistent measurements, regardless of color, reduce changeover time
- Advanced settings provide increased application flexibility to easily solve customer-specific applications
- Fast commissioning via button, remote or numerical teach
- Easy, precise alignment and verification based on red laser light and LC display, decreasing commissioning time
- Tough metal housing permits operation in harsh environments

➜ www.mysick.com/en/DT20_Hi

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/DT20_Hi

Measuring frequency: 400 kHz

- **Response time:** 2,5 ms / 10 ms / 40 ms (Dependent on the set average: fast/medium/slow)
- **Connection type:** Male connector, M12, 5-pin

Measuring range	Resolution [1]	Repeatability [1] [2] [3]	Linearity [3] [4]	Typ. light spot size (distance)	Model name	Part no.
100 mm ... 600 mm, 6 % ... 90 % remission	0.5 mm	2 mm / 1 mm / 0.5 mm	± 2 mm	3 mm x 6 mm (600 mm)	DT20-P214B	1040012*

[1] 6 % ... 90 % remission
[2] Dependent on the set average: fast/medium/slow
[3] When calibrated in the application regularly
[4] 90 % remision

Recommended accessories

	Material	Description	Model name	Part no.
Mounting systems (without mounting hardware)				
	Stainless steel (1.4404),	Mounting bracket for DT20 Hi	BEF-WN-DT20	4043524

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	TPU, PVC, unshielded	5 m, 5-wire	DOL-1205-G05M	6009868
				10 m, 5-wire	DOL-1205-G10M	6010544

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At a glance

- Maximum reliability, immunity to ambient light, and best price/performance ratio thanks to HDDM™ technology
- Measuring range of 0.05 m to 12 m for natural objects or 0.2 m to 35 m on reflective tape
- Devices with analog and switching output, or just switching
- Infrared or red laser in class 1 or class 2
- Repeatability: 0.5 mm to 5 mm
- Small housing size
- IO-Link

Your benefits

- Precise and reliable measurement regardless of object color extends run time and process quality
- A small size and blind zone make flexible mounting possible when space is limited
- Optimum solution thanks to flexible settings for speed, range and repeatability
- Flexible interface use: 4 mA to 20 mA, 0 V to 10 V, PNP output, NPN output, or IO-Link – making machine integration simple
- Offering easy alignment, optimal performance or inconspicuous measurement, versatile light senders make it an ideal solution for all scenarios
- Low investment costs and high performance levels guarantee a quick return on investment
- IO-Link offers full process control, from commissioning to service
- A wide variety of control options ensures rapid commissioning and fast batch changes

IO-Link

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➜ www.mysick.com/en/Dx35

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/Dx35

Measuring range	Analog output [3]	Switching output [4] [5]	Response time [6] [7]	Variant	Model name	Part no.
50 mm ... 12,000 mm, 90 % remision [1] [2] 50 mm ... 5,300 mm, 18 % remission 50 mm ... 3,100 mm, 6 % remission	1 x 4 mA ... 20 mA (≤ 450 Ω) / 1 x 0 V ... 10 V (≥ 50 kΩ) / –	1 x / 2 x push-pull: PNP/NPN (100 mA), IO-Link [3]	2.5 ms / 6.5 ms / 12.5 ms / 24.5 ms / 96.5 ms	Red laser, class 2	DT35-B15251	1057652*^
			2.5 ms / 6.5 ms / 12.5 ms / 24.5 ms / 96.5 ms	Infrared laser, class 1	DT35-B15851	1057653
200 mm ... 35,000 mm, on reflective tape “Diamond Grade” [2]	1 x 4 mA ... 20 mA (≤ 450 Ω) / 1 x 0 V ... 10 V (≥ 50 kΩ) / –	1 x / 2 x push-pull: PNP/NPN (100 mA), IO-Link [8]	2.5 ms / 6.5 ms / 12.5 ms / 24.5 ms / 96.5 ms	Red laser, class 1	DL35-B15552	1057657*
				Infrared laser, class 1	DL35-B15852	1057658

[1] For speed setting Slow.

[2] See characteristic curves repeatability.

[3] Output $Q_{2,}$ selectable: 4 mA ... 20 mA / 0 V ... 10 V / switching output.

[4] Output Q short-circuit protected.

[5] Voltage drop < 3 V.

[6] Dependent on the set speed: Super Fast ... Super Slow.

[7] Lateral entry of object into measuring range.

[8] Output $Q_{2,}$ selectable: 4 mA ... 20 mA / 0 V ... 10 V / switching output / Q_1 not/ not active.

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates				
	Steel, zinc coated	Mounting bracket, steel, zinc coated, mounting hardware for the sensor included	BEF-WN-DX50	2048370*^
Terminal and alignment brackets				
	Steel, zinc coated	Alignment unit, mounting hardware for the sensor included	BEF-AH-DX50	2048397*
Universal bar clamp systems (Items supplied: Universal clamp (5322626), mounting hardware)				
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N02 for universal clamp bracket	BEF-KHS-N02	2051608*^

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	Material base plate: aluminum, screw connection	Reflector plate, reflective tape “Diamond Grade”	Screw-on, 4 hole mounting	330 mm x 330 mm,	PL240DG	1017910*

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	TPU, PVC, unshielded	2 m, 5-wire	DOL-1205-G02M	6008899
				5 m, 5-wire	DOL-1205-G05M	6009868
				10 m, 5-wire	DOL-1205-G10M	6010544
	Female connector, M12, 5-pin, angled	Cable	TPU, PVC, unshielded	2 m, 5-wire	DOL-1205-W02M	6008900

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At a glance

- HDDM™ technology offers best reliability, immunity to ambient light and price/performance ratio
- Measurement ranges of 10 or 20 m directly onto the object or even 50 m on reflector
- Different performance levels depending on product and laser class chosen
- Different interfaces: switching, analog or serial interface
- Display with intuitive and consistent operating concept
- Robust die-cast zinc metal housing
- Operating temperature from –30 °C to +65 °C

Your benefits

- Wide measurement ranges up to 10, 20 or 50 m in combination with different interfaces allow an easy and fast integration in any production environment
- Highly reliable and precise measurement helps to increase process quality and stability
- High measurement or switching frequencies enable a fast material flow
- Dx50 product family is based on a common platform, offering multiple performance levels, making it easy to accommodate future changes
- Intuitive setup via display or remote teach reduces installation time and costs
- Temperature range from –30 °C to +65 °C allows for outdoor use without additional cooling or heating
- Up to 40 klx ambient light immunity – allows for use in optically challenging environments

➜ www.mysick.com/en/Dx50

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/Dx50

- **Connection type:** Male connector, M12, 5-pin

Measuring range	Analog output	Switching output	Response time	Model name	Part no.
200 mm ... 10,000 mm, 6 % remission 200 mm ... 17,000 mm, 18 % remission 200 mm ... 30,000 mm, 90 % remision	1 x 4 mA ... 20 mA (≤ 450 Ω) / 1 x 0 V ... 10 V (≥ 50 kΩ) / - [9]	1 x / 2 x complementary / 2 x push-pull: PNP/NPN (100 mA), IO-Link [1] [9] [10]	0.83 ms / 3.33 ms / 8.33 ms / 25 ms / 75 ms [11] [12]	DT50-2B215252	1065661*^
200 mm ... 10,000 mm, 90 % remision 200 mm ... 6,500 mm, 18 % remission 200 mm ... 4,000 mm, 6 % remission	1 x 4 mA ... 20 mA (≤ 300 Ω)	1 x PNP (100 mA) [2]	20 ms / 30 ms [3] [4]	DT50-P1113	1044369*^
200 mm ... 30,000 mm, 90 % remission 200 mm ... 17,000 mm, 18 % remission 200 mm ... 10,000 mm, 6 % remission	1 x 4 mA ... 20 mA (≤ 450 Ω) / 1 x 0 V ... 10 V (≥ 50 kΩ) / – [9]	1 x / 2 x complementary / 2 x push-pull: PNP/NPN (100 mA), IO-Link [1] [9] [10]	0.83 ms / 3.33 ms / 8.33 ms / 25 ms / 75 ms [4] [11]	DT50-2B415252	1068975
200 mm ... 10,000 mm, 90 % remision 200 mm ... 6,000 mm, 18 % remission 200 mm ... 4,000 mm, 6 % remission	–	2 x PNP (100 mA) [2]	10 ms / 50 ms [3]	DS50-P1112	1047402*
		2 x PNP (100 mA) [2]	20 ms / 100 ms [3]	DS50-P1122	1047405*

Measuring range	Analog output	Switching output	Response time	Model name	Part no.
200 mm ... 50,000 mm, on reflective tape "Diamond Grade" [7]	1 x 4 mA ... 20 mA (≤ 300 Ω)	1 x PNP (100 mA) [2]	15 ms / 30 ms [3] [4]	DL50-P1123	1047361*^
	–	2 x / 1 x PNP (100 mA) [2] [8]	10 ms / 40 ms / 160 ms [4] [6]	DL50-P2225	1048418

[1] Output Q short-circuit protected.
[2] PNP: HIGH = V_S - (< 2.5 V) / LOW = 0 V.
[3] Dependent on the set average: fast/slow.
[4] Lateral entry of object into measuring range.
[5] NPN: HIGH = < 2.5 V / LOW = V_S.
[6] Dependent on the set average: fast/medium/slow.
[7] On reflective tape "Diamond Grade"
[8] Dependent on the set function MF: switching output 2 / laser off, external teach.
[9] Output Q2, selectable: 4 mA ... 20 mA / 0 V ... 10 V / switching output / Q_1not/ deactivated
[10] Voltage drop < 3 V
[11] Dependent on the set speed: Super Fast ... Super Slow
[12] Continuous change of distance in measuring range.

Recommended accessories

	Material	Description	Model name	Part no.
Terminal and alignment brackets				
	Steel, zinc coated	Alignment unit, mounting hardware for the sensor included	BEF-AH-DX50	2048397*
Mounting brackets and mounting plates				
	Steel, zinc coated	Mounting bracket, steel, zinc coated, mounting hardware for the sensor included	BEF-WN-DX50	2048370*^
Device protection (mechanical)				
	-	Front screen protection set (protects sensors from damage by flying sparks and welding beads)	LPC-DX50	2049269*

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	Material base plate: aluminum, screw connection	Reflector plate, reflective tape "Diamond Grade"	Screw-on, 4 hole mounting	330 mm x 330 mm,	PL240DG	1017910*

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	TPU, PVC, unshielded	2 m, 5-wire	DOL-1205-G02M	6008899
				5 m, 5-wire	DOL-1205-G05M	6009868
				10 m, 5-wire	DOL-1205-G10M	6010544
	Female connector, M12, 8-pin, angled	Cable	TPU, PUR, halogen-free, shielded	2 m, 8-wire	DOL-1208-G02MAH1	6032448
	Female connector, M12, 5-pin, angled	Cable	TPU, PVC, unshielded	2 m, 5-wire	DOL-1205-W02M	6008900

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At a glance

- 3-axis alignment bracket with quick lock system
- SpeedCon™ and standard M12 electrical connections
- Small and rugged metal housing
- Display with intuitive menu and easy-to-see status LEDs
- Pre-failure and diagnostic data available
- Numerous fieldbus and Ethernet interfaces
- Elongated holes for precise adjustment of sensor offset (or “home position”)
- Versatile accessories

Your benefits

- 3-axis alignment bracket ensures fast alignment and easy exchange, reducing maintenance and setup costs
- Enhanced closed-loop behavior offers highest performance and productivity
- Fast setup with an intuitive and easy-to-use display guarantees the perfect sensor settings
- Pre-failure and extensive diagnostic data allow for preventive maintenance, ensuring the highest machine uptime
- Numerous fieldbus and Ethernet-based interfaces offer the highest flexibility and fast communication for maximum efficiency
- Small, rugged metal housing and SpeedCon™ compatible connectors ensure hassle-free installation – even in confined spaces
- Numerous accessories allow flexible use and guarantee high operation functionality

→ www.mysick.com/en/Dx100

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Ordering information

Other models and accessories → www.mysick.com/en/Dx100

- **Connection type:** Male connector, M12, SPEEDCON™ compatible

Ambient temperature	Power consumption	Measuring range	Accuracy [2]	Repeatability [3]	Interface	Model name	Part no.
Operation –20 °C ... +55 °C [1] Operation with cooling case –20 °C ... +75 °C Storage –40 °C ... +75 °C	At 24 V DC < 250 mA	0.15 m ... 100 m, On reflective tape “Diamond Grade”	± 2 mm	0.5 mm	EtherNet/IP	DL100-21AA2110	1066427
					PROFIBUS DP	DL100-21AA2102	1052686
					SSI	DL100-21AA2101	1052684
		0.15 m ... 200 m, On reflective tape “Diamond Grade”	± 2.5 mm	1 mm	EtherNet/IP	DL100-22AA2110	1066428
					PROFIBUS DP	DL100-22AA2102	1052692
					SSI	DL100-22AA2101	1052690
		0.15 m ... 300 m, On reflective tape “Diamond Grade”	± 3 mm	2 mm	EtherNet/IP	DL100-23AA2110	1066429
					PROFIBUS DP	DL100-23AA2102	1052698
					SSI	DL100-23AA2101	1052696

[1] Temperatures < –10 °C require warm-up time of typ. 7 minutes.

[2] From 150 mm ... 180 mm measuring range the accuracy can reach ± 4 mm.

[3] Statistical error 1 σ, environmental conditions constant, min. warm-up time 10 min.

Recommended accessories

	Description	Model name	Part no.
Terminal and alignment brackets			
	Alignment unit for Dx100, steel, zinc coated, incl. mounting material, Steel, zinc coated	BEF-AH-DX100	2058653
Sets and kits			
	Accessory kit for upgrade from DME3000 PROFIBUS to Dx100 PROFIBUS	DME3000 Dx100 PROFIBUS upgrade kit	2065222
	Accessory kit for upgrade from DME3000 SSI/RS-422 to Dx100 SSI/RS-422	DME3000 Dx100 SSI/ RS-422 upgrade kit	2065223
	Accessory kit for upgrade from DME4000/5000 PROFIBUS to Dx100 PROFI-BUS	DME4000/5000 Dx100 PROFIBUS upgrade kit	2065220
	Accessory kit for upgrade from DME4000/5000 SSI/RS-422 to Dx100 SSI/ RS-422	DME4000/5000 Dx100 SSI/ RS-422 upgrade kit	2065221
Device protection (mechanical)			
	Recommended for outdoor usage. Due to lack of space 90° angled pre-assembled connectors must imperatively be used, stainless steel 1.4571	Weather protection hood	2065284

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	Material base plate: aluminum, screw connection	Reflector plate, reflective tape “Diamond Grade”	Screw-on, 4 hole mounting	330 mm x 330 mm,	PL240DG	1017910*
				665 mm x 665 mm	PL560DG	1016806

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, straight	Cable	TPU, PVC unshielded	5 m, 4-wire	DOL-1204-G05M	6009866
				10 m, 4-wire	DOL-1204-G10M	6010543
	Female connector, M12, 5-pin, straight	Cable	TPU, PUR, halogen-free, shielded	5 m, 5-wire	DOL-1205-G05MQ	6026006
	Male connector, M12, 5-pin, straight, B-coded		PUR, halogen-free, shielded	5 m, 5-wire	STL-1205-G05MQ	6026005
	Female connector, M12, 8-pin, straight	Cable	PUR, halogen-free, shielded	5 m, 8-wire	DOL-1208-G05MAH1	6032449
				10 m, 8-wire	DOL-1208-G10MAH1	6032450
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	RJ45: Marcromelt /M12: TPU, PUR, shielded	5 m, 4-wire, AWG22	SSL-2J04-G05ME	6035389
				10 m, 4-wire, AWG22	SSL-2J04-G10ME	6030928*
	Male connector, M12, 4-pin, straight, B-coded	-	-	-	PR-STE-END	6021156*^

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At a glance

- Measurement range 0.2 m ... 70 m
- Two switching outputs
- Highest measurement resolution, repeatability and accuracy without a reflector
- Simple adjustment using red laser light
- Metal housing with integrated heating option for cold store applications
- Weather protection housing optional
- Alignment bracket optional

Your benefits

- High-precision switching reliably indicates product position for exact machine control, reducing scrap and increasing throughput
- Red laser light as well as adjustable mounting brackets (optional accessory) enable fast and easy alignment, ensuring on-time and cost-effective installation
- A tough metal housing with internal heating ensures reliability in rough ambient conditions, such as cold store warehouses
- User-friendly display with easy-to-use menu along with external PC/PLC programming offers fast and costefficient setup
- Two individual programmable switching outputs offer flexible integration into application
- Wide measurement range of 0.2 m to 70 m enables automated measurement on natural targets where reflectors can't be used

→ www.mysick.com/en/Dx500

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Ordering information

Other models and accessories → www.mysick.com/en/Dx500

- **Connection type:** Male connector, M12, 5-pin

Ambient temperature	Power consumption	Measuring range	Accuracy	Resolution	Output type [1]	Model name	Part no.
Operation: -10 ... +50 °C Operation with cooling case: -10 ... +75 °C Storage: -25 ... +75 °C	Typ. 3 W	0.2 m ... 18 m, 90 % remision 0.2 m ... 30 m, 90 % remision	± 3 mm	≤ 1 mm	PNP (< 100 mA)	DS500-P111	1026519
	Typ. 3 W	0.2 m ... 18 m, 6 % remission 0.2 m ... 30 m, 90 % remision	± 3 mm	12 bit	-	DT500-A111	1026515
			± 3 mm	≤ 1 mm	-	DT500-A112	1026517
	Typ. 3 W	0.2 m ... 30 m, 90 % remision 0.2 m ... 70 m, 90 % remision	± 3 mm	≤ 1 mm	PNP (< 100 mA)	DS500-P511	1040479
	Typ. 3 W	0.2 m ... 30 m, 6 % remission 0.2 m ... 70 m, 90 % remision	± 3 mm	≤ 1 mm	-	DT500-A511	1040466*

[1] PNP: HIGH = VS - (< 2.5 V) / LOW = < 2.5 V; NPN: HIGH = < 2.5 V / LOW = VS

Recommended accessories

	Material	Description	Model name	Part no.
Terminal and alignment brackets (mounting hardward included)				
	Stainless steel (1.4541)	Alignment unit for DS/DT500	BEF-DSDT	2031377*



At a glance

- Measurement range from 0.15 m to 300 m
- Very fast measurement cycles
- Highest accuracy, repeatability and system availability
- Illuminated LC display with diagnostic information
- Visible red light and bracket with springs for alignment
- Variety of interfaces: SSI, RS-422, PROFIBUS, HIPERFACE, DeviceNet

Your benefits

- Fastest measurement rate offers opt mized integration into control loops for increased productivity
- Red laser light as well as adjustable mounting brackets (optional accessory) enable fast and easy alignment, ensuring on-time and cost-effective installation
- Multi-point self checks provide maintenance and replacement warnings increasing overall machine availability
- A tough, metal housing as well as heating and cooling accessories ensure reliability in rough ambient conditions
- User-friendly display with easy-to-use menu along with external PC/PLC programming offers fast and costefficient setup
- Multiple serial interfaces provide high-speed position output to the controller and high flexibility in application integration
- Integrated speed monitoring offers additional information for increased process reliability
- Highest degree of accuracy and repeatability ensures high machine availability

➜ www.mysick.com/en/DME5000

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Ordering information

Other models and accessories ➜ www.mysick.com/en/DME5000

- **Connection type:** Male connector, M16, 8-pin
- **Power consumption:** At 24 V DC < 250 mA
- **Output type:** Push-pull: PNP/NPN (100 mA) 2)

Ambient temperature	Measuring range [1]	Accuracy	Resolution	Model name	Part no.
Operation: -10 ... 55 °C Operation with cooling case: -10 ... 75 °C Storage: -25 ... 75 °C	0.15 m ... 70 m, on reflective tape “Diamond Grade”	± 2 mm	0.05 mm ... 5 mm	DME5000-111	1022949
	0.15 m ... 150 m, on reflective tape “Diamond Grade”	± 3 mm	0.05 mm ... 5 mm	DME5000-211	1024081
	0.15 m ... 300 m, on reflective tape “Diamond Grade”	± 5 mm	0.05 mm ... 5 mm	DME5000-311	1025244
	0.15 m ... 50 m, on reflective tape “Diamond Grade”	± 3 mm	0.05 mm ... 5 mm	DME4000-111	1029789
	0.15 m ... 130 m, on reflective tape “Diamond Grade”	± 5 mm	0.05 mm ... 5 mm	DME4000-211	1029790

[1] On reflective tape “Diamond Grade”

[2] HIGH = > VS - 3 V / LOW = < 2 V

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Recommended accessories

	Material	Description	Model name	Part no.
Terminal and alignment brackets				
	Stainless steel	Alignment unit	BEF-DME alignment bracket	2040695
	Stainless steel (1.4541)	Alignment unit for DME5000, incl. mounting material, additional base plate mounting kit required	BEF-AH-DME5	2027721
	Aluminium, nickel-plated	Mounting kit for base plate, for DME4000, without mounting material, required for mounting on alignment bracket DME5000	BEF-DME4000	2040738
Mounting systems				
	-	Weather hood housing for DME5000	WSG	2027800

	Material	Description	Mounting system type	Reflective area	Model name	Part no.
Reflectors and optics						
	Material base plate: aluminum, screw connection	Reflector plate, reflective tape “Diamond Grade”	Screw-on, 4 hole mounting	330 mm x 330 mm,	PL240DG	1017910*
				665 mm x 665 mm	PL560DG	1016806

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M16, 8-pin, straight	Cable	PUR, halogen-free, shielded	5 m	DOL-1608-G05MA	2026742
				10 m	DOL-1608-G10MA	2027193



At a glance

- Highly accurate non-contact bar code positioning system
- Travel speed of up to 10 m/s can be achieved
- Wear and maintenance-free thanks to camera technology
- Adjustable resolution as low as 0.1 mm
- Precise positioning up to 10,000 m
- Compact, extremely rugged magnesium housing
- Wide range of interfaces: SSI, RS-422, RS-485, and CANopen
- Large temperature range from –30°C to +60°C

Your benefits

- High travel speed linked to precise positioning increases system efficiency and improves throughput
- Camera-based system with no moving parts increases the sensor's service life, thus reducing lifecycle costs considerably
- Minimal housing dimensions combined with the latest industrial interfaces ensure integration into almost any system design, even where space is limited
- Serial interfaces (RS-422, RS-485, SSI, and CANopen) offer highest flexibility and easiest system integration, hence saving costs for interface converters and protocol adaption
- The large temperature range from –30°C to +60°C offers reliable use in many applications

→ www.mysick.com/en/OLM100

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Other models and accessories → www.mysick.com/en/OLM100

Sensing distance	Bar code width	Output rate	Resolution	Data interface	Model name	Part no.
100 mm ± 20 mm (to bar code tape, 30 mm bar code width)	30 mm	1 ms	0.1 mm, 1 mm	SSI	OLM100-1001	1047411

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Recommended accessories

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, M12, 4-pin, angled, D-coded	Male connector, RJ45, 8-pin, straight	PUR, halogen-free, shielded, CAT5, CAT5e	2 m, 4-wire	SSL-2J04-H02ME	6047911
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	RJ45: Marcromelt /M12: TPU, PUR, shielded, AWG22	5 m, 4-wire	SSL-2J04-G05ME	6035389*
				10 m, 4-wire	SSL-2J04-G10ME	6030928*^
	Female connector, M12, 8-pin, straight	Cable	PUR, halogen-free, shielded	5 m, 8-wire	DOL-1208-G05MAH1	6032449
				10 m, 8-wire	DOL-1208-G10MAH1	6032450

	Description	Model name	Part no.
Codes			
	30 mm, height: 30 mm, measuring range: customer-specific	Bar code tape	5322556
	30 mm, height: 30 mm, measuring range: 0 m ... 5 m	Bar code tape	5324252
	30 mm, height: 30 mm, measuring range: 0 m ... 20 m	Bar code tape	5324069
	30 mm, height: 30 mm, measuring range: 20 m ... 40 m	Bar code tape	5324070
	30 mm, height: 30 mm, measuring range: 40 m ... 60 m	Bar code tape	5324071
	30 mm, height: 30 mm, measuring range: 60 m ... 80 m	Bar code tape	5324072
	30 mm, height: 30 mm, measuring range: 80 m ... 100 m	Bar code tape	5324073
	30 mm, height: 30 mm, measuring range: 100 m ... 120 m	Bar code tape	5324074
	30 mm, height: 40 mm, measuring range: customer-specific	Bar code tape	5323951
	30 mm, height: 40 mm, measuring range: 0 m ... 5 m	Bar code tape	5324251
	30 mm, height: 40 mm, measuring range: 0 m ... 10 m	Bar code tape	5328824
	30 mm, height: 40 mm, measuring range: 0 m ... 20 m	Bar code tape	5324090
	30 mm, height: 40 mm, measuring range: 20 m ... 40 m	Bar code tape	5324091
	30 mm, height: 40 mm, measuring range: 40 m ... 60 m	Bar code tape	5324092
	30 mm, height: 40 mm, measuring range: 60 m ... 80 m	Bar code tape	5324093
	30 mm, height: 40 mm, measuring range: 80 m ... 100 m	Bar code tape	5324094



At a glance

- Reliable measurement, regardless of material color, transparency, gloss, or ambient light
- Very short and rugged M12 metal housing
- Variants with PNP/NPN switching output or analog output
- Immune to dirt, dust, humidity, and fog
- Detection, measurement, or positioning with ultrasound technology
- Cable teach-in

Your benefits

- Very compact housing dimensions for straightforward machine integration
- Proven M12 housing design ensures compatibility with other technologies
- Analog variants in compact design for complex measuring tasks
- Rugged, one-piece metal housing ensures highest machine uptimes
- Teach-in via cable prevents unintentional sensor adjustment reducing machine downtime
- The sensor's immunity to external factors enables it to take accurate measurements even in dirty, dusty, humid, and foggy conditions
- Integrated temperature compensation ensures high measurement accuracy at any time for best process quality

➜ www.mysick.com/en/UM12

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Ordering information

Other models and accessories ➜ www.mysick.com/en/UM12

- **Resolution:** ≥ 0.069 mm
- **Connection type:** Male connector, M12, 4-pin
- **Sending axis:** Straight

Working range, limiting range	Response time	Accuracy [1]	Repeatability [1]	Output time	Switching output	Model name	Part no.
20 mm ... 150 mm, 250 mm	24 ms	± 1 %	± 0.15 %	8 ms	PNP	UM12-1172211	6053542
					NPN	UM12-1172251	6053543
					1 x 4 mA ... 20 mA (≤ 500 Ω) [2]	UM12-1172261	6053544
					1 x 0 V ... 10 V (≥ 100 kΩ)	UM12-1172271	6053545
40 mm ... 240 mm, 350 mm	30 ms	± 1 %	± 0.15 %	10 ms	PNP	UM12-1192211	6053546
					NPN	UM12-1192251	6053547
					1 x 4 mA ... 20 mA (≤ 500 Ω) [2]	UM12-1192261	6053548
					1 x 0 V ... 10 V (≥ 100 kΩ)	UM12-1192271	6053549

[1] Referring to current measurement value

[2] For 4 mA ... 20 mA and Vs ≤ 20 V max. load ≤ 100 Ω

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At a glance

- Reliable measurement independent of material color, transparency, gloss and ambient light
- Four ranges up to 1,300 mm
- Short metal or plastic M18 housing with a length of 41 mm
- Straight or right-angle version
- High immunity to dirt, dust, humidity and fog
- PNP/NPN switching output, analog output or push-pull switching output with IO-Link
- Synchronization and multiplex modes are available

Your benefits

- Four sensing ranges up to 1,300 mm provide a range of flexible mounting options
- Easy machine integration due to short M18 housing available in straight or right-angle versions
- Intelligent measurement filters and versions with temperature compensation guarantee reliable measurement results for maximum process reliability
- Solid, one-piece housing secures highest machine availability
- Easy system integration due to a wide range of available output signals
- Synchronization or multiplex mode enables simultaneous operation of up to 10 sensors, improving application flexibility and process reliability
- Unintentional adjustments to sensor settings are eliminated since teach-in process is done with an external wire
- Variety of application solutions due to insensitivity and reliability of ultrasound technology

➜ **www.mysick.com/en/UM18**

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Ordering information

Other models and accessories ➜ **www.mysick.com/en/UM18**

- **Sub product family:** UM18-2 Pro

Working range, limiting range	Response time	Output rate	Sending axis	Switching output [1] [2]	Analog output	Model name	Part no.
30 mm ... 250 mm, 350 mm	32 ms	8 ms	Straight	1 x push-pull: PNP/NPN (100 mA)	–	UM18-21112A211	6048390*^
			Angled	1 x push-pull: PNP/NPN (100 mA)	–	UM18-21112A212	6048391*
			Straight	–	1 x 4 mA ... 20 mA (≤ 500 Ω) [3] [4]	UM18-211126111	6048392
			Angled	–	1 x 4 mA ... 20 mA (≤ 500 Ω) [3] [4]	UM18-211126112	6048393
			Straight	–	1 x 0 V ... 10 V (≥ 100 kΩ) [4]	UM18-211127111	6048394
			Angled	–	1 x 0 V ... 10 V (≥ 100 kΩ) [4]	UM18-211127112	6048395

[1] Output Q short-circuit protected.

[2] Push-Pull: PNP/NPN HIGH = U_V - (< 4 V) / LOW < 2 V.

[3] For 4 mA ... 20 mA and V_s ≤ 20 V max. load ≤ 100 Ω.

[4] Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

Working range, limiting range	Response time	Output rate	Sending axis	Switching output [1] [2]	Analog output	Model name	Part no.
120 mm ... 1,000 mm, 1,300 mm	80 ms	20 ms	Straight	1 x push-pull: PNP/NPN (100 mA)	–	UM18-21812A211	6048402
			Angled	1 x push-pull: PNP/NPN (100 mA)	–	UM18-21812A212	6048403
			Straight	–	1 x 4 mA ... 20 mA (≤ 500 Ω) [3] [4]	UM18-218126111	6048404*
			Angled	–	1 x 4 mA ... 20 mA (≤ 500 Ω) [3] [4]	UM18-218126112	6048405
			Straight	–	1 x 0 V ... 10 V (≥ 100 kΩ) [4]	UM18-218127111	6048406
			Angled	–	1 x 0 V ... 10 V (≥ 100 kΩ) [4]	UM18-218127112	6048407

[1] Output Q short-circuit protected.

[2] Push-Pull: PNP/NPN HIGH = U_V - (< 4 V) / LOW < 2 V.

[3] For 4 mA ... 20 mA and V_s ≤ 20 V max. load ≤ 100 Ω.

[4] Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

- **Sub product family:** UM18 Double Sheet Detector

Working range, limiting range	Response time	Output rate	Sending axis	Switching output [1] [2]	Analog output	Model name	Part no.
30 mm ... 250 mm, 350 mm	32 ms	8 ms	Straight	1 x push-pull: PNP/NPN (100 mA)	–	UM18-20012	6025670

[1] Output Q short-circuit protected.

[2] Push-Pull: PNP/NPN HIGH = U_V - (< 4 V) / LOW < 2 V.

[3] For 4 mA ... 20 mA and V_s ≤ 20 V max. load ≤ 100 Ω.

[4] Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

Recommended accessories

	Description	Model name	Part no.
Programming and configuration tools			
	Tool for visualization, configuration and cloning, 3-digit LED display, supply voltage: DV 9 V ... 30 V	Connect+ adapter (CPA)	6037782*

	Material	Description	Model name	Part no.
Mounting systems (without mounting hardware)				
	Steel, zinc coated	Mounting plate for M18 sensors	BEF-WG-M18	5321870
		Mounting bracket, M18 thread	BEF-WN-M18	5308446*^

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	TPU, PVC, unshielded	5 m, 5-wire	DOL-1205-G05M	6009868
	Female connector, M12, 5-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	5 m, 5-wire	DOL-1205-G05MC	6025907*^

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At a glance

- Integrated time-of-flight technology detects objects such as glass, liquids and transparent foils, independent of color
- Range up to 8,000 mm
- Display enables fast and flexible sensor adjustment
- Immune to dust, dirt and fog
- Available with combined analog and digital outputs
- Synchronization and multiplexing
- Adjustable sensitivity
- Three operation modes: Distance to Object (DtO), Window (Wnd) or Object between sensor and background (ObSB)

Your benefits

- Easy machine integration due to compact size
- Various setup options ensure flexible adaptation to applications
- Multiplex mode eliminates crosstalk interference for consistent and reliable detection and high measurement reliability
- Synchronization mode allows multiple sensors to work as one large sensor, providing a low-cost solution for area detection
- Display enables setup prior to installation, reducing on-site installation time
- Integrated temperature compensation and time-of-flight technology ensure high measurement accuracy
- ObSB-mode enables detection of any object between the sensor and a taught background

→ www.mysick.com/en/UM30

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Ordering information

Other models and accessories → www.mysick.com/en/UM30

- **Sub product family:** UM30-2
- **Sending axis:** straight

Working range, limiting range	Response time	Output rate	Switching output [1]	Analog output	Model name	Part no.
30 mm ... 250 mm, 350 mm	50 ms	8 ms	1 x PNP (200 mA) [2]	–	UM30-211111	6037660*^
			2 x PNP (200 mA) [2]	–	UM30-211112	6037664
			–	1 x 0 V ... 10 V (≥ 100 kΩ) [3] 1 x 4 mA ... 20 mA (≤ 500 Ω) [3] [4] [5]	UM30-211113	6036916*
65 mm ... 350 mm, 600 mm	70 ms	16 ms	1 x PNP (200 mA) [2]	–	UM30-212111	6037661*^
			2 x PNP (200 mA) [2]	–	UM30-212112	6037665*
			–	1 x 0 V ... 10 V (≥ 100 kΩ) [3] 1 x 4 mA ... 20 mA (≤ 500 Ω) [3] [4] [5]	UM30-212113	6036917*

[1] Output Q short-circuit protected.

[2] PNP: HIGH = V_S - (< 2 V) / LOW = 0 V.

[3] Automatic selection of analog current or voltage output dependent on load.

[4] For 4 mA ... 20 mA and V_s ≤ 20 V max. load ≤ 100 Ω.

[5] Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

[6] NPN: HIGH ≤ 2 V / LOW = V_S.

Working range, limiting range	Response time	Output rate	Switching output [1]	Analog output	Model name	Part no.
200 mm ... 1,300 mm, 2,000 mm	110 ms	23 ms	1 x PNP (200 mA) [2]	–	UM30-213111	6037537*^
			2 x PNP (200 mA) [2]	–	UM30-213112	6037666*
			–	1 x 0 V ... 10 V (≥ 100 kΩ) [3] 1 x 4 mA ... 20 mA (≤ 500 Ω) [3] [4] [5]	UM30-213113	6036918*^
350 mm ... 3,400 mm, 5,000 mm	180 ms	43 ms	1 x PNP (200 mA) [2]	–	UM30-214111	6037662*^
			2 x PNP (200 mA) [2]	–	UM30-214112	6037667
			–	1 x 0 V ... 10 V (≥ 100 kΩ) [3] 1 x 4 mA ... 20 mA (≤ 500 Ω) [3] [4] [5]	UM30-214113	6036919*
600 mm ... 6,000 mm, 8,000 mm	240 ms	60 ms	1 x PNP (200 mA) [2]	–	UM30-215111	6037663*
			2 x PNP (200 mA) [2]	–	UM30-215112	6037668*
			–	1 x 0 V ... 10 V (≥ 100 kΩ) [3] 1 x 4 mA ... 20 mA (≤ 500 Ω) [3] [4] [5]	UM30-215113	6036920*

[1] Output Q short-circuit protected.
[2] PNP: HIGH = V_S - (< 2 V) / LOW = 0 V.
[3] Automatic selection of analog current or voltage output dependent on load.
[4] For 4 mA ... 20 mA and V_s ≤ 20 V max. load ≤ 100 Ω.
[5] Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.
[6] NPN: HIGH ≤ 2 V / LOW = V_S.

Recommended accessories

	Description	Model name	Part no.
Programming and configuration tools			
	Tool for visualization, configuration and cloning, 3-digit LED display, supply voltage: DV 9 V ... 30 V	Connect+ adapter (CPA)	6037782*
Reflectors and optics			
	90° sound deflection plate for UM30-21xxxx, UM30-22xxxx, UM30-23xxxx, stainless steel	USP-UM30	5312916

	Material	Description	Model name	Part no.
Mounting systems (without mounting hardware)				
	Steel, zinc coated	Mounting bracket, M30 thread	BEF-WG-M18	5321870

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	TPU, PVC, unshielded	5 m, 5-wire	DOL-1205-G05M	6009868
	Female connector, M12, 5-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	5 m, 5-wire	DOL-1205-G05MC	6025907*^

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At a glance

- Integrated time-of-flight technology detects objects such as glass, liquids and transparent foils, independent of color
- Three operation modes: Distance to Object (DtO), Window (Wnd) or Object between sensor and background (ObSB)
- Immunity to dirt, dust and fog
- One PNP/NPN switching output
- Excellent background suppression

Your benefits

- Mini housing allows for quick and easy integration, even in the most confined spaces
- Immunity to dirt and dust ensures reliable object detection, even in challenging environmental conditions
- Integrated temperature compensation ensures high measurement accuracy
- Various switching outputs provide application flexibility, which increases reliability and productivity
- Full mechanical compatibility to photoelectric sensors increase application flexibility without machine modification
- Economical version available for simple, cost-sensitive applications
- Fast machine setup due to easy-to-use teach-in button

→ www.mysick.com/en/UC4

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/UC4

- **Response time:** 30 ms
- **Output rate:** 8 ms
- **Sending axis:** straight

Working range, limiting range [1]	Output	Model name	Part no.
13 mm ... 100 mm, 150 mm	1 x PNP (200 mA) [3]	UC4-11341	6034667*
13 mm ... 150 mm, 250 mm	1 x PNP (200 mA) [3]	UC4-13341	6034669*
13 mm ... 150 mm, 250 mm	1 x 4 mA ... 20 mA (≤ 500 Ω) [5]	UC4-13346	6054708
13 mm ... 150 mm, 250 mm	1 x 0 V ... 10 V (≥ 100 kΩ)	UC4-13347	6054709

[1] Teach-in from 21 mm.
[2] Output Q short-circuit protected.
[3] PNP: HIGH = V_S - (< 2 V) / LOW = 0 V.
[4] NPN: HIGH ≤ 2 V / LOW = V_S.
[5] For 4 mA ... 20 mA and Vs ≤ 20 V max. load ≤ 100 Ω

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel 1.4571	Mounting bracket for wall mounting	BEF-W4-A	2051628*
Terminal and alignment brackets (mounting hardware included)				
	Plastic	Ball clamp bracket	BEF-GH-MINI02	2027128
Universal bar clamp systems (universal clamp and mounting hardware included)				
	Steel, zinc coated	Plate H for universal clamp bracket	BEF-KHS-H01	2022465
Hardware				
	-	The SonicTube is used to transmit ultrasound to the start of the measuring range and to measure and detect it through openings with small diameters, such as test tubes.	SonicTube UC4	5329249

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M8, 3-pin, straight	Cable	TPU, PVC, unshielded	2 m, 3-wire	DOL-0803-G02M	6010785
				5 m, 3-wire	DOL-0803-G05M	6022009
	Female connector, M8, 3-pin, angled	Cable	TPU, PVC, unshielded	2 m, 3-wire	DOL-0803-W02M	6008489

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At a glance

- Object detection independent of material color and ambient light – even transparent foils, glass, liquids and bottles are reliably detected
- Fast and easy teach-in with single push-button
- Immune to dirt, dust and fog
- Two ambivalent switching outputs (Q, /Q)
- Excellent background suppression
- Three operation modes: Distance to Object (DtO), Window (Wnd) or Object between sensor and background (ObSB)

Your benefits

- Fast commissioning due to single-button teach-in
- Full mechanical compatibility to photoelectric sensors increase application flexibility without machine modification
- Standard proximity, window and reflection modes provide application flexibility, which increases reliability and productivity
- Integrated temperature compensation ensures high measurement accuracy
- Complementary switching outputs immediately signal broken wiring, reducing faulty production results

➜ www.mysick.com/en/UC12

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/UC12

- **Response time:** 30 ms
- **Output rate:** 8 ms
- **Sending axis:** straight

Working range, limiting range	Switching output [1) 2)]	Model name	Part no.
20 mm ... 150 mm, 250 mm	2 x PNP (500 mA) [3)]	UC12-11231	6029831*^
55 mm ... 250 mm, 350 mm	2 x PNP (500 mA) [3)]	UC12-12231	6029832*

[1)] Output Q short-circuit protected.

[2)] Complementary switching outputs (Q, /Q)

[3)] PNP: HIGH = V_S - (< 2 V) / LOW = 0 V.

[4)] NPN: HIGH ≤ 2 V / LOW = V_S.

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (mounting hardware included)				
	Stainless steel	Mounting bracket, large,	BEF-WG-W12	2013942*
		Mounting bracket, small	BEF-WK-W12	2012938*
Universal bar clamp systems (Universal clamp and mounting hardware included)				
	Steel, zinc coated	Plate D for universal clamp bracket	BEF-KHS-D01	2022461
		Plate L for universal clamp bracket	BEF-KHS-L01	2023057
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N02 for universal clamp bracket	BEF-KHS-N02	2051608*^

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, straight	Cable	TPU, PVC, unshielded	2 m, 4-wire	DOL-1204-G02M	6009382
	Female connector, M12, 4-pin, angled	Cable	TPU, PVC, unshielded	2 m, 4-wire	DOL-1204-W02M	6009383
	Female connetor, M12, 4-pin, straight	Cable	TPU, PVC, unshielded	5 m, 4-wire	DOL-1204-G05M	6009866
	Female connector, M12, 4-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	5 m, 4-wire	DOL-1204-G05MC	6025901*^

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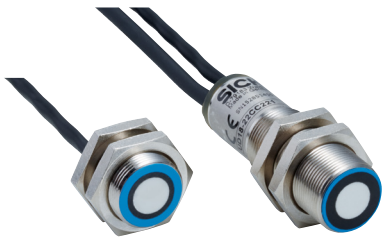

At a glance

- Material classifications: no layers, single layer, double layers
- Plug-and-play; sensitivity levels that can be selected, taught in, and changed during operation
- Up to four individual sensitivity levels
- Variable mounting distance
- LEDs visible from any direction
- Immune to dirt, dust, and humidity

Your benefits

- Maximum productivity and quality thanks to reliable material transportation monitoring
- Rapid commissioning thanks to plug-and-play plus a range of sensitivity levels to choose from
- Easy to switch between sensitivity levels during operation, preventing downtimes during material changes
- Individual teach-in of various materials, making it possible to tackle even the most demanding applications
- The utmost flexibility during installation thanks to variable mounting distance
- LEDs visible from any direction, making it easy to monitor double sheet detections
- Reliable detection in dirty, dusty, and humid conditions thanks to the ultrasonic technology's immunity to these environments

➜ www.mysick.com/en/UD18

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/UD18

- **Response time:** 30 ms
- **Output rate:** 8 ms
- **Sending axis:** straight

Installation distance	Switching outputs [1) 2) 3)]	Sending axis	Model name	Part no.
20 mm ... 60 mm, 40 mm ± 3 mm (default setting)	2 x PNP (200 mA)	Straight	UD18-22CC221	6058910
	2 x NPN (200 mA)		UD18-22CC241	6058911
	2 x PNP (200 mA)	Angled	UD18-22CC222	6058912
	2 x NPN (200 mA)		UD18-22CC242	6058913
30 mm ... 70 mm, 50 mm ± 3 mm (default setting)	2 x PNP (200 mA)	Straight	UD18-22DC221	6058914
	2 x NPN (200 mA)		UD18-22DC241	6058915

[1)] Switching outputs Q1 and Q2 short-circuit protected.

[2)] Q1: switching output double layer, Q2: switching output single / no layer, normally closed.

[3)] PNP: Active = Vs - (< 2 V) / Inactive = 0 V, NPN: Active ≤ 2 V / Inactive = Vs.

Recommended accessories

	Description	Model name	Part no.
Programming and configuration tools			
	Tool for visualization, configuration and cloning, 3-digit LED display, supply voltage: DV 9 V ... 30 V	Connect+ adapter (CPA)	6037782*

	Material	Description	Model name	Part no.
Mounting systems				
	Steel, zinc coated	Mounting plate for M18 sensors, without mounting hardware	BEF-WG-M18	5321870
		Mounting bracket, M18 thread, without mounting hardware	BEF-WN-M18	5308446*^
		Plate H for universal clamp bracket, universal clamp and mounting hardware included	BEF-KHS-H01	2022465
	Plastic	Mounting bracket with ball-and-socket, mounting hardware included	BEF-WN-M18-ST02	5312973
	Plastic (PA12), glass-fiber reinforced	Clamping block for round sensors M18, with fixed stop, mounting hardware included	BEF-KHF-M18	2051482

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At a glance

- PROFIBUS DP interface for the ISD400 Core
- Protocol-free Fast Ethernet interface for the ISD400 Pro
- Fast Ethernet with a transmission rate of 100 Mbps for the ISD400 Pro
- Connection and operation without opening the device
- Version with heating for use in temperatures as low as –40 °C

Your benefits

- An integrated optical and electronic alignment aid supports fast and cost-effective commissioning
- Wide operating temperature range guarantees high system throughput, even in cold stores
- Integrated PROFIBUS DP repeater for the ISD400 Core for cost-effective and straightforward multi-master configuration
- Output of operating parameters and status information via display and switching output in the ISD400 Pro to prevent unexpected failures

→ www.mysick.com/en/ISD400

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/ISD400

Data interface	Data transmission rate	Transmission range	Ambient temperature operation	Power consumption	Model name	Part no.
PROFIBUS DP	3 Mbit/s	0.2 m ... 180 m	–25 °C ... +55 °C	≤ 0.4 A	ISD400-1111	1042286
Ethernet [1]	3 Mbit/s	0.2 m ... 180 m	–25 °C ... +55 °C	≤ 0.4 A	ISD400-6111	1046119

[1] Internal buffer 8 kB.

Recommended accessories

	Material	Description	Model name	Part no.
Terminal and alignment brackets				
	Aluminum, anodised	Alignment unit for DME4000/ISD400	BEF-DME/ISD	2046052
Mounting brackets and mounting plates				
	-	Mounting bracket 90°	BEF-WINK-DME/ISD	2046444

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	PVC, shielded	10 m, 5-wire	DOL-1205-G10MQ	6026008
	Male connector, M12, 5-pin, straight, B-coded		PUR, halogen-free, shielded	10 m, 5-wire	STL-1205-G10MQ	6026007
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	RJ45: Marcromelt /M12: TPU, PUR, shielded	5 m, 4-wire, AWG22	SSL-2J04-G05ME	6035389*
				10 m, 4-wire, AWG22	SSL-2J04-G10ME	6030928*^
	Female connector, M12, 4-pin, straight	Cable	TPU, PVC, unshielded	10 m, 4-wire	DOL-1204-G10M	6010543
	Male connector, M12, 4-pin, straight, B-coded	-	-	-	PR-STE-END	6021156

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At a glance

- Efficient protection for sensors at ambient temperatures between -20 °C and +80 °C
- Maintenance-free Peltier cooling with 24 V / 15 A
- Rugged glass-fiber reinforced plastic housing with front screen
- Thermostatic internal temperature control
- Temperature monitoring with automatic cut-off in the event of excess temperatures
- Adjustable bracket for easy mounting

Your benefits

- Active sensor cooling through Peltier effect extends the operational lifetime by 15% at 25 °C ambient temperature and up to 400% at 45 °C. Less frequent sensor exchange significantly reduces operational costs.
- Increased sensor reliability reduces unexpected failure and associated system downtime. This effectively lowers costs associated with system breakdowns and increases productivity.
- Consistent internal temperatures guarantee high accuracy of the measured values for precise measurement results.
- Electric Peltier cooling is maintenance-free and only requires a 24 V connection instead of complex water or air system

→ www.mysick.com/en/TPCC

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/TPCC

Brief description	Model name	Part no.
Cooling case for Dx500 series	TPCC Dx500	6036182
Cooling case for DME4000/DME5000 series	TPCC DME4000/5000	6036180
Cooling case for Dx100 series	TPCC Dx100	6048328
Cooling case for DML/DMT series	TPCC DML/DMT	6036183



AUTOMATION LIGHT GRIDS

J







SICK automation light grids – simple integration through high flexibility

Two-dimensional inspection or counting tasks are important in automation. SICK's automation light grids can be used in a number of these solutions, such as detecting and counting irregularly shaped objects, people and vehicles, and checking for presence and pallet overhang detection. The tasks are so versatile that one light grid cannot fulfill the requirements of every application. Light grids from SICK offer multiple ranges, heights, sizes, orientations, and resolutions which simplify integration through high flexibility and performance.

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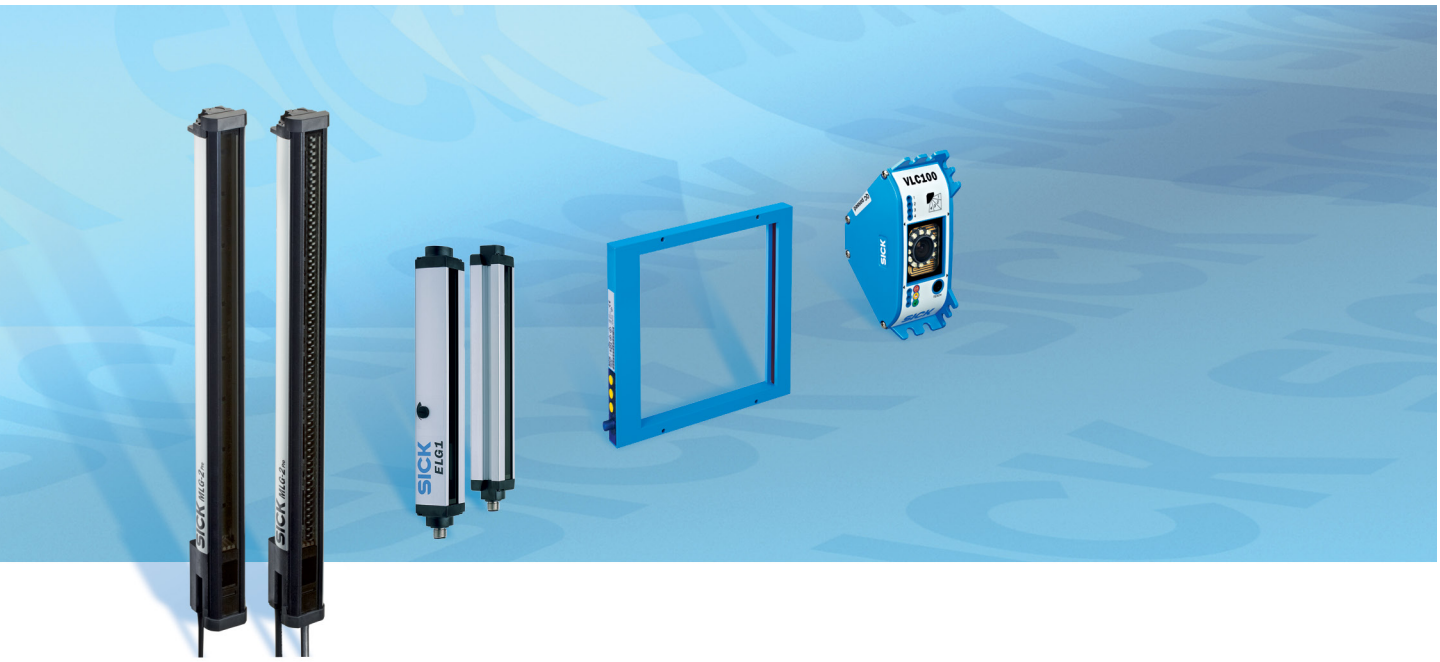

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Selection guide automation light grids J-330



MLG-2 . . . . . J-332
The solution for high-precision measurement tasks



ELG J-336
ELG – the extremely tough and versatile light grid for standard applications



FLG J-337
Two in one: sender and receiver in one housing



SAS J-338
Better machine control in a small housing



SPL J-339
Error-proof picking

SELECTION GUIDE AUTOMATION LIGHT GRIDS

Product	Standard application	Special application																			
	Task		Task			Function				Minimum detectable object (MDO)											
	Object presence	Application at toll station and on industrial doors	Position determination	Pick-to-light	Measuring tasks	Sender/receiver system	Retro-reflective system	Switching	Measuring	2 mm ... 4 mm	5 mm ... 10 mm	10 mm ... 20 mm	20 mm ... 30 mm	30 mm ... 40 mm	40 mm ... 50 mm	60 mm ... 70 mm	70 mm ... 80 mm	80 mm ... 90 mm			
Measuring automation light grids																					
MLG-2	■	■			■	■		■	■	■ [1]	■	■		■		■	■	■			
Switching automation light grids																					
ELG		■	■			■		■			■ [1]	■		■		■	■				
FLG		■				■		■		■											
SAS		■				■		■					■ [1]		■						
SPL		■		■		■		■					■ [1]		■						

[1] Cross beam.

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Sensor properties
Page
Interface
Monitoring height
Sensing range
PNP/NPN
Analog/RS-485/IO-Link
Relay
Push-pull
400 mm
800 mm
1,200 mm
1,600 mm
2,000 mm
2,400 mm
2,800 mm
3,200 mm
1 m
2 m
3 m
4 m
5 m
6 m
7 m
8 m
9 m
10 m
11 m
140 mm ... 3,200 mm (in 150-mm increments)
8.5 m
→ J-332
90 mm ... 3,120 mm
12 m
→ J-336
120 / 180 / 250 x 200 (detection area)
→ J-337
120 mm ... 600 mm
3 m
→ J-338
120 mm ... 440 mm
1.5 m
→ J-339

J



IO-Link

At a glance

MLG-2 Prime

- Easy concept for standard application
- Functions like height classification, height measurement, width measurement or object recognition
- Clean function view
- Commissioning without PC
- Quick fix brackets
- 2-beam optical synchronization
- Low wiring effort
- Display

MLG-2 Pro

- High-end device for advanced application
- Transparent mode
- High speed scan
- High resolution mode
- Function for the usage in dirty environments
- Many measurement functions like position measurement, diameter measurement, single beam evaluation
- Application-oriented configuration Software SOPAS

Your benefits

- The MLG-2 offers future-proof application solutions from a leading technology specialist
- Short response time for operational safety from objects traveling at high speeds
- Modular concept offers the perfect solution every time from a single source
- Easy concept: Time and cost savings due to simple configuration and quick commissioning
- Simple maintenance without the need for specialist staff thanks to the cloning function with IO-Link
- Saves energy when the machine is not in use, ensuring environmentally-friendly operation
- Quick setup thanks to menu-driven configuration via web server or display
- Integrated interfaces and function blocks make it easy to connect to bus systems

➜ www.mysick.com/en/MLG-2

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/MLG-2

MLG-2 Prime

- **Connection type:** Connector M12, 5-pin

Data interface	Beam separation	Detection height	Working range	Model name	Part no.
2 x Analog + 1 x Q (IO-Link)	5 mm	145 mm	5 m	MLG05S-0145A10501	1213504
		295 mm	5 m	MLG05S-0295A10501	1213707
		745 mm	5 m	MLG05S-0745A10501	1213709
	10 mm	290 mm	5 m	MLG10S-0290A10501	1213541
		740 mm	5 m	MLG10S-0740A10501	1213710
	25 mm	575 mm	5 m	MLG25S-0575A10501	1213542
	50 mm	1,150 mm	5 m	MLG50S-1150A10501	1213479
		2,200 mm	5 m	MLG50S-2200A10501	1213508
3 x Q (IO-Link)	5 mm	145 mm	5 m	MLG05S-0145D10501	1213494
	10 mm	740 mm	5 m	MLG10S-0740D10501	1213539
	25 mm	275 mm	5 m	MLG25S-0275D10501	1213513
		725 mm	5 m	MLG25S-0725D10501	1213503
	50 mm	250 mm	5 m	MLG50S-0250D10501	1213711
		1,750 mm	5 m	MLG50S-1750D10501	1213540
		3,100 mm	5 m	MLG50S-3100D10501	1213510

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MLG-2 Pro

- **Connection type:** Connector M12, 8-pin

Data interface	Beam separation	Detection height	Working range	Model name	Part no.
2 x analog + 2 x I/O (IO-Link)	2.5 mm	145 mm	2 m	MLG02A-0145B13201	1215595
		295 mm		MLG02A-0295B13201	1215594
		445 mm		MLG02A-0445B13201	1215370
		595 mm		MLG02A-0595B13201	1215371
2 x Analog + 2 x I/O (IO-Link)	5 mm	145 mm	5 m	MLG05A-0145B10501	1213492
		595 mm	8.5 m	MLG05A-0595B10801	1213480
		745 mm	5 m	MLG05A-0745B10501	1213438
		895 mm	8.5 m	MLG05A-0895B10801	1213633
	10 mm	590 mm	8.5 m	MLG10A-0590B10802	1213784
RS-485 + 2 x I/O (IO-Link)	2.5 mm	145 mm	2 m	MLG02A-0145I13201	1215334
		295 mm		MLG02A-0295I13201	1215876
		895 mm		MLG02A-0895I13201	1216135
RS-485 + 2 x I/O (IO-Link)	5 mm	745 mm	5 m	MLG05A-0745I10501	1213801
		2,395 mm	5 m	MLG05A-2395I10501	1213502
	10 mm	140 mm	5 m	MLG10A-0140I10501	1213501
		3,140 mm	5 m	MLG10A-3140I10501	1213514
	25 mm	575 mm	5 m	MLG25A-0575I10501	1213723
4 x Q (IO-Link)	5 mm	145 mm	5 m	MLG05A-0145R10501	1213792
		295 mm	5 m	MLG05A-0295R10501	1213718
	25 mm	575 mm	5 m	MLG25A-0575R10501	1213537
		1,025 mm	8.5 m	MLG25A-1025R10801	1213511
		1,175 mm	8.5 m	MLG25A-1175R10801	1213538
	50 mm	250 mm	5 m	MLG50A-0250R10501	1213512

Recommended accessories

	Material	Suitable for monitoring height	Houing length, visible protective tubing (PMMA)	Type	Part no.	Prime	Pro	ProNet
Equipment protection (mechanical)								
	PMMA (protective pipes), Aluminum (end caps, spacer), ABS-plastic (support holder), Polyamide (cable gland)	140 mm ... 145 mm	220 mm	IPG2-0220A5P167	2083870	●	●	●
		250 mm ... 295 mm	370 mm	IPG2-0370A5P167	2083871	●	●	●
		400 mm ... 445 mm	520 mm	IPG2-0520A5P167	2082909	●	●	●
		550 mm ... 595 mm	670 mm	IPG2-0670A5P167	2083872	●	●	●
		700 mm ... 745 mm	820 mm	IPG2-0820A5P167	2083873	●	●	●
		850 mm ... 895 mm	970 mm	IPG2-0970A5P167	2083874	●	●	●
		1.000 mm ... 1.045 mm	1,120 mm	IPG2-1120A5P167	2083875	●	●	●
		1,150 mm ... 1.195 mm	1,270 mm	IPG2-1270A5P167	2083876	●	●	●
		1,300 mm ... 1.345 mm	1,420 mm	IPG2-1420A5P167	2083877	●	●	●
		1,450 mm ... 1.495 mm	1,570 mm	IPG2-1570A5P167	2083878	●	●	●
		1,600 mm ... 1.645 mm	1,720 mm	IPG2-1720A5P167	2083879	●	●	●
		1,750 mm ... 1.795 mm	1,870 mm	IPG2-1870A5P167	2083880	●	●	●
		1,900 mm ... 1.945 mm	2,020 mm	IPG2-2020A5P167	2083881	●	●	●
		2,050 mm ... 2.095 mm	2,170 mm	IPG2-2170A5P167	2083882	●	●	●

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	Description	Type	Part no.	Prime	Pro	ProNet
Adapters and distributors						
	Male connector M12, 8-pin, to 1 x female connector M12, 8-pin, to 1 x female connector M12, 5-pin, for connecting of a PLC	SBO-02F12-SM1	6053172	–	●	–
	Male connector M12, 5-pin, to 1 x female connector M12, 8-pin, to 1 x female connector M12, 5-pin, for connecting on IO-Link-Master	SBO-02F12-SM2	6053283	–	●	–
	Male connector M12, 5-pin, straight, A-coded to 2 x female connector M12, 5-pin, straight, A-coded	SBO-02G12-SM	6029305	–	–	●
Other mounting accessories						
	Sliding nut, M5	Sliding nut	5305719	●	●	●
	Sliding nut set, M5, 4x	Sliding nuts	2017550	●	●	●
	For grounding the MSL, C2000, M2000 or C4000 when using the AS-interface module lower parts FKE or FKE-A	T-nuts	4031411	●	●	●

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	Description	Type	Part no.	Prime	Pro	ProNet
Terminal and alignment brackets						
	1 x angle holder and 1 x screws	BEF-WN-FBM-SET1	2082322	–	–	●
	2 x angle holder and 3 x screws	BEF-WN-FBM-SET2	2083323	–	–	●
	6 x Quick Fix	BEF-3SHABPKU2-SET1	2085604	–	–	●
	4 x Flex Fix with 1 x angle holder	BEF-1SHABPKU4-SET2	2083452	–	–	●
	Replacement bracket kit replaces swivel mount brackets 2019649 and 2019659 or side brackets 2019506 with FlexFix brackets by using the existing fixing holes	BEF-1SHABP004	2071021	●	●	●
	FlexFix bracket	BEF-1SHABPKU4	2066614*^	●	●	●
	QuickFix bracket	BEF-3SHABPKU2	2066048*	●	●	●

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.	Prime	Pro	ProNet
Plug connectors and cables									
	Female connector, M12, 8-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	2 m, 8-wire	DOL-1208-G02MC	6035620	–	●	–
				10 m, 8-wire	DOL-1208-G10MC	6035622	–	●	–
				15 m, 8-wire	DOL-1208-G15MC	6038559	–	●	–
				20 m, 8-wire	DOL-1208-G20MC	6038560	–	●	–
	Female connector, M12, 5-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	2 m, 5-wire	DOL-1205-G02MC	6025906*^	●	–	–
				5 m, 5-wire	DOL-1205-G05MC	6025907*^	●	–	–
				10 m, 5-wire	DOL-1205-G10MC	6025908*^	●	–	–

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At a glance

- Up to 128 beams
- Different beam resolutions 10 mm / 30 mm and 60 mm
- High functional reserve (gain) for ranges up to 12 m
- Potentiometer for sensitivity setting
- Ambient light up to 200,000 lx
- Tough, aluminum housing
- PNP/NPN, relay output and a test input
- Optical synchronization

Your benefits

- Insensitive to ambient light when exposed to direct sunlight, strobe lights, and highly reflective objects, eliminating false trips
- High functional reserve (excess gain) ensures operation even if it gets dirty, dusty, or misaligned, reducing maintenance costs
- Efficient and effective way to combine multiple sensors in one housing with one connector
- Simple commissioning thanks to a larger optical aperture angle and manual fine adjustment option
- Optical synchronization enables quick installation and cost-effective connection
- The sensitivity adjustment can be used to detect or ignore translucent materials to reduce production problems

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➜ www.mysick.com/en/ELG

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/ELG

Beam separation	Working range	Evaluation beams	Detection height	Switching output	Model name	Part no.
30 mm	2 m	Parallel beam	210 mm	2 x PNP (Q and /Q)	ELG3-0210P511	1025510
	12 m		450 mm		ELG3-0450P521	1025440
60 mm	12 m	Parallel beam	900 mm	Relais (DC 60 V, AC 25 V)	ELG6-0900R521	1026181

Recommended accessories

	Material	Description	Model name	Part no.
Terminal and alignment brackets				
	Plastic	4 pieces, Mounting kit 1, rotatable, swivel mount	BEF-2SMKEAKU4	2019649*

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At a glance

- Dynamic or static operating mode, switchable
- Simple adjustment
- Adjustable sensitivity
- Adjustable pushbutton lock
- Rugged metal housing
- Adjustable pulse lengthening
- Switchable NO/NC

Your benefits

- Simple installation and alignment due to sender and receiver in one housing
- The adjustable pushbutton lock protects against unwanted changes to parameters and manipulation during operation
- The device's adjustable sensitivity, operating mode and pulse lengthening features enable individual parameter changes to fit the requirements of your application
- Also available as an one side open version for simple integration into your application environment
- Large monitoring area, so only one device is required for monitoring small and large parts
- Using the sensitivity setting, it is possible to hide falling debris and only recognize objects that are relevant to detect

→ www.mysick.com/en/FLG

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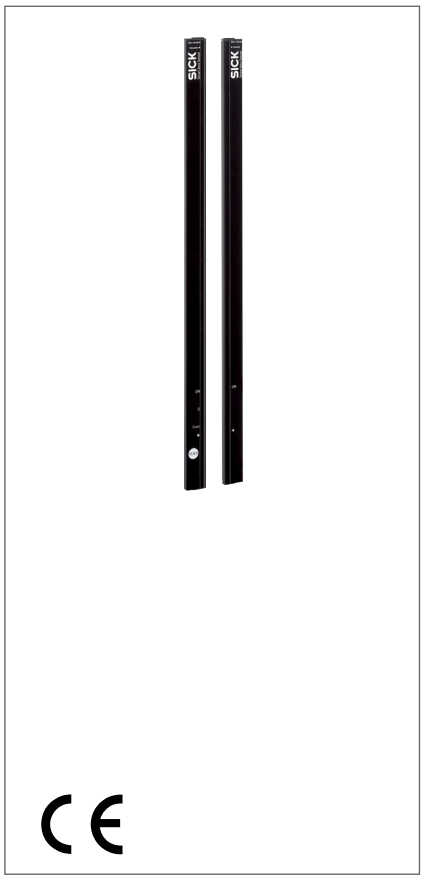
Ordering information

Other models and accessories → www.mysick.com/en/FLG

- **Connection type:** Connector M12, 4-pin
- **Minimum detectable object (MDO):** Dynamic: 2 mm or 4 mm, statiic: 6 mm (2 mm MDO in limited detection area.)

Version	Beam separation	Detection area (W x H)	Model name	Part no.
Close	2 mm	180 mm x 200 mm [1]	FLG2-20018011	6049333
	4 mm	180 mm x 200 mm	FLG4-20018011	6049136
Open	2 mm	180 mm x 200 mm [1]	FLG2-20018021	6050065
	4 mm	180 mm x 200 mm	FLG4-20018021	6050068

[1] 2 mm MDO in limited detection area.



At a glance

- Variable detection lengths from 120 mm up to 600 mm (in 160 mm increments)
- Set parameters via teach-in with no PC
- Simple teach-in setup
- Maximum range 4 m
- Response time 18 ms
- 25 mm resolution with 40 mm beam separation possible
- Highly immune to sunlight up to 150,000 lx
- Small blind zone < 11 mm

Your benefits

- Small, slim and sleek design enables easy integration into applications
- Capacitive teach-in button and LEDs make commissioning easier for complex solutions
- Slim and flat models offer flexible mounting options and optimize space while reducing damage
- Customized preset configurations or set parameters via one-touch teach-in with no PC
- Optical synchronization eliminates the need to lay cables, saving time
- Auto-teach and auto-muting enable Plug & Play. And, an alignment aid and “Click & Go” provide faster installation.

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➜ www.mysick.com/en/SAS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/SAS

- **Beam separation:** 40 mm
- **Working range:** 3 m

Optical light exit	Aluminum stabilizer	Detection height	Switching output	Model name	Part no.
Flat	Without stabilizer	440 mm	1 x PNP	SAS4-F044P3PS1T00	1045020
Slim	Without stabilizer	280 mm	1 x PNP	SAS4-S028P3PS1T00	1047063
		440 mm	1 x PNP	SAS4-S044P3PS1T00	1045019
		600 mm	1 x PNP	SAS4-S060P3PS1T00	1047587
				SAS4-S060P3PS1W00	1047525

Recommended accessories

	Description	Model name	Part no.
Mounting systems			
	Bracket for SLG, stainless steel	VZA-SLG	2048519
	Mounting bracket for light grids up to a monitoring height of 600 mm, mounting on the face sides, 2x BEF-SLG1, 2x BEF-SLG2	BEF-SLG-SET1	2055427*

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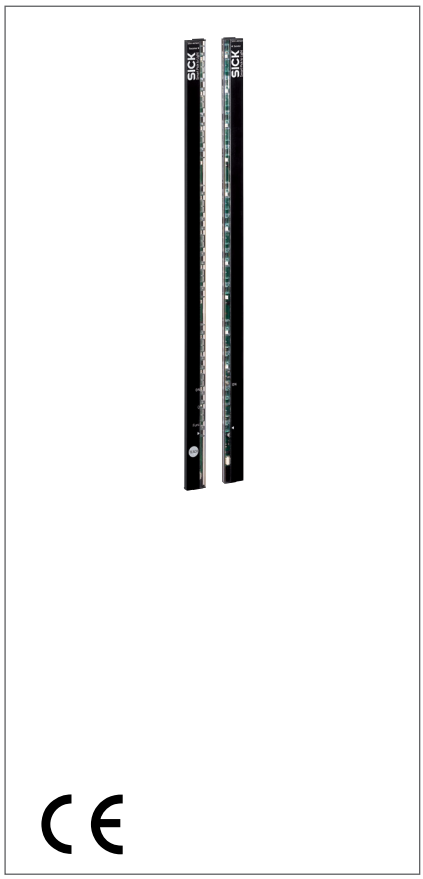

At a glance

- Variable detection lengths from 120 mm up to 440 mm
- No commissioning necessary – Plug & Play operation
- Maximum range 3 m
- Response time 18 ms
- 25 mm resolution with 40 mm beam separation possible
- Highly visible job LEDs along the entire length of the sensor
- Green job LEDs for correct pick and red job LEDs for incorrect pick
- Can be connected to bus systems

Your benefits

- Highly visible job LEDs can be seen from any position
- Picking error display for order picking improves quality
- Plug & Play operation saves time
- Automatic teach-in when turned on
- Slim and flat models offer flexible mounting options and optimize shelf/bin space while reducing damage
- Quick, cost-effective installation thanks to optical synchronization – no need to wire the sender and receiver together
- Auto-muting, auto-teach and an alignment aid provide more uptime

→ www.mysick.com/en/SPL

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories → www.mysick.com/en/SPL

- **Beam separation:** 40 mm
- **Working range:** 1.5 m

Optical light exit	Aluminum stabilizer	Detection height	Switching output	Model name	Part no.
Flat	Without stabilizer	280 mm	1 x PNP	SPL-F280PPS1W04	1046764
		440 mm	1 x PNP	SPL-F440PPS1W04	1046314
Slim	Without stabilizer	280 mm	1 x PNP	SPL-S280PPS1W04	1046763
		440 mm	1 x PNP	SPL-S440PPS1W04	1046312

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket for light grids from a monitoring height of 600 mm, mounting on the face sides, 4x BEF-SLG1	BEF-SLG-SET2	2056518
Mounting systems			
	Bracket for SLG, stainless steel	VZA-SLG	2048519
	Mounting bracket for light grids up to a monitoring height of 600 mm, mounting on the face sides, 2x BEF-SLG1, 2x BEF-SLG2	BEF-SLG-SET1	2055427*



VISION

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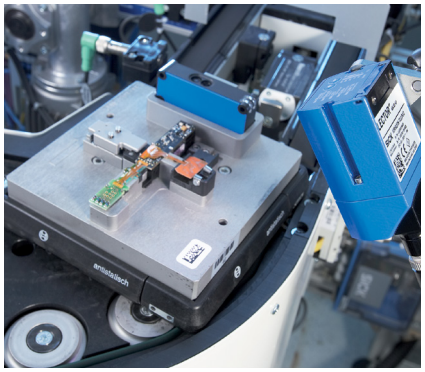



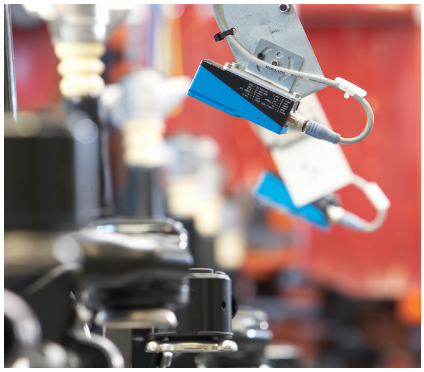

A new dimension in vision

Vision solutions are ideal for automated inspection and measurement tasks. SICK's 2D and 3D vision cameras can be used to solve a wide range of applications where there is a need to measure, locate, inspect and identify. Our vision products are built for industrial environments, carefully designed to leverage SICK's 60-plus years of experience with industrial sensors.

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	Selection guide Vision	**K-342**
	**Inspector** An intelligent vision solution in an easy-to-use sensor package	**K-344**
	**CVS1** Detect and distinguish colors	**K-347**
	**IVC-2D** High performance smart cameras for industrial environments	**K-348**
	**IVC-3D** The world's first 3D smart camera makes advanced vision easy	**K-350**

SELECTION GUIDE VISION

Product	Main tasks				Color inspection	Fieldbus / industrial networks				
	Positioning	Inspection	Measuring	Reading		Serial interface	Ethernet	CAN bus	PROFIBUS DP	
2D vision										
 Inspector	■	■	■				■			
 CVS1		■								
 IVC-2D	■	■	■			■	■			
3D vision										
 IVC-3D	■	■	■	■		■	■			

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		Main industries							Maximum resolution	Page
	USB	Automotive	Beverage	Electronics and solar	Food	Pharma and cosmetics	Storage and conveyor	Traffic		
		■	■	■	■	■	■		640 px x 480 px	→ K-344
			■	■	■	■			752 px x 480 px	→ K-347
		■	■	■	■	■			2,048 px x 2,048 px	→ K-348
		■	■	■	■	■			1,536 px (3D)	→ K-350

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At a glance

- High-speed positioning, inspection and measurement
- Powerful “object locator” tool, independent of position, rotation and scale
- Unique, interchangeable housing design supporting dome and various optical accessories
- Simple step-by-step configuration in PC including emulator
- Easy-to-use operator interfaces
- Flexible machine and HMI design interfaces

Your benefits

- The multi-functional vision toolbox offers smart camera-level performance but with sensor ease-of-use
- Unique, interchangeable housing design provides the easiest way to improve image quality
- The simple configuration in SOPAS, including emulator for offline configuration and testing, will reduce downtimes in production to a minimum
- The easy-to-use operator interfaces are optimized to make it easier for the operator to oversee daily work more efficiently
- Ethernet communication and web API gives excellent connectivity and freedom to customize user’s HMI

➜ www.mysick.com/en/Inspector

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

K

Ordering information

Other models and accessories ➜ www.mysick.com/en/Inspector

Sub product family	Sensor resolution	Lens	Window material	Light source	Product name	Model name	Part no.
Inspector P-series	384 px x 384 px	6 mm, exchangeable (M12-mount)	PMMA	White	Inspector P30	VSPP-3F1122	1051982
Inspector I-series	384 px x 384 px	6 mm, exchangeable (M12-mount)	PMMA	White	Inspector I20	VSPI-2F111	1046732
	640 px x 480 px	10 mm, exchangeable (M12-mount)	PMMA	White	Inspector I40	VSPI-4F2111	1047913
				Infrared	Inspector I40-IR	VSPI-4F2411	1054705
		-	Glass	UV	Inspector I40-LUT	VSPI-4F2311	1050694
Inspector PI-series	640 px x 480 px	10 mm, exchangeable (M12-mount)	PMMA	White	Inspector PI50	VSPP-5F2113	1056082
				Infrared	Inspector PI50-IR	VSPP-5F2413	1057303
Inspector PIM-series	640 px x 480 px	10 mm, exchangeable (M12-mount)	PMMA	White	Inspector PIM60	VSPM-6F2113	1062407
			Glass	UV	Inspector PIM60-LUT	VSPM-6F2313	1062409
			PMMA	Infrared	Inspector PIM60-IR	VSPM-6F2413	1062408

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Recommended accessories

	Description	Model name	Part no.
Modules and gateways			
	I/O box extension with 2 ethernet ports enabling switch functionality, number of logical input: 4, output: 8	I/O box extension, 4 in/8 out	6037654
Lens and accessories			
	Replaces the front window and creates even and homogeneous illumination. For shiny surfaces.	Inspector Flex Dome	2050678
	Interchangeable lens, focal length 6 mm, Round connector M12 x 0.5	OBJ-B06025BA	2049668
	Interchangeable lens, focal length 16 mm, including distance ring, Round connector M12 x 0.5	OBJ-B16018BA	2049418
	Interchangeable lens, focal length 4.3 mm, including distance ring, Round connector M12 x 0.5	OBJ-B04320BA	2049491
	Interchangeable lens, focal length 10 mm, including distance ring, Round connector M12 x 0.5	OBJ-B10028BA	2049415
Optical filters			
	Color filter blue (468 nm ± 62 nm) for variants with exchangeable lens and front window, PMMA	Inspector Flex blue color filter	2050676
	Color filter green (544 nm ± 53 nm) for variants with exchangeable lens and front window, PMMA	Inspector Flex green color filter	2050677
	Color filter red (> 548 nm) for variants with exchangeable lens and front window, PMMA	Inspector Flex red color filter	2050675
	Visible block filter Glass (> 730 nm) for variants with exchangeable lens and front window,GLASS	Inspector Flex visible block filter	2071856
	Visible block filter (> 770 nm) for variants with exchangeable lens and front window, PMMA	Inspector Flex visible block filter	2073707*
Test and monitoring tools			
	Operator panel for the Inspector VSP family. The operator panel supports the display of images and results, switching between recipes, and the management of Inspector configurations. The Inspector Viewer has a 100 Mbit/s Ethernet interface and requires a 24 V DC voltage supply.	SIU2-L0011A002	2084701
Mounting systems			
	Mounting bracket Inspector, angled	BEF-WK-EPA	2045167*
	Bar bracket with clamp pieces, bar, and adapter plate Inspector, rotatable on two axes, Set includes accessories 2029022 and 2045400	Universal adapter for inspector	1048400
Other connectors and cable			
	Converter between Inspector and ICL illumination T-splitter to convert 12-pin to 8-pin, M12, 12-pin female, M12, 12-pin male, M12, 8-pin female	T-splitter for Inspector	6034950

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	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 12-pin, straight	Cable	PUR, shielded, cable ends blue/red, gray/ pink and red isolated separately	5 m, 12-wire	DOL-1212-G05MAS01	6036556*^
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	PUR, shielded, AWG26	2 m, 4-wire	SSL-2J04-G02ME	6034414*^
			PUR, shielded, AWG22	5 m, 4-wire	SSL-2J04-G05ME	6035389*
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	PUR, shielded, AWG22	3 m, 4-wire	SSL-2J04-G03ME	6029630*

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At a glance

- Color inspection on large fields of view
- Inspecting one color, minimum fill
- Plug & play teach wizard
- Reference capacity of eight colors
- Compact IP-67 rated housing with integrated display for configuration and monitoring
- Different variants for different fields of view and working distances

Your benefits

- The support for large fields of view ensures reliable color inspection even if your part varies in position
- The minimum fill tolerance ensures you that enough color fill is applied
- The integrated display provides an easy way to check that correct reference is selected for present line task
- The reference capacity of eight colors saves you component complexity and cost in multi-color batch lines
- The plug & play teach wizard makes it possible for any of your staff to create a successful teach-in

→ www.mysick.com/en/CVS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories → www.mysick.com/en/CVS

Working distance internal illumination	Resolution	Light source	Task	Digital outputs	Model name	Part no.
210 mm ... 270 mm	200 x 240 x 3 (RGB) pixels	White	Inspection	PNP	CVS1-P112	1028668
90 mm ... 150 mm					CVS1-P122	1028669
50 mm ... 100 mm					CVS1-P142	1028670



At a glance

- Suitable for advanced inspections and measurements
- Flexible working distance and field of view
- Stand-alone operation, no PC needed
- IP 65 rating
- Easy-to-use interface with more than 110 software tools
- Simple interfacing with PLCs, robots and control systems that support EtherNet/IP or OPC
- Available in three different resolutions from fast VGA (0.3 MP) to high-resolution UXGA (1.9 MP)

Your benefits

- The IVC-2D's flexibility ensures optimal setup for individual application needs
- The 1.9 MP resolution enables inspection of fine details with high repeatability
- IP 65 rating makes the system suitable for industrial environments
- Easy-to-use interface ensures fast application development, saving time and reducing costs
- The camera's OPC server and EtherNet/IP interface enable easy integration with PLCs, robots and control systems
- Stand-alone operation reduces installation complexity compared to PC-based vision
- A wide range of camera-controlled lighting makes it easy to create a complete solution

➜ www.mysick.com/en/IVC_2D

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories ➜ www.mysick.com/en/IVC_2D

Resolution	Function	Model name	Part no.
640 px x 480 px	-	IVC-2DM1111	1027190
640 px x 480 px	Code reading	IVC-2DM1112	1029135
1024 px x 768 px	-	IVC-2DM1121	1028407
1024 px x 768 px	Code reading	IVC-2DM1122	1029136
1600 px x 1200 px	-	IVC-2DM1131	1054511
1600 px x 1200 px	Code reading	IVC-2DM1132	1054512
640 px x 480 px	Basic	IVC-2DR1111	1040057

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Recommended accessories

	Description	Model name	Part no.
Lens and accessories			
	C-mount lens, 1:1.4, focal length 8 mm	OBJ-C00814A	5314041
Vision illuminations			
	LED Ring Light, Spot Diameter 150mm	ICL110-F142	1027286
Adapters/distributors			
	T-Junction Connector for IVC, Female connector M12, 8-pin to 2 x male connector M12, 8-pin, Parallel connected	SBO-02F12-SF	6026503

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	TPU, PVC, shielded	5 m, 8-wire	DOL-1208-G05MA	6020993*^
	Female connector, M12, 8-pin, straight	Male connector, M12, 8-pin, straight	TPU, PUR, halogen-free, shielded	1 m, 8-wire	DSL-1208-G01MC	6026625
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	RJ45: Marcromelt / M12: TPU, PUR, shielded, AWG22	3 m, 4-wire	SSL-2J04-G03ME	6029630*
	Male connector, M12, 8-pin, straight	Cable	Shielded	5 m, 8-wire	STL-1208-G05MA	6029331

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At a glance

- Easy 3D measurement – provides information about object height, shape and volume
- Independent of contrast and color
- Easy-to-use graphical user interface for fast application development
- Simple connection of PLCs, robots, and other control systems, e.g., via EtherNet/IP or OPC
- Scans up to 5,000 profiles per second
- Industrial, robust metal housing

Your benefits

- The IVC-3D makes advanced 3D shape inspections easy, enabling cost-efficient solutions
- Contrast-independent measurement provides greater reliability even at varying object color and when the object color is the same as the background
- Factory calibrated – instantly providing true metric dimensions at production speed
- The camera's OPC server and EtherNet/IP interface enables simple communication with PLCs, robots and control systems, making integration easy
- Stand-alone operation – no PC is needed after configuration

➜ www.mysick.com/en/IVC-3D

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories ➜ www.mysick.com/en/IVC-3D

- **Processor:** 800 MHz
- **Memory:** 128 MB RAM, 16 MB flash
- **Image sensor:** CMOS
- **Maximum performance:** 5,000 3D profiles/s

Sub product family	Housing material	Window material	Product name	Model name	Part no.
IVC-3D 30	Anodized aluminum	Safety glass	IVC-3D 30	IVC-3D31111	1041205
IVC-3D 50	Anodized aluminum	Safety glass	IVC-3D 50	IVC-3D21111	1027538
IVC-3D 100	Anodized aluminum	Safety glass	IVC-3D 100	IVC-3D51111	1043579
IVC-3D 200	Anodized aluminum	Safety glass	IVC-3D 200	IVC-3D11111	1027539
IVC-3D 300	Anodized aluminum	Safety glass	IVC-3D 300	IVC-3D41111	1041204

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Recommended accessories

	Description	Model name	Part no.
Modules and gateways			
	I/O box extension with 2 ethernet ports enabling switch functionality, number of logical input: 4, output: 8	I/O box extension, 4 in/8 out	6037654

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	TPU, PVC, unshielded	2 m, 5-wire	DOL-1205-G02M	6008899
				5 m, 5-wire	DOL-1205-G05M	6009868
	Female connector, M12, 8-pin, straight	Cable	TPU, PVC, shielded	2 m, 8-wire	DOL-1208-G02MA	6020633*
				5 m, 8-wire	DOL-1208-G05MA	6020993*^
	Male connector, M12, 4-pin, straight, D-coded	Male connector, RJ45, 8-pin, straight	RJ45: Marcromelt / M12: TPU, PUR, shielded, AWG22	3 m, 4-wire	SSL-2J04-G03ME	6029630*
	Male connector, M12, 8-pin, straight	Cable	Shielded	2 m, 8-wire	STL-1208-G02MA	6029330
				5 m, 8-wire	STL-1208-G05MA	6029331

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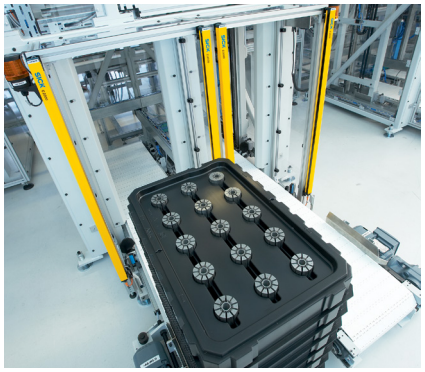
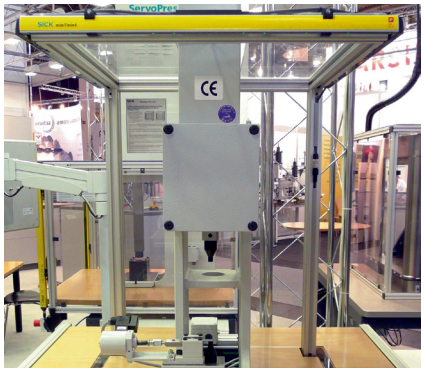
OPTO-ELECTRONIC PROTECTIVE DEVICES







Optical protection – remove the barrier to greater productivity

Opto-electronic protective devices from SICK are the first choice for maximum machine and system productivity. Unlike fences and doors, they do not disrupt handling or material transport and allow a better view into the machine room. SICK's comprehensive portfolio is ideal for hazardous point protection, access protection, and hazardous area protection. The SICK's proprietary interface, EFI, offers additional process optimization.

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Selection guide opto-electronic protective devices **L-354**



Safety laser scanners
microScan3 Core L-356
S300 Mini Standard L-357
S300 Mini Remote L-359
S300 . . . . . .L-361
S3000 . . . . . .L-363



Safety light curtains
deTec4 Core L-365
deTec4 Prime L-368
deTec4 Core Ex L-378
C4000 Advanced L-380
C4000 Advanced Ex L-383
C4000 Micro in IP69K Housing . .L-385
C4000 Palletizer in IP69K Housing L-388
miniTwin4 . . . . . .L-390



Safety camera systems
V200/V300 Work Station. L-392



Multiple light beam safety devices
M4000 Standard L-394
M4000 Advanced L-396
M4000 Standard IP69K Housing .L-399
M4000 Standard A/P IP69K L-400



Single-beam photoelectric safety switches
L41 . . . . . .L-401
WSU/WEU26-3 . . . . . .L-403

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SELECTION GUIDE OPTO-ELECTRONIC PROTECTIVE DEVICES

Product	Recommended safety application							Features							Ambient operating temperature							Scanning angle				
	Hazardous point protection with finger or hand detection	Hazardous point protection with hand and person detection	One-sided access protection Multi-sided access protection	Multi-access protection	Muting/differentiation between people and material	Mobile hazardous area protection	Stationary hazardous area protection	Type (IEC 61496)	Performance level (EN ISO 13849)	Enclosure rating IP 54	Enclosure rating IP 65	Enclosure rating IP 66	Enclosure rating IP 67	Enclosure rating IP 69K	–10 °C ... + 50 °C	–30 °C ... + 50 °C	0 °C ... + 50 °C	0 °C ... + 55 °C	–20 °C ... + 55 °C	–30 °C ... + 55 °C	–40 °C ... + 55 °C	180°	190°	270°	275°	
Safety laser scanners																										
	microScan3 Core			■		■	■	■	3	d		■				■										■	
	S300 Mini Standard			■		■	■	■	3	d		■				■									■		
	S300 Mini Remote			■		■	■	■	3	d		■				■									■		
	S300			■		■	■	■	3	d		■				■									■		
	S3000			■		■	■	■	3	d		■				■								■			
Safety light curtains																										
	deTec4 Core	■	■	■				■	4	e		■		■							■						
	deTec4 Prime	■	■	■				■	4	e				■													
	deTec4 Core Ex	■	■	■				■	4	e				■													
	C4000 Advanced	■	■	■				■	4	e		■							■								
	C4000 Advanced Ex	■	■	■				■	4	e		■							■								
	C4000 Micro in IP69K Housing	■	■	■				■	4	e					■		■										
	C4000 Palletizer in IP69K Housing	■	■	■				■	4	e					■			■									
	miniTwin4	■	■	■				■	4	e		■								■							
Safety camera systems																										
	V300 Work Station Extended	■						■	3	d	■							■									
Multiple light beam safety devices																										
	M4000 Standard			■	■				4	e		■									■						
	M4000 Advanced			■	■	■			4	e		■									■						
	M4000 Standard in IP69K Housing			■	■				4	e					■												
	M4000 Standard A/P in IP69K			■	■				4	e					■												
Single-beam photoelectric safety switches																										
	L41			■	■				4	e				■								■					
	WSU/WEU26-3			■	■				4	e				■						■							

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	Field sets					Resolution						Protective field height				Number of beams					Beam separation			Functions							Scanning range in m		Page
	1	4	8	16	21 / 32 (triple field mode / dual field mode)	14 mm	20 mm	24 mm	30 mm	34 mm	30 mm ... 150 mm, configurable	120 mm ... 1,200 mm	300 mm ... 1,800 mm	300 mm ... 2,100 mm	1,050 mm	1	2	3	4	5 ... 8	220 mm ... 600 mm	300 mm ... 400 mm	300 mm ... 450 mm	Safe device communication via EFI	Direct integration into bus systems	External device monitoring (EDM)	Restart interlock	Blanking	PSDI mode with UE402	Muting with UE 403	Minimum	Maximum	
			■								■															■	■				0	5.5	→ L-356
	■										■															■	■				0	3	→ L-357
				■							■													■							0	3	→ L-359
	■	■		■							■													■		■	■				0	3	→ L-361
	■	■		■	■						■													■		■	■				0	7	→ L-363
						■			■					■																		0	10	→ L-365
						■			■					■																		0	21	→ L-368
																															0	8	→ L-378
						■			■				■											■		■	■	■	■			0	19	→ L-380
									■																	■	■				0	16	→ L-383
						■			■																	■	■				0	14.5	→ L-385
									■						■											■	■				0.5	4.5	→ L-388
						■		■		■		■														■	■				0	5	→ L-390
							■	■	■																	■	■				0	1.5	→ L-392
																■	■	■	■	■						■	■				0.5	70	→ L-394
																■	■	■	■	■				■		■	■			■	0.5	70	→ L-396
																						■				■	■				0.5	53	→ L-399
																						■				■	■				0.5	4	→ L-400
																■															0	60	→ L-401
																■															0.5	70	→ L-403

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At a glance

- Innovative scanning technology safeHDDM™
- Protective field range: 5.5 m, scanning angle 275°
- Compact, rugged metal housing
- High reliability against dust and ambient light
- System plug M12, 8-pin, with configuration memory
- Intuitive configuration using the Safety Designer software
- Brilliant multicolor display

Your benefits

- safeHDDM™: Innovative scanning technology for an outstanding ratio between wide sensing range and compact design for simple integration in your machine
- Rugged design: Developed for harsh industrial day-to-day work, the microScan3 is resilient and increases productivity
- Smart connectivity: Low cabling costs due to standardized interfaces, fast device change due to configuration memory
- Intuitive operation: Simple commissioning with using Safety Designer software and diagnostic options via a display and pushbuttons

➜ www.mysick.com/en/microScan3_Core

For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.

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Ordering information

Other models ➜ www.mysick.com/en/microScan3_Core

Integration in the control system	Protective field range	Type	Part no.
I/O	4 m	MICS3-AAAZ40AZ1P01	1075842
	5.5 m	MICS3-AAAZ55AZ1P01	1075843

Accessories

	Description	Type	Part no.
Mounting brackets and mounting plates			
	1 piece, mounting bracket for rear mounting on wall or machine	Mounting kit 1a	2073851
	1 piece, mounting bracket for rear mounting on wall or machine with protection of optics hood	Mounting kit 1b	2074242
	1 piece, alignment bracket, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1a (2073851) or 1b (2074242)	Mounting kit 2a	2073852

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight, A-coded	Cable	TPU, PUR, halogen-free, unshielded	2 m, 8-wire	DOL-1208G02MD25KM1	2079314
				5 m, 8-wire	DOL-1208G05MD25KM1	2079315
				10 m, 8-wire	DOL-1208G10MD25KM1	2079316
	Male connector, USB-A, straight	Male connector, Mini-USB, straight	Shielded	3 m, 4-wire	Connection cable (male connector-male connector)	6042517

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At a glance

- Very compact design
- 2 m or 3 m protective field range
- 270° scan angle
- One field set (one protective field, two warning fields)
- Selectable resolution for hand, leg or body detection
- Contour as reference for vertical applications
- Integrated external device monitoring (EDM)
- Easy-to-configure fields and functions

Your benefits

- Simple integration due to ultracompact design
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Unbeatable cost-effectiveness – 270° scan angle allows complete application protection with only two scanners
- Safety engineering – with no loss of productivity
- Decades of proven safety technology guarantee maximum reliability and availability – even under difficult conditions
- Easy to manage, reducing costs and work time
- Reduction of downtime and brake wear thanks to triple field function
- Simple alignment and safe operation in vertical mode

→ **www.mysick.com/en/S300_Mini_Standard**

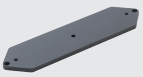
For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → **www.mysick.com/en/S300_Mini_Standard**

Protective field range	Model name	Part no.
1 m safety range, 1 triple field set comprising 1 safety & 2 warning fields	S32B-0011BA	1058000
2 m safety range, 1 triple field set comprising 1 safety & 2 warning fields	S32B-2011BA	1050932*
3 m safety range, 1 triple field set comprising 1 safety & 2 warning fields	S32B-3011BA	1056430*^

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	1 piece, Mounting bracket for rear mounting on wall or machine	Mounting kit 1a	2034324*
	1 piece, Mounting bracket for rear mounting on wall or machine with protection of optics hood	Mounting kit 1b	2034325*^
	1 piece, Mounting bracket, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)	Mounting kit 2	2039302
	1 piece, Mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)	Mounting kit 3	2039303

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	TPU, PUR, halogen-free, shielded	2.5 m, 7-wire	DOL-127SG2M5E25KM0	2076540
				5 m, 7-wire	DOL-127SG05ME25KM0	2076541*
				10 m, 7-wire	DOL-127SG10ME25KM0	2076543*^
				20 m, 7-wire	DOL-127SG20ME25KM0	2076545
	Female connector, M12, 8-pin, angled	Cable	TPU, PUR, halogen-free, shielded	5 m, 7-wire	DOL-127SW05ME25KM0	2076548
				10 m, 7-wire	DOL-127SW10ME25KM0	2076550
				15 m, 7-wire	DOL-127SW15ME25KM0	2076551
	Male connector, M8, 4-pin, straight	Male connector, USB-A, straight	PVC, unshielded	2 m, 4-wire	DSL-8U04G02M025KM1	6034574*^
				10 m, 4-wire	DSL-8U04G10M025KM1	6034575*
	M12, unshielded Note: For EFI connections and incremental encoders, EMC proof	-	-	Permitted cable diameter: 3 mm ... 6.5 mm	M12 gland	5308757

Safety relays

	Description	Model name	Part no.
Contact expansion module UE10-3OS			
	Safety Relay 3 N/O & 1 N/C Contacts	UE10-3OS3D0	6024918*^

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At a glance

- Can only be used in EFI system network, e.g., with a Flexi Soft safety controller or another safety laser scanner
- Very compact design
- 2 m or 3 m protective field range
- 270° scan angle
- Up to 16 switchable field sets (16 protective fields, 32 warning fields)
- Selectable resolution for hand, leg or body detection
- Extended system solutions in combination with Flexi Soft safety controller

Your benefits

- Simple integration due to ultracompact design
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Unbeatable cost-effectiveness – 270° scan angle allows complete application protection with only two scanners
- Variety of field sets guarantees safety and productivity when protecting vehicles or moving machine parts
- Easy modular expansions, simple cabling and additional functions using SICK safety controllers with EFI
- Decades of proven safety technology guarantee maximum reliability and availability – even under difficult conditions
- Simple alignment and safe operation in vertical mode

→ www.mysick.com/en/S300_Mini_Remote

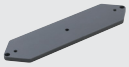
For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/S300_Mini_Remote

Protective field range	Model name	Part no.
2 m, 16 protective fields, 32 warning fields	S32B-2011EA	1051884
3 m, 16 protective fields, 32 warning fields	S32B-3011EA	1056431

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	1 piece, Mounting bracket for rear mounting on wall or machine	Mounting kit 1a	2034324*
	1 piece, Mounting bracket for rear mounting on wall or machine with protection of optics hood	Mounting kit 1b	2034325*^
	1 piece, Mounting bracket, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)	Mounting kit 2	2039302
	1 piece, Mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)	Mounting kit 3	2039303

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 7-pin, straight	Cable	SICK-coded, shielded Note: Extension cable S300 Mini Remote	5 m, 8-wire	DOL-1SS2G5M0E15KM3	6042338
				10 m, 8-wire	DOL-1SS2G10ME15KM3	6042340
				15 m, 8-wire	DOL-1SS2G20ME15KM3	6042342
	Male connector, M8, 4-pin, straight	Male connector, USB-A, straight	PVC, unshielded	2 m, 4-wire	DSL-8U04G02M025KM1	6034574*^

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At a glance

- Compact design
- 2 m or 3 m protective field range
- 270° scan angle
- One, four, eight or sixteen field sets each comprising one protective fields and two warning fields
- Configuration memory integrated in the system plug
- EFI interface for safe SICK device communication
- Selectable resolution for hand, leg or body detection
- Contour as reference for vertical applications

Your benefits

- Simple integration due to compact design
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Unbeatable cost-effectiveness - 270° scan angle allows complete application protection with only two scanners
- Safety engineering - with no loss of productivity
- Quick recommissioning via configuration memory
- Easy modular expansions, simple cabling and additional functions using SICK safety controllers with EFI
- Decades of proven safety technology guarantee maximum reliability and availability – even under difficult conditions
- Simple alignment and safe operation in vertical mode

→ www.mysick.com/en/S300

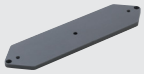
For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/S300

Model	Protective field range	Number of field sets [1]	Model name	Part no.
S300 Standard	3 m	1	S30B-3011BA	1056427
	2 m		S30B-2011BA	1026820*
S300 Advanced	3 m	4	S30B-3011CA	1056428
	2 m		S30B-2011CA	1026821
S300 Professional	3 m	8	S30B-3011DA	1056429
	2 m		S30B-2011DA	1026822*
S300 Expert	3 m	16	S30B-3011GB	1057641*
	2 m		S30B-2011GB	1050193

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	1 piece, Mounting bracket for rear mounting on wall or machine	Mounting kit 1a	2034324*
	1 piece, Mounting bracket for rear mounting on wall or machine with protection of optics hood	Mounting kit 1b	2034325*^
	1 piece, Mounting bracket, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)	Mounting kit 2	2039302
	1 piece, Mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)	Mounting kit 3	2039303

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Male connector, M8, 4-pin, straight	Male connector, USB-A, straight	PVC, unshielded	2 m, 4-wire	DSL-8U04G02M025KM1	6034574*^
				10 m, 4-wire	DSL-8U04G10M025KM1	6034575*

	Description	Cable length	Model name	Part no.
System plugs				
	System plug, without cable Note: Not for use of incremental encoders, integrated configuration storage Items supplied: With 1 x cable gland M16, 1 x blanking plug M16, 2 x blanking plug M12	-	SX0B-A0000G	2032807
	System plug, unshielded, PVC Note: Not for use of incremental encoders, integrated configuration storage Items supplied: With 1 x cable gland M16, 1 x blanking plug M16, 2 x blanking plug M12	5 m, 11-wire	SX0B-B1105G	2032859
		10 m, 11-wire	SX0B-B1110G	2032860
		10 m, 15-wire	SX0B-B1510G	2034265
	System plug, unshielded, PVC Note: For use of incremental encoders, integrated configuration storage Items supplied: With 1 x cable gland M16, 2 x cable gland M12, 1 x blanking plug M16, 6 x blanking plug M12	5 m, 11-wire	SX0B-B1105J	2032857
		5 m, 15-wire	SX0B-B1505G	2034264*
	M12, unshielded, IP 68 Note: For EFI connections and incremental encoders, EMC proof	Permitted cable diameter: 3 mm ... 6.5 mm	M12 gland	5308757

Safety relays

	Description	Model name	Part no.
Contact expansion module UE10-3OS			
	Safety Relay 3 N/O & 1 N/C Contacts	UE10-3OS3D0	6024918*^

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At a glance

- Modular design
- 4 m, 5.5 m or 7 m protective field range
- Up to 21 switchable field sets (21 protective fields, 42 warning fields)
- EFI interface for safe SICK device communication
- Selectable resolution for hand, leg or body detection
- Configuration memory integrated in the system plug
- Direct integration in PROFINET IO safe bus system

Your benefits

- Tailored solutions for your applications
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Largest protective field range available in the market increases the variety of application possibilities
- Variety of field sets ensures safety and productivity when protecting vehicles or moving machine parts
- Easily expandable modular system, simple cabling and additional functions using SICK safety controllers with EFI
- Quick recommissioning via configuration memory
- Decades of proven safety technology guarantee maximum reliability and availability – even under difficult conditions

→ www.mysick.com/en/S3000

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/S3000

- **System part:** sensor head

Protective field range	Model name	Part no.
4 m sensor head	S30A-4011	2034999*
5.5 m sensor head	S30A-6011	2022972*
7 m sensor head	S30A-7011	2026747*^

Recommended accessories

	Description	Model name	Part no.
I/O module			
	Standard I/O Module - 1 Protection & Warning Field	S30A-XXXXBA	2026801*
	Advance I/O Module - 4 Switchable Fields	S30A-XXXXCA	2026802^
	Professional I/O Module - 8 Switchable Fields, Static & Dynamic Field Switching	S30A-XXXXDA	2022827
	Remote I/O Module - Slave I/O module for AGV Application	S30A-XXXXEA	2026803
Mounting systems			
	Mounting bracket for direct mounting, from the rear, on wall or machine, not adjustable	Mounting Kit 1	2015623*
	Mounting bracket for rear mounting on wall or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623)	Mounting Kit 2	2015624*
	Mounting bracket for rear mounting on wall, floor, or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623) and 2 (2015624)	Mounting Kit 3	2015625*
	Mounting bracket, heavy design, with protective hood, for floor mounting, adjustable longitudinal and lateral axes via alignment plate, adjustable height	Heavy-duty mounting kit	2080350*

	Connection type head A	Connection type head B	Connector/ Jacket material	Cable length	Type	Part no.
Plug connectors and cables						
	Male connector, M8, 4-pin, straight	Male connector, USB-A, straight	PVC, unshielded	2 m, 4-wire	DSL-8U04G02M025KM1	6034574*^
				10 m, 4-wire	DSL-8U04G10M025KM1	6034575*
	M20, Note: For supply cables and signal cables For quick and easy shield connection, EMC proof	-	Unshielded	Permitted cable diameter: 10 mm ... 14 mm	Cable gland M20	5314774

	Description	Cable length	Type	Part no.
System plugs pre-assembled				
	For S3000 Standard and Remote	5 m, 9-wire	SX0A-B0905B	2027170*
	For S3000 Standard and Remote	10 m, 9-wire	SX0A-B0910B	2027171^
	For S3000 Advanced	5 m, 13-wire	SX0A-B1305B	2027172
	For S3000 Advanced	10 m, 13-wire	SX0A-B1310B	2027173
	For S3000 Professional and Expert (not for use with incremental encoders)	5 m, 17-wire	SX0A-B1705B	2027174
	For S3000 Professional and Expert (not for use with incremental encoders)	10 m, 17-wire	SX0A-B1710B	2027175

Safety relays

	Description	Model name	Part no.
Contact expansion module UE10-3OS			
	Safety Relay 3 N/O & 1 N/C Contacts	UE10-3OS3D0	6024918*^

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At a glance

- Type 4 (IEC 61496), SIL3 (IEC 61508), PL e (EN ISO 13849)
- Absence of blind zones
- Resolution of 14 mm or 30 mm
- Protective field height of 300 mm to 2.100 mm
- Automatic calibration on the protective field width up to 10 m range
- Ambient operating temperature of –30 °C to +55 °C
- Enclosure rating IP 65 and IP 67
- Flexi Loop-compatible M12 male connector

Your benefits

- Simple assembly with innovative mounting and no blind zones
- Quick commissioning thanks to integrated LED display and automatic calibration on the protective field width up to 10 m range
- Simply safe: rugged and reliable thanks to enclosure rating IP 67 and an ambient operating temperature down to –30 °C, enabling use in harsh ambient conditions
- Intelligently standardized: M12, 5-pin provide cost reductions and enables a safe series connection with Flexi Loop
- Basic function without configuration effort enables quick replacement when servicing is required

→ www.mysick.com/en/deTec4_Core

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/deTec4_Core

- **Resolution:** 14 mm
- **Scanning range:** 0 m ... 7 m
- 2 pieces, QuickFix bracket included with each sender & receiver

Protective field height	Sender		Receiver	
	Model name	Part no.	Model name	Part no.
300 mm	C4C-SA03010A10000	1211450*	C4C-EA03010A10000	1211463*
450 mm	C4C-SA04510A10000	1211469	C4C-EA04510A10000	1211470
600 mm	C4C-SA06010A10000	1211471^	C4C-EA06010A10000	1211472^
750 mm	C4C-SA07510A10000	1211473	C4C-EA07510A10000	1211474
900 mm	C4C-SA09010A10000	1211475*	C4C-EA09010A10000	1211515*
1,050 mm	C4C-SA10510A10000	1211476^	C4C-EA 10510A10000	1211477^
1,200 mm	C4C-SA12010A10000	1211478*^	C4C-EA12010A10000	1211479*^
1,350 mm	C4C-SA13510A10000	1211480	C4C-EA 13510A10000	1211481
1,500 mm	C4C-SA15010A10000	1211482	C4C-EA15010A10000	1211483
1,650 mm	C4C-SA16510A10000	1211484	C4C-EA 16510A10000	1211485
1,800 mm	C4C-SA18010A10000	1211486	C4C-EA18010A10000	1211487
1,950 mm	C4C-SA19510A10000	1211488	C4C-EA 19510A10000	1211489
2,100 mm	C4C-SA21010A10000	1211490	C4C-EA21010A10000	1211491

- **Resolution:** 30 mm
- **Scanning range:** 0 m ... 10 m
- 2 pieces, QuickFix bracket included with each sender & receiver

Protective field height	Sender		Receiver	
	Model name	Part no.	Model name	Part no.
300 mm	C4C-SA03030A10000	1211462*	C4C-EA03030A10000	1211464*
450 mm	C4C-SA04530A10000	1211492*	C4C-EA04530A10000	1211493*
600 mm	C4C-SA06030A10000	1211494*	C4C-EA06030A10000	1211495*
750 mm	C4C-SA07530A10000	1211496	C4C-EA07530A10000	1211497
900 mm	C4C-SA09030A10000	1211498*^	C4C-EA09030A10000	1211516*^
1,050 mm	C4C-SA10530A10000	1211499	C4C-EA 10530A10000	1211500
1,200 mm	C4C-SA12030A10000	1211501*	C4C-EA12030A10000	1211502*
1,350 mm	C4C-SA13530A10000	1211503	C4C-EA 13530A10000	1211504
1,500 mm	C4C-SA15030A10000	1211505*^	C4C-EA15030A10000	1211506*^
1,650 mm	C4C-SA16530A10000	1211507	C4C-EA 16530A10000	1211508
1,800 mm	C4C-SA18030A10000	1211509*	C4C-EA18030A10000	1211510*
1,950 mm	C4C-SA19530A10000	1211511	C4C-EA 19530A10000	1211512
2,100 mm	C4C-SA21030A10000	1211513	C4C-EA21030A10000	1211514

Recommended accessories

	Description	Model name	Part no.
Device protection (mechanical)			
	1 piece, self-adhesive protective film for the front screen (protects sensors from damage by flying sparks and welding beads)	Self-adhesive protective film	2069268
Other mounting accessories			
	1 piece, Alignment tool for deTec4 and deTec2 in areas with limited accessibility	Alignment tool	4084133*
Terminal and alignment brackets			
	2 pieces, FlexFix brackets including alignment tool and mounting material suitable for fastening to device columns, plastic	BEF-1SHABBKU2	2073543^
	4 pieces, Replacement bracket kit replaces swivel mount brackets 2019649 and 2019659 or side brackets 2019506 with FlexFix brackets by using the existing fixing holes, Aluminum (anodised), plastic	BEF-1SHABP004	2071021
	4 pieces, FlexFix bracket, plastic	BEF-1SHABPKU4	2066614*^
	2 pieces, QuickFix bracket, plastic	BEF-3SHABPKU2	2066048*
Terminal and aids			
	Laser alignment aid for various sensors, laser class 2 (IEC 60825). Please note: Do not look into the beam.	A R60	1015741
	Adapter AR60 for deTec4, deTec2 and MLG-2	AR60 adapter, deTec, MLG-2	4070854*^

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	Description	Model name	Part no.
Muting accessories			
	Including M12 male connector and connection cable (2 m), mounting bracket and mounting kit, Incandescent lamp	Indicator lamp	2033116[^]
	Inclusive male connector M12 and connection cable (10 m), mounting bracket and mounting kit, Incandescent lamp	Indicator lamp	2033117[*]
	Inclusive male connector M12 and connection cable (2 m), mounting bracket and mounting kit, LED	Muting indicator lamp	2033118
	Inclusive male connector M12 and connection cable (10 m), mounting bracket and mounting kit, LED	Muting indicator lamp	2033119

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	TPU/ PUR, halogen-free, unshielded	5 m, 5-wire	DOL-1205-G05MC	6025907[*^]
				10 m, 5-wire	DOL-1205-G10MC	6025908[*^]
				20 m, 5-wire	DOL-1205-G20MC	6050247[*^]
				30 m, 5-wire	DOL-1205-G30MC	6050248[*^]

Safety relays

	Description	Model name	Part no.
Main unit UE48-2OS			
	24V DC Interface for Std & NC Switches, E/S, Light Curtains 2 N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE48-2OS3D2	6024916[*^]

Mirror columns with protective field height mirror

	Suitable for protective field height	Mirror length	Column height	Model name	Part no.
	≤ 1,050 mm	1,082 mm	1,281.5 mm	PM3C13-00030000	1043453
	≤ 1,500 mm	1,532 mm	1,716.5 mm	PM3C17-00030000	1043454
	≤ 1,650 mm	1,682 mm	2,016.5 mm	PM3C19-00030000	1043455
	≤ 1,800 mm	1,832 mm	2,216.5 mm	PM3C20-00030000	1043456

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At a glance

- Type 4 (IEC 61496), SIL3 (IEC 61508), PL e (EN ISO 13849)
- Resolution: 14 mm, 30 mm; protective field height: 300 mm to 2,100 mm
- Ambient operating temperature: –30 °C to +55 °C; enclosure rating: IP 65, IP 67
- Option of cascading up to three deTec4 Prime safety light curtains, beam coding
- Restart interlock, external device monitoring, status output
- Scanning range up to 21 m, integrated laser alignment aid
- Flexi-Loop-ready

Your benefits

- Ideal for use in harsh environments
- Easy installation without blind zones thanks to universal brackets and interchangeable M12 system plugs
- Rapid status feedback due to comprehensive diagnosis: Alignment display, laser alignment aid, LED displays along the protective field
- Saves time as configuration does not require a computer: DIP switch in the system plug, and automatic measurement of protective field range
- Beam coding to protect against mutual interference if machines are located side by side
- Less space in the control cabinet: fewer safety inputs as a result of cascading up to three deTec4 Prime safety light curtains

➜ www.mysick.com/en/deTec4_Prime

For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.

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Ordering information

Other models ➜ www.mysick.com/en/deTec4_Prime

deTec4 Prime with system connection 5-pin without extension connection

- **Usage:** as a standalone system and as last system in a cascade
- **Resolution:** 14 mm
- **System connection:** male connector M12, 5-pin
- **Minimum sensing range:** 0.15 m ... 10 m
- **Typical range:** 0.15 m ... 16 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
300 mm	C4P-SA03010A001000	1215556	C4P-EA03010A001000	1215583
450 mm	C4P-SA04510A001000	1215651	C4P-EA04510A001000	1215652
600 mm	C4P-SA06010A001000	1215653	C4P-EA06010A001000	1215654
750 mm	C4P-SA07510A001000	1215655	C4P-EA07510A001000	1215656
900 mm	C4P-SA09010A001000	1215657	C4P-EA09010A001000	1215658
1,050 mm	C4P-SA10510A001000	1215659	C4P-EA10510A001000	1215660
1,200 mm	C4P-SA12010A001000	1215661	C4P-EA12010A001000	1215662
1,350 mm	C4P-SA13510A001000	1215663	C4P-EA13510A001000	1215664
1,500 mm	C4P-SA15010A001000	1215665	C4P-EA15010A001000	1215666
1,650 mm	C4P-SA16510A001000	1215667	C4P-EA16510A001000	1215668
1,800 mm	C4P-SA18010A001000	1215669	C4P-EA18010A001000	1215670
1,950 mm	C4P-SA19510A001000	1215671	C4P-EA19510A001000	1215672
2,100 mm	C4P-SA21010A001000	1215673	C4P-EA21010A001000	1215674

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- **Usage:** as a standalone system and as last system in a cascade
- **Resolution:** 30 mm
- **System connection:** male connector M12, 5-pin
- **Minimum sensing range:** 0.15 m ... 21 m
- **Typical range:** 0.15 m ... 24 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
300 mm	C4P-SA03030A001000	1215753	C4P-EA03030A001000	1215754
450 mm	C4P-SA04530A001000	1215755	C4P-EA04530A001000	1215756
600 mm	C4P-SA06030A001000	1215757	C4P-EA06030A001000	1215758
750 mm	C4P-SA07530A001000	1215759	C4P-EA07530A001000	1215760
900 mm	C4P-SA09030A001000	1215761	C4P-EA09030A001000	1215762
1,050 mm	C4P-SA10530A001000	1215763	C4P-EA10530A001000	1215764
1,200 mm	C4P-SA12030A001000	1215765	C4P-EA12030A001000	1215766
1,350 mm	C4P-SA13530A001000	1215767	C4P-EA13530A001000	1215768
1,500 mm	C4P-SA15030A001000	1215769	C4P-EA15030A001000	1215770
1,650 mm	C4P-SA16530A001000	1215771	C4P-EA16530A001000	1215772
1,800 mm	C4P-SA18030A001000	1215773	C4P-EA18030A001000	1215774
1,950 mm	C4P-SA19530A001000	1215775	C4P-EA19530A001000	1215776
2,100 mm	C4P-SA21030A001000	1215777	C4P-EA21030A001000	1215778

deTec4 Prime with system connection 5-pin and extension connection 5-pin

- **Usage:** as a standalone system and as first, middle or last system in a cascade
- **Resolution:** 14 mm
- **System connection:** male connector M12, 5-pin
- **Extension connection:** female connector M12, 5-pin
- **Minimum sensing range:** 0.15 m ... 10 m
- **Typical range:** 0.15 m ... 16 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
300 mm	C4P-SA03010A001100	1215675	C4P-EA03010A001100	1215676
450 mm	C4P-SA04510A001100	1215677	C4P-EA04510A001100	1215678
600 mm	C4P-SA06010A001100	1215679	C4P-EA06010A001100	1215680
750 mm	C4P-SA07510A001100	1215681	C4P-EA07510A001100	1215682
900 mm	C4P-SA09010A001100	1215683	C4P-EA09010A001100	1215684
1,050 mm	C4P-SA10510A001100	1215685	C4P-EA10510A001100	1215686
1,200 mm	C4P-SA12010A001100	1215687	C4P-EA12010A001100	1215688
1,350 mm	C4P-SA13510A001100	1215689	C4P-EA13510A001100	1215690
1,500 mm	C4P-SA15010A001100	1215691	C4P-EA15010A001100	1215692
1,650 mm	C4P-SA16510A001100	1215693	C4P-EA16510A001100	1215694
1,800 mm	C4P-SA18010A001100	1215695	C4P-EA18010A001100	1215696
1,950 mm	C4P-SA19510A001100	1215697	C4P-EA19510A001100	1215698
2,100 mm	C4P-SA21010A001100	1215699	C4P-EA21010A001100	1215700

- **Usage:** as a standalone system and as first, middle or last system in a cascade
- **Resolution:** 30 mm
- **System connection:** male connector M12, 5-pin
- **Extension connection:** female connector M12, 5-pin
- **Minimum sensing range:** 0.15 m ... 21 m
- **Typical range:** 0.15 m ... 24 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
300 mm	C4P-SA03030A001100	1215779	C4P-EA03030A001100	1215780
450 mm	C4P-SA04530A001100	1215781	C4P-EA04530A001100	1215782
600 mm	C4P-SA06030A001100	1215783	C4P-EA06030A001100	1215784
750 mm	C4P-SA07530A001100	1215785	C4P-EA07530A001100	1215786
900 mm	C4P-SA09030A001100	1215787	C4P-EA09030A001100	1215788
1,050 mm	C4P-SA10530A001100	1215789	C4P-EA10530A001100	1215790
1,200 mm	C4P-SA12030A001100	1215791	C4P-EA12030A001100	1215792
1,350 mm	C4P-SA13530A001100	1215793	C4P-EA13530A001100	1215794
1,500 mm	C4P-SA15030A001100	1215795	C4P-EA15030A001100	1215796
1,650 mm	C4P-SA16530A001100	1215797	C4P-EA16530A001100	1215798
1,800 mm	C4P-SA18030A001100	1215799	C4P-EA18030A001100	1215800
1,950 mm	C4P-SA19530A001100	1215801	C4P-EA19530A001100	1215802
2,100 mm	C4P-SA21030A001100	1215803	C4P-EA21030A001100	1215804

deTec4 Prime with system connection 8-pin without extension connection

- **Usage:** as a standalone system
- **Resolution:** 14 mm
- **System connection:** male connector M12, 8-pin
- **Minimum sensing range:** 0.15 m ... 10 m
- **Typical range:** 0.15 m ... 16 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
300 mm	C4P-SA03010A001200	1215701	C4P-EA03010A001200	1215702
450 mm	C4P-SA04510A001200	1215703	C4P-EA04510A001200	1215704
600 mm	C4P-SA06010A001200	1215705	C4P-EA06010A001200	1215706
750 mm	C4P-SA07510A001200	1215707	C4P-EA07510A001200	1215708
900 mm	C4P-SA09010A001200	1215709	C4P-EA09010A001200	1215710
1,050 mm	C4P-SA10510A001200	1215711	C4P-EA10510A001200	1215712
1,200 mm	C4P-SA12010A001200	1215713	C4P-EA12010A001200	1215714
1,350 mm	C4P-SA13510A001200	1215715	C4P-EA13510A001200	1215716
1,500 mm	C4P-SA15010A001200	1215717	C4P-EA15010A001200	1215718
1,650 mm	C4P-SA16510A001200	1215719	C4P-EA16510A001200	1215720
1,800 mm	C4P-SA18010A001200	1215721	C4P-EA18010A001200	1215722
1,950 mm	C4P-SA19510A001200	1215723	C4P-EA19510A001200	1215724
2,100 mm	C4P-SA21010A001200	1215725	C4P-EA21010A001200	1215726

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- **Usage:** as a standalone system
- **Resolution:** 30 mm
- **System connection:** male connector M12, 8-pin
- **Minimum sensing range:** 0.15 m ... 21 m
- **Typical range:** 0.15 m ... 24 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
300 mm	C4P-SA03030A001200	1215805	C4P-EA03030A001200	1215806
450 mm	C4P-SA04530A001200	1215807	C4P-EA04530A001200	1215808
600 mm	C4P-SA06030A001200	1215809	C4P-EA06030A001200	1215810
750 mm	C4P-SA07530A001200	1215811	C4P-EA07530A001200	1215812
900 mm	C4P-SA09030A001200	1215813	C4P-EA09030A001200	1215814
1,050 mm	C4P-SA10530A001200	1215815	C4P-EA10530A001200	1215816
1,200 mm	C4P-SA12030A001200	1215817	C4P-EA12030A001200	1215818
1,350 mm	C4P-SA13530A001200	1215819	C4P-EA13530A001200	1215820
1,500 mm	C4P-SA15030A001200	1215821	C4P-EA15030A001200	1215822
1,650 mm	C4P-SA16530A001200	1215823	C4P-EA16530A001200	1215824
1,800 mm	C4P-SA18030A001200	1215825	C4P-EA18030A001200	1215826
1,950 mm	C4P-SA19530A001200	1215827	C4P-EA19530A001200	1215828
2,100 mm	C4P-SA21030A001200	1215829	C4P-EA21030A001200	1215830

deTec4 Prime with system connection 8-pin and extension connection 5-pin

- **Usage:** as a standalone system and as first system in a cascade
- **Resolution:** 14 mm
- **System connection:** male connector M12, 8-pin
- **Extension connection:** female connector M12, 5-pin
- **Minimum sensing range:** 0.15 m ... 10 m
- **Typical range:** 0.15 m ... 16 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
300 mm	C4P-SA03010A001300	1215727	C4P-EA03010A001300	1215728
450 mm	C4P-SA04510A001300	1215729	C4P-EA04510A001300	1215730
600 mm	C4P-SA06010A001300	1215731	C4P-EA06010A001300	1215732
750 mm	C4P-SA07510A001300	1215733	C4P-EA07510A001300	1215734
900 mm	C4P-SA09010A001300	1215735	C4P-EA09010A001300	1215736
1,050 mm	C4P-SA10510A001300	1215737	C4P-EA10510A001300	1215738
1,200 mm	C4P-SA12010A001300	1215739	C4P-EA12010A001300	1215740
1,350 mm	C4P-SA13510A001300	1215741	C4P-EA13510A001300	1215742
1,500 mm	C4P-SA15010A001300	1215743	C4P-EA15010A001300	1215744
1,650 mm	C4P-SA16510A001300	1215745	C4P-EA16510A001300	1215746
1,800 mm	C4P-SA18010A001300	1215747	C4P-EA18010A001300	1215748
1,950 mm	C4P-SA19510A001300	1215749	C4P-EA19510A001300	1215750
2,100 mm	C4P-SA21010A001300	1215751	C4P-EA21010A001300	1215752

- **Usage:** as a standalone system and as first system in a cascade
- **Resolution:** 30 mm
- **System connection:** male connector M12, 8-pin
- **Extension connection:** female connector M12, 5-pin
- **Minimum sensing range:** 0.15 m ... 21 m
- **Typical range:** 0.15 m ... 24 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
300 mm	C4P-SA03030A001300	1215831	C4P-EA03030A001300	1215832
450 mm	C4P-SA04530A001300	1215833	C4P-EA04530A001300	1215834
600 mm	C4P-SA06030A001300	1215835	C4P-EA06030A001300	1215836
750 mm	C4P-SA07530A001300	1215837	C4P-EA07530A001300	1215838
900 mm	C4P-SA09030A001300	1215839	C4P-EA09030A001300	1215840
1,050 mm	C4P-SA10530A001300	1215841	C4P-EA10530A001300	1215842
1,200 mm	C4P-SA12030A001300	1215843	C4P-EA12030A001300	1215844
1,350 mm	C4P-SA13530A001300	1215845	C4P-EA13530A001300	1215846
1,500 mm	C4P-SA15030A001300	1215847	C4P-EA15030A001300	1215848
1,650 mm	C4P-SA16530A001300	1215849	C4P-EA16530A001300	1215850
1,800 mm	C4P-SA18030A001300	1215851	C4P-EA18030A001300	1215852
1,950 mm	C4P-SA19530A001300	1215853	C4P-EA19530A001300	1215854
2,100 mm	C4P-SA21030A001300	1215855	C4P-EA21030A001300	1215856

Interfaces

System connection 5-pin

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	Without extension connection	With extension connection
System connection		
Connection type	Male connector M12, 5-pin	
Flexi Loop-compatible M12 plug connector	✔	
Sender-receiver communication (COM1)	✔ [1]	
Reset pushbutton input (RES)	-	
External device monitoring input (EDM)	-	
Application diagnostic output (ADO)	-	
Permitted cable length	Receiver power supply: ≤ 15 m [2] All additional conductors at the system connection: ≤ 37.5 m	
Extension connection		
Connection type	-	Female connector M12, 5-pin
Reset pushbutton input (RES)	-	✔ [3]
External device monitoring input (EDM)	-	✔ [3]
Application diagnostic output (ADO)	-	✔ [3]
Permitted cable length	-	≤ 10 m

[1] Optional: To indicate the status on both sides, the COM1 connections from the sender and receiver must be connected to each other in the control cabinet.
[2] If no inductive OSSD loads (e.g., contactors) are in use, the power supply cable for the receiver of a single device (no cascade) can be up to 30 m in length.
[3] Single device of last guest (receiver only)

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System connection 8-pin

	Without extension connection	With extension connection
System connection		
Connection type	Male connector M12, 8-pin	
Flexi Loop-compatible M12 plug connector	-	
Sender-receiver communication (COM1)	✔ [1]	
Reset pushbutton input (RES)	✔ [2]	
External device monitoring input (EDM)	✔ [2]	
Application diagnostic output (ADO)	✔ [2]	
Permitted cable length	Receiver power supply: ≤ 15 m [2] All additional conductors at the system connection: ≤ 37.5 m	
Extension connection		
Connection type	-	Female connector M12, 5-pin
Reset pushbutton input (RES)	-	✔ [4]
External device monitoring input (EDM)	-	✔ [4]
Application diagnostic output (ADO)	-	✔ [4]
Permitted cable length	-	≤ 10 m

[1] Optional: To indicate the status on both sides, the COM1 connections from the sender and receiver must be connected to each other in the control cabinet.
[2] Only on the receiver.
[3] If no inductive OSSD loads (e.g., contactors) are in use, the power supply cable for the receiver of a single device (no cascade) can be up to 30 m in length.
[4] Single device of last guest (receiver only)

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Recommended accessories

	Description	Type	Part no.
Device protection (mechanical)			
	1 piece, self-adhesive protective film for the front screen (protects sensors from damage by flying sparks and welding beads)	Self-adhesive protective film	2069268
Other mounting accessories			
	1 piece, Alignment tool for deTec4 and deTec2 in areas with limited accessibility	Alignment tool	4084133*
Terminal and alignment brackets			
	2 pieces, FlexFix brackets including alignment tool and mounting material suitable for fastening to device columns, plastic	BEF-1SHABBKU2	2073543^
	4 pieces, Replacement bracket kit replaces swivel mount brackets 2019649 and 2019659 or side brackets 2019506 with FlexFix brackets by using the existing fixing holes, Aluminum (anodised), plastic	BEF-1SHABP004	2071021
	4 pieces, FlexFix bracket, plastic	BEF-1SHABPKU4	2066614*^
	2 pieces, QuickFix bracket, plastic	BEF-3SHABPKU2	2066048*

	Enclosure rating	Input voltage	Output voltage	Output current	Type	Part no.
Power supply units and power cord connectors						
	IP 20	100 V AC ... 240 V AC	24 V DC	≤ 2.1 A	PS50WE24V	7028789
				≤ 3.9 A	PS95WE24V	7028790

	Connection type head A	Connection type head B	Signal type	Description	Type	Part no.
Adapters and distributors						
	Female connector, M12, 5-pin	Male connector, M12	CANopen	T-distributor for simultaneous connection to sender and receiver, splits the cable from the control cabinet between the sender and receiver	DSC-1205T000025KM0	6030664
	Female connector, M12, 8-pin	Male connector, M12, 8-pin	-		DSC-1208T000025KM0	6058647

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	2 m, 5-wire	DOL-1205-G02MC	6025906*^
				5 m, 5-wire	DOL-1205-G05MC	6025907*^
				10 m, 5-wire	DOL-1205-G10MC	6025908*^
				15 m, 5-wire	DOL-1205-G15MC	6051946*
				20 m, 5-wire	DOL-1205-G20MC	6050247*^
				30 m, 5-wire	DOL-1205-G30MC	6050248*^
	Female connector, M12, 5-pin, angled	Cable	TPU, PUR, halogen-free, unshielded	2 m, 5-wire	DOL-1205-W02MC	6025909*
				5 m, 5-wire	DOL-1205-W05MC	6025910*
				10 m, 5-wire	DOL-1205-W10MC	6025911*

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	Connection type head A	Connection type head B	Connector/ Jacket material	Cable length	Type	Part no.
	Female connector, M12, 8-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	2.5 m, 8-wire	DOL-1208-G2M5C	6058863
				5 m, 8-wire	DOL-1208-G05MC	6035621
				7.5 m, 8-wire	DOL-1208-G7M5C	6058864
				10 m, 8-wire	DOL-1208-G10MC	6035622
				15 m, 8-wire	DOL-1208-G15MC	6038559
				20 m, 8-wire	DOL-1208-G20MC	6038560
				30 m, 8-wire	DOL-1208-G30MC	6058865
	Female connector, M12, 8-pin, angled	Cable	PUR, unshielded	2 m, 8-wire	DOL-1208-W02MC	6035623
				5 m, 8-wire	DOL-1208-W05MC	6035624
				10 m, 8-wire	DOL-1208-W10MC	6035625
	Female connector, M12, 5-pin, straight, A-coded	Male connector, M12, 5-pin, straight, A-coded	TPU, PUR, halogen-free, unshielded	0.6 m, 5-wire	DSL-1205-G0M6C	6025930*^
				1 m, 5-wire	DSL-1205-G01MC	6029280*^
				2 m, 5-wire	DSL-1205-G02MC	6025931*^
				5 m, 5-wire	DSL-1205-G05MC	6029282*
				10 m, 5-wire	DSL-1205-G10MC	6038954*^
				15 m, 5-wire	DSL-1205-G15MC	6038956
	Female connector, M12, 8-pin, straight	Male connector, M12, 8-pin, straight	TPU, PUR, halogen-free, unshielded	0.6 m, 8-wire	DSL-1208-G0M6C	6044991*^
				1 m, 8-wire	DSL-1208-G01MC	6051940^
				2 m, 8-wire	DSL-1208-G02MC	6051942^
				5 m, 8-wire	DSL-1208-G05MC	6051943^
				10 m, 8-wire	DSL-1208-G10MC	6051944
	Female connector, M12, 5-pin, straight	Male connector, M12, 8-pin, straight	Female: TPU Male: PBT, PVC, unshielded	0.25 m, 5-wire	DSL-1285GM25034KM1	2070987*
	Female connector, M12, 8-pin, straight	Male connector, M26, 12-pin, straight	Female: TPU Male: PET, PUR, halogen-free, unshielded	0.25 m	DSL-6129GM25034KM1	2081442*
		Male connector, M26, 7-pin, straight		0.25 m	DSL-6130GM25034KM1	2081443*
	Female connector, M12, 5-pin, straight	Male connector, M26, 12-pin, straight	PVC, unshielded	0.25 m	DSL-6182GM25034KM1	2070989*
		Male connector, M26, 7-pin, straight		0.25 m	DSL-6187GM25034KM1	2070988*
	Male connector, M12, 5-pin, straight	-	-	-	1000	2076832*
	Male connector, female connector, M12, M12, 5-pin, 5-pin, straight, straight	-	-	-	1100	2076833*
	Male connector, M12, 8-pin, straight	-	-	-	1200	2076834*
	Male connector, female connector, M12, M12, 8-pin, 5-pin, straight, straight	-	-	-	1300	2076835*

	Description	Mirror material	Scanning range from ... to	Suitable for protective field height	Type	Part no.
Deflector mirrors						
	Horizontal deflection Items supplied: mounting kit swivel mount	Glass	4 m ... 15 m	150 mm ... 300 mm	PNS125-034	1019425
				150 mm ... 450 mm	PNS125-049	1019426
				150 mm ... 600 mm	PNS125-064	1019427
				150 mm ... 750 mm	PNS125-079	1019428
				150 mm ... 900 mm	PNS125-094	1019429
				150 mm ... 1,050 mm	PNS125-109	1019430
				150 mm ... 1,200 mm	PNS125-124	1019431
				150 mm ... 1,350 mm	PNS125-139	1019432
				150 mm ... 1,500 mm	PNS125-154	1019433
				150 mm ... 1,650 mm	PNS125-169	1019434
				150 mm ... 1,800 mm	PNS125-184	1019435
	Horizontal deflection Items supplied: mounting kit swivel mount	Glass	0 m ... 4 m	150 mm ... 300 mm	PNS75-034	1019414
				150 mm ... 450 mm	PNS75-049	1019415
				150 mm ... 600 mm	PNS75-064	1019416
				150 mm ... 750 mm	PNS75-079	1019417
				150 mm ... 900 mm	PNS75-094	1019418
				150 mm ... 1,050 mm	PNS75-109	1019419
				150 mm ... 1,200 mm	PNS75-124	1019420
				150 mm ... 1,350 mm	PNS75-139	1019421
				150 mm ... 1,500 mm	PNS75-154	1019422
				150 mm ... 1,650 mm	PNS75-169	1019423
				150 mm ... 1,800 mm	PNS75-184	1019424

	Description	Type	Part no.
Optics cloths			
	Cloth for cleaning the front screen	Lens cloth	4003353*

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Programming and configuration tools			
	The 5-pin M12 button makes it possible to switch on and off the laser alignment aid integrated into the deTec4 Prime sender.	5-pin M12 button	2082166*
	The 8-pin M12 button makes it possible to switch on and off the laser alignment aid integrated into the deTec4 Prime sender.	8-pin M12 button	2082167*
Test and monitoring tools			
	Test rod holder	BEF-3WNAAAAL1	2052249
	14 mm diameter	Test rod 14 mm	2022599
	30 mm diameter	Test rod 30 mm	2022602
Safety command devices			
	Illuminated reset pushbutton, slim plastic housing with quick disconnect mounting clip, 1 NO, 5-pin M12 plug connector. Including retaining clip, “RESET” cover and “RESET/OVERRIDE” cover	ER12-SB3C5	6045316
Muting accessories			
	Including M12 male connector and connection cable (2 m), mounting bracket and mounting kit, Incandescent lamp	Indicator lamp	2033116^
	Inclusive male connector M12 and connection cable (10 m), mounting bracket and mounting kit, Incandescent lamp	Indicator lamp	2033117*
	Inclusive male connector M12 and connection cable (2 m), mounting bracket and mounting kit, LED	Muting indicator lamp	2033118
	Inclusive male connector M12 and connection cable (10 m), mounting bracket and mounting kit, LED	Muting indicator lamp	2033119

Device columns with two external mounting grooves

	Suitable for protective field height	Max. installation length	Column height	Model name	Part no.
	≤ 900 mm	965 mm	985 mm	PU3H96-00000000	2045490
	≤ 1,050 mm	1,165 mm	1,185 mm	PU3H11-00000000	2045641
	≤ 1,200 mm	1,265 mm	1,285 mm	PU3H13-00000000	2045642
	≤ 1,500 mm	1,550 mm	1,570 mm	PU3H15-00000000	2068813*
	≤ 1,650 mm	1,720 mm	1,740 mm	PU3H17-00000000	2045643
	≤ 1,950 mm	2,020 mm	2,040 mm	PU3H21-00000000	2045644
	≤ 2,100 mm	2,250 mm	2,270 mm	PU3H22-00000000	2045645
	≤ 2,100 mm	2,400 mm	2,420 mm	PU3H24-00000000	2045646

Mirror columns with protective field height mirror

	Suitable for protective field height	Mirror length	Column height	Model name	Part no.
	≤ 1,050 mm	1,082 mm	1,281.5 mm	PM3C13-00030000	1043453
	≤ 1,350 mm	1,382 mm	1,569 mm	PM3C15-00030000	1077525*
	≤ 1,500 mm	1,532 mm	1,716.5 mm	PM3C17-00030000	1043454
	≤ 1,650 mm	1,682 mm	2,016.5 mm	PM3C19-00030000	1043455
	≤ 1,800 mm	1,832 mm	2,216.5 mm	PM3C20-00030000	1043456



At a glance

- ATEX for gas: II 2 G Ex d IIB T6 Gb
- ATEX for dust: II 2 D Ex tb IIIC T56°C Db
- NFPA 70/NEC 500 Class I, Div. 1, Groups C and D
- NFPA 70/NEC 500 Class II, Div. 1, Groups E, F and G
- NFPA 70/NEC 500 Class III, Div. 1
- Available in protective field heights of 600 mm, 900 mm, 1,200 mm and 1,500 mm
- Resolution of 30 mm
- Scanning range of 8 m

Your benefits

- Compatibility with numerous SICK safety light curtains means high flexibility in application solutions
- Durable housing
- Easy installation and alignment with the special mounting system
- Quick commissioning of the premounted system consisting of light curtain and housing
- Short downtimes thanks to resistance to water and dust based on IP66 enclosure rating
- Easily visible LED status indicators for rapid fault diagnosis
- The entire safety solution is available for delivery and benefits from support all over the world

→ www.mysick.com/en/deTec4_Core_Ex

For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.

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Ordering information

Other models → www.mysick.com/en/deTec4_Core_Ex

- **Resolution:** 30 mm
- **Minimum scanning range:** 0 m ... 8 m
- **Typical scanning range:** 0 m ... 10 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
600 mm	EXS-06D6203B020	1068407	EXE-06D6203B020	1068406
900 mm	EXS-09D6403B020	1068410	EXE-09D6403B020	1068409
1,200 mm	EXS-12D6603B020	1068413	EXE-12D6603B020	1068412
1,500 mm	EXS-12D6803B020	1068416	EXE-12D6803B020	1068415

Recommended accessories

	Description	Type	Part no.
Terminal and alignment brackets			
	2 pieces, alignment bracket for explosion-proof enclosure	BEF-1SHABRST2	2072525
Alignment aids			
	Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!	AR60	1015741
	Adapter AR60 for explosion-proof enclosure	AR60 adapter, Ex	2074849
Test and monitoring tools			
	Test rod holder	BEF-3WNAAAAL1	2052249

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	Description	Type	Part no.
	30 mm diameter	Test rod 30 mm	2022602

	Enclosure rating	Input voltage	Output voltage	Output current	Type	Part no.
Power supply units and power cord connectors						
	IP 20	100 V AC ... 240 V AC	24 V DC	≤ 2.1 A	PS50WE24V	7028789
				≤ 3.9 A	PS95WE24V	7028790

	Connection type head A	Connection type head B	Signal type	Description	Type	Part no.
Adapters and distributors						
	Female connector, M12, 5-pin	Male connector, M12	CANopen	T-distributor for simultaneous connection to sender and receiver, splits the cable from the control cabinet between the sender and receiver	DSC-1205T000025KM0	6030664

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	2 m, 5-wire	DOL-1205-G02MC	6025906*^
				5 m, 5-wire	DOL-1205-G05MC	6025907*^
				10 m, 5-wire	DOL-1205-G10MC	6025908*^
				15 m, 5-wire	DOL-1205-G15MC	6051946*
				20 m, 5-wire	DOL-1205-G20MC	6050247*^
				30 m, 5-wire	DOL-1205-G30MC	6050248*^
	Female connector, M12, 5-pin, angled	Cable	TPU, PUR, halogen-free, unshielded	2 m, 5-wire	DOL-1205-W02MC	6025909*
				5 m, 5-wire	DOL-1205-W05MC	6025910*
				10 m, 5-wire	DOL-1205-W10MC	6025911*
	Female connector, M12, 5-pin, straight	Male connector, M12, 8-pin, straight	Female: TPU Male: PBT, PVC, unshielded	0.25 m, 5-wire	DSL-1285GM-25034KM1	2070987*
	Female connector, M12, 5-pin, straight	Male connector, M26, 12-pin, straight	PVC, unshielded	0.25 m	DSL-6182GM-25034KM1	2070989*
		Male connector, M26, 7-pin, straight		0.25 m	DSL-6187GM-25034KM1	2070988*
	-	-	-	-	Cable gland	5329001

	Description	Mirror material	Scanning range from ... to	Suitable for protective field height	Type	Part no.
Deflector mirrors						
	Horizontal deflection Items supplied: mounting kit swivel mount	Glass	4 m ... 15 m	150 mm ... 600 mm	PNS125-064	1019427
				150 mm ... 900 mm	PNS125-094	1019429
				150 mm ... 1,200 mm	PNS125-124	1019431
				150 mm ... 1,500 mm	PNS125-154	1019433
	Horizontal deflection Items supplied: mounting kit swivel mount	Glass	0 m ... 4 m	150 mm ... 600 mm	PNS75-064	1019416
				150 mm ... 900 mm	PNS75-094	1019418
				150 mm ... 1,200 mm	PNS75-124	1019420
				150 mm ... 1,500 mm	PNS75-154	1019422



At a glance

- Type 4 (IEC 61496), SIL3 (IEC 61508), PL e (EN ISO 13849)
- Various options for blanking objects: fixed, floating, or teach-in
- 7-segment display
- PSDI mode with the UE402 switching amplifier
- External device monitoring (EDM) and restart interlock (RES)
- Beam coding for correct system allocation
- Configuration and diagnostics via PC
- Cascade up to three systems

Your benefits

- Blanking functions enable reliable and safe object detection and increase the productivity in the process
- 7-segment display saves time during alignment and diagnostics
- Beam coding protects the systems against optical interference by ensuring a high level of availability
- Clone plug enables easy and rapid commissioning, saving time and costs
- Ability to cascade up to three systems optimizes the safety application and reduces wiring costs
- Precise, convenient configuration and diagnostics reduce downtime

➜ www.mysick.com/en/C4000_Advanced

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories ➜ www.mysick.com/en/C4000_Advanced

Standalone device

- **Resolution:** 14 mm
- **Scanning range:** 0 m ... 8 m

Protective field height	Sender		Receiver	
	Model name	Part no.	Model name	Part no.
300 mm	C40S-0301CA010	1018591	C40E-0301CB010	1018781
450 mm	C40S-0401CA010	1018347	C40E-0401CB010	1018782
600 mm	C40S-0601CA010	1018593^	C40E-0601CB010	1018783^
750 mm	C40S-0701CA010	1018595	C40E-0701CB010	1018784
900 mm	C40S-0901CA010	1018597	C40E-0901CB010	1018785
1,200 mm	C40S-1201CA010	1018601	C40E-1201CB010	1018787
1,500 mm	C40S-1501CA010	1018605	C40E-1501CB010	1018789
1,800 mm	C40S-1801CA010	1018609	C40E-1801CB010	1018791

Note: 150mm incremental protective field heights available from 300mm to 1800mm

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- **Resolution:** 30 mm
- **Scanning range:** 0 m ... 19 m

Protective field height	Sender		Receiver	
	Model name	Part no.	Model name	Part no.
300 mm	C40S-0303CA010	1018635	C40E-0303CB010	1018803
450 mm	C40S-0403CA010	1018637	C40E-0403CB010	1018804
600 mm	C40S-0603CA010	1018639*	C40E-0603CB010	1018805*
750 mm	C40S-0703CA010	1018641	C40E-0703CB010	1018806
900 mm	C40S-0903CA010	1018643	C40E-0903CB010	1018807
1,200 mm	C40S-1203CA010	1018647*	C40E-1203CB010	1018810
1,500 mm	C40S-1503CA010	1018651	C40E-1503CB010	1018812
1,800 mm	C40S-1803CA010	1018655	C40E-1803CB010	1018814

Note: 150mm incremental protective field heights available from 300mm to 1800mm

UE402 switching amplifier

	Description	Model name	Part no.
	Expands C4000 Standard, Advanced, Palletizer, Entry/Exit and Fusion with the functions described in the technical data, e.g., bypass, operating mode switching or in addition PSDI mode on C4000 Standard, Advanced.	UE402	1023577

Recommended accessories

	Material	Description	Model name	Part no.
Terminal and alignment brackets				
	Zinc diecast	4 pieces, Mounting kit 6, side bracket, rotatable	BEF-1SHABAZN4	2019506*
	Polyamide PA6	4 pieces, Mounting kit 2, rotatable, swivel mount	BEF-2SMMEAKU4	2019659*^
	-	4 pieces, Mounting kit 3, rotatable, with shock-absorber	BEF-1SHADAAL4	2017752
	-	4 pieces, Mounting kit C4000 Guest, swivel mount	BEF-WNAEEST4	2034959

	Description	Model name	Part no.
Alignment aids			
	Laser alignment aid for various sensors, laser class 2 (IEC 60825): Never look into the beam. Scanning range from ... to: ≤ 60 m	AR60	1015741
	Adapter for alignment aid AR60	Adapter for AR60, for large housing profile	4032461*^
Programming and configuration tools			
	Clone Plug for storing and transferring configurations , IP41 , with lithium button cell CR2032 3.0V	PLUG1-0C00100	1029665

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	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M26, 12-pin, straight	Cable	PET, PVC, unshielded	5 m, 12-wire	DOL-0612G05M075KM0	2022545*^
				10 m, 12-wire	DOL-0612G10M075KM0	2022547*
				15 m, 12-wire	DOL-0612G15M075KM0	2022548*
				20 m, 12-wire	DOL-0612G20M075KM0	2022549*
	Female connector, M26, 12-pin, straight	Male connector, M26, 12-pin, straight	PVC, unshielded	0.5 m, 12-wire	DSL-0612G0M5075KM0	2021838
				1 m, 12-wire	DSL-0612G01M075KM0	2022279
				2.5 m, 12-wire	DSL-0612G2M5075KM0	2022282
	Male connector, M8, 4-pin, straight	Male connector, USB-A, straight	PVC, unshielded	2 m, 4-wire	DSL-8U04G02M025KM1	6034574*^
				10 m, 4-wire	DSL-8U04G10M025KM1	6034575*

Safety relays

	Description	Model name	Part no.
Contact expansion module UE10-3OS			
	Safety Relay 3 N/O & 1 N/C Contacts	UE10-30S3D0	6024918*^

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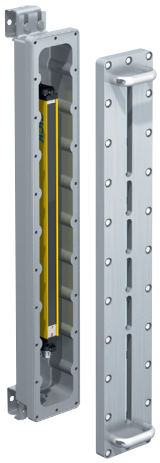

At a glance

- ATEX for gas: II 2 G Ex d IIB T6 Gb
- ATEX for dust: II 2 D Ex tb IIIC T56°C Db
- NFPA 70/NEC 500 Class I, Div. 1, Groups C and D
- NFPA 70/NEC 500 Class II, Div. 1, Groups E, F and G
- NFPA 70/NEC 500 Class III, Div. 1
- Available in protective field heights of 600 mm, 900 mm and 1,200 mm
- Resolution of 30 mm
- Scanning range of 16 m

Your benefits

- Compatibility with multiple SICK safety light curtains offers maximum flexibility in your application
- Durable design with flexible adjustment and handling of the whole device provides easy installation and alignment
- Pre-mounted and pre-wired safety light curtains in the enclosure reduces installation time and cost
- The IP 66 enclosure rating protects the safety light curtain from water and dust to reduce downtime
- Highly visible LED status indicators provide quick troubleshooting
- One source for worldwide delivery and support of complete safety solutions

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For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.

Ordering information

Other models → www.mysick.com/en/C4000_Advanced_Ex

- **Resolution:** 30 mm
- **Scanning range:** 0 m ... 16 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
600 mm	EXS-06C6203B020	1068398	EXE-06C6203B020	1068397
900 mm	EXS-09C6403B020	1068401	EXE-09C6403B020	1068400
1,200 mm	EXS-12C6603B020	1068404	EXE-12C6603B020	1068403

Recommended accessories

	Description	Type	Part no.
Terminal and alignment brackets			
	2 pieces, alignment bracket for explosion-proof enclosure	BEF-1SHABRST2	2072525
Alignment aids			
	Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!	AR60	1015741
	Adapter AR60 for explosion-proof enclosure	AR60 adapter, Ex	2074849
Test and monitoring tools			
	Test rod holder	BEF-3WNAAAAL1	2052249
	30 mm diameter	Test rod 30 mm	2022602

	Description	Type	Part no.
Modules and gateways			
	PROFIBUS DP	UE1140-22I0000	1029099
	Ethernet TCP/IP	UE1840-22H0000	1029100
	CANopen	UE1940-22I0000	1040397
	PROFIBUS PROFIsafe	UE4140-22I0000	1029098
	PROFINET PROFIsafe	UE4740-22H0000	1046978

	Enclosure rating	Input voltage	Output voltage	Output current	Type	Part no.
Power supply units and power cord connectors						
	IP 20	100 V AC ... 240 V AC	24 V DC	≤ 2.1 A	PS50WE24V	7028789
				≤ 3.9 A	PS95WE24V	7028790

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Cable Note: Max. 100 m Fitting for EFI connections	Cable	PVC	Item supplied by the meter	Connecting cable	6021437
	Female connector, M26, 12-pin, straight	Cable	PET, PVC, unshielded	2.5 m, 12-wire	DOL-0612G2M5075KM0	2022544*
				5 m, 12-wire	DOL-0612G05M075KM0	2022545*^
				7.5 m, 12-wire	DOL-0612G7M5075KM0	2022546
				10 m, 12-wire	DOL-0612G10M075KM0	2022547*
				15 m, 12-wire	DOL-0612G15M075KM0	2022548*
				20 m, 12-wire	DOL-0612G20M075KM0	2022549*
				30 m, 12-wire	DOL-0612G30M075KM0	2022550
				50 m	DOL-0612G50MD75KM0	2033548

	Description	Mirror material	Scanning range from ... to	Suitable for protective field height	Type	Part no.
Deflector mirrors						
	Horizontal deflection Items supplied: mounting kit swivel mount	Glass	4 m ... 15 m	150 mm ... 600 mm	PNS125-064	1019427
				150 mm ... 900 mm	PNS125-094	1019429
				150 mm ... 1,200 mm	PNS125-124	1019431
	Horizontal deflection Items supplied: mounting kit swivel mount	Glass	0 m ... 4 m	150 mm ... 600 mm	PNS75-064	1019416
				150 mm ... 900 mm	PNS75-094	1019418
				150 mm ... 1,200 mm	PNS75-124	1019420

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At a glance

- Type 4 (IEC 61496), SIL3 (IEC 61508), PL e (EN ISO 13849)
- IP 69K, IP 67, IP 66 and IP 65 enclosure ratings incl. cable
- Withstands wash-down pressure up to 100 bar and water temperature up to 80 °C
- ECOLAB and Diversey certified
- Resistant steel materials
- Ventilation valve prevents fogging of the front screen
- Smooth surfaces prevent accumulation of bacteria
- Compact design up to 1,800 mm protective field height

Your benefits

- Longer service life cuts costs. IP69K-tested product – from the housing materials right up to the connecting cable
- Productivity increases as personnel and service staff are able to access areas more quickly (light curtain replaces hard guards)
- Saves time during cleaning and is resistant to high-pressure cleaning agents
- Reliable protection, even when temperatures fluctuate significantly

→ www.mysick.com/en/C4000_Micro_in_IP69K_Housing

For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.

Ordering information

Other models → www.mysick.com/en/C4000_Micro_in_IP69K_Housing

- **Resolution:** 14 mm
- **Scanning range:** 0 m ... 1.8 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
150 mm	C45S-0101AA220	1025720	C45E-0101AG220	1025721
300 mm	C45S-0301AA220	1025722*	C45E-0301AG220	1025723
450 mm	C45S-0401AA220	1025727	C45E-0401AG220	1025728
600 mm	C45S-0601AA220	1025732	C45E-0601AG220	1025733
750 mm	C45S-0701AA220	1025737	C45E-0701AG220	1025738
900 mm	C45S-0901AA220	1025742	C45E-0901AG220	1025743
1,050 mm	C45S-1001AA220	1025747	C45E-1001AG220	1025748
1,200 mm	C45S-1201AA220	1025753	C45E-1201AG220	1025754
1,350 mm	C45S-1301AA220	1055506	C45E-1301AG220	1055507
1,500 mm	C45S-1501AA220	1055511	C45E-1501AG220	1055512
1,650 mm	C45S-1601AA220	1055516	C45E-1601AG220	1055517
1,800 mm	C45S-1801AA220	1055521	C45E-1801AG220	1055522

- **Resolution:** 14 mm
- **Scanning range:** 1 m ... 4 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
150 mm	C45S-0101AA220	1025720	C45E-0101BG220	1025719
300 mm	C45S-0301AA220	1025722*	C45E-0301BG220	1025726*
450 mm	C45S-0401AA220	1025727	C45E-0401BG220	1025731
600 mm	C45S-0601AA220	1025732	C45E-0601AG220	1025736
750 mm	C45S-0701AA220	1025737	C45E-0701BG220	1025741
900 mm	C45S-0901AA220	1025742	C45E-0901BG220	1025746
1,050 mm	C45S-1001AA220	1025747	C45E-1001BG220	1025752
1,200 mm	C45S-1201AA220	1025753	C45E-1201BG220	1025757
1,350 mm	C45S-1301AA220	1055506	C45E-1301BG220	1055510
1,500 mm	C45S-1501AA220	1055511	C45E-1501BG220	1055515
1,650 mm	C45S-1601AA220	1055516	C45E-1601BG220	1055520
1,800 mm	C45S-1801AA220	1055521	C45E-1801BG220	1055525

- **Resolution:** 30 mm
- **Scanning range:** 0 m ... 4.5 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
150 mm	C45S-0103AA220	1025717	C45E-0103AG220	1025718
300 mm	C45S-0303AA220	1025724	C45E-0303AG220	1025725
450 mm	C45S-0403AA220	1025729	C45E-0403AG220	1025730
600 mm	C45S-0603AA220	1025734	C45E-0603AG220	1025735
750 mm	C45S-0703AA220	1025739	C45E-0703AG220	1025740
900 mm	C45S-0903AA220	1025744	C45E-0903AG220	1025745
1,050 mm	C45S-1003AA220	1025749	C45E-1003AG220	1025750
1,200 mm	C45S-1203AA220	1025755	C45E-1203AG220	1025756
1,350 mm	C45S-1303AA220	1055508	C45E-1303AG220	1055509
1,500 mm	C45S-1503AA220	1055513	C45E-1503AG220	1055514
1,650 mm	C45S-1603AA220	1055518	C45E-1603AG220	1055519
1,800 mm	C45S-1803AA220	1055523	C45E-1803AG220	1055524

- **Resolution:** 30 mm
- **Scanning range:** 4 m ... 14.5 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
150 mm	C45S-0103BA220	1055626	C45E-0103AG220	1025718
300 mm	C45S-0303BA220	1055627	C45E-0303AG220	1025725
450 mm	C45S-0403BA220	1055628	C45E-0403AG220	1025730
600 mm	C45S-0603BA220	1055629	C45E-0603AG220	1025735
750 mm	C45S-0703BA220	1055630	C45E-0703AG220	1025740
900 mm	C45S-0903BA220	1055631	C45E-0903AG220	1025745
1,050 mm	C45S-1003BA220	1055632	C45E-1003AG220	1025750
1,200 mm	C45S-1203BA220	1055633	C45E-1203AG220	1025756
1,350 mm	C45S-1303BA220	1055634	C45E-1303AG220	1055509

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Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
1,500 mm	C45S-1503BA220	1055635	C45E-1503AG220	1055514
1,650 mm	C45S-1603BA220	1055636	C45E-1603AG220	1055519
1,800 mm	C45S-1803BA220	1055637	C45E-1803AG220	1055524

Recommended accessories

	Description	Type	Part no.
Device protection (mechanical)			
	Bidirectional ventilation membrane made from Gore-Tex	Bidirectional ventilation membrane	5309082
Other mounting accessories			
	1 piece, Mounting tool for M12 cable socket, small housing	Installation wrench	4034690
	6 pieces, suitable for PNS75 and PNS125	Sliding nuts for deflector mirror	2030600
Test and monitoring tools			
	Test rod holder	BEF-3WNAAAAL1	2052249
	14 mm diameter	Test rod 14 mm	2022599
	30 mm diameter	Test rod 30 mm	2022602
Terminal and alignment brackets			
	2 pieces, stainless steel support bracket	BEF-2AAAADES2	2026849
	4 pieces, stainless steel bracket, rotatable,	BEF-2SMMEAES4	2023708*
	4 pieces, reinforced stainless steel bracket, rotatable	BEF-2SMMVAES4	2026850

	Enclosure rating	Input voltage	Output voltage	Output current	Type	Part no.
Power supply units and power cord connectors						
	IP 20	100 V AC ... 240 V AC	24 V DC	≤ 2.1 A	PS50WE24V	7028789
				≤ 3.9 A	PS95WE24V	7028790

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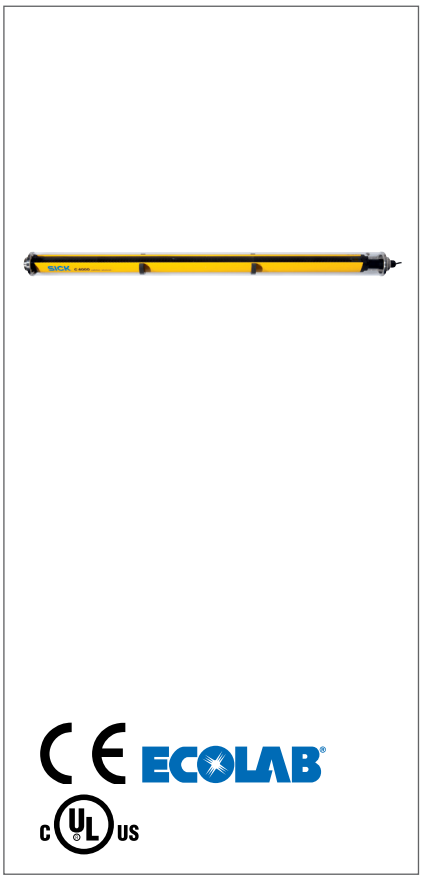

At a glance

- Type 4 (IEC 61496), SIL 3 (EN 62061), PL e (EN ISO 13849)
- IP 69K, IP 67, IP 66, and IP 65 enclosure ratings incl. connecting cable
- Withstands wash-down pressure up to 100 bar and temperatures up to 80 °C
- ECOLAB and JohnsonDiversey cleaning certificate
- Resistant stainless steel materials
- Ventilation valve prevents fogging of the front screen
- Smooth surfaces prevent accumulation of bacteria

Your benefits

- The longer service life saves costs. IP 69K-tested product – from the housing materials right up to the connection cable
- As an alternative to hard guards, personnel can quickly access protected areas for service, keeping productivity high
- Saves time in the cleaning and is resistant to high pressure cleaners
- Reliable safeguarding, even when temperatures fluctuate
- Standard M12 8pin connection for easy machine integration

➜ www.mysick.com/en/C4000_Palletizer_in_IP69K_Housing

For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.

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Ordering information

Other models ➜ www.mysick.com/en/C4000_Palletizer_in_IP69K_Housing

- **Resolution:** 30 mm
- **Scanning range:** 0.5 m ... 4.5 m

Protective field height	Sender		Receiver	
	Type	Part no.	Type	Part no.
1,050 mm	C45S-S025	1053825	C45E-S025	1053826

Recommended accessories

	Description	Type	Part no.
Device protection (mechanical)			
	Bidirectional ventilation membrane made from Gore-Tex	Bidirectional ventilation membrane	5309082
Other mounting accessories			
	1 piece, Mounting tool for M12 cable socket, large housing	Installation wrench	4067618
Terminal and alignment brackets			
	2 pieces, Stainless steel support bracket	BEF-2AAAAOES2	2060164
	4 pieces, Reinforced stainless steel bracket, rotatable	BEF-2SMGVAES4	2060165

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	Description	Type	Part no.
Switching amplifiers			
	Expands C4000 Standard, Advanced, Palletizer, Entry/Exit and Fusion with the functions described in the technical data, e.g., bypass, operating mode switching or in addition PSDI mode on C4000 Standard, Advanced.	UE402	1023577
Test and monitoring tools			
	Test rod holder	BEF-3WNAAAAL1	2052249

	Enclosure rating	Input voltage	Output voltage	Output current	Type	Part no.
Power supply units and power cord connectors						
	IP 20	100 V AC ... 240 V AC	24 V DC	≤ 2.1 A	PS50WE24V	7028789
				≤ 3.9 A	PS95WE24V	7028790

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At a glance

- Type 4 (IEC 61496), SIL3 (IEC 61508), PLe (EN ISO 13849)
- Compact cross section (15 mm x 32 mm) with no dead zones
- Cascadable twin stick design - sender and receiver in a single housing
- Customized protective field heights in 60-mm increments from 120 mm to 1,200 mm
- Typical scanning ranges 0 m ... 5 m
- Intelligent, software-free configuration of external device monitoring (EDM) and reset function (RES)
- M12, 5-pin device connection

Your benefits

- Cost-effective machine integration: its small design, cascadable features and incremental protective field heights enable a flexible adjustment to the machine design
- Standardization saves time and resources because of more straightforward logistics, order entry and service
- Simplified handling and setup: Software-free, almost fully automatic commissioning and intuitive operation with sustainable optics
- Bright LED display provides fast alignment, easy start up and clear protective field visualization ensure quick diagnostics
- End-to-end coverage in cascadable applications eliminates dead zones and shortens the safety distance, increasing productivity
- Application-specific brackets provide increased flexibility and reduce installation time

➜ www.mysick.com/en/miniTwin4

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/miniTwin4

Standalone device

Includes system plug with M12 connector. Select mating DOL series cable from recommended accessories

- **Resolution:** 14 mm
- 2 units required for working set. “0” fix brackets included

Cable length	Protective field height	Model name	Part no.
350 mm	300 mm	C4MT-03014ABB03DB0	1206953
	420 mm	C4MT-04214ABB03DB0	1206956
700 mm	600 mm	C4MT-06014ABB03FB0	1206959
	720 mm	C4MT-07214ABB03FB0	1206961
	900 mm	C4MT-09014ABB03FB0	1206964
	1,020 mm	C4MT-10214ABB03FB0	1206966
	1,200 mm	C4MT-12014ABB03FB0	1206969

- **Resolution:** 34 mm
- 2 units required for working set. “0” fix brackets included

Cable length	Protective field height	Model name	Part no.
350 mm	300 mm	C4MT-03034ABB03DB0	1207337
	420 mm	C4MT-04234ABB03DB0	1207339
700 mm	600 mm	C4MT-06034ABB03FB0	1207342
	720 mm	C4MT-07234ABB03FB0	1207344
	900 mm	C4MT-09034ABB03FB0	1207347
	1,020 mm	C4MT-10234ABB03FB0	1207349
	1,200 mm	C4MT-12034ABB03FB0	1207169

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	2 pieces, C-Fix-Flex bracket, adjustable +4°/–4°, metal version, for flat and connector side assembly/assembling/construction/mounting, for all protective field heights, Metal	BEF-1SHABMAL2	2056598
	2 pieces, Combination C-Fix bracket with L-Fix bracket, 2 pieces each, for all sizes, for all protective field heights	BEF-3AAA0MKU2S04	2045843
	2 pieces, O-Fix bracket, 2 pieces, for all sizes, for all protective field heights	BEF-3SHAEMKU2	2045835
Muting accessories			
	Including M12 male connector and connection cable (2 m), mounting bracket and mounting kit, Incandescent lamp	Indicator lamp	2033116^
	Inclusive male connector M12 and connection cable (10 m), mounting bracket and mounting kit, Incandescent lamp	Indicator lamp	2033117*
	Inclusive male connector M12 and connection cable (2 m), mounting bracket and mounting kit, LED	Muting indicator lamp	2033118
	Inclusive male connector M12 and connection cable (10 m), mounting bracket and mounting kit, LED	Muting indicator lamp	2033119

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	TPU, PVC, unshielded	5 m, 5-wire	DOL-1205-G05M	6009868
				10 m, 5-wire	DOL-1205-G10M	6010544
				15 m, 5-wire	DOL-1205-G15M	6029215*
	Female connector, M12, 5-pin, straight, A-coded	Male connector, M12, 5-pin, straight, A-coded	TPU, PUR, halogen-free, unshielded	1 m, 5-wire	DSL-1205-G01MC	6029280*^
				2 m, 5-wire	DSL-1205-G02MC	6025931*^
	Female connector, M12, 5-pin, straight	Male connector, M12, 5-pin, straight	Unshielded	0.35 m	System plug cascade	2046454
				0.7 m	System plug cascade	2046456
	-	-	Unshielded	10 m	System plug standalone	2051290

Safety relays

	Description	Model name	Part no.
Contact expansion module UE10-3OS			
	Safety Relay 3 N/O & 1 N/C Contacts	UE10-3OS3D0	6024918*^



At a glance

- V200: Type 2 (IEC 61496), SIL1 (IEC 61508), PL c (EN ISO 13849)
- V300: Type 3 (IEC 61496), SIL2 (IEC 61508), PL d (EN ISO 13849)
- Protective field size from 0.4 m x 0.4 m to 1.5 m x 1.5 m
- Resolution 20 mm, 24 mm, and 30 mm
- One device only: integrated sender and receiver
- Intuitive one-button operation
- Automatic alignment
- Synchronization of 2 systems
- Restart/Reset, EDM integrated

Your benefits

- Individual definition of protective fields allows high flexibility for machine design
- Quick commissioning without additional software
- Intuitive, time-saving operation
- No variants: one-device concept for all aperture sizes
- Reduced storage, logistics and commissioning costs
- No expert knowledge required
- High machine availability and simple maintenance

➜ www.mysick.com/en/V200_Work_Station_Extended

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/V200_Work_Station_Extended

Description	Model name	Part no.
V200 Work Station Extended	V20W-0101000	1042027
V300 Work Station Extended	V30W-0101000	1041542^

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Recommended accessories

	Description	Model name	Part no.
Terminal and alignment brackets			
	Mounting kit for mounting the sensor on the profile frame	Mounting kit	2045375
Sets and kits			
 Illustration may differ	Resolution set for 20 mm resolution and protective field size from 0.4 x 0.4 m to 1.0 m x 1.0 m	Resolution set 20 mm	2051336^
	Resolution set for 24 mm resolution and protective field size from 0.4 x 0.4 m to 1.2 m x 1.2 m	Resolution set 24 mm	2051338^
	Resolution set for 30 mm resolution and protective field size from 0.6 x 0.6 m to 1.5 m x 1.5 m	Resolution set 30 mm	2051339^
Reflective tape			
	Reflective tape, 1,500 mm x 48 mm x 0.8 mm, protective field size max. 1.5 m x 1.5 m, self-adhesive, abrasion-resistant, 2 pieces	Reflective tape 2 x 1.5 m	2051582

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	TPU, PUR, halogen-free, shielded	5 m, 7-wire	DOL-127SG05ME25KM0	2076541*
				2.5 m, 7-wire	DOL-127SG2M5E25KM0	2076540
				7.5 m, 7-wire	DOL-127SG7M5E25KM0	2076542
				10 m, 7-wire	DOL-127SG10ME25KM0	2076543*^

Safety relays

	Description	Model name	Part no.
Contact expansion module UE10-3OS			
	Safety Relay 3 N/O & 1 N/C Contacts	UE10-3OS3D0	6024918*^



At a glance

- Type 4 (IEC 61496), SIL3 (IEC 61508), PL e (EN ISO 13849)
- Robust housing with three mounting grooves
- 7-segment display
- Wide scanning range, up to 70 m
- External device monitoring (EDM), restart interlock (RES) and application diagnostic output (ADO)
- Standardized M12 connectivity
- Optional integration features: laser alignment aid, LED or AS-i interface
- Configuration keys located directly on the device

Your benefits

- The wide scanning range allows the device to be customized according to the application
- Robust design with a high level of resistance to environmental changes ensures high machine availability, even under special ambient conditions
- Customized protection field adaption with deflection mirror reduces installation costs
- Customer-friendly interfaces and status display simplify commissioning and maintenance
- Mounting grooves on three housing sides ensure more flexibility during mounting and simplify machine integration
- Fast start-up times due to easy alignment, using the optional laser alignment aid and performing configuration directly on the device
- Reduced downtime through 360° visible LED and diagnostics displays

➜ www.mysick.com/en/M4000_Standard

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories ➜ www.mysick.com/en/M4000_Standard

M4000 Standard

- **Scanning range:** 0.5 m ... 70 m

Number of beams	Beam separation	Sender		Receiver	
		Model name	Part no.	Model name	Part no.
3	400 mm	M40S-034000AR0	1200003*	M40E-034000RR0	1200020*
4	300 mm	M40S-043000AR0	1200006*	M40E-043000RR0	1200023*

M4000 Standard Active/Passive

Scanning range	Number of beams	Beam separation	Sender/receiver in one housing		Mirror	
			Model name	Part no.	Model name	Part no.
≤ 7.5 m	2	500 mm	M40Z-025000RR0	1200120^	PSD01-1501	1027906*^
≤ 4.5 m	4	300 mm	M40Z-043020TR0	1200130^	PSD02-2301	1027908*^

Note: For the above Active/Passive systems, the 4 beam system is preferred over the 2 beam system and should be the default choice for whole body detection. Use of only 2 beams is possible, only if determined suitable as a result of a risk assessment. Refer to EN ISO 13855 clause 6.2.2 and Table 1 in Annexe E for specific information.

M4000 Standard Active/Passive, includes end cap with integrated LED

Scanning range	Number of beams	Beam separation	Sender/receiver in one housing		Mirror	
			Model name	Part no.	Model name	Part no.
≤ 4.5 m	4	300 mm	M40Z-043000TR0	1200123	PSD02-2301	1027908*^

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	4 pieces, Mounting kit 1, mounting bracket, rigid, L-shaped, including fixing screws and washers	BEF-3WNGBAST4	7021352*
Terminal and alignment brackets			
	4 pieces, Mounting kit 6, side bracket, rotatable, Zinc diecast	BEF-1SHABAZN4	2019506*
	4 pieces, Mounting kit 12, rotatable, swivel mount	BEF-2SMGEAKU4	2030510*^
	4 pieces, Mounting kit 3, rotatable, with shock-absorber	BEF-1SHADAAL4	2017752
	2 pieces, Omega bracket (49 mm), mounting position: face side	BEF-2SMGEAAL2	2045736*
Alignment aids			
	Laser alignment aid for various sensors, laser class 2 (IEC 60825): Never look into the beam. Scanning range from ... to: ≤ 60 m	AR60	1015741
Reflectors and optics			
	Adapter for alignment aid AR60	Adapter AR60 for M4000	4040006*^

	Connection type head A	Connection type head B	Connector/ Jacket material	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	TPU, PUR, halogen-free, shielded	5 m, 7-wire	DOL-127SG05ME25KM0	2076541*
				10 m, 7-wire	DOL-127SG10ME25KM0	2076543*^
				15 m, 7-wire	DOL-127SG15ME25KM0	2076544*^

	Description	Model name	Part no.
Device columns			
	Robust device column with two external mounting slots, maximum installation length 1,165 mm, column height 1,185 mm	PU3H11-00000000	2045641
	Robust device column with two external mounting slots, maximum installation length 1,265 mm, column height 1,285 mm	PU3H13-00000000	2045642
	Robust device column with two external mounting slots, maximum installation length 965 mm, column height 985 mm	PU3H96-00000000	2045490
	Mirror columns with up to 4 separate adjustable mirrors, Multiple light beam safety devices, 3 beams, 400 mm beam seperation	PM3S11-00330030	1040625
	Mirror columns with up to 4 separate adjustable mirrors, Multiple light beam safety devices, 4 beams, 300 mm beam seperation	PM3S13-00430040	1040626

Safety relays

	Brief description	Model name	Part no.
Contact expansion module UE10-3OS			
	Safety Relay 3 N/O & 1 N/C Contacts	UE10-3OS3D0	6024918*^



At a glance

- Type 4 (IEC 61496), SIL3 (IEC 61508), PL e (EN ISO 13849)
- Robust housing with three mounting grooves
- 7-segment display
- Wide scanning range, up to 70 m
- External device monitoring (EDM), restart interlock (RES), application diagnostic output (ADO), SDL interface
- Muting in combination with the UE403 switching amplifier
- Optional laser alignment aid and integrated muting LED end cap on some models
- Configuration and diagnostics via PC

Your benefits

- The wide scanning range allows the device to be customized according to the application
- Robust design with a high level of resistance to environmental changes ensures high machine availability, even under special ambient conditions
- Mounting grooves on three housing sides ensure more mounting flexibility and simplify machine integration
- Customer-friendly interfaces and status display simplify commissioning and maintenance
- For 2- and 4-sensor muting, the on-site connection of the muting signals significantly minimizes wiring costs and simplifies commissioning and maintenance
- Reduced downtime due to 360° visible LED, diagnostics displays and configuration memory in the UE403 switching amplifier

➜ www.mysick.com/en/M4000_Advanced

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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Ordering information

Other models and accessories ➜ www.mysick.com/en/M4000_Advanced

M4000 Advanced

- **Scanning range:** 0.5 m ... 70 m

Number of beams	Beam separation	Sender		Receiver	
		Model name	Part no.	Model name	Part no.
3	400 mm	M40S-034003AA0	1200061*	M40E-034023RB0	1200067*
4	300 mm	M40S-043003AA0	1200073*^	M40E-043023RB0	1200109*^

M4000 Advanced Active/Passive

Scanning range	Number of beams	Beam separation	Sender/receiver in one housing		Mirror	
			Model name	Part no.	Model name	Part no.
≤ 7.5 m	2	500 mm	M40Z-025003RB0	1200115	PSD01-1501	1027906*^
≤ 4.5 m	4	300 mm	M40Z-043003TB0	1200127	PSD02-2301	1027908

Note: For the above Active/Passive systems, the 4 beam system is preferred over the 2 beam system and should be the default choice for whole body detection. Use of only 2 beams is possible, only if determined suitable as a result of a risk assessment. Refer to EN ISO 13855 clause 6.2.2 and Table 1 in Annexe E for specific information.

M4000 Advanced Curtain

Scanning range	Protective field height	Resolution	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
0 m ... 19 m	1,200 mm	30 mm	M40S-66A303AA0	1201036	M40E-66A303RB0	1201035

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Scanning range	Protective field height	Resolution	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
-	1,500 mm	30 mm	M40S-68A303AA0	1203237	M40E-68A303RB0	1203243
-	1,800 mm	30 mm	M40S-70A303AA0	1203239*	M40E-70A303RB0	1203245

UE403 muting switching amplifier

	Description	Model name	Part no.
	Flexible mounting to the M4000 Advanced or directly in the system, Die-cast aluminum, powder coated, Socket M12 x 5	UE403-A0930	1026287*^
	ER12 Safety command device - reset compatible with UE403	ER12-SB3C4S01	6034585

Recommended accessories

	Description	Model name	Part no.
Terminal and alignment brackets			
	4 pieces, Mounting kit 6, side bracket, rotatable, Zinc diecast	BEF-1SHABAZN4	2019506*
	4 pieces, Mounting kit 12, rotatable, swivel mount	BEF-2SMGEAKU4	2030510*^
	4 pieces, Mounting kit 3, rotatable, with shock-absorber	BEF-1SHADAAL4	2017752
	2 pieces, Omega bracket (49 mm), mounting position: face side	BEF-2SMGEAAL2	2045736*
	Round steel arm 400 mm, for mounting universal brackets	Round steel arm	2045879
	Universal bracket for round steel arm 400 mm, for mounting sensors or reflectors	Universal bracket	2044953
Device protection (mechanical)			
	Guard plate for round steel arm, right	Muting sensor protection	2045737
	Guard plate for round steel arm, left	Muting sensor protection	2045738

	Connection type head A	Connection type head B	Cablel	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M26, 12-pin, straight	Cable	PVC, unshielded	5 m	DOL-0610G05M075KM1	2046888
				10 m	DOL-0610G10M075KM1	2046889
			PET, PVC, unshielded	5 m, 12-wire	DOL-0612G05M075KM0	2022545*^
				10 m, 12-wire	DOL-0612G10M075KM0	2022547*
				20 m, 12-wire	DOL-0612G20M075KM0	2022549*

	Description				Model name	Part no.
	Female connector, M12, 5-pin, straight, A-coded	Male connector, M12, 5-pin, straight, A-coded	TPU, PUR, halogen-free, unshielded	0.6 m, 5-wire	DSL-1205-G0M6C	6025930*^
				1 m, 5-wire	DSL-1205-G01MC	6029280*^
				2 m, 5-wire	DSL-1205-G02MC	6025931*^
	Male connector, M8, 4-pin, straight	Male connector, USB-A, straight	PVC, unshielded	2 m, 4-wire	DSL-8U04G02M025KM1	6034574*^
				10 m, 4-wire	DSL-8U04G10M025KM1	6034575*
Device columns						
	Robust device column with two external mounting slots, maximum installation length 1,720 mm, column height 1,740 mm				PU3H17-00000000	2045643
	Robust device column with two external mounting slots, maximum installation length 1,265 mm, column height 1,285 mm				PU3H13-00000000	2045642
	Robust device columns with two external mounting grooves, 150 mm ... 1,650 mm, maximum installation length 2,020 mm, column height 2,040 mm				PU3H21-00000000	2045644
	Robust device columns with two external mounting grooves, 150 mm ... 1,800 mm, maximum installation length 2,250 mm, column height 2,270 mm				PU3H22-00000000	2045645
Mounting systems						
	M10 steel wall plug, for floor mounting the compensation plate for device columns				Steel plugs	5308961
Muting accessories						
	Parallel muting (4 sensors), muting sensor brackets for mounting on M4000 housing profile or device columns with external mounting grooves				M4000 muting arm-kit with four parallel-muting sensors	2046170
	Cross muting (2 sensors), muting sensor brackets for mounting on M4000 housing profile or device columns with external mounting grooves				M4000 muting arm-kit with two crossed-muting sensors	2046171
	Parallel muting (2 sensors), muting sensor brackets for mounting on M4000 housing profile or device columns with external mounting grooves				M4000 muting arm-kit with two parallel-muting sensors	2060156
Programming and configuration tools						
	Clone Plug for storing and transferring configurations , IP41 , with lithium button cell CR2032 3.0V				PLUG1-0C00100	1029665
Photoelectric sensors						
	Photoelectric retro-reflective sensor, standard optics, 10 m range, PNP, M12 plug, Inc. Bkt. & Ref (M4000 Mute Sensor)				WL23-2P2430P02	1028056*
Muting accessories						
	Including M12 male connector and connection cable (2 m), mounting bracket and mounting kit, Incandescent lamp				Indicator lamp	2033116^
	Inclusive male connector M12 and connection cable (10 m), mounting bracket and mounting kit, Incandescent lamp				Indicator lamp	2033117*
	Inclusive male connector M12 and connection cable (2 m), mounting bracket and mounting kit, LED				Muting indicator lamp	2033118
	Inclusive male connector M12 and connection cable (10 m), mounting bracket and mounting kit, LED				Muting indicator lamp	2033119

Safety relays

	Description	Model name	Part no.
Contact expansion module UE10-3OS			
	Safety Relay 3 N/O & 1 N/C Contacts	UE10-3OS3D0	6024918*^

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At a glance

- Type 4 (IEC 61496), SIL3 (IEC 61508), PL e (EN ISO 13849)
- IP 69K, IP 67, IP 66 and IP 65 enclosure ratings incl. cable
- Withstands wash-down pressure up to 100 bar and water temperature up to 80 °C
- ECOLAB and Diversey certified
- Resistant steel materials
- Ventilation valve prevents fogging of the front screen
- Smooth surfaces prevent accumulation of bacteria

Your benefits

- High resistance reduces risk of contamination and increases the production quality
- Cost reduction through long-lasting products, enclosure rating IP 69K for all materials including cable
- Replacement for mechanical guards, with the following advantages:
- Fast access for personnel and service increases productivity
- Saving potential for cleaning time and use of detergents

➜ www.mysick.com/en/M4000_Standard_in_IP69K_Housing

For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.

Ordering information

Other models ➜ www.mysick.com/en/M4000_Standard_in_IP69K_Housing

Scanning range	Number of beams	Beam separation	Sender		Receiver	
			Type	Part no.	Type	Part no.
0.5 m ... 15.5 m	3	400 mm	M45S-034000EL0	1057664	M45E-034000EL0	1057665
9 m ... 53 m	3	400 mm	M45S-034000EL0	1057664	M45E-034000FL0	1057666

Recommended accessories

	Description	Type	Part no.
Device protection (mechanical)			
	Bidirectional ventilation membrane made from Gore-Tex	Bidirectional ventilation membrane	5309082
Other mounting accessories			
	1 piece, Mounting tool for M12 cable socket, large housing	Installation wrench	4067618
Terminal and alignment brackets			
	2 pieces, Stainless steel support bracket, Stainless steel	BEF-2AAAAOES2	2060164
	4 pieces, Reinforced stainless steel bracket, rotatable, Stainless steel	BEF-2SMGVAES4	2060165

	Enclosure rating	Input voltage	Output voltage	Output current	Type	Part no.
Power supply units and power cord connectors						
	IP 20	100 V AC ... 240 V AC	24 V DC	≤ 2.1 A	PS50WE24V	7028789
				≤ 3.9 A	PS95WE24V	7028790



At a glance

- Type 4 (IEC 61496), SIL3 (IEC 61508), PL e (EN ISO 13849)
- IP 69K, IP 67, IP 66 and IP 65 enclosure ratings incl. cable
- Withstands wash-down pressure up to 100 bar and water temperature up to 80 °C
- ECOLAB and Diversey certified
- Resistant steel materials
- Ventilation valve prevents fogging of the front screen
- Smooth surfaces prevent accumulation of bacteria
- Unique A/P version for comfortable integration

Your benefits

- High resistance reduces risk of contamination and increases the production quality
- Cost reduction through long-lasting products, enclosure rating IP 69K for all materials including cable
- Replacement for mechanical guards, with the following advantages:
- Fast access for personnel and service increases productivity
- Saving potential for cleaning time and use of detergents

➜ www.mysick.com/en/M4000_Standard_A_P_in_IP69K_Housing

For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.

L

Ordering information

Other models ➜ www.mysick.com/en/M4000_Standard_A_P_in_IP69K_Housing

Scanning range	Number of beams	Beam separation	Sender/receiver in one housing		Deflector unit	
			Type	Part no.	Type	Part no.
0.5 m ... 4 m	4	300 mm	M45Z-043000FL0	1057667	PSI02-2302	1057668

Recommended accessories

	Brief description	Type	Part no.
Device protection (mechanical)			
	Bidirectional ventilation membrane made from Gore-Tex	Bidirectional ventilation membrane	5309082
Other mounting accessories			
	1 piece, Mounting tool for M12 cable socket, large housing	Installation wrench	4067618
Terminal and alignment brackets			
	2 pieces, Stainless steel support bracket, Stainless steel	BEF-2AAAAOES2	2060164
	4 pieces, Reinforced stainless steel bracket, rotatable, Stainless steel	BEF-2SMGVAES4	2060165

	Enclosure rating	Input voltage	Output voltage	Output current	Type	Part no.
Power supply units and power cord connectors						
	IP 20	100 V AC ... 240 V AC	24 V DC	≤ 2.1 A	PS50WE24V	7028789
				≤ 3.9 A	PS95WE24V	7028790

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At a glance

- Type 4 (IEC 61496), SIL3 (IEC 61508), PL e (EN ISO 13849), only in conjunction with suitable testing device, e.g., Flexi Classic or Flexi Soft
- Small M18 sensors with ranges up to 10 m
- Compact M30 sensors with ranges up to 60 m
- Enclosure rating IP 67
- Temperature range from –40 °C ... +55 °C

Your benefits

- Easy integration due to small, compact versions with maximum range
- Directly connect to a safey controller – without a separate test box, reducing costs
- Flexible device integration makes it possible to set up individual protective fields
- Well suited to withstand extreme ambient conditions such as heat, cold or moisture

→ www.mysick.com/en/L41

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/L41

Scanning range	Model	Housing material	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
0 m ... 10 m	M18 axial	Nickel-plated brass	L41S-21MA1A	6034866*^	L41E-21MA1A	6034867*^
0 m ... 60 m	M30 axial	Nickel-plated brass	L41S-33MA2A	6034863	L41E-33MA2A	6034862

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Steel, zinc coated	Mounting bracket, M18 thread	BEF-WN-M18	5308446*^
		Mounting bracket, M30 thread	BEF-WN-M30	5308445*^

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, straight	Cable	TPU, PVC, unshielded	5 m, 4-wire	DOL-1204-G05M	6009866
				10 m, 4-wire	DOL-1204-G10M	6010543
	Female connector, M12, 4-pin, angled	Cable	TPU, PVC, unshielded	5 m, 4-wire	DOL-1204-W05M	6009867
	Female connector, M12, 4-pin, straight	-	PA, unshielded	-	DOS-1204-G	6007302*
	Female connector, M12, 4-pin, angled	-	PBT, unshielded	-	DOS-1204-W	6007303*
Safety controllers						
	Flexi Classic, main module				UE410-MU3T5	6026136*^
Reflectors and optics						
	Deflector mirror for 90° deflection, mirror surface 97 mm x 80 mm, not suitable for column mounting, Glass, Mounting hardware included				PSK45	5306053*
	Horizontal deflection, 75 mm x 80 mm reflector surface, Glass				PNS75-008	1026647

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At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- Robust construction
- Universal application possibilities
- Ranges up to 20 m
- Relay outputs
- Front screen heating

Your benefits

- Extremely tough, ensures high system reliability
- Well suited to withstand extreme ambient conditions such as heat, cold or moisture
- Few variants because of a uniform sender
- Easy electrical integration using cable gland and relay outputs

→ www.mysick.com/en/WSU_WEU26

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/WSU_WEU26

Scanning range	Number of beams	Detection capability	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
0.5 m ... 20 m	1	30 mm	WSU26/3-103A00	1047984*	WEU26/3-103A00	1047985*
5 m ... 70 m					WEU26/3-203A00	1048379

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Bracket, face side mounting position	BEF-4WNAEFAL1	2007900*
Reflectors and optics			
	Deflector mirror for 90° deflection, mirror surface 97 mm x 80 mm, not suitable for column mounting, Glass, Mounting hardware included	PSK45	5306053*
	Horizontal deflection, 75 mm x 80 mm reflector surface, Glass	PNS75-008	1026647
	Laser alignment aid for various sensors, laser class 2 (IEC 60825): Never look into the beam, Scanning range ≤ 60 m	AR60	1015741
	Adapter for alignment aid AR60	Adapter AR60 for WSU/WEU26/2, WSU/WEU26-3	4031156^



SAFETY SWITCHES







Three product groups for tried and tested, intelligent safety solutions

Safety switches are encountered at many locations where safety is demanded for people and machinery. They are used for protecting mobile separative protective devices, the position determination of dangerous movements and the safe stop function. The portfolio is divided into three groups: electro-mechanical and non-contact safety switches and safety command devices.

In conjunction with sens:Control – safe control solutions, SICK offers ideal complete solutions from a single source.

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Selection guide safety switches **M-406**



Electro-mechanical safety switches

i12S M-408
i17S M-409
i110S M-410
i10 Lock M-411
i110 Lock M-413
i14 Lock M-415
i15 Lock M-417
i200 Lock M-419
i10P/H/R M-421
i110P/H/R M-422



Non-contact safety switches

RE1 . . . . . M-423
RE2 . . . . . M-425
TR4 Direct M-427
T4000 . . . . . M-430
T4000 Direct M-432
IN3000 Direct M-434
IN4000 Standard M-436
IN4000 Direct M-437



Safety command devices

ES11 . . . . . M-438
ES21 . . . . . M-440
ER12 . . . . . M-442
i110RP M-443
i150RP M-445
E100 . . . . . M-447

M

SELECTION GUIDE SAFETY SWITCHES

Product		Recommended safety application						Features							Page
		Interlocking of physical guards without locking	Interlocking of physical guards with locking	Safe position monitoring of machine parameters	Emergency stop	Reset	Manual approval for safe maintenance and setup mode	Housing material: Plastic	Housing material: Metal	Enclosure rating IP 65	Enclosure rating IP 66	Enclosure rating IP 67	Enclosure rating IP 69K	Flexi Loop-compatible plug connector	
Electro-mechanical safety switches															
	i12S	■						■				■		■	→ M-408
	i17S	■						■				■			→ M-409
	i110S	■							■			■		■	→ M-410
	i10 Lock		■					■				■		■	→ M-411
	i110 Lock		■					■	■			■		■	→ M-413
	i14 Lock		■					■		■					→ M-415
	i15 Lock		■					■	■			■			→ M-417
	i200 Lock		■					■		■					→ M-419
	i10P/R/H			■				■			■				→ M-421
	i110P/R/H			■					■		■				→ M-422
Non-contact safety switches															
	RE1	■						■				■		■	→ M-423
	RE2	■						■				■		■	→ M-425
	TR4 Direct	■						■					■	■	→ M-427
	T4000	■						■				■			→ M-430
	T4000 Direct	■						■				■			→ M-432
	IN3000 Direct			■				■	■	■		■		■	→ M-434
	IN4000 Standard			■				■	■			■	■	■	→ M-436
	IN4000 Direct			■				■	■			■		■	→ M-437

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Product		Recommended safety application						Features							Page
		Interlocking of physical guards without locking	Interlocking of physical guards with locking	Safe position monitoring of machine parameters	Emergency stop	Reset	Manual approval for safe maintenance and setup mode	Housing material: Plastic	Housing material: Metal	Enclosure rating IP 65	Enclosure rating IP 66	Enclosure rating IP 67	Enclosure rating IP 69K	Flexi Loop-compatible plug connector	
Safety command devices															
	ES11				■	■		■		■				■	→ M-438
	ES21				■			■		■					→ M-440
	ER12					■		■		■					→ M-442
	i110RP				■				■		■			■	→ M-443
	i150RP				■				■	■					→ M-445
	E100						■	■				■			→ M-447

M



At a glance

- Narrow plastic housing
- Rigid and mobile actuators
- Available with M16 X 1.5 cable entry gland or Flexi Loop-compatible M12 plug connector (depending on variant)
- Slow-action switching element with up to three contacts
- IP 67 enclosure rating

Your benefits

- Cost-effective solution for all standard safety applications
- Small design simplifies installation and makes it easy to mount directly on the guard door frame
- High reliability and safety due to the cone shaped metal alignment aid
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort.

➜ www.mysick.com/en/i12S

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/i12S

Number of positive action N/C contacts	Number of N/O contacts	Connection type	Locking force	Model name	Part no.
2	0	Plug connector, M12, 4-pin	6 N	i12-SA205	1064506
			15 N	i12-SB215	1064507
	1	Cable gland, 1 x M16	15 N	i12-SB213	6025059*^

Recommended accessories

	Description	Model name	Part no.
Actuators			
	Angled, rigid	iE12-A1	5311132*^
	Semiflexible	iE12-F1	5308842*
	Straight, rubber-mounted	iE12-S1	5311131*^

Suitable Interface

	Description	Model name	Part no.
Main unit UE43-2MF			
	24V DC Interface for Safety Switches & E/Stops, 3N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE43-2MF3D2	6024894*^

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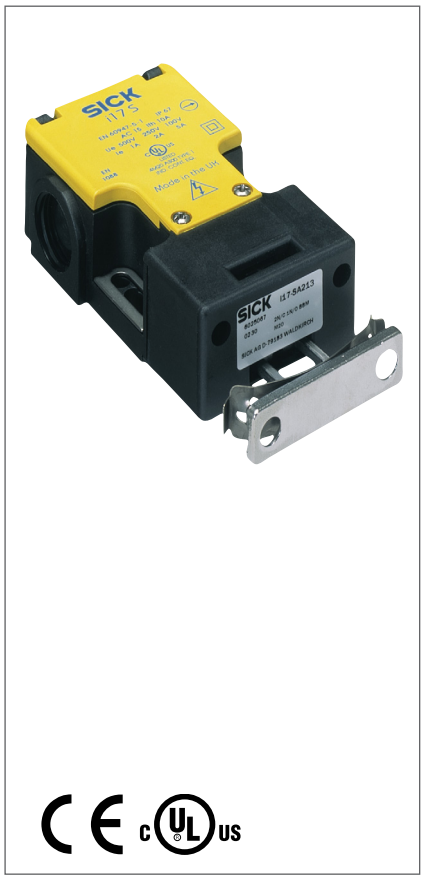

At a glance

- Compact plastic housing
- Rigid or mobile actuators
- 3 M20 x 1.5 cable entry glands
- Slow-action switching elements with three contacts
- IP 67 enclosure rating

Your benefits

- High availability and safety due to the cone shaped alignment aid
- Improved diagnostics due to additional signaling contacts
- Flexible electrical connectivity due to three cable entry glands
- Simple electrical connection due to large terminal compartment

→ www.mysick.com/en/i17S

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/i17S

Number of positive action N/C contacts	Number of N/O contacts	Connection type	Locking force	Model name	Part no.
2	1	Cable gland, 3 x M20	12 N	i17-SA213	6025067*^

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Recommended accessories

	Description	Model name	Part no.
Actuators			
	Fully flexible	iE16-F1	5311129*^
	Semiflexible	iE16-F2	5311278
	Straight, rigid, self ejecting against simple manipulation	iE17-S1	5311130*^
Plug connectors and cables			
	Cable gland, M16	Cable gland M16	5309163

Suitable Interface

	Description	Model name	Part no.
Main unit UE43-2MF			
	24V DC Interface for Safety Switches & E/Stops, 3N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE43-2MF3D2	6024894*^



At a glance

- Standardized metal housing
- Either rigid, fully mobile or bolt actuators available
- Available with M20 X 1.5 cable entry gland or Flexi Loop-compatible M12 plug connector (depending on variant)
- Slow-action switching elements with four contacts
- IP 67 enclosure rating

Your benefits

- Standard device design provides quick and easy mounting
- Rugged metal housing provides increased machine reliability, even when the guard has a mechanical offset
- High availability and safety due to the cone shaped alignment aid
- Improved diagnostics due to additional signaling contacts
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort.

➜ www.mysick.com/en/i110S

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/i110S

- **Locking force:** 12 N

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Number of positive action N/C contacts	Number of N/O contacts	Connection type	Model name	Part no.
2	0	Plug connector, M12, 4-pin	i110-SA225	1064509
	2	Cable gland, 1 x M20	i110-SA223	6025074*

Recommended accessories

	Description	Model name	Part no.
Actuators			
	Fully flexible	iE200-F1	5308759*^
	Straight, rigid	iE200-S1	5308758*
Plug connectors and cables			
	Cable gland, M20	Cable gland M16	5309164*

Suitable Interface

	Description	Model name	Part no.
Main unit UE43-2MF			
	24V DC Interface for Safety Switches & E/Stops, 3N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE43-2MF3D2	6024894*^

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At a glance

- Narrow plastic housing
- Rigid or mobile actuators
- Available with M20 X 1.5 cable entry glands or Flexi Loop-compatible M12 plug connector (depending on variant)
- Locked by spring force (mechanical lock) or magnetic force (electrical lock) depending on model
- Lock and door monitoring
- IP 67 enclosure rating
- 1300N maximum locking force

Your benefits

- Small design simplifies installation and makes it easy to mount directly on the guard door frame
- Flexible electrical connectivity due to three cable entry glands
- Improved diagnostics due to additional signaling contacts
- Practical, simple adjustment due to various actuators that are suitable for any door
- Different switching elements offer the appropriate solution for electrical installation
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort.

→ www.mysick.com/en/i10_Lock

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/i10_Lock

- **Locking type:** Electrical

Number of positive action N/C solenoid monitoring contacts	Number of N/O solenoid monitoring contacts	Number of positive action N/C door monitoring contacts	Number of N/O door monitoring contacts	Number of N/C door monitoring contacts	Connection type	Model name	Part no.
2	1	0	0	1	Cable gland, 3 x M20	i10-E0233 Lock	6022585*
		1	0	0	Plug connector, M12, 8-pin	i10-E0454 Lock	6045056

- **Locking type:** Mechanical

Number of positive action N/C solenoid monitoring contacts	Number of N/O solenoid monitoring contacts	Number of positive action N/C door monitoring contacts	Number of N/O door monitoring contacts	Number of N/C door monitoring contacts	Connection type	Model name	Part no.
2	1	0	0	1	Cable gland, 3 x M20	i10-M0233 Lock	6022580*
		1	0	0	Plug connector, M12, 8-pin	i10-M0454 Lock	6045055

Recommended accessories

	Description	Model name	Part no.
Actuators			
	Angled, rigid	iE10-A1	5306535*
	Angled, rigid, with overrun	iE10-A4	5308497
	Semiflexible, door hinged at top/bottom	iE10-R1	5306528*^
	Semiflexible, door hinged on left/right	iE10-R2	5306529*
	Straight, rigid	iE10-S1	5306527*
	Straight, rubber-mounted	iE10-S2	5306530
	Straight, rigid, with overrun	iE10-S4	5308383
Locks and keys			
	Universal lock, parallel closing, including key	iE10-K2	5308270*
Plug connectors and cables			
	Cable gland, M20, Unshielded, 6 mm ... 12 mm, IP 68, PA, Black	Cable gland M20	5309164*

M

Suitable Interface

	Description	Model name	Part no.
Main unit UE44-3SL			
	24V DC Interface for Mechanical Solenoid Locks 3 N/O Contact 1.5-30s Delay (Man. Or Auto Reset & EDM)	UE44-3SL3D330	6024910*
Main unit UE45-3S1			
	24V DC Interface for Electrical Solenoid Locks 3 N/O Contact 1.5-30s Delay (Man. Or Auto Reset & EDM)	UE45-3S13D330	6024914*

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At a glance

- Narrow plastic housing
- Metal actuator head
- Rigid or mobile actuators
- Available with M20 X 1.5 cable entry glands or Flexi Loop-compatible M12 plug connector (depending on variant)
- Locked by spring force (mechanical lock) and magnetic force (electrical lock)
- Lock and door monitoring
- 2500N maximum locking force

Your benefits

- Small design simplifies installation and makes it easy to mount directly on the guard door frame
- Flexible electrical connectivity due to three cable entry glands
- Improved diagnostics due to additional contacts for door monitoring
- Simple adjustment due to various actuators that are suitable for any door
- Different switching elements offer the appropriate solution for electrical installation
- Rugged metal housing provides increased machine reliability, even when the guard has a mechanical offset
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort

→ www.mysick.com/en/i110_Lock

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/i110_Lock

- **Locking type:** Electrical

Number of positive action N/C solenoid monitoring contacts	Number of N/O solenoid monitoring contacts	Number of positive action N/C door monitoring contacts	Number of N/O door monitoring contacts	Number of N/C door monitoring contacts	Connection type	Model name	Part no.
2	1	0	0	1	Cable gland, 3 x M20	i110-E0233	6051597^
	0	1	0	0	Plug connector, M12, 8-pin	i110-E0454	6051603^

- **Locking type:** Mechanical

Number of positive action N/C solenoid monitoring contacts	Number of N/O solenoid monitoring contacts	Number of positive action N/C door monitoring contacts	Number of N/O door monitoring contacts	Number of N/C door monitoring contacts	Connection type	Model name	Part no.
2	1	0	0	1	Cable gland, 3 x M20	i110-M0233	6051596^
	0	1	0	0	Plug connector, M12, 8-pin	i110-M0454	6051602^

Recommended accessories

	Description	Model name	Part no.
Actuators			
	Angled, rubber-mounted	iE15-A1	5319976*^
	Semiflexible, door hinged at top/bottom	iE15-R1	5319977^
	Semiflexible, door hinged on left/right	iE15-R2	5319978*^
	Straight, rubber-mounted	iE15-S1	5319975*^
Locks and keys			
	Universal lock, parallel closing, including key	iE10-K2	5308270*

Suitable Interface

	Description	Model name	Part no.
Main unit UE44-3SL			
	24V DC Interface for Mechanical Solenoid Locks 3 N/O Contact 1.5-30s Delay (Man. Or Auto Reset & EDM)	UE44-3SL3D330	6024910^
Main unit UE45-3S1			
	24V DC Interface for Electrical Solenoid Locks 3 N/O Contact 1.5-30s Delay (Man. Or Auto Reset & EDM)	UE45-3S13D330	6024914*^

M

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At a glance

- Compact plastic housing
- M20 x 1.5 cable entry gland
- Locked with spring force (mechanical lock)
- Lock monitoring
- LED locking indicator
- Emergency mechanical unlocking mechanism on three sides
- 1200N maximum locking force

Your benefits

- Cost-effective solution for all standard safety applications
- LED status indicator offers improved diagnostics
- Easy access to wiring for installation and maintenance due to a hinged cover – access to the unlocking mechanism from three sides
- Small housing saves space and can be mounted in tight areas

→ www.mysick.com/en/i14_Lock

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/i14_Lock

- **Locking type:** Mechanical

Number of positive action N/C solenoid monitoring contacts	Number of N/O solenoid monitoring contacts	Number of positive action N/C door monitoring contacts	Number of N/O door monitoring contacts	Number of N/C door monitoring contacts	Connection type	Model name	Part no.
2	1	0	0	0	Cable gland, 1 x M20	i14-M0213 Lock	6025060*^

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Recommended accessories

	Description	Model name	Part no.
Actuators			
	Straight, rigid, catch and retainer set for increased retaining force	iE14-S1	5311133*^
Locks and keys			
	Key	iE14-E01	5311282*
Plug connectors and cables			
	Cable gland, M20, Unshielded, 6 mm ... 12 mm, IP 68, PA, Black	Cable gland M20	5309164*

Suitable Interface

	Description	Model name	Part no.
Main unit UE44-3SL			
	24V DC Interface for Mechanical Solenoid Locks 3 N/O Contact 1.5-30s Delay (Man. Or Auto Reset & EDM)	UE44-3SL3D330	6024910^

M

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At a glance

- Compact plastic housing
- Variants with metal actuator head
- Rigid or mobile actuators
- 1 M20 x 1.5 cable entry gland
- Locked by spring force (mechanical lock) and magnetic force (electrical lock)
- Lock and door monitoring
- IP 67 enclosure rating
- Maximum locking force for i15-MP models listed is 1000N
- i15-MM metal head version provides maximum 2000N locking force

Your benefits

- High reliability due to rugged metal actuator head, even when the guard has a mechanical offset
- Improved diagnostics due to additional contacts for door monitoring
- Small housing saves space and can be mounted in tight areas

➜ www.mysick.com/en/i15_Lock

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/i15_Lock

- **Locking type:** Mechanical

Number of positive action N/C solenoid monitoring contacts	Number of N/O solenoid monitoring contacts	Number of positive action N/C door monitoring contacts	Number of N/O door monitoring contacts	Number of N/C door monitoring contacts	Connection type	Model name	Part no.
1	0	2	0	0	Cable gland, 1 x M20	i15-MP0123 Lock	6034026
1	0	2	0	0	Cable gland, 1 x M20	i15-MM0123 Lock	6034024

- **Locking type:** Electrical

Number of positive action N/C solenoid monitoring contacts	Number of N/O solenoid monitoring contacts	Number of positive action N/C door monitoring contacts	Number of N/O door monitoring contacts	Number of N/C door monitoring contacts	Connection type	Model name	Part no.
1	0	2	0	0	Cable gland, 1 x M20	i15-EP0123 Lock	6034030
1	0	2	0	0	Cable gland, 1 x M20	i15-EM0123 Lock	6034028

Recommended accessories

	Description	Model name	Part no.
Actuators			
	Straight, Rubber-mounted, Including two safety screws	iE15-S1	5319975*^
	Angled, Rubber-mounted, Including two safety screws	iE15-A1	5319976*^
	Semiflexible, Door hinged at top/bottom, Including two safety screws	iE15-R1	5319977^
	Semiflexible, Door hinged at top/bottom, Including two safety screws	iE15-R2	5319978*^
Plug connectors and cables			
	Cable gland, M20, Unshielded, 6 mm ... 12 mm, IP 68, PA, Black	Cable gland M20	5309164*

Suitable Interface

	Description	Model name	Part no.
Main unit UE44-3SL			
	24V DC Interface for Mechanical Solenoid Locks 3 N/O Contact 1.5-30s Delay (Man. Or Auto Reset & EDM)	UE44-3SL3D330	6024910^
Main unit UE45-3S1			
	24V DC Interface for Electrical Solenoid Locks 3 N/O Contact 1.5-30s Delay (Man. Or Auto Reset & EDM)	UE45-3S13D330	6024914*^

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At a glance

- Compact plastic housing
- Stainless steel entry for actuator
- Either rigid, mobile or bolt actuators available
- 3 M20 x 1.5 cable entry glands
- Locked by spring force (mechanical lock) and magnetic force (electrical lock)
- Lock and door monitoring
- LED locking indicator
- Maximum locking force 2000N

Your benefits

- High reliability due to rugged metal actuator head, even when the guard has a mechanical offset
- Flexible electrical connectivity due to three cable entry glands
- Improved diagnostics due to additional contacts for door monitoring and LED lock monitoring
- Different switching elements offer the appropriate solution for electrical installation
- Bolt actuator offers personal protection in the hazardous area and prevents an undesirable restart of the machine

→ www.mysick.com/en/i200_Lock

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/i200_Lock

- **Locking type:** Electrical

Number of positive action N/C solenoid monitoring contacts	Number of N/O solenoid monitoring contacts	Number of positive action N/C door monitoring contacts	Number of N/O door monitoring contacts	Number of N/C door monitoring contacts	Connection type	Model name	Part no.
1	1	2	1	0	Cable gland, 3 x M20	i200-E0323 Lock	6026140*^

- **Locking type:** Mechanical

Number of positive action N/C solenoid monitoring contacts	Number of N/O solenoid monitoring contacts	Number of positive action N/C door monitoring contacts	Number of N/O door monitoring contacts	Number of N/C door monitoring contacts	Connection type	Model name	Part no.
2	0	2	1	0	Cable gland, 3 x M20	i200-M0413 Lock	6025115*^

Recommended accessories

	Description	Model name	Part no.
Actuators			
	Bolt actuator straight	iE200-B1	5308760*
	Fully flexible	iE200-F1	5308759*^
	Straight, rigid	iE200-S1	5308758*
Plug connectors and cables			
	Cable gland, M20, Unshielded, 6 mm ... 12 mm, IP 68, PA, Black	Cable gland M20	5309164*

Suitable Interface

	Description	Model name	Part no.
Main unit UE44-3SL			
	24V DC Interface for Mechanical Solenoid Locks 3 N/O Contact 1.5-30s Delay (Man. Or Auto Reset & EDM)	UE44-3SL3D330	6024910^
Main unit UE45-3S1			
	24V DC Interface for Electrical Solenoid Locks 3 N/O Contact 1.5-30s Delay (Man. Or Auto Reset & EDM)	UE45-3S13D330	6024914*^

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At a glance

- Standardized plastic housing
- Roller plunger with plastic roller
- Roller lever with plastic roller
- Solid shaft hinge switch
- 1 M20 x 1.5 cable entry gland
- Slow-action switching elements with three contacts

Your benefits

- Standard device design provides quick and easy mounting
- Cost-effective solution for all standard safety applications

→ www.mysick.com/en/i10P

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/i10P

Switching principle	Number of positive action N/C contacts	Number of N/O contacts	Actuating element type	Model name	Part no.
Slow action switching element	2	1	Roller plunger	i10-PA213	6025088*^
Slow action switching element	2	1	Roller lever	i10-RA213	6025085*^
Slow action switching element	2	1	Solid shaft	i10-HB213	6025053*

Recommended accessories

	Description	Model name	Part no.
Plug connectors and cables			
	Cable gland, M20, Unshielded, 6 mm ... 12 mm, IP 68	Cable gland M20	5309164*

Suitable Interface

	Description	Model name	Part no.
Main unit UE43-2MF			
	24V DC Interface for Safety Switches & E/Stops, 3N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE43-2MF3D2	6024894*^



At a glance

- Standardized metal housing
- Metal roller lever with plastic roller
- Roller plunger with metal roller
- Hollow shaft hinge switch
- 1 M20 x 1.5 cable entry gland
- Slow-action or snap-action switching element with up to four contacts

Your benefits

- Standard device design provides quick and easy mounting
- High availability due to rugged metal housing
- Different switching elements offer the appropriate solution for electrical installation
- Improved diagnostics due to additional signaling contacts

➜ www.mysick.com/en/i110R

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/i110R

Switching principle	Number of positive action N/C contacts	Number of N/O contacts	Actuating element type	Model name	Part no.
Slow action switching element	3	1	Roller plunger	i110-PA313	6025104*^
Slow action switching element	3	1	Turning lever	i110-RA313	6025107*
Slow action switching element	2	1	Hollow shaft	i110-HA213	6025072

Recommended accessories

	Description	Model name	Part no.
Plug connectors and cables			
	Cable gland, M20, Unshielded, 6 mm ... 12 mm, IP 68	Cable gland M20	5309164*

Suitable Interface

	Description	Model name	Part no.
Main unit UE43-2MF			
	24V DC Interface for Safety Switches & E/Stops, 3N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE43-2MF3D2	6024894*^

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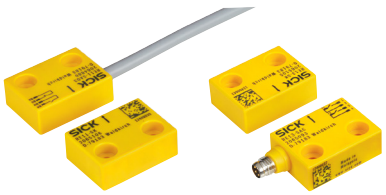

At a glance

- Response range of up to 7 mm
- 1 NO/1 NC or 2 NO contacts
- Up to performance level PL e / Cat. 4 (EN ISO 13849)
- Sensors with plug connector or connected cable
- Flexi Loop-compatible M12 plug connector (depending on variant)

Your benefits

- Long service life due to durable and low-maintenance design
- Space-saving mounting due to compact housing design
- Just one safety switch in conjunction with a suitable safety module makes it possible to solve applications up to PL e and Cat. 4 (EN ISO 13849)
- High level of machine availability due to high tolerances for door misalignment
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort.

→ www.mysick.com/en/RE1

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/RE1

- **System part:** Sensor & actuator
- **Design:** Rectangular

Connection type	Flexi Loop-compatible M12 plug connector	Cable length	Safe switch on distance S_{ao}	Model name	Part no.
Plug connector, M8, 4-pin	–	–	7 mm	RE13-SAC	1059503*^
Cable	–	3 m	7 mm	RE13-SA03	1059504*^
		5 m	7 mm	RE13-SA05	1062011*^
Cable with connector M12, 4-pin	✔	0.2 m	7 mm	RE13-SA64	1062540*
Cable with connector M8, 4-pin	–	0.2 m	7 mm	RE13-SA84	1062539*

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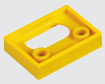
Recommended accessories

	Description	Model name	Part no.
Other mounting accessories			
	10 pieces, spacer for RE1	RE10-SP	1060290
Actuators			
	Replacement actuator for RE11-Sxx, RE11-Sxxx	RE11-SK	1062121
	Replacement actuator for RE13-Sxx, RE13-Sxxx	RE13-SK	1060292*^

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M8, 4-pin, straight	Cable	TPU, PVC, unshielded	2 m, 4-wire	DOL-0804-G02M	6009870
				5 m, 4-wire	DOL-0804-G05M	6009872^
				10 m, 4-wire	DOL-0804-G10M	6010754
	Female connector, M12, 4-pin, straight	Cable	TPU, PVC, unshielded	5 m, 4-wire	DOL-1204-G05M	6009866
				10 m, 4-wire	DOL-1204-G10M	6010543
				15 m, 4-wire	DOL-1204-G15M	6010753

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At a glance

- Response range of up to 9 mm
- 1 NO/1 NC, 2 NO contacts or 3 NO contacts
- Up to performance level PL e / Cat. 4 (EN ISO 13849)
- Sensors with plug connector or connected cable
- LED status indicator (RE27)
- Flexi Loop-compatible M12 plug connector (depending on variant)

Your benefits

- Long service life due to durable and low-maintenance design
- Just one safety switch in conjunction with a suitable safety module makes it possible to solve applications up to PL e and Cat. 4 (EN ISO 13849)
- High level of machine availability due to high tolerances for door misalignment
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards
- Fast diagnostics via LED status indicator (RE27)
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort.

→ www.mysick.com/en/RE2

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/RE2

- **System part:** Sensor & actuator
- **Design:** Rectangular

Status display	Connection type	Flexi Loop-compatible M12 plug connector	Cable length	Safe switch on distance S_{ao}	Model name	Part no.
–	Plug connector, M8, 4-pin	–	–	9 mm	RE23-SAC	1059508*^
	Cable with connector M12, 4-pin	✔	0.2 m	9 mm	RE23-SA64	1062542
✔	Cable	–	5 m	9 mm	RE27-SA05L	1059510*^
			10 m	9 mm	RE27-SA10L	1059511*^
			20 m	9 mm	RE27-SA20L	1059512
	Cable with plug M12, 8-pin	–	0.2 m	9 mm	RE27-SA68L	1059509*^

Recommended accessories

	Description	Model name	Part no.
Other mounting accessories			
	10 pieces, spacer for RE2	RE20-SP	1060291
Actuators			
	Replacement actuator for RE21-Sxx, RE21-Sxxx	RE21-SK	1060293
	Replacement actuator for RE23-Sxx, RE23-Sxxx	RE23-SK	1060294[^]
	Replacement actuator for RE27-SxxxL	RE27-SK	1060295[*^]

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	TPU, PVC, shielded	5 m, 8-wire	DOL-1208-G05MA	6020993[*^]
				30 m, 8-wire	DOL-1208-G30MA	6022242[*^]
	Female connector, M8, 4-pin, straight	Cable	TPU, PVC, unshielded	2 m, 4-wire	DOL-0804-G02M	6009870
				5 m, 4-wire	DOL-0804-G05M	6009872[^]
				10 m, 4-wire	DOL-0804-G10M	6010754
	Female connector, M12, 4-pin, straight	Cable	TPU, PVC, unshielded	5 m, 4-wire	DOL-1204-G05M	6009866
				10 m, 4-wire	DOL-1204-G10M	6010543
				15 m, 4-wire	DOL-1204-G15M	6010753

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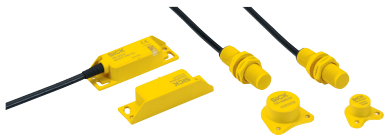

At a glance

- Response range of up to 25 mm
- Multicoded and unique coded sensors up to enclosure rating IP 69K
- Up to performance level PL e (EN ISO 13849)
- Two OSSD safety outputs
- Safe series connection of up to 30 sensors possible
- LED status indicator
- Boundary area indication and magnetic retaining force (optional)
- Flexi Loop-compatible M12 plug connector (depending on variant)

Your benefits

- High level of prevention against tampering due to individually coded actuator (depending on type)
- High level of machine availability due to high tolerances for door misalignment and boundary area indication
- High level of machine reliability due to resistance to shocks and vibrations
- Cascadability of up to 30 sensors saves costs
- Long service life due to durable and low-maintenance design
- Fast diagnostics via LED status indicator
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort.

→ www.mysick.com/en/TR4_Direct

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/TR4_Direct

- **Design:** Cylindrical
- **System part:** Sensor & actuator

Housing diameter (sensor/ actuator)	Safe switch on distance S_{ao}	Safe switch off distance S_{ar}	Coding	Connection type	Cable length	Model name	Part no.
M18 / M18	15 mm	25 mm	Multicoded	Cable with plug M12, 8-pin	0.2 m	TR4-SAM01C	6034588*
				Cable	3 m	TR4-SAM03P	6034586
					10 m	TR4-SAM10P	6034587*^
			Unique coded	Cable with plug M12, 8-pin	0.2 m	TR4-SAU01C	6022319
				Cable	3 m	TR4-SAU03P	6022317
					10 m	TR4-SAU10P	6022318
M18 / M30	25 mm	35 mm	Multicoded	Cable with plug M12, 8-pin	0.2 m	TR4-SBM01C	6035190*
				Cable	3 m	TR4-SBM03P	6025090
					10 m	TR4-SBM10P	6035189
			Unique coded	Cable with plug M12, 8-pin	0.2 m	TR4-SBU01C	6044628
				Cable	3 m	TR4-SBU03P	6044626
					10 m	TR4-SBU10P	6044627

- **Design:** Rectangular
- **System part:** Sensor & actuator
- **Dimensions:** 25 mm x 88 mm x 20 mm
- **Safe switch on distance S_{ao}:** 15 mm
- **Safe switch off distance S_{ar}:** 35 mm

Boundary area indication	Magnetic retaining force	Coding	Connection type	Cable length	Model name	Part no.
–	–	Multicoded	Cable with plug M12, 8-pin	0.2 m	TR4-SDM01C	6044638*^
			Cable	3 m	TR4-SDM03P	6044636*^
				10 m	TR4-SDM10P	6044637*^
		Unique coded	Cable with plug M12, 8-pin	0.2 m	TR4-SDU01C	6044641*^
			Cable	3 m	TR4-SDU03P	6044639*
				10 m	TR4-SDU10P	6044640*
✔	–	Multicoded	Cable with plug M12, 8-pin	0.2 m	TR4-SEM01C	6044644*^
			Cable	3 m	TR4-SEM03P	6044642
				10 m	TR4-SEM10P	6044643^
		Unique coded	Cable with plug M12, 8-pin	0.2 m	TR4-SEU01C	6044647
			Cable	3 m	TR4-SEU03P	6044645
				10 m	TR4-SEU10P	6044646

Recommended accessories

	Description	Model name	Part no.
Adapters and distributors			
	T-junction for serial connection of TR4 Direct	TR4-AK004C	5325889*
	End connector for serial connection in combination with TR4-AK004C T-junction	TR4-AL002C	5325890*
Actuators			
	Cylindrical, replacement actuator, M18, for TR4-SAMxxx	TR4-RAM000	5321030
	Cylindrical, replacement actuator, M18, for TR4-SAUxxx	TR4-RAU000	5321031
	Cylindrical, replacement actuator, M30, for TR4-SBMxxx	TR4-RBM000	5321032
	Cylindrical, replacement actuator, M30, for TR4-SBUxxx	TR4-RBU000	5321033

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	Description	Model name	Part no.
	Rectangular, replacement actuator for TR4-SDMxxx	TR4-RDM000	5325631*^
	Rectangular, replacement actuator for TR4-SDUxxx	TR4-RDU000	5325632^
	Rectangular, replacement actuator for TR4-SEMxxx and TR4-SFMxxx	TR4-RFM000	5325633^
	Rectangular, replacement actuator for TR4-SEUxxx and TR4-SFUxxx	TR4-RFU000	5325634^

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	TPU, PVC, shielded	5 m, 8-wire	DOL-1208-G05MA	6020993*^
				10 m, 8-wire	DOL-1208-G10MA	6022152*^
				15 m, 8-wire	DOL-1208-G15MA	6022153*^
				30 m, 8-wire	DOL-1208-G30MA	6022242*^

Suitable Interface

	Description	Model name	Part no.
Main unit UE48-2OS			
	24V DC Interface for Std & NC Switches, E/S, Light Curtains 2 N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE48-2OS3D2	6024916*^

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At a glance

- Small sensors with external evaluation unit
- Response range of up to 10 mm
- Sensors with plug connector or connected cable
- Up to performance level PL e / Cat. 4 (EN ISO 13849

Your benefits

- High level of prevention against tampering due to individually coded actuator
- High level of machine availability due to high tolerances for door misalignment
- High level of machine reliability due to resistance to shocks and vibrations
- Space-saving mounting due to compact housing design
- Just one safety switch in conjunction with a suitable safety module makes it possible to solve applications up to PL e and Cat. 4 (EN ISO 13849)
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards
- Long service life due to durable and low-maintenance design

➜ www.mysick.com/en/T4000

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/T4000

Sensor principle	Connection type	Cable length	Safe switch on distance Sao	Model name	Part no.
Transponder	Cable	5 m	5 mm 10 mm [1) 2)]	T4000-DNA05P	6012144*^
		10 m		T4000-DNA10P	6012145*
		15 m		T4000-DNA15P	6012146^
	Plug connector, M8, 3-pin	-		T4000-DNAC	6021912*^

1) With evaluation unit T4000-1RBA01

2) With evaluation units T4000-1RCA02, T4000-1RCA04

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Recommended accessories

	Description	Model name	Part no.
Actuators			
	Rectangular, 25 mm x 42 mm x 12 mm	T4000-1KBA	5306531*^
Transponder safety switches			
	T4000 Standard Evaluation unit, Controller for 1 X T4000	T4000-1RBA01	6012147*^
	T4000 Multi Evaluation unit, Controller for 2 X T4000	T4000-1RCA02	6029946
	T4000 Multi Evaluation unit, Controller for 4 X T4000	T4000-1RCA04	6029947*^

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M8, 3-pin, straight	Cable	Shielded	20 m	T4000-DNA20C	6021913
				50 m	T4000-DNA50C	6021915

Suitable Interface

	Description	Model name	Part no.
Contact expansion module UE10-3OS			
	Safety Relay 3 N/O & 1 N/C Contacts	UE10-3OS3D0	6024918*^

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At a glance

- Multicoded and unique coded sensors
- Response range of up to 19 mm
- Safe series connection of up to 20 sensors possible
- Two OSSD safety outputs for direct connection of sensors to a single safety controller
- LED status indicator
- Up to performance level PL e / Cat. 4 (EN ISO 13849)
- Sensors with plug connector

Your benefits

- High level of prevention against tampering due to individually coded actuator (depending on type)
- High level of machine availability due to high tolerances for door misalignment
- High level of machine reliability due to resistance to shocks and vibrations
- Cascadability of up to 20 sensors saves costs
- Just one safety switch in conjunction with a suitable safety module makes it possible to solve applications up to PL e and Cat. 4 (EN ISO 13849)
- Long service life due to durable and low-maintenance design

➜ www.mysick.com/en/T4000_Direct

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/T4000_Direct

Coding	Connection type	Model name	Part no.
Multicoded	Plug connector, M12, 8-pin	T40-E0101K	6035041*
Unique coded		T40-E0121K	6035042^

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Recommended accessories

	Description	Model name	Part no.
Actuators			
	Rectangular, 25 mm x 42 mm x 12 mm	T4000-1KBA	5306531*^
	Square, 40 mm x 40 mm x 10 mm	T4000-1KBQ	5311153
	Round, 20 mm diameter x 2.1 mm	T4000-1KBR	5320820
Adapters and distributors			
	Y-junction for serial connection of T4000 Direct	T40-A2191N	6035520
	End connector for serial connection in combination with T40-A2191N Y-junction	T40-A3191N	6035521
Mounting systems			
	Screws M4 x 14 pieces	Security screws T4000	5309170

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	TPU, PVC, shielded	5 m, 8-wire	DOL-1208-G05MA	6020993*^
				10 m, 8-wire	DOL-1208-G10MA	6022152*^
				15 m, 8-wire	DOL-1208-G15MA	6022153*^
				30 m, 8-wire	DOL-1208-G30MA	6022242*^

Suitable Interface

	Description	Model name	Part no.
Contact expansion module UE10-3OS			
	Safety Relay 3 N/O & 1 N/C Contacts	UE10-3OS3D0	6024918*^
Main unit UE48-2OS			
	24V DC Interface for Std & NC Switches, E/S, Light Curtains 2 N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE48-2OS3D2	6024916*^

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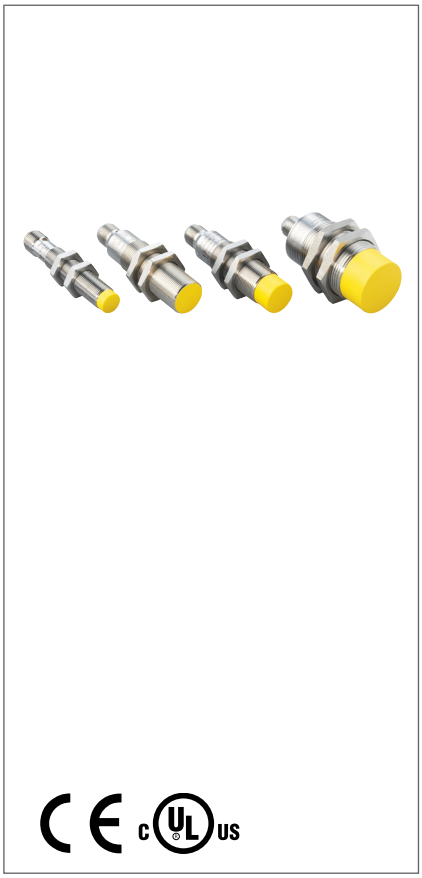

At a glance

- Response range of up to 15 mm
- LED status indicator
- Up to performance level PL d (EN ISO 13849), SILCL2 (EN 62061), SIL2 (IEC 61508)
- Flexi Loop-compatible M12 plug connector

Your benefits

- Cost-effective solution for applications up to PL d / SILCL2
- Space-saving mounting due to compact housing design
- Fast diagnostics via LED status indicator
- Long service life due to durable and low-maintenance design
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort.

➜ www.mysick.com/en/IN3000_Direct

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IN3000_Direct

Design	Housing diameter	Installation type	Model name	Part no.
Cylindrical	M30	Non-flush	IN30-E0208K	6044655
	M18	Non-flush	IN30-E0305K	6034576*^
		Flush	IN30-E0306K	6034581*
	M12	Non-flush	IN30-E0407K	6034582*

Recommended accessories

	Material	Description	Model name	Part no.
Mounting brackets and mounting plates (without mounting hardware)				
	Steel, zinc coated	Mounting bracket, M12 thread	BEF-WN-M12	5308447*^
		Mounting bracket, M18 thread	BEF-WN-M18	5308446*^
		Mounting bracket, M30 thread	BEF-WN-M30	5308445*^
Terminal and alignment brackets (mounting hardware included)				
	Plastic (PA12), glass-fiber reinforced	Clamping block for round sensors M12	BEF-KH-M12	2051479
		Clamping block for round sensors M18	BEF-KH-M18	2051481

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	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, straight, unshielded	Cable	TPU, PVC, unshielded	5 m, 4-wire	DOL-1204-G05M	6009866
				10 m, 4-wire	DOL-1204-G10M	6010543
				15 m, 4-wire	DOL-1204-G15M	6010753
				20 m, 4-wire	DOL-1204-G20M	6034401

Suitable Interface

	Description	Model name	Part no.
Main unit UE48-2OS			
	24V DC Interface for Std & NC Switches, E/S, Light Curtains 2 N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE48-2OS3D2	6024916*^

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At a glance

- One pulsed output for direct connection of sensors to a single safety controller
- IP 67 or IP 69K enclosure rating
- Response range of up to 15 mm
- LED status indicator
- Up to performance level PL e / Cat. 4 (EN ISO 13849)
- Safe series connection of sensors possible

Your benefits

- Fast diagnostics via LED status indicator
- Cascadability of up to 9 sensors saves costs
- Long service life due to durable and low-maintenance design
- Just one safety switch in conjunction with a suitable safety module makes it possible to solve applications up to PL e and Cat. 4 (EN ISO 13849)
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards

➜ www.mysick.com/en/IN4000_Standard

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/IN4000_Standard

Enclosure rating	Type of output	Number of safe outputs	Connection type	Model name	Part no.
IP 69K	Semiconductor, pulsed	1	Plug connector, M12, 4-pin	IN40-D0304K	6037684*^

Suitable Interface

	Description	Model name	Part no.
Flexi Classic, main module			
	Main Unit 4 Input /4 Output 5s Delay	UE410-MU3T5	6026136*^

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At a glance

- Two OSSD safety outputs for direct connection of sensors to a single safety controller
- Response range of up to 20 mm
- LED status indicator
- Up to performance level PL e / Cat. 4 (EN ISO 13849)
- Flexi Loop-compatible M12 plug connector

Your benefits

- Direct connection to the safe control solution eliminates any additional wiring and reduces installation time
- Fast diagnostics via LED status indicator
- Long service life due to durable and low-maintenance design
- Just one safety switch in conjunction with a suitable safety module makes it possible to solve applications up to PL e and Cat. 4 (EN ISO 13849)
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort.

→ www.mysick.com/en/IN4000_Direct

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

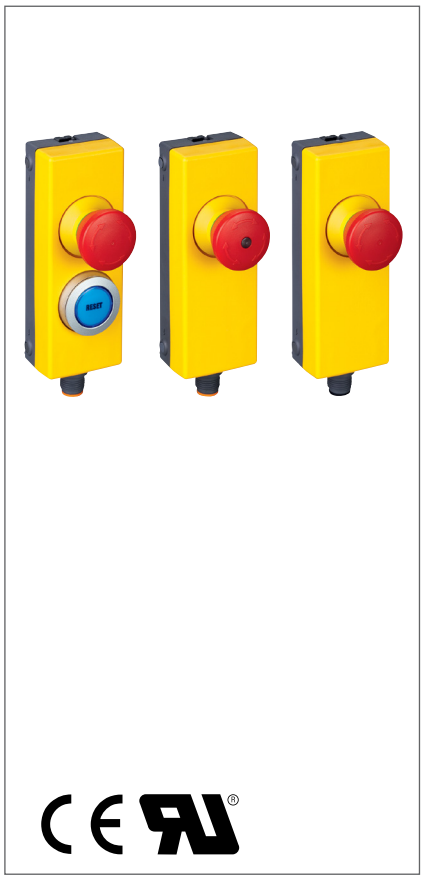
Ordering information

Other models and accessories → www.mysick.com/en/IN4000_Direct

Design	Installation type	Safe switch on distance Sao	Model name	Part no.
Rectangular	Non-flush	20 mm	IN40-E0109K	6050281
Rectangular	Non-flush	15 mm	IN40-E0101K	6027388*^

Suitable Interface

	Description	Model name	Part no.
Main unit UE48-20S			
	24V DC Interface for Std & NC Switches, E/S, Light Curtains 2 N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE48-20S3D2	6024916*^



At a glance

- Slim plastic housing with quick disconnect mounting clip
- Available as an emergency stop pushbutton or as a combined emergency stop/reset unit
- Emergency stop pushbutton with optional LED illumination
- Illuminated reset pushbutton
- Flexi Loop-compatible M12 plug connector

Your benefits

- Easy installation with quick disconnect mounting clip
- Quick commissioning and easy replacement with an M12 plug connector
- User-friendly status indication
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort.

➜ www.mysick.com/en/ES11

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/ES11

Number of positive action N/C contacts	Number of N/O contacts	Emergency stop button (illuminable)	Reset button (illuminable)	Model name	Part no.
2	0	–	–	ES11-SA1A4	6051327^
		✔	–	ES11-SA2B8	6051328
	1	–	✔	ES11-SC4D8	6051329*^

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Recommended accessories

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	5 m, 4-wire	DOL-1204-G05MC	6025901*^
				10 m, 4-wire	DOL-1204-G10MC	6025902*^
				15 m, 4-wire	DOL-1204-G15MC	6034749*
				20 m, 4-wire	DOL-1204-G20MC	6034750*^
	Female connector, M12, 8-pin, straight	Cable	TPU, PVC, shielded	5 m, 8-wire	DOL-1208-G05MA	6020993*^
				10 m, 8-wire	DOL-1208-G10MA	6022152*^
				15 m, 8-wire	DOL-1208-G15MA	6022153*^
				30 m, 8-wire	DOL-1208-G30MA	6022242*^
	Female connector, M12, 8-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	1 m, 8-wire	DSL-1208-G01MAC	6026625
				2 m, 8-wire	DSL-1208-G02MAC	6030121
				5 m, 8-wire	DSL-1208-G05MAC	6032325
				10 m, 8-wire	DSL-1208-G10MAC	6034901
	Female connector, M12, 4-pin, straight	Male connector, M12, 4-pin, straight	TPU, PVC, unshielded	0.6 m, 4-wire	DSL-1204-G0M6	6022565
				1.5 m, 4-wire	DSL-1204-G1M5	6034822
				2 m, 4-wire	DSL-1204-G02M	6022567
				5 m, 4-wire	DSL-1204-G05M	6022569
				10 m, 4-wire	DSL-1204-G10M	6034406
				20 m, 4-wire	DSL-1204-G20M	6034407

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At a glance

- Either as surface-mounted version with housing or as built-in version (Ø 22 mm)
- Built-in version for machine control panels with self-monitoring contacts between the pushbutton and switching element
- Surface-mounted version for direct mounting on different machines and systems
- Rotational or key unlocking
- Variants with LED ring lighting
- Available with protective collar to prevent inadvertent actuation

Your benefits

- Increased safety due to self-monitoring contacts
- Reduction in accidental faults due to variants with a protective collar
- User-friendly status indicator identified by a colored mark or LED ring around the pushbutton simplifies diagnostics
- Successful down to the last detail: award-winning and appealing design

➜ www.mysick.com/en/ES21

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/ES21

Complete devices

- **Obstruction protection:** ✔
- **Release type:** Rotary release

Mounting version	Number of positive action N/C contacts	Number of N/O contacts	Contact module for panel mount version	Illumination	Labeling "EMERGENCY STOP"	Model name	Part no.
Surface mount version	2	1	-	-	-	ES21-SA10F1	6036148*^
	2	1	-	✔	✔	ES21-SA13H1	6034584*
	2	1	-	-	✔	ES21-SA14F1	6053943*^
Panel mount version	2	1	✔ [1]	-	-	ES21-SB10G1	6036492*^
	2	1	✔ [1]	-	✔	ES21-SB14G1	6053944*^
	2	1	✔ [1]	✔	✔	ES21-SB13J1	6045315*^

[1] Additional contact (N/O) monitors the correct assembly of the pushbutton with the switching element.

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Recommended accessories

	Description	Model name	Part no.
Plug connectors and cables			
	Cable gland, M20, Unshielded, 6 mm ... 12 mm, IP 68	Cable gland M20	5309164*

Suitable Interface

	Description	Model name	Part no.
Main unit UE43-2MF			
	24V DC Interface for Safety Switches & E/Stops, 3N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE43-2MF3D2	6024894*^

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At a glance

- Slim plastic housing with quick disconnect mounting clip
- Illuminated reset pushbutton
- 1 NO
- 4-pin M12 plug connector

Your benefits

- Easy installation with quick disconnect mounting clip
- Quick commissioning and easy replacement with an M12 plug connector
- User-friendly status indication

➜ www.mysick.com/en/ER12

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/ER12

- **Number of N/O contacts:** 1
- **Reset button (illuminable):** ✔

Suitable for muting applications (with UE403)	Model name	Part no.
–	ER12-SB3C4	6051330*^

Recommended accessories

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	5 m, 4-wire	DOL-1204-G05MC	6025901*^
				10 m, 4-wire	DOL-1204-G10MC	6025902*^
				15 m, 4-wire	DOL-1204-G15MC	6034749*
				20 m, 4-wire	DOL-1204-G20MC	6034750*^
	Female connector, M12, 4-pin, straight	Cable	TPU, PVC, unshielded	0.6 m, 4-wire	DSL-1204-G0M6	6022565
				1.5 m, 4-wire	DSL-1204-G1M5	6034822
				2 m, 4-wire	DSL-1204-G02M	6022567
				5 m, 4-wire	DSL-1204-G05M	6022569
				10 m, 4-wire	DSL-1204-G10M	6034406
				20 m, 4-wire	DSL-1204-G20M	6034407

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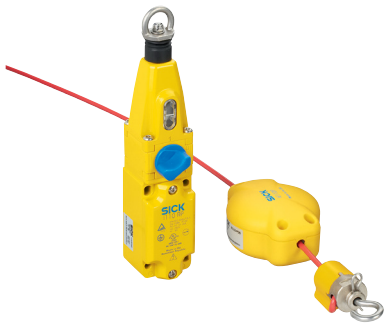

At a glance

- Rope lengths up to 30 m, with rope break and rope pull function
- Metal housing with integrated rotary unlocking lever and fault display
- Available with M20 X 1.5 cable entry gland or Flexi Loop-compatible M12 plug connector (depending on variant)
- Slow-action switching elements with four contacts
- Complies to the standards EN ISO 13850 and IEC/EN 60947-5-5

Your benefits

- The emergency stop function can be triggered at any point along the rope
- Simple adjustment of the rope tension
- Rugged metal housing offers a high level of protection for the rope pull switch
- User-friendly systems available with many rope lengths
- Additional contacts provide quick and easy diagnostics
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort.

→ www.mysick.com/en/i110RP

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/i110RP

Number of positive action N/C contacts	Number of N/O contacts	Flexi Loop ready	Connection type	Model name	Part no.
2	0	✔	Plug connector, M12, 4-pin	i110-RP224	1064510*
	2	-	Cable gland, 1 x M20	i110-RP223	6025077*^

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Recommended accessories

	Description	Model name	Part no.
Ropes and rope accessories			
	Rope accessory set, rope length 5 m	iE110-P05	5311136*^
	Rope accessory set, rope length 10 m	iE110-P10	5311137*^
	Rope accessory set, rope length 20 m	iE110-P20	5311138^
	Rope accessory set, rope length 30 m	iE110-P30	5311139*
	Corner pulley inside	iE110-PCPI	5325887^
	Corner pulley outside	iE110-PCPO	5325888^
	Eye bolt	iE110-PEB	5309035*
	Tensioning spring, diameter 19 mm	iE110-PTS	5311290*^
	Rope, length 100 m	iE110-PL100	5310814*^
	Rope, length 30 m	iE110-PL30	5310813
	Rope grippers	iE110-PRG	5314230*^
	Tensioner	iE110-PTR	5309034^
Plug connectors and cables			
	Cable gland, M20, Unshielded, 6 mm ... 12 mm, IP 68, PA, Black	Cable gland M20	5309164*

Suitable Interface

	Description	Model name	Part no.
Main unit UE43-2MF			
	24V DC Interface for Safety Switches & E/Stops, 3N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE43-2MF3D2	6024894*^

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Subject to change without notice



At a glance

- Rope lengths up to 75 m, with rope break and rope pull function
- Metal housing with integrated emergency stop push button and fault display
- Rotary unlocking lever
- Available with M20 X 1.5 cable entry gland or Flexi Loop compatible M12 plug connector (depending on variant)
- Slow-action switching elements with four contacts

Your benefits

- The emergency stop function can be triggered at any point along the rope
- The long rope length reduces the number of rope pull switches, which saves costs
- Simple adjustment of the rope tension
- Rugged metal housing offers a high level of protection for the rope pull switch
- Integrated emergency stop pushbutton allows users to trigger the emergency stop function at the end of the rope
- User-friendly systems available with many rope lengths
- Additional contacts provide quick and easy diagnostics
- With Flexi Loop: safe series connection including diagnostics with minimal wiring effort

→ www.mysick.com/en/i150RP

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/i150RP

Number of positive action N/C contacts	Number of N/O contacts	Flexi Loop ready	Connection type	Model name	Part no.
3	1	-	Cable gland, 3 x M20	i150-RP313	6024883*^
2	0	✔	Plug connector, M12, 4-pin	i150-RP224	1064511^

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Recommended accessories

	Description	Model name	Part no.
Ropes and rope accessories			
	Rope accessory set, rope length 5 m	iE110-P05	5311136*^
	Rope accessory set, rope length 10 m	iE110-P10	5311137*^
	Rope accessory set, rope length 20 m	iE110-P20	5311138^
	Rope accessory set, rope length 30 m	iE110-P30	5311139*
	Rope accessory set, rope length 50 m	E110-P50	5320016^
	Rope accessory set, rope length 75 m	iE110-P75	5320017^
	Corner pulley inside	iE110-PCPI	5325887^
	Corner pulley outside	iE110-PCPO	5325888^
	Eye bolt	iE110-PEB	5309035*
	Tensioning spring, diameter 19 mm	iE110-PTS	5311290*^
	Rope, length 100 m	iE110-PL100	5310814*^
	Rope, length 30 m	iE110-PL30	5310813
	Rope grippers	iE110-PRG	5314230*^
	Tensioner	iE110-PTR	5309034^
Plug connectors and cables			
	Cable gland, M20, Unshielded, 6 mm ... 12 mm, IP 68, PA, Black	Cable gland M20	5309164*

Suitable Interface

	Description	Model name	Part no.
Main unit UE43-2MF			
	24V DC Interface for Safety Switches & E/Stops, 3N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE43-2MF3D2	6024894*^

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At a glance

- Plastic housing with connected cable
- 3-stage functional structure (off-on-off)
- Slow-action switching elements with four contacts
- Variant with additional plus/minus buttons
- Complies to the standard IEC/EN 60947-5-8

Your benefits

- Personal protection with enabling switches: increased safety in setup mode when protective devices are deactivated
- Plus/minus buttons for additional control of direction of movement
- Different cable lengths available to meet customer application requirements

→ www.mysick.com/en/E100

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/E100

- **Number of positive action N/C contacts:** 2
- **Number of N/O contacts:** 2

Cable length	Type of connection cable	Plus/minus buttons	Model name	Part no.
5 m	Coil	–	E100-A2A22C05A	6021917
10 m	Straight	–	E100-A2A22S10A	6021916
10 m	Straight	✔	E100-B2A22S10A	6022880

Recommended accessories

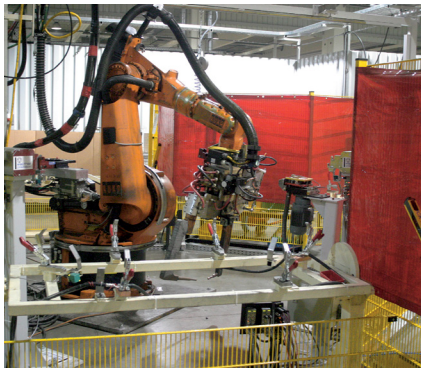
	Description	Model name	Part no.
Terminal and alignment brackets			
	Bracket for E100	Bracket	5308209

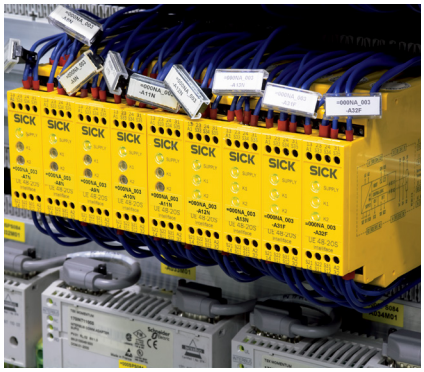
Suitable Interface

	Description	Model name	Part no.
Main unit UE43-2MF			
	24V DC Interface for Safety Switches & E/Stops, 3N/O & 1 N/C Contact (Man. Or Auto Reset & EDM)	UE43-2MF3D2	6024894*^



SENS:CONTROL – SAFE CONTROL SOLUTIONS







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Safe control solutions for intelligent machine designs

Intelligent machine design focuses on increasing productivity on one hand, but also offering the highest level of quality and safety. sens:Control – safe control solutions embody this principle.

The product portfolio includes safety relays, safety controllers and network solutions and is characterized by easy commissioning, modularity and an optimal integration into the automation process. The goal of sens:Control is to optimize interaction between people and machinery.

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Selection guide sens:Control – safe control solutions N-450



Flexi Loop N-452
Cost-saving, safe sensor cascade with diagnostic function



Flexi Classic N-455
Efficient and easy-to-use safety controller



Flexi Soft N-457
The software-programmable safety controller



Flexi Soft Drive Monitor N-460
Flexible, high-performance drive monitoring



Speed Monitor N-462
Optimal safety protection in maintenance mode



Standstill Monitor. N-463
Standstill monitoring without additional sensors



UE10/UE12-2FG N-464
The ideal solution to integrate relay outputs



UE10-3OS N-465
The universal output expansion module



UE43-3MF N-466
Complete monitoring of safety switches and emergency stop pushbuttons



UE48-2OS N-467
Safety relay for all common safety applications



UE10-4XT N-468
The adequate solution for every application



UE42-2HD N-469
Safety relay with 3 safety outputs for all common safety applications



UE43-2MF N-470
The adequate solution for every application



UE43-4AR N-471
Safety relay for all common safety applications



UE44-3SL N-472
Safety relay for all common safety applications



UE45-3S1 . . . . . .N-473
Safety relay for all common safety applications

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SELECTION GUIDE SENS:CONTROL – SAFE CONTROL SOLUTIONS

Product		Application							Features						
		Cascading of safety switches	Cascading of safety sensors with OSSD outputs	Safety command devices	Safety switches	Pressure sensitive mats in 4 wire technology	Opto-electronic protective devices	Contact expansion	Simple logic	Medium logic	Complex logic	Can be configured using a screwdriver	Software based	Modular system	
Safe sensor cascade															
	Flexi Loop	■	■		■		■	■						■	
Safety controllers															
	Flexi Classic			■	■		■		■	■		■		■	
	Flexi Soft			■	■	■	■	■		■	■		■	■	
	Flexi Soft Drive Monitor												■	■	
	Speed Monitor											■			
	Standstill Monitor											■			
Safety relays															
	UE10-2FG						■		■						
	UE10-3OS						■		■						
	UE43-3MF			■	■				■						
	UE48-2OS			■	■	■	■		■						
	UE10-4XT							■	■						
	UE42-2HD			■					■						
	UE43-2MF			■	■				■						
	UE43-4AR			■	■				■						
	UE44-3SL			■	■				■						
	UE45-3S1			■	■				■						

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	Functions						Drive safety functions								Enable current paths	Signalling current paths	Page
	Safe device communication via EFI	Linking of stations via EFI	External device monitoring (EDM)	Path for external device monitoring	Manual reset (monitored)	Automatic reset	Standstill monitoring	Safe stop 1 (SS1)	Safe stop 2 (SS2)	Safe operating stop (SOS)	Safe speed monitoring (SSM)	Safe limited speed (SLS)	Safe direction of motion (SDI)	Safe brake control (SBC)			
																	→ N-452
			■	■	■	■									≤ 52	0	→ N-455
	■	■	■	■	■	■									≤ 48	≤ 90	→ N-457
			■	■	■	■	■	■	■	■	■	■	■	■	0	0	→ N-460
			■	■	■	■	■				■	■			2	2	→ N-462
			■	■	■	■	■								3	3	→ N-463
				■		■									2	0	→ N-464
				■		■									3	1	→ N-465
			■		■	■									3	1	→ N-466
			■		■	■									2	1	→ N-467
				■											4	2	→ N-468
			■												2	1	→ N-469
			■		■	■									2	1	→ N-470
			■			■									4	0	→ N-471
			■		■	■									2	0	→ N-472
			■		■	■									2	0	→ N-473

N



At a glance

- Ability to cascade 32 sensors with up to 30 m per segment in compliance with performance level e
- Compatible with sensors from all manufacturers
- Transfer of detailed diagnostic information
- Integrated standard inputs and outputs
- Power supply for sensors is included
- Connection of the sensors via unscreened standard cable with M12 plug
- IP 65 and IP 67 enclosure rating
- For use with Flexi Soft and Flexi Classic controllers (master node required for Flexi Classic).

Your benefits

- Cascading of safety switches and safety sensors with OSSD outputs minimizes the wiring effort and the inputs of the safety controller, which saves costs
- Easy retrofitting of existing machines
- Simple calculation of the performance level saves time since the Flexi Loop node monitors each sensor individually
- User-friendly due to quick and easy configuration
- Ability to be used over long distances increases application flexibility
- Detailed diagnostic information minimizes system downtime
- Seamless system integration and communication with other SICK safety controllers

➜ www.mysick.com/en/Flexi_Loop

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/Flexi_Loop

Flexi Loop node for safety sensors with dual-channel OSSD outputs

Connection type	Number of non-safe inputs	Number of non-safe outputs	Model name	Part no.
Female connector M12, 5-pin	1	0	FLN-OSSD1000105	1061709ˆ
Female connector M12, 8-pin	1	1	FLN-OSSD1100108	1061710*ˆ

Flexi Loop node for dual-channel equivalent electro-mechanical safety switches

Connection type	Number of non-safe inputs	Number of non-safe outputs	Model name	Part no.
Female connector M12, 5-pin	0	0	FLN-EMSS0000105	1061711*ˆ
Female connector M12, 8-pin	1	1	FLN-EMSS1100108	1061712*ˆ

Flexi Loop power supply module

Description	Model name	Part no.
The power supply module is used to connect a power supply with 24 V DC, for the electrical isolation and for overcurrent shutdown.	FLA-PWRI00001	1061715ˆ

Flexi Loop terminator module

Description	Model name	Part no.
The terminator is used to terminate the safe sensor cascade on the last Flexi Loop node.	FLT-TERM00001	1061716*ˆ

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Flexi Loop safe sensor cascade

Description	Model name	Part no.
Flexi Loop master node to connect a Flexi Loop cascade to Flexi Classic. System diagnostics during operation and during commisioning without busmaster.	FLA-MSTR00001	1061713^
Flaxi Loop master node to connect a Flexi Loop cascade to Flexi Classic. System diagnostics during operation and during commisioning without busmaster, Interfaces IO-Link	FLA-MSTR00002	1067650^

Flexi Loop Y-adapters

Description	Model name	Part no.
The Flexi Loop Y-adapter (EMMS) splits the 8-pin connection of the FLN-EMSS1100108 in two 5-pin connections: One for dual-channel equivalent electro-mechanical safety switches and one for non-safe I/O signals.	FLA-YCON00001	2074733^
The Flexi Loop Y-adapter (OSSD) splits the 8-pin connection of the FLN-OSSD1100108 in two 5-pin connections: One for safety sensors with dual-channel OSSD outputs and one for non-safe I/O signals.	FLA-YCON00002	2074734^

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	1 piece, Flexi Loop fixing clip	C-Fix bracket	2068830*^

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	5 m, 5-wire	DOL-1205-G05MC	6025907*^
				10 m, 5-wire	DOL-1205-G10MC	6025908*^
				15 m, 5-wire	DOL-1205-G15MC	6051946*
				20 m, 5-wire	DOL-1205-G20MC	6050247*^
				30 m, 5-wire	DOL-1205-G30MC	6050248*^
	Male connector, M12, 5-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	1 m, 5-wire	STL-1205-G01MC	6037741*
				2 m, 5-wire	STL-1205-G02MC	6051951
				5 m, 5-wire	STL-1205-G05MC	6051952
				10 m, 5-wire	STL-1205-G10MC	6051953
	Male connector, M12, 8-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	1 m, 8-wire	STL-1208-G01MC	6051954*
				2 m, 8-wire	STL-1208-G02MC	6051955
				5 m, 8-wire	STL-1208-G05MC	6051956*
				10 m, 8-wire	STL-1208-G10MC	6051957
	Male connector, M12, 4-pin, straight	Male connector, M12, 4-pin, straight	-	0.2 m, 4-wire	DSL-1204-G0M2C	6051998

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	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
	Female connector, M12, 5-pin, straight	Male connector, M12, 5-pin, straight	TPU, PUR, halogen-free, unshielded	0.6 m, 5-wire	DSL-1205-G0M6C	6025930*^
				1.5 m, 5-wire	DSL-1205-G1M5C	6029281^
	Female connector, M12, 5-pin, straight, A-coded	Male connector, M12, 5-pin, straight, A-coded	TPU, PUR, halogen-free, unshielded	1 m, 5-wire	DSL-1205-G01MC	6029280*^
				2 m, 5-wire	DSL-1205-G02MC	6025931*^
				5 m, 5-wire	DSL-1205-G05MC	6029282*
				10 m, 5-wire	DSL-1205-G10MC	6038954*^
				15 m, 5-wire	DSL-1205-G15MC	6038956
				20 m, 5-wire	DSL-1205-G20MC	6038957
				30 m, 5-wire	DSL-1205-G30MC	6051945*
	Female connector, M12, 8-pin, straight	Male connector, M12, 8-pin, straight	TPU, PUR, halogen-free, unshielded	0.6 m, 8-wire	DSL-1208-G0M6C	6044991*^
				1 m, 8-wire	DSL-1208-G01MC	6051940^
				1.5 m, 8-wire	DSL-1208-G1M5C	6051941
				2 m, 8-wire	DSL-1208-G02MC	6051942^
				5 m, 8-wire	DSL-1208-G05MC	6051943^
				10 m, 8-wire	DSL-1208-G10MC	6051944
	Female connector, M12, 5-pin, straight, unshielded, screw-type terminals	-	-	-	DOS-1205-G	6009719*
	Male connector, M12, 5-pin, straight, unshielded, screw-type terminals	-	-	-	STE-1205-G	6022083*
	Male connector, M12, 8-pin, straight, screw-type terminals	-	-	-	STE-1208-G	6033269

N

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At a glance

- Rotary DIP switch for easy adjustment
- Modularly expandable
- Direct wiring for all types of sensors
- Logic functions (AND/OR/Muting/Bypass/Reset/EDM)
- Integration into all common networks (PROFIBUS-DP, DeviceNet, CANopen, Modbus TCP, Ethernet (TCP/IP), EtherNet/IP and PROFINET IO)

Your benefits

- Optimal scalability prevents extra inputs and outputs, reducing unnecessary hardware
- Configuration via rotary DIP switch reduces wiring and simplifies logic configuration
- The Flexi Classic Configurator tool offers easy logic configuration and wiring help
- Complete diagnostics of the system reduces downtime
- Its compact design makes it possible to save space in the control cabinet

→ www.mysick.com/en/Flexi_Classic

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/Flexi_Classic

Main modules

- **Connection type:** Plug-in spring terminals

Number of inputs	Number of outputs	Delay time (outputs Q3/Q4)	Number of muting sensors	Model name	Part no.
2 dual-channel or 4 single-channel	2 dual-channel or 4 single-channel	0 s ... 5 s	-	UE410-MU3T5	6026136*^
1 dual-channel and 4 single-channel	1 dual-channel and 2 single-channel	-	2 ... 4	UE410-MM3	6034482

I/O modules

- **Connection type:** Plug-in spring terminals

Number of inputs	Number of outputs	Delay time (outputs Q3/Q4)	Number of muting sensors	Model name	Part no.
2 dual-channel or 4 single-channel	2 dual-channel or 4 single-channel	0 s ... 5 s		UE410-XU3T5	6032470*
4 dual-channel or 8 single-channel	-	-		UE410-8DI	6026139*^
1 dual-channel and 4 single-channel	1 dual-channel and 2 single-channel	-	2 ... 4	UE410-XM3	6034483
3 single-channel	-	-	-	UE410-MDI3	6034484

Safety relays

Number of enable current contacts	Number of signalling current contacts	Type of outputs	Model name	Part no.
2	0	Relay contacts	UE10-2FG3D0	1043916*^
2	0	Relay contacts	UE12-2FG3D0	1043918*

Recommended accessories

	Brief description	Model name	Part no.
Muting accessories			
	Incandescent muting lamp with 10 m cable	Indicator lamp	2033117*
	LED muting lamp with 10 m cable	Indicator lamp	2033119

N

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At a glance

- Expansion modules, Motion Control modules, and gateways for all common fieldbuses
- Configuration data stored in the system plug
- Safe networking of up to 32 Flexi Soft stations
- Integration of sensor cascade
- Multi-language, license-free configuration software: exceptionally simple operation, plausibility check, simulation mode, wiring diagram, parts list, documentation, and data recorder

Your benefits

- Scalable for an efficient and cost-optimized safety application solution
- Cost savings: Flexi Soft offers a modular structure that is in line with your requirements, and thus offers an ideal level of granularity
- Intuitive configuration software featuring comprehensive functions enables continuous monitoring of the configuration
- Rapid verification of the safety application: The configuration software provides documentation and a wiring diagram
- Safety logic is easy to create thanks to ready-made, TÜV-certified function blocks
- The main module's diagnostics interfaces and the configuration storage facility in the system plug enable rapid commissioning, component replacement, and troubleshooting, resulting in minimum downtimes

→ www.mysick.com/en/Flexi_Soft

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/Flexi_Soft

Main modules

Number of EFI interfaces	Flexi Link	Automatic Configuration Recovery (ACR)	Flexi Line	Model name	Part no.
0	–	–	–	FX3-CPU000000	1043783*^
2	✔	–	–	FX3-CPU130002	1043784*^
		✔	–	FX3-CPU230002	1058999
			✔	FX3-CPU320002	1059305*^

Gateways

Fieldbus, industrial network	Model name	Part no.
EtherNet/IP	FX0-GENT00000	1044072*^
Modbus TCP	FX0-GMOD00000	1044073*^
PROFINET	FX0-GPNT00000	1044074
EtherCAT	FX0-GETC00000	1051432
PROFIBUS DP	FX0-GPRO00000	1044075
CANopen	FX0-GCAN00000	1044076
DeviceNet	FX0-GDEV00000	1044077

I/O modules

Flexi Loop-compatible	Number of safety inputs	Number of non-safe inputs	Number of test signal outputs	Number of safe outputs	Number of non-safe outputs	Model name	Part no.
✔	8	0	2	4	0	FX3-XTIO84002	1044125*^
			8	0	0	FX3-XTDI80002	1044124*^
			2	0	4 ... 6	FX3-XTDS84002	1061777*^
–	0	6 ... 8	0	0	6 ... 8	FX0-STIO68002	1061778*^

Relay modules

Number of enable current contacts	Number of signalling current contacts	Number of contactor monitoring contacts	Model name	Part no.
2	1	1	UE410-2RO4	6032677
4	2	2	UE410-4RO4	6032676*^
2	0	1	UE10-2FG3D0	1043916*^
			UE12-2FG3D0	1043918*

Recommended accessories

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, D-Sub, 9-pin, straight Note: For connecting the configuration connection to the serial interface of a PC	Male connector, M8, 4-pin, straight	TPU/PVC, unshielded	2 m	DSL-8D04G02M025KM1	6021195*
				10 m	DSL-8D04G10M025KM1	2027649*^
	Male connector, M8, 4-pin, straight Note: For connecting the configuration connection to the USB interface on the PC	Male connector, USB-A, straight	PVC, unshielded	2 m, 4-wire	DSL-8U04G02M025KM1	6034574*^
				10 m, 4-wire	DSL-8U04G10M025KM1	6034575*
	Male connector, M8, 4-pin, angled Note: For connecting the configuration connection of a PLC	Cable	PVC	3 m	Connection cable	6036342
	Male connector, USB-A, straight, shielded Note: For connecting the configuration connection to the USB interface on the PC	Male connector, Mini-USB, straight	PUR, halogen-free, shielded	3 m, 4-wire	Connection cable (male connector-male connector)	6042517
	Cable	Cable	Twisted pair, 120 Ohm, PVC	2-wire	EFI connecting cable	6029448
	Open conductor heads, shielded	Cable	Twisted pair	4-wire	Flexi link cable	6034249
	Terminal connector, 4-pin, unshielded, screw-type terminals	-	-	-	Screw terminal connector	2045891
	Terminal connector, 4-pin, unshielded, spring terminal		-	-	Spring terminal connector	2045890

N

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	Brief description	Model name	Part no.
System plugs			
	For FX3-CPU0 and FX3-CPU1, Storing the system configuration, without EFI-compatible devices	FX3-MPL000001	1043700*^
	For FX3-CPU2 and FX3-CPU3, Storing the system configuration, including EFI-compatible devices via Automatic Configuration Recovery (ACR)	FX3-MPL100001	1047162*^
Adapters and distributors			
	Diode module, For the connection of multiple short-circuiting switching mats (up to 4)	DM8-A4K	6026142
Muting accessories			
	Including M12 male connector and connection cable (2 m), mounting bracket and mounting kit, Incandescent lamp	Indicator lamp	2033116^
	Inclusive male connector M12 and connection cable (10 m), mounting bracket and mounting kit, Incandescent lamp	Indicator lamp	2033117*
	Inclusive male connector M12 and connection cable (2 m), mounting bracket and mounting kit, LED	Muting indicator lamp	2033118
	Inclusive male connector M12 and connection cable (10 m), mounting bracket and mounting kit, LED	Muting indicator lamp	2033119

	Enclosure rating	Input voltage	Output voltage	Output current	Type	Part no.
Power supply units and power cord connectors						
	IP 20	100 V AC ... 240 V AC	24 V DC	≤ 2.1 A	PS50WE24V	7028789
				≤ 3.9 A	PS95WE24V	7028790

N



At a glance

- 7 drive safety functions: SS1, SS2, SOS, SSM, SLS, SDI, and SBC
- For all common encoder interfaces
- Programmable logic
- Monitoring of up to 10 speed levels and 4 brake ramps
- Possible to monitor multiple axes

Your benefits

- Integration into a Flexi Soft system with one software tool and one project file allows quick project planning and commissioning
- Easy logic development using predefined, modifiable, freely configurable applications
- Maximum level of integration into higher-level controllers via all common fieldbus systems using gateways
- Documentation of the entire safety application simplifies machine acceptance and validation
- Monitoring movements instead of shutting down increases machine productivity
- Flexibility due to a wide range of drive safety functions

➜ www.mysick.com/en/Flexi_Soft_Drive_Monitor

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/Flexi_Soft_Drive_Monitor

Description	Model name	Part no.
Motion Control module, Flexi Soft Drive Monitor	FX3-MOC00000	1062344*

N

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Recommended accessories

	Description	Model name	Part no.
Modules and gateways			
	Facility for connecting two encoders. Connection to Drive Monitor FX3-MOC: Female connector, D-Sub HD, 15-pin.	Dual encoder connection box	2068729^
	Facility for connecting one encoder (normally used in conjunction with a motor feedback encoder). Connection to Drive Monitor FX3-MOC: Female connector, D-Sub HD, 15-pin. Connection to a second motor feedback splitter box: Female connector, D-Sub, 9-pin.	Motor feedback splitter box	2068728^

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, Micro D-Sub, 15-pin, straight Note: For direct encoder connection	Cable	Shielded	2 m	Connecting cable	2067893*
	Female connector, Micro D-Sub, 15-pin, straight Note: To connect Drive Monitor FX3-MOC with motor feedback splitter box or dual encoder connection box	Male connector, D-Sub-HD, 15-pin, straight	Shielded	2 m	Connection cable	2067798
				10 m	Connection cable	2067799
	Male connector, D-Sub-HD, 15-pin, straight Note: To connect two motor feedback splitter boxes	Male connector, D-Sub, 9-pin, straight	Shielded	2 m	Connection cable	2067800
				10 m	Connection cable	2067801
	Female connector, Micro D-Sub, 15-pin, straight Note: For connecting the Flexi Soft Drive Monitor with a motor feedback splitter box or a dual encoder connector box	Male connector, D-Sub-HD, 15-pin, angled	Shielded	2 m	-	2077261*
				10 m	-	2077262*
	Female connector, Micro D-Sub, 15-pin, angled Note: For direct encoder connection	Cable	Shielded	2 m	-	2077263*
	Y-connection cable, encoder, M12	-		-	-	2071072
	Connection cable, box to box	-		0.3 m	-	2078260

N



At a glance

- Zero-speed and drive monitoring
- 4 safe semiconductor outputs
- PL e (EN ISO 13849), SIL3 (IEC 61508), SILCL3 (EN 62061)
- Maximum input frequency of 2 kHz
- Adjustable monitoring limit/monitoring frequency from 0.1 to 9.9 Hz or 0.5 to 99 Hz
- 2 application diagnostic outputs for failure and status display
- Diagnostic LEDs

Your benefits

- Easy commissioning – using only a screwdriver – reduces installation time
- Tool backup using the Flexi Soft Designer and the Flexi Classic Configurator
- Additional HTL encoder evaluation
- Cascading of units is possible

→ www.mysick.com/en/Speed_Monitor

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/Speed_Monitor

Selectable speed limit	Connection type	Model name	Part no.
0.1 Hz ... 9.9 Hz	Screw-type terminals	MOC3SA-AAB43D31	6034245
0.5 Hz ... 99 Hz	Screw-type terminals	MOC3SA-BAB43D31	6034247

N

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At a glance

- Standstill monitoring by means of residual voltage measurement
- 3 normally open and 1 normally closed positively guided safety contacts
- 2 application diagnostic outputs for semiconductors
- 1 application diagnostic output normally open
- PL e (EN ISO 13849), SIL3 (IEC 61508), SILCL 3 (EN 62061)
- Maximum motor supply voltage 690 V
- Adjustable voltage threshold and standstill period

Your benefits

- Quick mounting and installation thanks to the lack of additional wiring requirements
- Simple commissioning with a screwdriver
- Easy to retrofit as the subsequent mounting of sensors is not necessary

→ www.mysick.com/en/Standstill_Monitor

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/Standstill_Monitor

Supply voltage	Connection type	Model name	Part no.
24 V DC	Screw-type terminals	MOC3ZA-KAZ33D3	6044981*^
230 V AC	Screw-type terminals	MOC3ZA-KAZ33A3	6044982
400 V AC	Screw-type terminals	MOC3ZA-KAZ33A6	6044983^

N



At a glance

- Ideal for applications with opto-electronic protective devices and safety controllers with OSSD outputs
- Fast response time of 10 ms
- Compact design
- 2 contact outputs
- Feedback path for external device monitoring (EDM)
- Screw-type terminals or plug-in screw-type terminals
- Coded plugs for all slots

Your benefits

- Faster response times provide short safety distances
- Saves space in the control cabinet thanks to its compact design
- Reduced wiring effort for fast and easy system commissioning

➜ www.mysick.com/en/UE10-2FG

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/UE10-2FG

Description	Connection type	Model name	Part no.
Safety control relay expansion unit with cascading jumper 2 N/O contacts	Plug-in screw-type terminals	UE10-2FG3D0	1043916**
Interposing safety control relay 2 N/O contacts.	Plug-in screw-type terminals	UE12-2FG3D0	1043918*

N

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At a glance

- Ideal for applications with opto-electronic protective devices and safety controllers with OSSD outputs
- Output expansion for a safe processing of OSSD output signals
- 3 safety outputs, 1 application diagnostic output
- Feedback path for external device monitoring (EDM)
- Coded plugs for all slots

Your benefits

- Offers all needed contact paths in a compact form
- Fast diagnostics via status information reduces downtime
- Fast, tool-free exchange via coded, plug-in screw-type terminals
- Combines the advantages of classic relays and easy circuitry

➜ www.mysick.com/en/UE10-3OS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/UE10-3OS

Description	Connection type	Model name	Part no.
Safety relay expansion module 4 N/O, 2 N/C contacts	Plug-in screw-type terminals	UE10-3OS3D0	6024918*^

N



At a glance

- Evaluation unit for emergency stop push-buttons and safety switches
- Cross circuit detection and sequence monitoring for dual-channel actuation
- Supports discrepancy monitoring
- 3 safety outputs, 1 application diagnostic output
- Manual or automatic reset
- External device monitoring (EDM)

Your benefits

- Complete monitoring and evaluation of sensors
- Offers all needed contact paths in a compact form
- Fast diagnostics via status information reduces downtime
- Fast, tool-free exchange via coded, plug-in screw-type terminals
- Combines the advantages of classic relays and easy circuitry

→ www.mysick.com/en/UE43-3MF

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/UE43-3MF

Description	Supply voltage	Model name	Part no.
3 N/O, 1 N/C	230 V AC	UE43-3MF2A3	6024901*
	24 V DC	UE43-3MF2D3	6024897*^

N

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At a glance

- Ideal for the evaluation of emergency stop pushbuttons, safety switches, safety light curtains, safety laser scanners and safety pressure sensitive mats
- Cross circuit detection and sequence monitoring for dual-channel actuation
- 2 safety outputs, 1 application diagnostic output
- Manual or automatic reset
- External device monitoring (EDM)
- Coded plugs for all slots

Your benefits

- One module for all common applications simplifies machine integration
- Complete monitoring and evaluation of sensors
- The sequence monitoring takes over the evaluation of non-contact safety switches
- Fast diagnostics via status information reduces downtime
- Fast, tool-free exchange via coded, plug-in screw-type terminals
- Combines the advantages of classic relays and easy circuitry

→ www.mysick.com/en/UE48-20S

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/UE48-20S

Description	Connection type	Model name	Part no.
Universal safety relay for light curtains, laser scanners, e-stops, interlocks, 4 wire safety mats etc. 2 N/O, 1 N/C contacts	Plug-in screw-type terminals	UE48-20S3D2	6024916*^

N



At a glance

- Expansion module allowing for 4 more safety outputs on UE10 relay series
- 4 safety outputs, 2 application diagnostic outputs
- Feedback signal for external device monitoring (EDM)
- External device monitoring inside the base device
- Coded version for all plug-in positions

Your benefits

- Offers all needed contact paths in a compact form
- Ideal for contact expansion
- Fast diagnostics via the status information reducing downtime
- Fast tool-free exchange via coded plug-gable terminals
- Combines the advantages of classic relays and easy circuitry

➜ www.mysick.com/en/UE10-4XT

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/UE10-4XT

Description	Connection type	Model name	Part no.
Safety relay 3 N/O, 1 N/C contacts	Plug-in screw-type terminals	UE10-4XT3D2	6024920*^

N

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At a glance

- Evaluation unit for two-hand controls Type III C, in accordance with EN 574
- 2 safety outputs, 1 application diagnostic output
- Discrepancy time 500 ms
- Monitoring of the external actuators

Your benefits

- Offers all possibilities of applications in a compact installation size
- Application-specific assembly saves costs
- Fast diagnostics via the status information reduces downtime
- Fast tool-free exchange via coded plug-gable terminals

Ordering information

Other models and accessories ➜ www.mysick.com/en/UE42-2HD

Description	Connection type	Model name	Part no.
2 hand control safety relay	Plug-in screw-type terminals	UE42-2HD3D2	6024881*^

➜ www.mysick.com/en/UE42-2HD

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

N



At a glance

- Evaluation unit for emergency stop push-buttons and safety switches
- Cross circuit detection and sequence monitoring for the dual-channel input signal
- Supports discrepancy monitoring
- 2 safety outputs, 1 application diagnostic output
- Combines the advantages of classic relays and easy circuitry
- Manual or automatic reset
- Coded version for all plug-in positions

Your benefits

- Complete monitoring and analysis of sensors
- The sequence monitoring function facilitates the monitoring of non-contact safety switches
- Fast diagnostics via the status information reduces downtime
- Fast tool-free exchange via coded plug-gable terminals

➜ www.mysick.com/en/UE43-2MF

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/UE43-2MF

Description	Connection type	Model name	Part no.
Safety relay, single or dual input, 2 N/O, 1 N/C, manual & auto reset	Plug-in screw-type terminals	UE43-2MF3D2	6024894*^

N

GAU-8018467/2016-07-01
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At a glance

- Evaluation unit for safety switches
- Cross circuit detection and sequence monitoring for the dual-channel input signal
- 4 safety outputs
- Automatic reset
- Combines the advantages of classic relays and easy circuitry
- Coded version for all plug-in positions

Your benefits

- Complete monitoring and analysis of sensors
- Faster response times provide short safety distances
- Compact size saves space in control cabinet
- Fast tool-free exchange via coded plug-gable terminals

➜ www.mysick.com/en/UE43-4AR

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/UE43-4AR

Description	Connection type	Model name	Part no.
Safety relay, single or dual input, 4 N/O, auto reset	Plug-in screw-type terminals	UE43-4AR3D2	6034775

N



At a glance

- Ideal for the evaluation of safety switches with a mechanical interlock
- Cross circuit detection and sequence monitoring at the dual-channel input signal
- 2 N/O contacts for a direct integration into a machine environment
- 1 N/O contact for a magnetic release, time delayed up to 30 s
- Manual or automatic reset
- Coded version for all plug-in positions

Your benefits

- Complete monitoring and analysis of sensors
- Time delay provides optimal protection of locked doors
- Adjustable time delay at the front of the device (up to 30 s) makes it easy for the user to change settings
- Tool-free exchange via coded pluggable terminals
- Combines the advantages of classic relays and easy circuitry

➜ www.mysick.com/en/UE44-3SL

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/UE44-3SL

Description	Connection type	Model name	Part no.
Safety relay, safety switch, guard locking switch. 2 N/O, 1 timed closed contact, 1.5-30 sec., auto & manual reset	Plug-in screw-type terminals	UE44-3SL3D330	6024910^

N

GAU-8018467/2016-07-01
Subject to change without notice



At a glance

- Ideal for evaluating emergency stop push-buttons and safety switches
- Cross circuit detection and sequence monitoring at the dual-channel input signal
- 2 N/O contacts for a direct integration into the machine
- 1 N/O time delayed up to 30 s for stop category 1 applications
- Manual or automatic reset
- Coded version for all plug-in positions

Your benefits

- Complete monitoring and analysis of sensors
- Time delay provides optimal protection of brake applications
- Adjustable time delay at the front of the device (up to 30 s) makes it easy for the user to change settings
- Tool-free exchange via coded pluggable terminals
- Combines the advantages of classic relays and easy circuitry

→ www.mysick.com/en/UE45-3S1

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/UE45-3S1

Description	Connection type	Model name	Part no.
Safety relay, safety switch, guard locking switch. 2 N/O, 1 timed open contact, 1.5-30 sec., auto & manual reset	Plug-in screw-type terminals	UE45-3S13D330	6024914*^

N



MOTOR FEEDBACK SYSTEMS

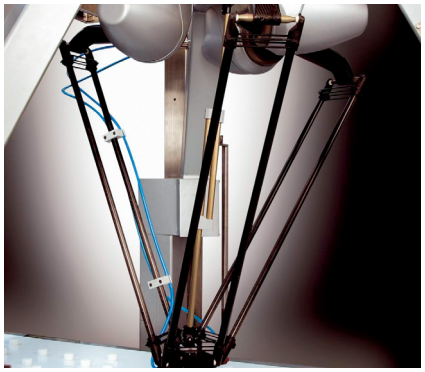





Photo: Wieland Werke AG

Measuring the speed and position with the greatest possible precision

Commutation, position and speed measurement with the corresponding number of interfaces used to require three sensors. Today SICK motor feedback systems offer these functions in one single device. A consistent mechanical interface allows for a high level of flexibility. SICK motor feedback systems have also set the standards for electrical interfaces such as HIPERFACE® and HIPERFACE DSL®. SICK motor feedback systems meet important requirements such as temperature resistance, high resolution, multiturn design with a mechanical gear box and a high level of electromagnetic immunity. The motor feedback systems certified according to SIL2 permit implementation of the machine directive as per EN ISO 13849.

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Solutions for electrical drive engineering O-476

Speed and position measurement with ultimate precision O-478

SOLUTIONS FOR ELECTRICAL DRIVE ENGINEERING

Innovation & partnership

Progress means innovation and innovations lead to the development of new products
and technologies.
This has been demonstrated by SICK for decades with its range of motor feedback systems and interfaces.

It goes without saying for us that close partnerships are essential for success. The mutual development of solutions for creating successful projects and offering you the best possible service are equally important to us. This forms the basis for long-term and sustainable partnerships



Flexibility

SICK offers you a product portfolio which combines various technologies into a minimum of mechanisms. Do you require various performance levels? We can deliver!

SICK‘s motor feedback systems additionally optimize your products, reduce system costs and offer you the flexibility you need to succeed in todays marketplace.

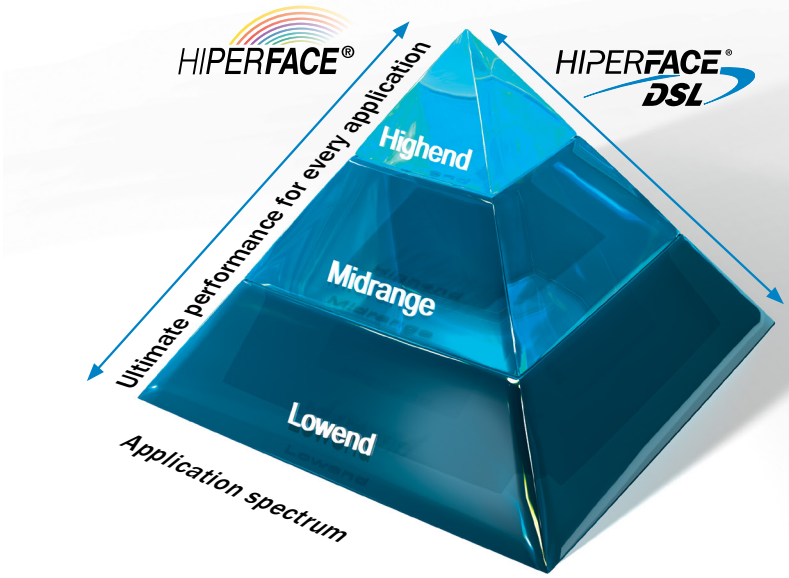
Safety

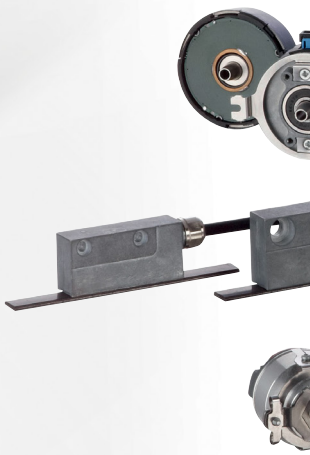
SICK‘s certified safety motor feedback systems are available in a broad range of performance levels, enabling individual selection in order to fulfill market requirements.

These safety components represent the state-of-the-art and facilitate easier certification of systems compared to non-certified products.
With SICK you always have a competent partner at your side.

Functional Safety Type Approved
TÜVRheinland CERTIFIED
www.tuv.com ID 0600000000

0





GAU-8018467/2016-07-01
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The wide range of available technologies covering everything from compact servo drives through to powerful direct drives are ideal for creating bespoke solutions. A mechanical interface to the customer's equipment serves to minimize variances on-site across a broad spectrum of technologies.

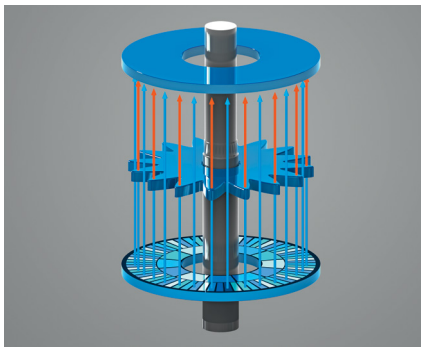
In addition to its comprehensive product portfolio, technology leader SICK also ensures for continuous development in the field of drive engineering. Building on SSI and HIPERFACE®, HIPERFACE® DSL represents the next stage of evolution in terms of drive engineering.

SPEED AND POSITION MEASUREMENT WITH ULTIMATE PRECISION

Motor feedback systems from SICK fulfill important requirements such as temperature resistance, high resolution, electronic type labeling, multi-turn designs with mechanical gear mechanisms, high stability and last but not least, small dimensions enabling short motor lengths.



Capacitive technologies ...



... for low-end applications

- Bearingless encoder systems
- Rugged technology

Example uses:
SEK/SEL34
SEK/SEL37
SEK90 to 260

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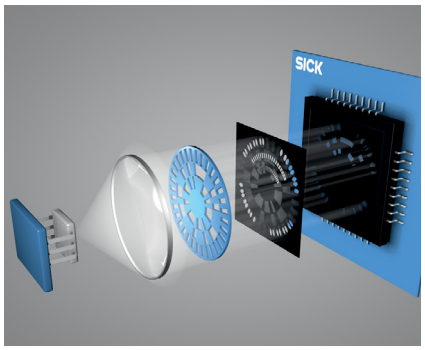
Optical technologies ...

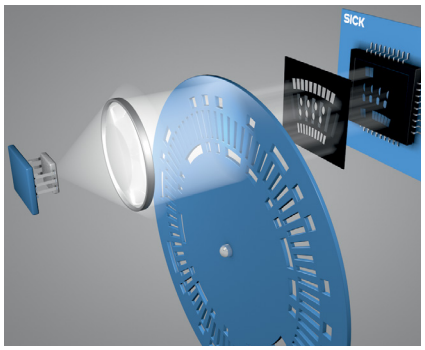


... for midrange applications

- Sensing centrally to rotary axis
- High resolution combined with compact housing design

Example uses:
SKS/SKM36
EKS/EKM36

Optical technologies ...



... for high-end applications

- Ultimate resolution
- Rugged, metal code disk

Example uses:
SRS/SRM50
SFS/SFM60

Multi-turn technologies ...



... for all performance classes

- Maximum reliability through geared technology

Used for all multi-turns



ENCODERS







P

Perfect rotary and linear path measurement

Paths, position, angle – an encoder is the first choice when it comes to precise position detection in industrial automation. The same goes for revolutions and revolutions per minute, speed and acceleration. High-resolution optical systems and very robust magnetic systems complement one another perfectly and permit exact position detection in all kinds of applications. Rotary encoders are divided into incremental and absolute encoders. Wire draw encoders and linear encoders with material measure are available in the area of linear measuring technology.

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Selection guide encoders **P-482**



DFS60S Pro **P-484**
Safe, easy, flexible:
Encoders for functional safety



DFS60 . . . . . **P-490**
High-resolution, programmable



DFV60 measuring wheel encoder **P-493**
High-resolution, programmable



DKV60 measuring wheel encoder **P-495**
Preassembled measuring system



DKS40 . . . . . **P-496**
Compact housing



DBS36 . . . . . **P-497**
The MultiFit Incremental Encoder



DBS50 . . . . . **P-498**
The MultiFit Incremental Encoder



AHS/AHM36 CANopen **P-499**
Flexible, smart, compact



AHS/AHM36 SSI **P-501**
Flexible, smart, compact



ATM60 PROFIBUS **P-502**
Reliable, established and modular



ATM60 CANopen **P-504**
Reliable, established and modular



ATM60 DeviceNet **P-506**
Reliable, established and modular



ATM60 SSI **P-508**
Reliable, established and modular



AFS/AFM60 SSI **P-510**
Precise, flexible, versatile



AFS/AFM60 EtherNet/IP **P-512**
Intelligent, powerful, precise



AFS/AFM60 EtherCAT® **P-514**
Intelligent, powerful, precise



AFS/AFM60 PROFINET **P-516**
Intelligent, powerful, precise



ARS60 . . . . . **P-518**
Absolute singleturn encoder



KH53 . . . . . **P-519**
The heavy-duty linear encoder



TTK70 . . . . . **P-521**
Compact, with a high-resolution



PGT-10-S / PGT-08-S **P-522**
Display Programming Tool



MRA **P-523**
Wire Rope Transducers

Accessories **P-524**

P

SELECTION GUIDE ENCODERS

Product	Task		Interface										Number of revolution			Resolution						
	Incremental detection of position or speed	Absolute position detection	TTL/HTL	Analog	HIPERFACE®	SSI	PROFIBUS	CANopen	DeviceNet	EtherNet/IP	PROFINET	EtherCAT®	No absolute measurement	1 revolution absolute	≥ 2 revolutions absolute	1,024 periods	≤ 2,500 pulses/steps [1]	≤ 8,192 pulses/steps [1]	> 8,192 pulses/steps [1]	> 32,768 pulses/steps [1]	Programming by customer (line count/zero pulse)	
Incremental encoders																						
DFS60S Pro	■		■										■			■	■	■	■	■		
DFS60	■		■										■			■	■	■	■	■	■	
DFV60	■		■										■			■	■	■	■	■		
DKV60	■		■										■			■	■	■	■	■		
DKS40	■		■										■			■	■	■	■	■		
Absolute encoders																						
AHS/AHM36 CANopen		■						■						■	■		■	■	■		■	
AHS/AHM36 SSI		■				■								■	■		■	■	■		■	
ATM60 PROFIBUS		■					■								■		■	■	■		■	
ATM60 CANopen		■						■							■		■	■	■		■	
ATM60 Devicenet		■							■						■		■	■	■		■	
ATM60 SSI		■				■									■		■	■	■		■	
AFS/AFM60 SSI		■				■				■				■			■	■	■	■	■	
AFS/AFM60 EtherNet IP		■												■			■	■	■		■	
AFS/AFM60 EtherCAT		■										■		■			■	■	■		■	
AFS/AFM60 PROFINET		■									■			■			■	■	■		■	
ARS60		■				■								■			■	■	■	■	■	
Linear encoders																						
KH53						■	■															
TTK70					■	■																

[1] Per revolution

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Space for installation					Flange/shaft type				Special requirements	Path measurement		Number of measuring cycles		Measurement length					Resolution			Installation size			Page
Ø ≤ 36 mm	Ø ≤ 40 mm	Ø ≤ 50 mm	Ø ≤ 60 mm	Ø ≤ 90 mm	Face mount flange	Servo flange	Blind hollow shaft	Through hollow shaft	Position above measuring wheel	Incremental	Absolute	≤ 1,000,000	Unlimited	≤ 5 m	≤ 10 m	≤ 50 m	≤ 548 m	≤ 1,700 m	≤ 1 µm	≤ 0.05 mm	≤ 0.1 mm	Small	Medium	Large	
			■		■					■													■		→ P-484
			■		■	■	■	■		■													■		→ P-490
			■						■	■													■		→ P-493
			■						■	■													■		→ P-495
	■									■												■			→ P-496
■											■											■			→ P-499
■											■											■			→ P-501
			■								■												■		→ P-502
			■								■												■		→ P-504
			■								■												■		→ P-506
			■								■												■		→ P-508
			■								■												■		→ P-510
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			■								■												■		→ P-514
			■								■												■		→ P-516
			■								■												■		→ P-518
											■		■	■	■	■	■	■			■			■	→ P-519
											■		■	■					■	■	■	■			→ P-521

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At a glance

- Encoders for functional safety technology: SIL2 (IEC 61508), SILCL2 (EN 62061), PL d (EN ISO 13849)
- Electrical interface: 4.5 V ... 32 V; sin/cos 1 V_{PP}; 1,024 periods
- Face mount flange or servo flange, blind hollow shaft or through hollow shaft (assembly options with key)
- Universal cable outlet, M23 or M12 male connector, axial or radial
- Enclosure rating: IP 65
- Operating temperature range: –30 °C ... +95 °C

Your benefits

- Certified safety solution that ensures the best possible protection for persons, machinery, and systems
- Easy and practical implementation of safety functions using an all-in-one solution, safety functions with the Flexi Soft Drive monitor by SICK: safe stop 1 (SS1), safe stop 2 (SS2), safe operating stop (SOS), safe speed monitoring (SSM), safely limited speed (SLS), safe direction (SDI), safe brake control (SBC)
- Form-fit and high force clamp connection for mechanical reliability
- Certified safety products reduce the scope of safety engineering
- Versatile connection options for high levels of flexibility and straightforward implementation
- Compact size for compatibility with applications in which installation space is limited

➜ www.mysick.com/en/DFS60S_Pro

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/DFS60S_Pro

Solid shaft, flat, face mount flange

- **Shaft diameter:** 10 mm
- **Shaft length:** 19 mm
- **Shaft mounting:** M4 thread

Connection type	Type	Part no.
M23 male connector, 12-pin, radial	DFS60S-S4OA01024	1069518
M12 male connector, 8-pin, radial	DFS60S-S4OC01024	1069519
Cable, 8-wire, universal, 1.5 m	DFS60S-S4OK01024	1069520

Solid shaft with key, face mount flange

- **Shaft diameter:** 10 mm
- **Shaft length:** 19 mm
- **Shaft mounting:** M4 thread

Connection type	Type	Part no.
M23 male connector, 12-pin, radial	DFS60S-SEOA01024	1069521
M12 male connector, 8-pin, radial	DFS60S-SEOC01024	1067912
Cable, 8-wire, universal, 1.5 m	DFS60S-SEOK01024	1067913

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Solid shaft, flat, servo flange

- **Shaft diameter:** 6 mm
- **Shaft length:** 10 mm
- **Shaft mounting:** M4 thread

Connection type	Type	Part no.
M23 male connector, 12-pin, radial	DFS60S-S1OA01024	1069522
M12 male connector, 8-pin, radial	DFS60S-S1OC01024	1069517
Cable, 8-wire, universal, 1.5 m	DFS60S-S1OK01024	1069523

Solid shaft with key, servo flange

- **Shaft diameter:** 6 mm
- **Shaft length:** 10 mm
- **Shaft mounting:** M4 thread

Connection type	Type	Part no.
M23 male connector, 12-pin, radial	DFS60S-SDOA01024	1067910
M12 male connector, 8-pin, radial	DFS60S-SDOC01024	1069524
Cable, 8-wire, universal, 1.5 m	DFS60S-SDOK01024	1069525

Blind hollow shaft with key seat

Shaft diameter	Connection type	Type	Part no.
10 mm	M23 male connector, 12-pin, radial	DFS60S-BDOA01024	1069535
	M12 male connector, 8-pin, radial	DFS60S-BDOC01024	1067915
12 mm	M23 male connector, 12-pin, radial	DFS60S-BEOA01024	1069537
	M12 male connector, 8-pin, radial	DFS60S-BEOC01024	1069538
14 mm	M23 male connector, 12-pin, radial	DFS60S-BGOA01024	1069540
	M12 male connector, 8-pin, radial	DFS60S-BGOC01024	1069541
15 mm	Cable, universal, 10 m	DFS60S-BHON01024	1076464

Through hollow shaft with key seat

Shaft diameter	Connection type	Type	Part no.
6 mm	M23 male connector, 12-pin, radial	DFS60S-TAOA01024	1067914
10 mm	M23 male connector, 12-pin, radial	DFS60S-TDOA01024	1069526
	M12 male connector, 8-pin, radial	DFS60S-TDOC01024	1069527
12 mm	M23 male connector, 12-pin, radial	DFS60S-TEOA01024	1069528
	M12 male connector, 8-pin, radial	DFS60S-TEOC01024	1069529
14 mm	M23 male connector, 12-pin, radial	DFS60S-TGOA01024	1069531
	M12 male connector, 8-pin, radial	DFS60S-TGOC01024	1069532

Recommended accessories

The accessories are part of the safety-related function chain and must be assessed and validated accordingly by the user. This is not an integral part of the safety assessment carried out by SICK STEGMANN.

	Description	Type	Part no.
Flanges			
	Stator coupling, one-sided, 179 mm long with slot	On request	On request [1]
	Flange adapter, adaptation of face mount flange with 36 mm centering collar to 50 mm servo flange, aluminum, including 3 flat head screws M4 x 10	BEF-FA-036-050	2029160
	Flange adapter, adaptation of face mount flange with 36 mm centering collar to 60 mm square mounting plate, aluminum, including 3 flat head screws M4 x 10	BEF-FA-036-060REC	2029162*
	Flange adapter, adaptation of face mount flange with 36 mm centering collar to 58 mm square mounting plate with shock absorbers, aluminum	BEF-FA-036-060RSA	2029163*^
	Flange adapter, adaptation of face mount flange with 36 mm centering collar to 63 mm square mounting plate, aluminum, including 3 flat head screws M4 x 10	BEF-FA-036-063REC	2034225*^
	Flange adapter, adaptation of face mount flange with 36 mm centering collar to 100 mm servo flange with 60 mm centering collar, aluminum	BEF-FA-036-100	2029161*

[1] For more detailed information, please consult your local SICK subsidiary. The stator coupling is mounted ex works. The customer is not permitted to replace the stator coupling

	Description	Type	Part no.
Servo clamps			
	Half-shell servo clamps (set of 2) for servo flanges with a 50 mm centering collar, not including mounting hardware	BEF-WG-SF050	2029165
	Servo clamps, large, for servo flanges (clamping claws, mounting eccentrics), (set of 3), not including mounting hardware	BEF-WK-SF	2029166*^
Miscellaneous			
	1 M4x16 cylinder head screw and 1 2x2x6 feather key acc. to DIN 6885	BE F-MK-SE01	2073617
Shaft adaptation			
	Bellows coupling, shaft diameter 6 mm / 6 mm, maximum shaft offset: radial +/- 0.25 mm, axial +/- 0.4 mm, angular +/- 4°; max. speed 10,000 rpm, –30 ° to +120 ° Celsius, max. torque 80 Ncm; material: stainless steel bellows, aluminum clamping hubs, for use with key	KUP-0606-BP	2075379
	Bellows coupling, shaft diameter 6 mm / 10 mm, maximum shaft offset: radial +/- 0.25 mm, axial +/- 0.4 mm, angular +/- 4°; max. speed 10,000 rpm, –30 ° to +120 ° Celsius, max. torque 80 Ncm; material: stainless steel bellows, aluminum clamping hubs, for use with key	KUP-0610-BP	2075375
	Bellows coupling, shaft diameter 10 mm / 10 mm, maximum shaft offset: radial +/- 0.25 mm, axial +/- 0.4 mm, angular +/- 4°; max. speed 10,000 rpm, –30 ° to +120 ° Celsius, max. torque 80 Ncm; material: stainless steel bellows, aluminum clamping hubs, for use with key	KUP-1010-BP	2075373
	Bellows coupling, shaft diameter 6 mm / 6 mm, maximum shaft offset: radial +/- 0.25 mm, axial +/- 0.4 mm, angular +/- 4°; max. speed 10,000 rpm, –30 ° to +120 ° Celsius, max. torque 80 Ncm; material: stainless steel bellows, 2 setscrews used in each case for fixing	KUP-0606-BS	2075378
	Bellows coupling, shaft diameter 6 mm / 10 mm, bellows coupling, shaft diameter 6 mm / 6 mm, maximum shaft offset: radial +/- 0.25 mm, axial +/- 0.4 mm, angular +/- 4°; max. speed 10,000 rpm, –30 ° to +120 ° Celsius, max. torque 80 Ncm; material: stainless steel bellows, 2 setscrews used in each case for fixing	KUP-0610-BS	2075377
	Bellows coupling, shaft diameter 10 mm / 10 mm, maximum shaft offset: radial +/- 0.25 mm, axial +/- 0.4 mm, angular +/- 4°; max. speed 10,000 rpm, –30 ° to +120 ° Celsius, max. torque 80 Ncm; material: stainless steel bellows, 2 setscrews used in each case for fixing	KUP-1010-BS	2075376

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	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	Suitable for drag chain, PUR, shielded	2 m	DOL-1208-G02MAC1	6032866*^
				5 m	DOL-1208-G05MAC1	6032867*^
				10 m	DOL-1208-G10MAC1	6032868*^
				20 m	DOL-1208-G20MAC1	6032869*
	Female connector, M23, 12-pin, straight	Cable	Incremental, PUR, shielded	2 m	DOL-2312-G02MLA3	2030682*
				7 m	DOL-2312-G07MLA3	2030685*
				10 m	DOL-2312-G10MLA3	2030688*
				15 m	DOL-2312-G15MLA3	2030692
				20 m	DOL-2312-G20MLA3	2030695
				25 m	DOL-2312-G25MLA3	2030699
				30 m	DOL-2312-G30MLA3	2030702
	Female connector, M23, 12-pin, straight	Cable	Incremental, suitable for drag chain, PUR, shielded	1.5 m	DOL-2312-G1M5MA3	2029212
				3 m	DOL-2312-G03MMA3	2029213
				5 m	DOL-2312-G05MMA3	2029214*^
				10 m	DOL-2312-G10MMA3	2029215*^
				20 m	DOL-2312-G20MMA3	2029216
				30 m	DOL-2312-G30MMA3	2029217
	Cable	Cable	SSI, suitable for drag chain, PUR, halogen-free, shielded, 4 x 2 x 0.15 mm²	Ø 5.6 mm	LTG-2308-MWENC	6027529
			SSI, PUR, shielded, 4 x 2 x 0.25 mm² + 2 x 0.5 mm² + 1 x 0.14 mm²,	Ø 7.5 mm	LTG-2411-MW	6027530
			SSI, suitable for drag chain, PUR, halogen-free, shielded, 4 x 2 x 0.25 mm² + 2 x 0.5 mm² + 2 x 0.14 mm²	Ø 7.8 mm	LTG-2512-MW	6027531
			suitable for drag chain, PUR, halogen-free, shielded, resistant to UV and saltwater, 4 x 2 x 0.25 mm² + 2 x 0.5 mm² + 2 x 0.14 mm²	Ø 7.8 mm	LTG-2612-MW	6028516
	Female connector, M12, 8-pin, straight, A-coded	-	Incremental, SSI, shielded, M12 screw connection	-	DOS-1208-GA01	6045001
	Female connector, M23, 12-pin, straight		HIPERFACE®, SSI, Incremental, shielded, M23 screw connection		DOS-2312-G02	2077057
	Male connector, M12, 8-pin, straight, A-coded	-	Incremental, shielded, M12 screw connection	-	STE-1208-GA01	6044892
	Male connector, M23, 12-pin, straight		HIPERFACE®, SSI, Incremental, shielded, M23 screw connection		STE-2312-G01	2077273

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Suitable control solutions

	Type	Part no.
Safety controllers		
	FX3-CPU000000	1043783*^
	FX3-CPU130002	1043784*^
	FX3-CPU230002	1058999
	FX3-CPU320002	1059305*^
	FX3-CPU130002	1043784*^
Motion control module		
	FX3-MOC000000	1062344*
I/O modules		
	FX3-XTIO84002	1044125*^
	FX3-XTDI80002	1044124*^
	FX3-XTDS84002	1061777*^

Modules

	Description	Type	Part no.
Connection modules			
	Facility for connecting two encoders. Connection to Drive Monitor FX3-MOC: female connector, D-Sub HD, 15-pin.	Dual encoder connector box	2068729^

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Gateways

	Type	Part no.
	FX0-GENT00000	1044072*^
	FX0-GMOD00000	1044073*^
	FX0-GPNT00000	1044074
	FX0-GETC00000	1051432
	FX0-GPR000000	1044075
	FX0-GCAN00000	1044076
	FX0-GDEV00000	1044077
	FX0-STIO68002	1061778*^

Accessories for safety controllers

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, Micro D-Sub, 15-pin, straight	Cable	Shielded, for direct encoder connection	2 m	Connecting cable	2067893*
	Female connector, Micro D-Sub, 15-pin, straight	Male connector, D-Sub-HD, 15-pin, straight	Shielded, for connecting the Drive Monitor FX3-MOC with a motor feedback splitter box or a dual encoder connector box	2 m	Connection cable	2067798
	Male connector, D-Sub-HD, 15-pin, straight	Female connector, Micro D-Sub, 15-pin, straight	Shielded, for connecting the Drive Monitor FX3-MOC with a motor feedback splitter box or a dual encoder connector box	10 m	Connection cable	2067799
	Male connector, D-Sub-HD, 15-pin, straight	Male connector, D-Sub, 9-pin, straight	Shielded, for connecting two motor feedback splitter boxes	10 m	Connection cable	2067801
	Male connector, D-Sub-HD, 15-pin, straight	Male connector, D-Sub, 9-pin, straight	Shielded, for connecting two motor feedback splitter boxes	2 m	Connection cable	2067800

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At a glance

- Compact installation depth
- High resolution up to 16 bits
- Optionally programmable: Output voltage, zero pulse position, zero pulse width and number of pulses
- Connection: Radial or axial cable outlet, M23 or M12 connector, axial or radial
- Electrical interfaces: 5V & 24V TTL/RS-422, 24 V HTL/push pull
- Mechanical interfaces: face mount or servo flange, blind or through hollow shaft
- Remote zero set possible

Your benefits

- Reduced storage costs and downtime due to customer-specific programming
- Variety of different mechanical and electrical interfaces enable the encoder to be optimally adjusted to fit the installation situation
- Excellent concentricity even at high speeds
- High resolution of up to 16 bits ensures precise measurements
- Permanent and safe operation due to a high enclosure rating, temperature resistance and a long bearing lifetime
- Programmability via the PGT-08 programming software and the PGT-10-S display programming tool allow the encoder to be adapted flexibly and quickly according to customer needs
- Programmable zero pulse position simplifies installation

➜ www.mysick.com/en/DFS60

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/DFS60

- **Electrical interface:** TTL/HTL programmable
- **Connection type:** Connector M12, 8-pin, radial
- **Range of pulses per revolution:** 65,536

Mechanical interface	Shaft diameter	Model name	Part no.
Solid shaft, servo flange	6 mm	DFS60B-S1PA10000	1036755*^
		DFS60B-S1PC10000	1036756*^
		DFS60B-S1PM10000	1036759*
Solid shaft, face mount flange	10 mm	DFS60B-S4PA10000	1036720*^
		DFS60B-S4PC10000	1036721*^
		DFS60B-S4PM10000	1036724*
Blind hollow shaft		DFS60B-BDPA10000	1036767*
		DFS60B-BDPC10000	1036775
		DFS60B-BDPM10000	1036799*
Through hollow shaft		DFS60B-TDPC10000	1036915*^
		DFS60B-TDPM10000	1036939

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Mechanical interface	Shaft diameter	Model name	Part no.
Blind hollow shaft	12 mm	DFS60B-BEPC10000	1036776*
Blind hollow shaft	14 mm	DFS60B-BGPA10000	1036770
		DFS60B-BGPC10000	1036778
Through hollow shaft		DFS60B-TGPC10000	1036918*^
		DFS60B-TGPA10000	1036910*^
		DFS60B-TGPM10000	1036942*
Blind hollow shaft	15 mm	DFS60B-BHPA10000	1036771*^
		DFS60B-BHPM10000	1036803*
Through hollow shaft		DFS60B-THPA10000	1036911
		DFS60B-THPC10000	1036919*^

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket for encoder with spigot 36 mm, mounting kit included	BEF-WF-36	2029164*
Other mounting accessories			
	Measuring wheel with smooth plastic surface (Hytrel), for solid shaft 10 mm, circumference 200 mm, diameter 63.66 mm	BEF-MR-010020	5312988*^
	Servo clamps, large, for servo flange (clamping claws, mounting eccentric), (3 pcs), without mounting hardware	BEF-WK-SF	2029166*^
Shaft adaptation			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981*^
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982*^
Programming and configuration tools			
	Programming Tool USB, for programmable SICK encoders AFS60, AFM60, DFS60, VFS60, DFV60 and wire draw encoders with programmable encoders.	PGT-08-S	1036616*^
	Display Programming Tool for programmable SICK encoders DFS60, DFV60, AFS/AFM60, AHS/AHM36 and wire draw encoders with DFS60, AFS/AFM60 and AHS/AHM36. Compact dimensions, low weight and intuitive to use.	PGT-10-SPRO	1072254

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	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	Shielded, TPU, PUR, halogen-free	2 m, 8-wire	DOL-1208-G02MAC1	6032866*^
				5 m, 8-wire	DOL-1208-G05MAC1	6032867*^
				10 m, 8-wire	DOL-1208-G10MAC1	6032868*^
				20 m, 8-wire	DOL-1208-G20MAC1	6032869*
	Cable	Cable	Shielded, PUR, halogen-free	Diameter Ø 5.6 mm	LTG-2308-MWENC	6027529
				Diameter Ø 7.5 mm	LTG-2411-MW	6027530
	Female connector, M12, 8-pin, straight	Male connector, D-Sub, 9-pin, straight	Shielded, Incremental	0.5 m, 8-wire	DSL-2D08-G0M5AC3	2046579*^
	Female connector, M23, 12-pin, straight	Male connector, D-Sub, 9-pin, straight	Shielded, Incremental	0.5 m, 8-wire	DSL-3D08-G0M5AC3	2046580*^
	Female connector, M23, 12-pin, straight	Cable	Shielded, Incremental	2 m, 11-wire	DOL-2312-G02MLA3	2030682*
				7 m, 11-wire	DOL-2312-G07MLA3	2030685*
				10 m, 11-wire	DOL-2312-G10MLA3	2030688*
				20 m, 11-wire	DOL-2312-G20MLA3	2030695
	Female connector, M12, 8-pin, straight, A-coded	-	Shielded, Incremental, SSI	-	DOS-1208-GA01	6045001
	Female connector, M23, 12-pin, straight	-	HIPERFACE®, SSI, Incremental, shielded	-	DOS-2312-G	6027538*^
	Male connector, M23, 12-pin, straight	-	HIPERFACE®, SSI, Incremental, RS-422, shielded	-	STE-2312-G	6027537*^
	Female connector, M12, 8-pin, straight	-	Shielded	-	DOS-1208-GA	6028369*
	Male connector, M12, 8-pin, straight	-	Shielded	-	STE-1208-GA	6028370*

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At a glance

- Rotatable spring arm for universal use
- 300 mm wheel circumference with o-ring made from NBR70
- Mounting arm and measurement wheels made from aluminum
- Programmable output voltage, zero pulse position, zero pulse width and number of pulses
- Connection: radial M12 connector outlet or radial/axial cable outlet
- Electrical interfaces: 5V & 24V TTL/RS-422, 24 V HTL/push pull
- Remote zero setting possible

Your benefits

- Universal-use spring arm ensures fast and simple mounting
- The high level of spring tension enables use in harsh environmental conditions
- Reduced storage costs and downtime due to programmability
- Connector-in cable outlet in radial or axial direction enables customer-specific cable solutions
- Excellent concentricity even at high speeds
- Permanent and safe operation due to a high enclosure rating, temperature resistance and a long bearing lifetime
- Programmability via the PGT-08 programming software and the PGT-10-S display programming tool allow the encoder to be adapted flexibly and quickly according to customer needs
- Programmable zero pulse position simplifies installation

→ www.mysick.com/en/DFV60_measuring_wheel_encoder

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/DFV60_measuring_wheel_encoder

- **Mechanical interface:** 2 measuring wheels, ‘O’ ring surface
- **Electrical interface:** TTL/HTL programmable
- **Range of pulses per revolution:** 65,536

Connection type	Model name	Part no.
Cable, universal, 1.5 m	DFV60A-22PK65536	1051331
Cable, universal, 3 m	DFV60A-22PL65536	1051334
Cable, universal, 5 m	DFV60A-22PM65536	1051337
Connector, M12, 8-pin, radial	DFV60A-22PC65536	1051309*

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Spring arm/mounting arm	DFV60 spring arm	2056155*^
Other mounting accessories			
	Measuring wheel, O-ring for solid wheel 10 mm, diameter 95.7 mm, circumference 300 mm, contact surface 5 mm wide	BEF-MR-010030R	2049278*
Programming and configuration tools			
	Programming Tool USB, for programmable SICK encoders AFS60, AFM60, DFS60, VFS60, DFV60 and wire draw encoders with programmable encoders.	PGT-08-S	1036616*^
	Display Programming Tool for programmable SICK encoders DFS60, DFV60, AFS/AFM60, AHS/AHM36 and wire draw encoders with DFS60, AFS/AFM60 and AHS/AHM36. Compact dimensions, low weight and intuitive to use.	PGT-10-SPRO	1072254

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 8-pin, straight	Cable	Shielded, TPU, PUR, halogen-free	5 m, 8-wire	DOL-1208-G05MAC1	6032867*^
	Female connector, M12, 8-pin, straight	-	Shielded	-	DOS-1208-GA	6028369*
	Female connector, M23, 12-pin, straight	-	HIPERFACE®, SSI, Incremental, shielded	-	DOS-2312-G	6027538*^
	Female connector, plug-in system, 8-pin, straight	Male connector, D-Sub, 9-pin, straight	Incremental, PVC, shielded	0.5 m, 4-wire	DSL-0D08-G0M5AC3	2061739*^
	Female connector, M12, 8-pin, straight	Male connector, D-Sub, 9-pin, straight	Incremental, shielded	0.5 m, 8-wire	DSL-2D08-G0M5AC3	2046579*^

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At a glance

- Complete, preassembled measuring system
- Measuring wheel with knurl or O-ring for adaptation to the measuring surface
- Mounting bracket made from anti-corrosive spring steel
- High resolution up to 0.1 mm (1 ... 2.000 pulses/revolution)
- Electrical interfaces: Open collector NPN, TTL/RS-422 or HTL/push pull.
- Connection via cable outlet, for radial or axial use with open ends or fitted with an M12 connector

Your benefits

- Complete system with universal mounting clamps and integrated cable guidance enables simple and quick mounting
- Spring steel mounting clamps allow high level of measuring accuracy when deflecting the measuring wheel in X and Y directions
- Low-cost encoder with outstanding performance
- Withstands harsh environments due to a high IP protection class, a non-corrosive mounting bracket and a rugged housing
- Compact dimensions enable simple installation even where space is cramped

→ www.mysick.com/en/DKV60

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/DKV60

- **Electrical interface:** 10 V ... 30 V, HTL/Push pull
- **Pulses per revolution:** 2,000[1)] pulses per 200 mm
- **Enclosure rating:** IP 65

Electrical interface	Connection type	Model name	Part no.
Measuring drum, knurled surface	Cable, 1.5 m	DKV60-E1K02000	1035050
Measuring drum, O ring surface		DKV60-E2K02000	1035054

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Spring arm/mounting arm	DFV60 spring arm	2056155*^
Other mounting accessories			
	Measuring wheel, O-ring for solid wheel 10 mm, diameter 95.7 mm, circumference 300 mm, contact surface 5 mm wide	BEF-MR-010030R	2049278*

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At a glance

- Compact housing
- Durable, low-cost design
- Interfaces: Open collector NPN, TTL/RS-422 or HTL/push pull.
- Connection via cable outlet, for radial or axial use with open ends or fitted with an M12 connector
- Face mount flange with solid shaft
- Housing for simple clamping ring mounting
- Any line count possible from 1 to 2,048

Your benefits

- Low-cost encoder with outstanding quality
- Withstands harsh environmental conditions due to high IP protection class and rugged design
- Universal cable outlet enables axial and radial cable guidance
- Compact dimensions enable simple installation even where space is cramped

➜ www.mysick.com/en/DKS40

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/DKS40

- **Mechanical interface:** Solid shaft, Face mount flange
- **Pulses per revolution:** 1,000
- **Shaft diameter:** 8 mm x 13 mm
- **Enclosure rating:** IP 64

Electrical interface	Connection type	Model name	Part no.
4.5 V ... 5.5 V, Open Collector NPN	Cable, universal, 0.5 m	DKS40-P5J01000	1034619
10 V ... 30 V, Open Collector NPN		DKS40-R5J01000	1034632
4.5 V ... 5.5 V, TTL/RS422		DKS40-A5J01024	1034646
10 V ... 30 V, HTL/Push pull		DKS40-E5J01000	1034658

Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Spring arm/mounting arm	DFV60 spring arm	2056155*^
Other mounting accessories			
	Measuring wheel, O-ring for solid wheel 10 mm, diameter 95.7 mm, circumference 300 mm, contact surface 5 mm wide	BEF-MR-010030R	2049278*

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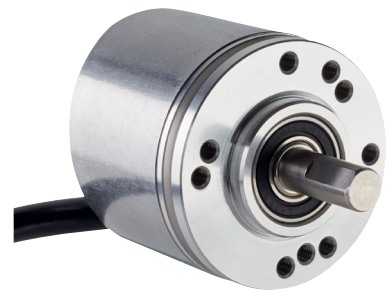

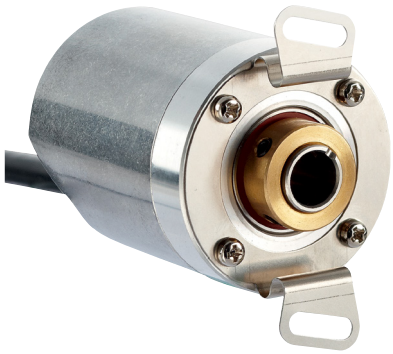

Product description

The EASIMA® incremental encoder DBS36E stands out due to its high mechanical flexibility, outstanding technical features and many possible variations. A blind hollow-shaft design with 8 mm shaft diameter and a face mount flange with 6 mm solid shaft are available. The design with face mount flange offers 3 different mounting hole patterns and a servo groove for mounting with servo clamps. The hollow-shaft design has a universal stator coupling that can be used for many typical mounting hole patterns. All models have compact dimensions and a universal cable outlet that make it possible to run the cable in the axial or radial direction. The DBS36E incremental encoder is fully compatible with the DDS36E incremental encoder.

At a glance

- Connection with universal cable outlet
- Versions with blind hollow shaft or face mount flange with solid shaft
- Face mount flange with 3 mounting hole patterns and servo groove
- Hollow shaft with universal stator coupling
- Compact diameter of 37 mm
- Electrical interfaces: TTL/RS-422, HTL/push pull and Open Collector NPN
- Available PPR: 100 to 2,500
- Temperature range: -20 °C ... +85 °C
- Enclosure rating: IP 65

Your benefits

- The universal cable outlet allows use in tight spaces and makes flexibl cable routing possible
- Face mount flange with various mounting hole patterns provides flexibility when mounting in new or existing applications
- Face mount flange with servo groove makes mounting with servo clamps possible
- The DBS36E's universal stator coupling ensures easy device replacement without changing the application
- The flexibility of the encoders' mechanical interface and the available accessories make it possible to use one design in many applications
- Compatibility with the DDS36E series makes it easy to replace this series in existing applications

Please refer to data sheet and pricelist for part numbers and pricing.

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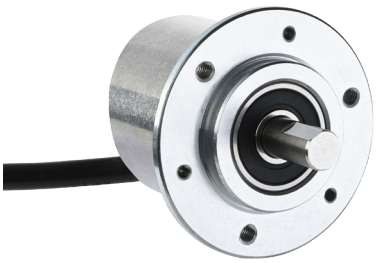
→ **www.mysick.com/en/DBS36**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



Product description

The EASIMA® incremental encoder DBS50E stands out due to its high mechanical flexibility, outstanding technical features and many possible variations. The DBS50E has a face mount flange with 50 mm diameter and a solid shaft with 8 mm diameter. At 37 mm, the housing diameter is extremely compact, saving valuable space. The face mount flange offers 2 different mounting hole patterns and a servo groove for mounting with servo clamps. The encoder has compact dimensions and a universal cable outlet that makes it possible to run the cable in the axial or radial direction. The DBS50E incremental encoder is fully compatible with the DDS50E incremental encoder.

At a glance

- Connection with universal cable outlet
- Face mount flange with 8 mm solid shaft
- Face mount flange with 2 mounting hole patterns and servo groove
- Compact housing diameter of 37 mm, flange diameter: 50 mm
- Various electrical interfaces: TTL/RS-422, HTL/push pull and Open Collector NPN
- Available PPR from 100 up to 2,500
- Working temperature range: -20 °C ... +85 °C
- Enclosure rating: IP 65

Your benefits

- The universal cable outlet allows use in tight spaces and makes flexible cable routing possible
- Face mount flange with various mounting hole patters for easy device replacement without changing the application
- Face mount flange with servo groove makes mounting with servo clamps possible
- The high flexibility of the encoders' mechanical interface and the available accessories make it possible to use one design in many applications
- The compact housing diameter saves valuable space
- Compatibility with the DDS50 series makes it easy to replace this series in existing applications

Please refer to data sheet and pricelist for part numbers and pricing.

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→ www.mysick.com/en/DBS50

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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At a glance

- Compact 36 mm absolute encoder with max. 26 bits (singleturn: 14 bits, multiturn: 12 bits)
- Face mount flange, servo flange, blind hollow shaft
- Rotatable M12 connector or rotatable-cable outlet
- CANopen interface with programmable configuration
- Diagnostic functions: temperature, operating time, etc. (depending on the type)
- Protection class up to IP 67 (depending on the type)
- Operating temperature: –40 °C to +85 °C (depending on the type)

Your benefits

- Simple, time-saving mechanical installation due to a rotatable connector or rotatable cable outlet, various mounting hole patterns, and many different shafts
- Simple network installation with various configuration options
- Intelligent diagnostic functions evaluate maintenance intervals for the entire system, thereby increasing system reliability
- Customizable Easy setup for various applications allowing binary, non-binary, and non-integer resolutions with the round axis functionality (advanced version)
- Reliable operation in harsh environments thanks to the rugged, reliable, fully magnetic sensor system
- Space-efficient and cost-effective design that is suitable for applications where space is tight
- High performance at a cost-efficient price

→ www.mysick.com/en/AHS_AHM36_CANopen

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/AHS_AHM36_CANopen

- **Electrical interface:** CANopen
- **Programmable:** ✔

Mechanical interface	Shaft diameter	Connection type	Number of steps	Resolution	Model name	Part no.
Blind hollow shaft	6 mm	Connector M12, 5-pin, universal	≤ 16,384	16,384 x 1	AHS36A-BACC016384	1066004*^
		Connector M12, 5-pin, universal	≤ 16,384	16,384 x 4,096	AHM36A-BACC014x12	1065990*^
	10 mm	Connector M12, 5-pin, universal	≤ 4,096	4,096 x 4,096	AHM36B-BDCC012X12	1069386
Solid shaft, Servo flange	6 mm, 12 mm	Connector M12, 5-pin, universal	≤ 4,096	4,096 x 1	AHS36B-S1CC004096	1066005*^
				4,096 x 4,096	AHM36B-S1CC012x12	1065992*^
			≤ 16,384	16,384 x 1	AHS36A-S1CC016384	1066002*^
		Connector M12, 5-pin, universal	≤ 16,384	16,384 x 4,096	AHM36A-S1CC014x12	1065993*^
	10 mm	Connector M12, 5-pin, universal	≤ 16,384	16,384 x 4,096	AHM36A-S2CC014x12	1065995*^
Solid shaft, Face mount flange	6 mm, 12 mm	Connector M12, 5-pin, universal	≤ 16,384	16,384 x 4,096	AHM36A-S3CC014x12	1065999*^
	8 mm, 12 mm	Connector M12, 5-pin, universal	≤ 16,384	16,384 x 1	AHS36A-S5CC016384	1067268*^

Recommended accessories

	Brief description	Model name	Part no.
Mounting brackets and mounting plates			
	Angle bracket, mounting kit for face mount flange included	BEF-WF-20	2066393*
Shaft adaptation			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981*^
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982*^
Adapters and distributors			
	CANopen, T-connector plugs directly into receiver, splits the single home run from control cabinet between sender and receiver	DSC-1205T000025KM0	6030664

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 5-pin, straight	Cable	CANopen, DeviceNet	5 m, 5-wire	DOL-1205-G05MY	6053042*^
	Female connector, M12, 5-pin, straight	-	CANopen, DeviceNet, shielded	-	DOS-1205-GA	6027534

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At a glance

- Compact 36 mm absolute encoder with max. 26 bits (singleturn: 14 bits, multiturn: 12 bits)
- Face mount flange, servo flange, blind hollow shaft
- Rotatable M12 connector or rotatable cable outlet
- SSI interface
- Programmable SSI version: Resolution, preset value, etc. can be programmed (depending on the type)
- Protection class up to IP 67 (depending on the type)
- Operating temperature: –40 °C to +100 °C (depending on the type)

Your benefits

- Simple, time-saving mechanical installation due to a rotatable connector or rotatable cable outlet, various mounting hole patterns, and many different shafts
- Simple and flexible electrical installation with various configuration options and adjustable SSI protocol structure (programmable SSI version)
- Easy setup for various applications allowing binary, non-binary, and non-integer resolutions with the round axis functionality (programmable SSI version)
- Reliable operation in harsh environments thanks to the rugged, reliable, fully magnetic sensor system
- Space-efficient and cost-effective design that is suitable for applications where space is tight
- High performance at a cost-efficient price

➜ www.mysick.com/en/AHS_AHM36_SSI

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/AHS_AHM36_SSI

- **Electrical interface:** SSI
- **Programmable:** ✔

Mechanical interface	Shaft diameter	Connection type	Number of steps	Resolution	Model name	Part no.
Blind hollow shaft	6 mm	Male connector, universal	≤ 16,384	16,384 x 1	AHS36A-BAPC016384	1066016
				16,384 x 4,096	AHM36A-BAPC014x12	1066011
Solid shaft, Face mount flange	10 mm	Male connector, universal	≤ 16,384	16,384 x 1	AHS36A-S4PC016384	-
			≤ 4,096	4,096 x 4,096	AHM36A-SCPC012x12	-
Solid shaft, Servo flange	6 mm	Male connector, universal	≤ 16,384	16,384 x 4,096	AHM36A-S1PC014x12	1066009
				16,384 x 1	AHS36A-S1PC016384	1066014

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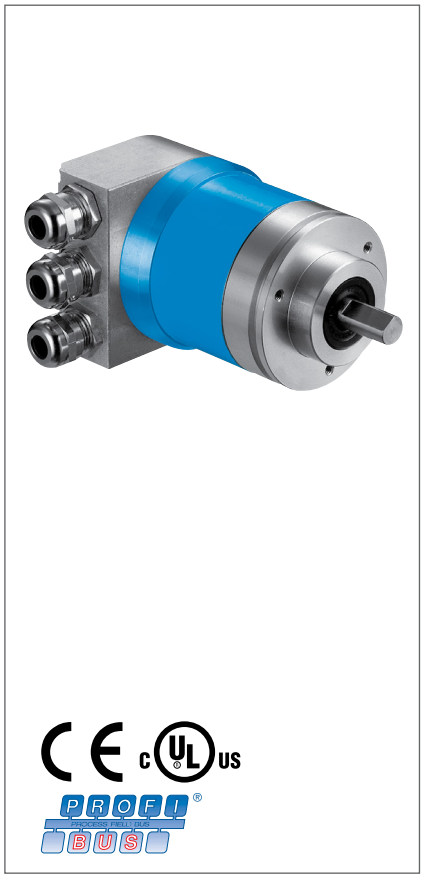

At a glance

- Extremely rugged, tried-and-tested absolute multiturn encoder with a resolution of up to 26 bits
- Mechanical interface: face mount flange, servo flange, blind hollow shaft and extensive adapter accessories
- Zero-set and preset functions via hardware or software
- No battery required
- Electrical interface: PROFIBUS DP as per IEC61158 / RS 485, electrically isolated
- Electronically adjustable, configurable resolution
- Magnetic scanning

Your benefits

- Fewer variants are required since one freely programmable encoder offers all singleturn and multiturn resolutions
- Easy setup due to various connectivity options (3x PG, 3x M12)
- Less maintenance and a long service life reduce overall costs
- Application flexibility due to easily interchangeable collets for the blind hollow shaft
- Quick commissioning using the zero set/preset function either at the press of the button on the device or via software
- Increased productivity due to highly reliable shock and vibration resistance
- Worldwide availability and service ensure quick and reliable customer service

➜ www.mysick.com/en/ATM60_PROFIBUS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/ATM60_PROFIBUS

- **Electrical interface:** 10 V ... 32 V, Profibus
- **Connection type:** Bus adaptor with cable screw fixings or connector
- **Number of steps:** ≤ 8,192
- **Resolution:** 8,192 x 8,192

Mechanical interface	Shaft diameter	Model name	Part no.
Solid shaft, Servo flange	6 mm, 10 mm	ATM60-P1H13X13	1030014
Solid shaft, Face mount flange	10 mm, 19 mm	ATM60-P4H13X13	1030013*
Blind hollow shaft	6 mm, 8 mm, 10 mm, 12 mm, 14 mm, 15 mm, 1/4", 3/8", 1/2" [1]	ATM60-PAH13X13	1030015

[1] Collets for 6, 8, 10, 12, 14 mm and 1/4", 3/8" and 1/2" as accessories, separate order item. For 15 mm shaft diameter collet is not needed.

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket for encoder with spigot 36 mm, mounting kit included	BEF-WF-36	2029164*
Other mounting accessories			
	Servo clamps, large, for servo flange (clamping claws, mounting eccentric), (3 pcs), without mounting hardware	BEF-WK-SF	2029166*^
Shaft adaptation			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981*^
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982*^
	Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983*^
	Collet for blind hollow shaft, shaft diameter 6 mm, outer diameter 15 mm	SPZ-006-AD-A	2029174*
	Collet for blind hollow shaft, shaft diameter 8 mm, outer diameter 15 mm	SPZ-008-AD-A	2029176*^
	Collet for blind hollow shaft, shaft diameter 10 mm, outer diameter 15 mm	SPZ-010-AD-A	2029178*
	Collet for blind hollow shaft, shaft diameter 12 mm, outer diameter 15 mm	SPZ-012-AD-A	2029179*
	Collet for blind hollow shaft, shaft diameter 10 mm, outer diameter 15 mm	SPZ-014-AD-A	2048863
	Collet for blind hollow shaft, shaft diameter 0.5”, outer diameter 15 mm	SPZ-1E2-AD-A	2029180
	Collet for blind hollow shaft, shaft diameter 0.25”, outer diameter 15 mm	SPZ-1E4-AD-A	2029175
	Collet for blind hollow shaft, shaft diameter 0.375”, outer diameter 15 mm	SPZ-3E8-AD-A	2029177
Adapters and distributors			
	PROFIBUS DP, bus adaptor KR3, 3 x PG	AD-ATM60-KA3PR	2029225*
	PROFIBUS DP, bus adaptor SR3, 3 x M12, 5-pin	AD-ATM60-SR3PR	2031985

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	5 m, 4-wire	DOL-1204-G05MC	6025901*^
	Female connector, M12, 5-pin, straight	Cable	PROFIBUS DP, TPU, PUR, halogen-free, shielded	5 m, 5-wire	DOL-1205-G05MQ	6026006
	Cable	Cable	PROFIBUS DP, drag chain use, PUR, shielded	-	LTG-2102-MW	6021355
	Male connector, M12, 5-pin, straight, B-coded	Cable	PROFIBUS DP, drag chain use, TPU, halogen-free, shielded	5 m, 5-wire	STL-1205-G05MQ	6026005

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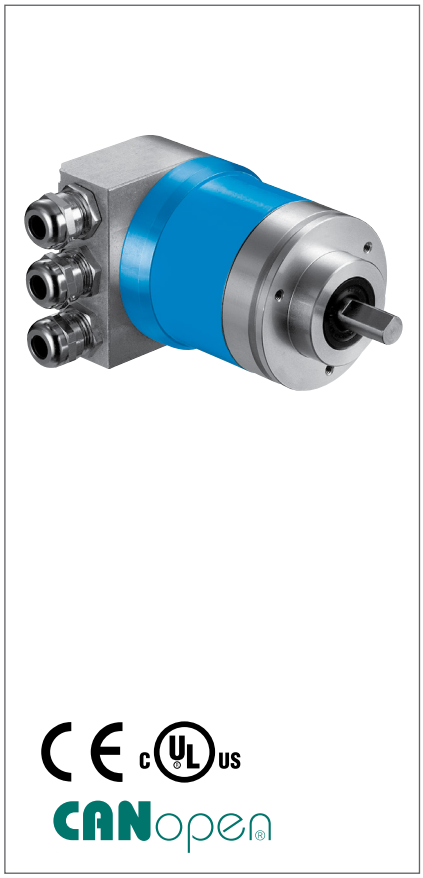

At a glance

- Extremely rugged, tried-and-tested absolute multiturn encoder with a resolution of up to 26 bits
- Mechanical interface: face mount, servo flange, blind hollow shaft, adapter accessories
- Zero-set and preset functions via hardware/software
- No battery
- Electrical interface: CAN specification 2.0B, electrically isolated; DS 301, V4.01, DSP 406, V2.0, Class 2
- Electronically adjustable, configurable resolution
- Network status info via duo LED
- Magnetic scanning

Your benefits

- Fewer variants are required since one freely programmable encoder offers all singleturn and multiturn resolutions
- Easy setup due to electrical connection adapters (1 to 3x PG, 2x M12)
- Less maintenance and a long service life reduce overall costs
- Application flexibility due to easily interchangeable collets for the blind hollow shaft
- Quick commissioning using the zero set/preset function either at the press of the button on the device or via software
- Increased productivity due to highly reliable shock and vibration resistance
- Worldwide availability and service ensure quick and reliable customer service

➜ www.mysick.com/en/ATM60_CANopen

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/ATM60_CANopen

- **Electrical interface:** 10 V ... 32 V, CANopen
- **Connection type:** Bus adaptor with cable screw fixings or connector
- **Number of steps:** ≤ 8,192
- **Resolution:** 8,192 x 8,192

Mechanical interface	Shaft diameter	Model name	Part no.
Solid shaft, Servo flange	6 mm, 10 mm	ATM60-C1H13X13	1030025
Solid shaft, Face mount flange	10 mm, 19 mm	ATM60-C4H13X13	1030024
Blind hollow shaft	6 mm, 8 mm, 10 mm, 12 mm, 14 mm, 15 mm, 1/4", 3/8", 1/2" [1]	ATM60-CAH13X13	1030026*

[1] Collets for 6, 8, 10, 12, 14 mm and 1/4", 3/8" and 1/2" as accessories, separate order item. For 15 mm shaft diameter collet is not needed.

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket for encoder with spigot 36 mm, mounting kit included	BEF-WF-36	2029164*
Other mounting accessories			
	Servo clamps, large, for servo flange (clamping claws, mounting eccentric), (3 pcs), without mounting hardware	BEF-WK-SF	2029166*^
Shaft adaptation			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981*^
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982*^
	Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983*^
	Collet for blind hollow shaft, shaft diameter 6 mm, outer diameter 15 mm	SPZ-006-AD-A	2029174*
	Collet for blind hollow shaft, shaft diameter 8 mm, outer diameter 15 mm	SPZ-008-AD-A	2029176*^
	Collet for blind hollow shaft, shaft diameter 10 mm, outer diameter 15 mm	SPZ-010-AD-A	2029178*
	Collet for blind hollow shaft, shaft diameter 12 mm, outer diameter 15 mm	SPZ-012-AD-A	2029179*
	Collet for blind hollow shaft, shaft diameter 10 mm, outer diameter 15 mm	SPZ-014-AD-A	2048863
	Collet for blind hollow shaft, shaft diameter 0.5", outer diameter 15 mm	SPZ-1E2-AD-A	2029180
	Collet for blind hollow shaft, shaft diameter 0.25", outer diameter 15 mm	SPZ-1E4-AD-A	2029175
	Collet for blind hollow shaft, shaft diameter 0.375", outer diameter 15 mm	SPZ-3E8-AD-A	2029177
Adapters and distributors			
	CANopen, bus adaptor KR1, 1 x PG	AD-ATM60-KR1CO	2029230
	CANopen, bus adaptor KR2, 2 x PG	AD-ATM60-KR2CO	2029231*
	CANopen, bus adaptor KR3, 3 x PG	AD-ATM60-KR3CO	2029232
	CANopen, bus adaptor SR1, 1 x M12, 5-pin	AD-ATM60-SR1CO	2031686
	CANopen, bus adaptor SR2, 2 x M12, 5-pin	AD-ATM60-SR2CO	2020935

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, M12, 5-pin, straight	Female connector, M12, 5-pin, straight	CANopen, DeviceNet, DeviceNet Safety, dropcable, TPU, halogen-free, unshielded	6 m, 5-wire	DSL-1205-G06MK	6028327
	Cable	Cable	CANopen, DeviceNet, drag chain use, shielded Wire shield Al-Pt film, overall shield C-screen tin-plated	-	LTG-2804-MW	6028328
	Male connector, M12, 5-pin, straight, A-coded	-	CANopen, DeviceNet, shielded	-	STE-1205-GA	6027533
	Female connector, M12, 5-pin, straight	-	CANopen, DeviceNet, shielded	-	DOS-1205-GA	6027534

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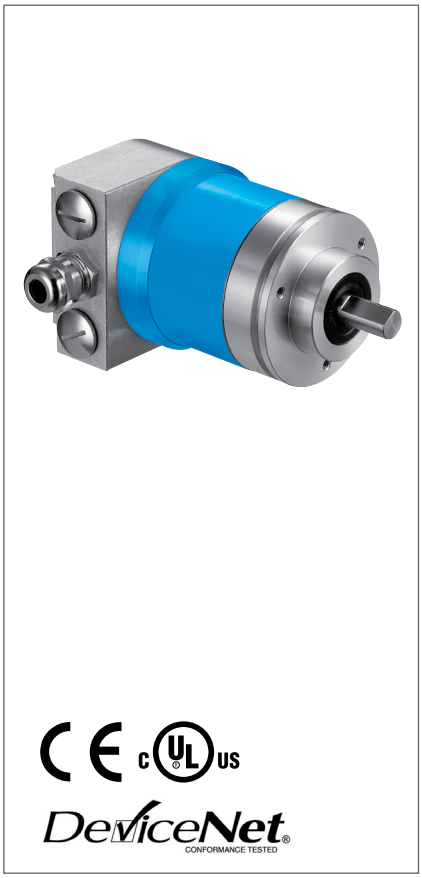

At a glance

- Extremely rugged, tried-and-tested absolute multiturn encoder with a resolution of up to 26 bits
- Mechanical interface: face mount, servo flange, blind hollow shaft and adapter accessories
- Zero set and preset functions via hardware/software
- No battery
- Electrical interface:CAN/DeviceNet specification 2.0B, electrically isolated; device profile: Generic [0]
- Electronically adjustable, configurable resolution
- Network status info via duo LED
- Magnetic scanning

Your benefits

- Fewer variants are required since one freely programmable encoder offers all singleturn and multiturn resolutions
- Easy setup due to electrical connection adapters (1 to 2x PG, 1 to 2x M12)
- Less maintenance and a long service life reduce overall costs
- Application flexibility due to easily interchangeable collets for the blind hollow shaft
- Quick commissioning using the zero set/preset function either at the press of the button on the device or via software
- Increased productivity due to highly reliable shock and vibration resistance
- Worldwide availability and service ensure quick and reliable customer service

➜ www.mysick.com/en/ATM60_DeviceNet

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/ATM60_DeviceNet

- **Electrical interface:** 10 V ... 32 V, DeviceNet
- **Connection type:** Bus adaptor with cable screw fixings or connector
- **Number of steps:** ≤ 8,192
- **Resolution:** 8,192 x 8,192

Mechanical interface	Shaft diameter	Model name	Part no.
Solid shaft, Servo flange	6 mm, 10 mm	ATM60-D1H13X13	1030018
Solid shaft, Face mount flange	10 mm, 19 mm	ATM60-D4H13X13	1030017
Blind hollow shaft	6 mm, 8 mm, 10 mm, 12 mm, 14 mm, 15 mm, 1/4", 3/8", 1/2" [1]	ATM60-DAH13X13	1030019

[1] Collets for 6, 8, 10, 12, 14 mm and 1/4", 3/8" and 1/2" as accessories, separate order item. For 15 mm shaft diameter collet is not needed.

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket for encoder with spigot 36 mm, mounting kit included	BEF-WF-36	2029164*
Other mounting accessories			
	Servo clamps, large, for servo flange (clamping claws, mounting eccentric), (3 pcs), without mounting hardware	BEF-WK-SF	2029166*^
Shaft adaptation			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981*^
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982*^
	Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983*^
	Collet for blind hollow shaft, shaft diameter 6 mm, outer diameter 15 mm	SPZ-006-AD-A	2029174*
	Collet for blind hollow shaft, shaft diameter 8 mm, outer diameter 15 mm	SPZ-008-AD-A	2029176*^
	Collet for blind hollow shaft, shaft diameter 10 mm, outer diameter 15 mm	SPZ-010-AD-A	2029178*
	Collet for blind hollow shaft, shaft diameter 12 mm, outer diameter 15 mm	SPZ-012-AD-A	2029179*
	Collet for blind hollow shaft, shaft diameter 10 mm, outer diameter 15 mm	SPZ-014-AD-A	2048863
	Collet for blind hollow shaft, shaft diameter 0.5”, outer diameter 15 mm	SPZ-1E2-AD-A	2029180
	Collet for blind hollow shaft, shaft diameter 0.25”, outer diameter 15 mm	SPZ-1E4-AD-A	2029175
	Collet for blind hollow shaft, shaft diameter 0.375”, outer diameter 15 mm	SPZ-3E8-AD-A	2029177
Adapters and distributors			
	DeviceNet, bus adaptor KR1, 1 x PG	AD-ATM60-KR1DN	2029228
	DeviceNet, bus adaptor KR2, 2 x PG	AD-ATM60-KR2DN	2029229
	DeviceNet, bus adaptor SR1, 1 x M12, 5-pin	AD-ATM60-SR1DN	2029226
	DeviceNet, bus adaptor SR2, 2 x M12, 5-pin	AD-ATM60-SR2DN	2029227

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Male connector, M12, 5-pin, straight	Female connector, M12, 5-pin, straight	CANopen, DeviceNet, DeviceNet Safety, dropcable, TPU, halogen-free, unshielded	6 m, 5-wire	DSL-1205-G06MK	6028327
	Cable	Cable	CANopen, DeviceNet, drag chain use, shielded Wire shield Al-Pt film, overall shield C-screen tin-plated	-	LTG-2804-MW	6028328
	Male connector, M12, 5-pin, straight, A-coded	-	CANopen, DeviceNet, shielded	-	STE-1205-GA	6027533
	Female connector, M12, 5-pin, straight	-	CANopen, DeviceNet, shielded	-	DOS-1205-GA	6027534

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At a glance

- Extremely rugged, tried-and-tested absolute multiturn encoder with a resolution of up to 26 bits
- Mechanical interface: face mount flange, servo flange, blind hollow shaft and extensive adapter accessories
- Zero-set and preset functions via hardware or software
- No battery required
- Electrical interface: SSI with gray or binary code type
- Electronically adjustable, configurable resolution
- Rotary axis function (optional) also for non-binary resolutions (per revolution) and decimal numbers (number of revolutions)
- Magnetic scanning

Your benefits

- Fewer variants are required since one freely programmable encoder offers all singleturn and multiturn resolutions
- Easy setup due to various connectivity options (cable, M23)
- Less maintenance and a long service life reduce overall costs
- Application flexibility due to easily interchangeable collets for the blind hollow shaft
- Quick commissioning using the zero set/preset function either at the press of the button on the device or via software
- Increased productivity due to highly reliable shock and vibration resistance
- Worldwide availability and service ensure quick and reliable customer service

➜ www.mysick.com/en/ATM60_SSI

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/ATM60_SSI

- **Electrical interface:** SSI
- **Connection type:** Connector M23, 12-pin, radial
- **Number of steps:** 4,096
- **Resolution:** 4,096 x 4,096

Mechanical interface	Shaft diameter	Model name	Part no.
olid shaft, Servo flange	6 mm	ATM60-A1A12X12	1030005*
Blind hollow shaft	6 mm, 8 mm, 10 mm, 12 mm, 14 mm, 15 mm, 1/4", 3/8", 1/2" [1]	ATM60-AAA12X12	1030009
Solid shaft, Face mount flange	10 mm	ATM60-A4A12X12	1030001*

[1] Collets for 6, 8, 10, 12, 14 mm and 1/4", 3/8" and 1/2" as accessories, separate order item. For 15 mm shaft diameter collet is not needed.

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket for encoder with spigot 36 mm, mounting kit included	BEF-WF-36	2029164*
Plug connectors and cables			
	Female connector, M23, 12-pin, straight, Brass, nickel-plated, 5 m, 12-wire	DOL-2312-G05M-MA1	2029202*^
	Head A: Female connector, M23, 12-pin, straight Head B: - Cable: HIPERFACE®, SSI, Incremental, shielded	DOS-2312-G	6027538*^
Shaft adaptation			
	Collet for blind hollow shaft, shaft diameter 6 mm, outer diameter 15 mm	SPZ-006-AD-A	2029174*
	Collet for blind hollow shaft, shaft diameter 8 mm, outer diameter 15 mm	SPZ-008-AD-A	2029176*^
	Collet for blind hollow shaft, shaft diameter 10 mm, outer diameter 15 mm	SPZ-010-AD-A	2029178*
	Collet for blind hollow shaft, shaft diameter 12 mm, outer diameter 15 mm	SPZ-012-AD-A	2029179*
	Collet for blind hollow shaft, shaft diameter 10 mm, outer diameter 15 mm	SPZ-014-AD-A	2048863
	Collet for blind hollow shaft, shaft diameter 0.5”, outer diameter 15 mm	SPZ-1E2-AD-A	2029180
	Collet for blind hollow shaft, shaft diameter 0.25”, outer diameter 15 mm	SPZ-1E4-AD-A	2029175
	Collet for blind hollow shaft, shaft diameter 0.375”, outer diameter 15 mm	SPZ-3E8-AD-A	2029177

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At a glance

- High-resolution absolute encoders with up to 30 bits (AFM60) or up to 18 bits (AFS60)
- Face mount flange, servo flange, blind or through hollow shaft
- SSI, SSI + Incremental or SSI + Sin/Cos interface
- Programmable resolution and offset (dependent on type)
- Connection system: M12, M23 connector or cable outlet
- Enclosure rating: IP 67 (housing), IP 65 (shaft)
- Operating temperature: –30 °C to +100 °C (depends on type)

Your benefits

- Programmability of the encoders means less storage, greater machine availability and easy installation
- Precise positioning due to high resolutions
- Large selection of mechanical interfaces and electrical contacting possibilities: Suitable for all applications
- Suitable for applications with limited space requirements (extremely short installation depth of 30 mm)
- Very good rotation accuracy due to increased bearing distance
- One programming tool and software with automatic encoder detection for AFS60/AFM60/DFS60

➜ www.mysick.com/en/AFS_AFM60_SSI

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/AFS_AFM60_SSI

- **Electrical interface:** 4.5 V ... 32 V, SSI/Gray, programmable
- **Connection type:** Connector M12, 8-pin, radial
- **Number of steps:** ≤ 32,768
- **Programmable:** ✔

Mechanical interface	Shaft diameter	Resolution	Model name	Part no.
Blind hollow shaft	15 mm	32,768 x 1	AFS60B-BHPK032768	1038237*^
Through hollow shaft	14 mm	32,768 x 4,096	AFM60B-TGPM032768	1052300*^
Solid shaft, Servo flange	6 mm, 10 mm	32,768 x 4,096	AFM60B-S1PC032768	1037514
		32,768 x 1	AFS60B-S1PC032768	1037494*^
Solid shaft with flat, Face mount flange	10 mm	32,768 x 4,096	AFM60B-S4PA032768	1037503
	10 mm	32,768 x 1	AFS60B-S4PA032768	1037483*^

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket for encoder with spigot 36 mm, mounting kit included	BEF-WF-36	2029164*
Shaft adaptation			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981*^
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982*^
Programming and configuration tools			
	Programming Tool USB, for programmable SICK encoders AFS60, AFM60, DFS60, VFS60, DFV60 and wire draw encoders with programmable encoders.	PGT-08-S	1036616*^
	Display Programming Tool for programmable SICK encoders DFS60, DFV60, AFS/AFM60, AHS/AHM36 and wire draw encoders with DFS60, AFS/AFM60 and AHS/AHM36. Compact dimensions, low weight and intuitive to use.	PGT-10-Pro	1072254

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, JST, 8-pin, straight	Cable	SSI, drag chain use, TPU, halogen-free, shielded	3 m, 8-wire	DOL-0J08-G03MAA6	2048591
	Female connector, M12, 8-pin, straight	Cable	TPU, PUR, halogen-free, shielded	2 m, 8-wire	DOL-1208-G02MAC1	6032866*^
				5 m, 8-wire	DOL-1208-G05MAC1	6032867*^
	Female connector, M12, 8-pin, straight, A-coded	-	Incremental, SSI, shielded	-	DOS-1208-GA01	6045001
	Male connector, D-Sub, 9-pin, straight	Female connector, M12, 8-pin, straight	SSI, TPU, PUR halogen-free, shielded	0.5 m, 8-wire	DSL-2D08-G0M5AC2	2048439*^

CAUTION: Attempting to program an AFS/AFM60 Absolute Encoder with the adapter cables intended for use with the DFS60 incremental encoder will cause damage to the Absolute Encoder. Please ensure the correct adapter cable is used.

Please note: Analogue Absolute Encoder ACM60 is available

- **Connection type:** Connector M12, 5-pin, radial

	Electrical interface	Shaft diameter	Resolution	Model name	Part no.
	Analog, 4 mA ... 20 mA	6 mm	10,486	ACM60B-S1KE13X06	6045312*^
	Analog, 0 V ... 10 V		13,107	ACM60B-S1LE13X06	6045313

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At a glance

- High-resolution, 30-bit absolute encoder (18 bit singleturn and 12 bit multiturn)
- Device Level Ring (DLR functionality)
- Extensive diagnostics: Min/max values for temperature, position, speed. Operating hours counter, display of flags, alarms and warnings using e.g. a fault header (32 bit)
- Status display via 5 duo LEDs
- Rotary axis function
- IP address via DHCP / DEC switches
- Ethernet/IP interface (extended profile 0x22)
- Function block

Your benefits

- DLR functionality for reliability with simple maintenance and a simple adaptation to existing network topologies
- Lower installation costs due to fewer external switches
- High level of productivity thanks to superior diagnostics with 32-bit fault header, fast communication and high level of redundancy
- Optimal machine availability thanks to early warning and fault detection system
- Simple setting for various applications thanks to rotary axis function
- Simple installation due to user-friendly on-board configuration assembly
- Industrial-application design for use in particularly cramped space conditions

➜ **www.mysick.com/en/AFS_AFM60_EtherNet_IP**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ **www.mysick.com/en/AFS_AFM60_EtherNet_IP**

- **Electrical interface:** EtherNet/IP
- **Connection type:** 3 x connector M12, 4-pin, axial
- **Number of steps:** ≤ 262,144
- **Programmable:** ✔

Mechanical interface	Shaft diameter	Resolution	Model name	Part no.
Blind hollow shaft	15 mm	262,144 x 4,096	AFM60A-BHIB018X12	1055328
		262,144 x 1	AFS60A-BHIB262144	1055360*^
	12 mm	262,144 x 4,096	AFM60A-BEIB000S01	1064851
Solid shaft, Servo flange	6 mm, 10 mm	262,144 x 4,096	AFM60A-S1IB018X12	1055331
		262,144 x 1	AFS60A-S1IB262144	1055362*^
Solid shaft with flat, Face mount flange	10 mm, 19 mm	262,144 x 4,096	AFM60A-S4IB018X12	1055334^
		262,144 x 1	AFS60A-S4IB262144	1055364*^
	10 mm	262,144 x 4,096	AFM60A-S4IB000S02	1064852

Available in kits

Brief description	Model name
Encoder + 1 ETHERNET/IP Male Angled Connector (6048152) + 1 Power Connector (6007303)	Sales Kit 01
Encoder + 1 ETHERNET/IP Male Angled Cable 5 m (6047913) + 1 Power Cable 5 m (6025904)	Sales Kit 02
Encoder + 2 ETHERNET/IP Male Angled Connectors (6048152) + 1 Power Connectors (6007303)	Sales Kit 03
Encoder + 2 ETHERNET/IP Male Angled Cable 5 m (6047913) + 1 Power Cable 5 m (6025904)	Sales Kit 04

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket for encoder with spigot 36 mm, mounting kit included	BEF-WF-36	2029164*
Other mounting accessories			
	Servo clamps, large, for servo flange (clamping claws, mounting eccentric), (3 pcs), without mounting hardware	BEF-WK-SF	2029166*^
Shaft adaptation			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981*^
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982*^
	Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983*^

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, angled	Cable	Drag chain use, TPU, PUR, halogen-free, unshielded	5 m, 4-wire	DOL-1204-W05MC	6025904*^
	Female connector, M12, 4-pin, angled	-	PBT, unshielded	-	DOS-1204-W	6007303*
	Female connector, M12, 4-pin, D-coded	Female connector, RJ45, 8-pin	Ethernet, shielded Cabinet through	-	Feedthrough female connector Ethernet RJ45	6048180
	Male connector, M12, 4-pin, angled, D-coded	-	EtherNet/IP, EtherNet/IP, shielded	-	STE-1204-WE	6048152
	Male connector, M12, 4-pin, angled, D-coded	Cable	EtherNet/IP, TPU, halogen-free, shielded	5 m, 4-wire, CAT5, CAT5e	STL-1204-W05ME90	6047913

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At a glance

- High-resolution 30-bit absolute encoder (18-bit singleturn and 12-bit multiturn)
- Face mount flange, servo flange and blind hollow shaft
- Connection type: 3 x M12 axial connector
- Data tranfer speed “ on the fly” in the range of µs
- EtherCAT® interface CoE (CiA DS-301) Device profile (CiA DS-406)
- Round axis functionality
- Alarms, warnings and diagnostics functions for speed, position, temperature, operating time, etc.
- Status display via 5 LEDs
- Up to 16 adjustable electronic cam switches

Your benefits

- Increased productivity as a result of intelligent diagnostics functions and rapid data transfer
- Increase in network reliability due to early error detection
- Simple installation with various configuration options
- Flexible, easy setup and high resolutions for various applications with binary, integer and “decimal point” values based on round axis functionality
- Maximum system availability through embedded switch technology
- Compact and cost-efficient design

➜ www.mysick.com/en/AFS_AFM60_EtherCAT

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/AFS_AFM60_EtherCAT

- **Electrical interface:** EtherCAT
- **Connection type:** 3 x connector M12, 4-pin, axial
- **Number of steps:** ≤ 262,144
- **Programmable:** ✔

Mechanical interface	Shaft diameter	Resolution	Model name	Part no.
Solid shaft, servo flange	6 mm	262,144 x 4,096	AFM60A-S1EB018X12	1059061
		262,144 x 1	AFS60A-S1EB262144	1059072
Solid shaft with flat	10 mm	262,144 x 4,096	AFM60A-S4EB018X12	1059060
		262,144 x 1	AFS60A-S4EB262144	1059071
Blind hollow shaft	15 mm	262,144 x 1	AFS60A-BHEB262144	1059064
		262,144 x 4,096	AFM60A-BKEB018X12	1059052

Available in kits

Brief description	Model name
Encoder + 1 EtherCAT Male Angled Connector (6048262) + 1 Power Connector (6007303)	Sales Kit 01
Encoder + 1 EtherCAT Male Angled Cable 5 m (6048257) + 1 Power Cable 5 m (6025904)	Sales Kit 02
Encoder + 2 EtherCAT Male Angled Connectors (6048262) + 1 Power Connectors (6007303)	Sales Kit 03
Encoder + 2 EtherCAT Male Angled Cable 5 m (66048257) + 1 Power Cable 5 m (6025904)	Sales Kit 04

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Recommended accessories

	Brief description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket for encoder with spigot 36 mm, mounting kit included	BEF-WF-36	2029164*
Other mounting accessories			
	Servo clamps, large, for servo flange (clamping claws, mounting eccentric), (3 pcs), without mounting hardware	BEF-WK-SF	2029166*^
Shaft adaptation			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981*^
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982*^
	Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983*^

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, angled	Cable	Drag chain use, TPU, PUR, halogen-free, unshielded	5 m, 4-wire	DOL-1204-W05MC	6025904*^
	Female connector, M12, 4-pin, angled	-	PBT, unshielded	-	DOS-1204-W	6007303*
	Female connector, M12, 4-pin, D-coded	Female connector, RJ45, 8-pin	Ethernet, shielded Cabinet through	-	Feedthrough female connector Ethernet RJ45	6048180
	Male connector, M12, 4-pin, angled, D-coded	-	PROFINET, PROFINET, shielded	-	STE-1204-WZ	6048262
	Male connector, M12, 4-pin, angled, D-coded	Cable	PROFINET, PVC, shielded	5 m, 4-wire, CAT5, CAT5e	STL-1204-W05MZ90	6048257

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At a glance

- High-resolution 30-bit absolute encoder (18-bit singleturn and 12-bit multiturn)
- Face mount flange, servo flange and blind hollow shaft
- Connection type: 3 x M12 axial plug
- PROFINET-IO-RT interface
- Less than 5 ms data update time
- Round axis functionality
- Alarms, warnings and diagnostics functions for speed, position, temperature, operating time, etc.
- Status display via 5 LEDs

Your benefits

- Increased productivity as a result of intelligent diagnostics functions and rapid data transfer
- Increase in network reliability due to early error detection
- Simple installation with various configuration options
- Flexible, easy setup and high resolutions for various applications with binary, integer and “decimal point” values based on round axis functionality
- Maximum system availability through embedded switch technology
- Compact and cost-efficient design

➜ www.mysick.com/en/AFS_AFM60_PROFINET

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/AFS_AFM60_PROFINET

- **Electrical interface:** PROFINET
- **Connection type:** 3 x connector M12, 4-pin, axial
- **Number of steps:** ≤ 262,144
- **Programmable:** ✔

Mechanical interface	Shaft diameter	Resolution	Model name	Part no.
Solid shaft, servo flange	6 mm	262,144 x 4,096	AFM60A-S1NB018X12	1059040
		262,144 x 1	AFS60A-S1NB262144	1059051
Solid shaft with flat	10 mm	262,144 x 4,096	AFM60A-S4NB018X12	1059039
		262,144 x 1	AFS60A-S4NB262144	1059050
Blind hollow shaft	15 mm	262,144 x 4,096	AFM60A-BHNB01812	1059031
		262,144 x 1	AFS60A-BHNB262144	1059043

Available in kits

Brief description	Model name
Encoder + 1 PROFINET Male Angled Connector (6048262) + 1 Power Connector (6007303)	Sales Kit 01
Encoder + 1 PROFINET Male Angled Cable 5 m (6048257) + 1 Power Cable 5 m (6025904)	Sales Kit 02
Encoder + 2 PROFINET Male Angled Connectors (6048262) + 1 Power Connectors (6007303)	Sales Kit 03
Encoder + 2 PROFINET Male Angled Cable 5 m (66048257) + 1 Power Cable 5 m (6025904)	Sales Kit 04

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket for encoder with spigot 36 mm, mounting kit included	BEF-WF-36	2029164*
Other mounting accessories			
	Servo clamps, large, for servo flange (clamping claws, mounting eccentric), (3 pcs), without mounting hardware	BEF-WK-SF	2029166*^
Shaft adaptation			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981*^
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982*^
	Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983*^

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, angled	Cable	Drag chain use, TPU, PUR, halogen-free, unshielded	5 m, 4-wire	DOL-1204-W05MC	6025904*^
	Female connector, M12, 4-pin, angled	-	PBT, unshielded	-	DOS-1204-W	6007303*
	Female connector, M12, 4-pin, D-coded	Female connector, RJ45, 8-pin	Ethernet, shielded Cabinet through	-	Feedthrough female connector Ethernet RJ45	6048180
	Male connector, M12, 4-pin, angled, D-coded	-	PROFINET, PROFINET, shielded	-	STE-1204-WZ	6048262
	Male connector, M12, 4-pin, angled, D-coded	Cable	PROFINET, PVC, shielded	5 m, 4-wire, CAT5, CAT5e	STL-1204-W05MZ90	6048257

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At a glance

- Absolute singleturn encoder
- Resolution: up to 15 bits (32,768 increments)
- Electrical interface: SSI with gray code type or gray capped
- Electrical interface: Parallel with gray, gray capped, binary, BCD code type
- Zero-set function
- Mechanical interfaces: face mount flange, servo flange, blind and through hollow shaft
- Enclosure rating: Up to IP66

Your benefits

- Freely programmable resolution (up to 15 bits)
- Simple zero adjustment directly by press of a button on the encoder or via signal line (cable version)
- Suitable for all mounting methods thanks to individual mechanical interfaces
- A basic device for flexible use thanks to simple interchangeable collets for blind hollow shaft and through hollow shaft
- Versions with cable and M23 connector outlet available in axial and radial designs

➜ www.mysick.com/en/ARS60

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories ➜ www.mysick.com/en/ARS60

- **Electrical interface:** Connector M23, 21-pin, radial
- **Connection type:** Bus adaptor with cable screw fixings or connector

Mechanical interface	Resolution power	Shaft diameter	Model name	Part no.
Solid shaft, face mount flange	4,096 x 1	10 mm	ARS60-F4A04096	1031602*^
Blind hollow shaft		-	ARS60-FAA04096	1031608
Solid shaft, Face mount flange	360 x 1	10 mm	ARS60-G4A00360	1031650*^

[1] Collets for 6, 8, 10, 12, 14 mm and 1/4 “, 3/8 “ and 1/2 “ as accessories, separate order item.
For 15 mm shaft diameter collet is not needed.

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Recommended accessories

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M23, 21-pin, straight	Cable	TPU, PUR, halogen-free, shielded	1.5 m, 22-wire	DOL-2321-G1M5PA4	2029218*^
			PUR, halogen-free, shielded	5 m, 22-wire	DOL-2321-G05MPA4	2029220*^
				10 m, 22-wire	DOL-2321-G10MPA5	2029221*^

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At a glance

- Non-contact length measurement – maintenance-free, rugged, long lifetime
- High reproducibility (0.3 mm / 1 mm), high system resolution (0.1 mm)
- SSI and PROFIBUS interfaces
- Determination of absolute position
- Measuring lengths of up to 1,700 m possible
- Can be used in harsh environments
- High travel speeds of up to 6.6 m/s
- Distance tolerance between read head and measuring element: up to 55 mm ± 20 mm possible

Your benefits

- After installation, the system is immediately available and completely maintenance-free, which leads to time and cost savings.
- Reliable determination of position under harshest environmental conditions such as influences of dirt, dust, fog, shocks and vibrations
- High efficiency and productivity
- Savings on time – no reference run necessary on initial operation due to absolute position measurement
- accurate positioning even with high mounting tolerances

→ www.mysick.com/en/KH53

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/KH53

Measurement range	Electrical interface	System part	Model name	Part no.
≤ 38 m	SSI	Read head 38	KHK53-AXT00038	1030050
≤ 107 m	SSI	Read head 107	KHK53-AXB00107	1030062
≤ 354 m	SSI	Read head 354	KHK53-AXB00354	1030072
≤ 107 m	PROFIBUS DP	Read head 107	KHK53-PXF00107	1036164
≤ 1,700 m	PROFIBUS DP	Read head 1700	KHK53-PXF01700	1036166*

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Recommended accessories

	Description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket, without mounting hardware for the background	BEF-WK-KHT53	2029159
Terminal and alignment brackets			
	Clamps, without mounting hardware for the background	BEF-KHA-KHT53	2042468
Adapters and distributors			
	PROFIBUS DP, terminal resistor	PR-STE-END	6021156
Programming and configuration tools			
	Programming tool for ATM60, ATM90 and KH53 SSI	PGT-01-S	1030111

	Connection type head A	Connection type head B	Cable	Cable length	Model name	Part no.
Plug connectors and cables						
	Female connector, M12, 4-pin, straight	Cable	TPU, PUR, halogen-free, unshielded	5 m, 4-wire	DOL-1204-G05MC	6025901*^
	Female connector, M12, 5-pin, straight	Cable	PROFIBUS DP, PVC, shielded	10 m, 5-wire	DOL-1205-G10MQ	6026008
	Male connector, M12, 5-pin, straight, B-coded	Cable	PROFIBUS DP, drag chain use, TPU, halogen-free, shielded	10 m, 5-wire	STL-1205-G10MQ	6026007
	Female connector, M23, 12-pin, straight	Cable	SSI, RS-422, drag chain use, PUR, shielded	5 m, 12-wire	DOL-2312-G05MMA1	2029202*^
				10 m, 12-wire	DOL-2312-G10MMA1	2029203*^
	Male connector, M12, 5-pin, straight, B-coded	-	PROFIBUS DP, shielded For field bus technology	-	STE-1205-GQ	6021354
	Male connector, M23, 12-pin, straight	-	HIPERFACE®, SSI, Incremental, RS-422, shielded	-	STE-2312-G	6027537*^

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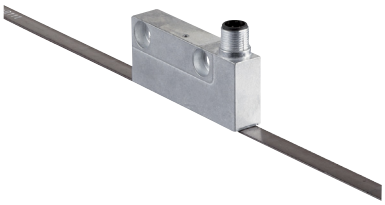

At a glance

- Non-contact determination of absolute position
- Small, compact read head
- Standard SSI interface, combined with SinCos output
- Measuring lengths of up to 4 m
- High level of accuracy (± 10 µm)
- High resolution (1 µm)
- High travel speed of up to 10 m/s

Your benefits

- Easy to integrate into existing systems
- Small size, light weight and high measurement speed make it ideal for a variety of applications
- After installation, the system is immediately available and completely maintenance-free, which leads to time and cost savings
- Immune to environmental factors like contamination and condensation, ensuring increased reliability
- Real-time speed determination plus absolute positioning due to SinCos and SSI output

→ www.mysick.com/en/TTK70

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

Ordering information

Other models and accessories → www.mysick.com/en/TTK70

- **Measuring length** 4,000 mm

Electrical interface	Resolution	System part	Model name	Part no.
4.5 V DC ... 30 V DC, SSI	1 µm	Read head	TTK70-AXA0-K02	1038033

Description	Magnetic strip length	Model name	Part no.
Magnetic tape with adhesive tape and cover band incl. [1]	1 m	MVM-01M-2MC-MKLB	6037417
	2 m	MVM-02M-2MC-MKLB	6037419
	3 m	MVM-03M-2MC-MKLB	6037421
	4 m	MVM-04M-2MC-MKLB	6037423

[1] Working temperature range -20 ... + 70 °C, storage temperature -0 ... +80 °C.

Recommended accessories

	Connection type head A	Connection type head B	Cable	Cable length	Type	Part no.
Plug connectors and cables						
	Female connector, M12, 12-pin, angled	Cable	SSI, PUR, shielded	2 m	DOL-1212-W02MAC1	6039824
			SSI, PUR, shielded, drag chain use	5 m	DOL-1212-W05MAC1	6039825



At a glance

Display Programming Tool for programmable SICK incremental encoders and wire draw encoders. Compact dimensions, low weight and intuitive to use.

Ordering information

Brief description	Model name	Part no.
Display Programming Tool for programmable SICK encoders DFS60, DFV60, AFS/AFM60, AHS/AHM36 and wire draw encoders with DFS60, AFS/AFM60 and AHS/AHM36. Compact dimensions, low weight and intuitive to use.	PGT-10-Pro	1072254
Programming Tool USB, for programmable SICK encoders AFS60, AFM60, DFS60, VFS60, DFV60 and wire draw encoders with programmable encoders.	PGT-08-S Desktop	1036616*^
Programming tool adaptor cable to suit M12 8 pin connector for Incremental Encoder	DSL-2D08-G0M5AC3	2046579*^
Programming tool adaptor cable to suit M23 12 pin connector for Incremental Encoder	DSL-3D08-G0M5AC3	2046580*^
Adapter cable for Encoder with cable outlet	DSL-0D08-G0M5AC3	2061739*^

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At a glance

Draw wire mechanics for servo flange with 6 mm shaft, measuring wire diameter: 1.35mm, life: 1 million cycles

Ordering information

Brief description	Model name	Part no.
Wire Draw Mechanism with 2M draw, requires an encoder with 6mm solid shaft (i.e.. DFS60)	MRA-F080-102D2	6028625*^
Wire Draw Mechanism with 5M draw, requires an encoder with 6mm solid shaft (i.e.. DFS60)	MRA-F130-105D2	6028626*
Wire Draw Mechanism with 10M draw, requires an encoder with 6mm solid shaft (i.e.. DFS60)	MRA-F130-110D2	6028627*

Recommended accessories

	Description	Model name	Part no.
Terminal and alignment brackets			
	F130 Style Rope Pulley Guide	MRA-F130-R	6028631*^
	F080 Style Rope Pulley Guide	MRA-F080-R	6028632*^

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	Description	Model name	Part no.
Shaft adaptation			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981*^
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982*^
	Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983*^
	Bellows coupling, shaft diameter 10 mm / 12 mm	KUP-1012-B	5312984
	Spring disc coupling, shaft diameter 6 mm / 10 mm	KUP-0610-F	5312985
	Spring disc coupling, shaft diameter 10 mm / 10 mm	KUP-1010-F	5312986^
	Collet for Blind Hollow Shaft Encoders Outer Diameter 15mm, Inner Diameter 6mm	SPZ-006-AD-A	2029174*
	Collet for Blind Hollow Shaft Encoders Outer Diameter 15mm, Inner Diameter 1/4”	SPZ-1E4-AD-A	2029175
	Collet for Blind Hollow Shaft Encoders Outer Diameter 15mm, Inner Diameter 8mm	SPZ-008-AD-A	2029176*^
	Collet for Blind Hollow Shaft Encoders Outer Diameter 15mm, Inner Diameter 3/8”	SPZ-3E8-AD-A	2029177
	Collet for Blind Hollow Shaft Encoders Outer Diameter 15mm, Inner Diameter 10mm	SPZ-010-AD-A	2029178*
	Collet for Blind Hollow Shaft Encoders Outer Diameter 15mm, Inner Diameter 12mm	SPZ-012-AD-A	2029179*
	Collet for Blind Hollow Shaft Encoders Outer Diameter 15mm, Inner Diameter 1/2”mm	SPZ-1E2-AD-A	2029180
	Collet for Through Hollow Shaft Encoders Outer Diameter 14mm, Inner Diameter 6mm	SPZ-006-AD-D	2029192
	Collet for Through Hollow Shaft Encoders Outer Diameter 14mm, Inner Diameter 1/4”	SPZ-1E4-AD-D	2029193
	Collet for Through Hollow Shaft Encoders Outer Diameter 14mm, Inner Diameter 8mm	SPZ-008-AD-D	2029194
	Collet for Through Hollow Shaft Encoders Outer Diameter 14mm, Inner Diameter 3/8”	SPZ-3E8-AD-D	2029195
	Collet for Through Hollow Shaft Encoders Outer Diameter 14mm, Inner Diameter 10mm	SPZ-010-AD-D	2029196
	Collet for Through Hollow Shaft Encoders Outer Diameter 14mm, Inner Diameter 12mm	SPZ-012-AD-D	2029197
	Collet for Through Hollow Shaft Encoders Outer Diameter 14mm, Inner Diameter 1/2”	SPZ-1E2-AD-D	2029198
Flanges / Flange plates			
	Face mount to 50mm servo flange adaptor	BEF-FA-036-050	2029160
	Face mount to 100mm servo flange adaptor	BEF-FA-036-100	2029161*
	Face mount to 60mm square mounting plate	BEF-FA-036-060REC	2029162*
	Face mount to 60mm square mounting plate with shock absorbers	BEF-FA-036-060RSA	2029163*^
	Face mount to 60mm square mounting plate (imperial dimension)	BEF-FA-036-063REC	2034225*^

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	Description	Model name	Part no.
	Bearing bracket for hollow shaft encoders, fastening screws included the Bearing Block is intended for very large radial and axial shaft loads. Particularly for application on: Belt pulleys, Chain pinions, Friction wheels. It is designed this way to enable fitting of encoder with blind hollow shaft with ø 12 mm.	BEF-FA-B12-010	2042728
	Standard Stator Coupling for xFx60	BEF-DS00FX	2056812*
Mounting systems			
	Mounting bracket for encoder with spigot 36 mm for face mount flange	BEF-WF-36	2029164*
	Servo clamps half ring (2 piece)	BEF-WG-SF050	2029165
	Servo clamps small (3 piece)	BEF-WK-SF	2029166*^
	Measuring wheel 64mm diameter 200mm circumference suits 10mm solid shaft	BEF-MR-010020	5312988*^
	Measuring wheel 95mm diameter 300mm circumference suits 10mm solid shaft	BEF-MR010030R	2049278*
	Measuring wheel 160mm diameter 500mm circumference suits 10mm solid shaft	BEF-MR-010050	5312989*^

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Plug connectors and cables

Connecting cables with M8 female connector

- **Cable material:** PUR, halogen-free
- **Connector material:** TPU
- **Locking nut material:** Zinc die-cast, nickel-plated
- **Shielding:** Unshielded

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
	Female connector, M8, 3-pin, straight	Cable	1 m, 3-wire	DOL-0803-G01MC	6036455
			2 m, 3-wire	DOL-0803-G02MC	6025888*^
			3 m, 3-wire	DOL-0803-G03MC	6038991*^
			5 m, 3-wire	DOL-0803-G05MC	6025889*
			10 m, 3-wire	DOL-0803-G10MC	6025890*^
			20 m, 3-wire	DOL-0803-G20MC	6036456
	Female connector, M8, 3-pin, angled, LED	Cable	2 m, 3-wire	DOL-0803-L02MC	6039080
	Female connector, M8, 3-pin, angled	Cable	2 m, 3-wire	DOL-0803-W02MC	6025891*^
			5 m, 3-wire	DOL-0803-W05MC	6025892*
			10 m, 3-wire	DOL-0803-W10MC	6025893*
	Female connector, M8, 4-pin, straight	Cable	2 m, 4-wire	DOL-0804-G02MC	6025894*
			5 m, 4-wire	DOL-0804-G05MC	6025895*^
			10 m, 4-wire	DOL-0804-G10MC	6025896*
			15 m, 4-wire	DOL-0804-G15MC	6038622
			20 m, 4-wire	DOL-0804-G20MC	6051148
	Female connector, M8, 4-pin, angled	Cable	2 m, 4-wire	DOL-0804-W02MC	6025897*
			5 m, 4-wire	DOL-0804-W05MC	6025898*
			10 m, 4-wire	DOL-0804-W10MC	6025899*

Connecting cables with M12 female connector

- **Cable material:** PUR, halogen-free
- **Connector material:** TPU
- **Locking nut material:** Zinc die-cast, nickel-plated
- **Shielding:** Unshielded

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
	Female connector, M12, 4-pin, straight	Cable	2 m, 4-wire	DOL-1204-G02MC	6025900*^
			5 m, 4-wire	DOL-1204-G05MC	6025901*^
			10 m, 4-wire	DOL-1204-G10MC	6025902*^
			15 m, 4-wire	DOL-1204-G15MC	6034749*
			20 m, 4-wire	DOL-1204-G20MC	6034750*^
			25 m, 4-wire	DOL-1204-G25MC	6034751*^
	Female connector, M12, 4-pin, angled	Cable	2 m, 4-wire	DOL-1204-W02MC	6025903*
			5 m, 4-wire	DOL-1204-W05MC	6025904*^
			10 m, 4-wire	DOL-1204-W10MC	6025905*^
			15 m, 4-wire	DOL-1204-W15MC	6034752*
			20 m, 4-wire	DOL-1204-W20MC	6034753*
			25 m, 4-wire	DOL-1204-W25MC	6034754*^

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
	Female connector, M12, 4-pin, angled, with 3 LEDs	Cable	2 m, 4-wire	DOL-1204-L02MC	6039086
			5 m, 4-wire	DOL-1204-L05MC	6020398
			10 m, 4-wire	DOL-1204-L10MC	6039088
	Female connector, M12, 5-pin, straight	Cable	2 m, 5-wire	DOL-1205-G02MC	6025906*^
			5 m, 5-wire	DOL-1205-G05MC	6025907*^
			10 m, 5-wire	DOL-1205-G10MC	6025908*^
	Female connector, M12, 5-pin, angled	Cable	2 m, 5-wire	DOL-1205-W02MC	6025909*
			5 m, 5-wire	DOL-1205-W05MC	6025910*
			10 m, 5-wire	DOL-1205-W10MC	6025911*
			20 m, 5-wire	DOL-1205-W20MC	6060127

Connecting cables with M8 female connector and M8 male connector

- **Cable material:** PUR, halogen-free
- **Connector material:** TPU
- **Locking nut material:** Zinc die-cast, nickel-plated
- **Shielding:** Unshielded

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
	Female connector, M8, 3-pin, straight	Male connector, M8, 3-pin, straight	1 m, 3-wire	DSL-0803-G01MC	6029405
			2 m, 3-wire	DSL-0803-G02MC	6029406
			3 m, 3-wire	DSL-0803-G03MC	6037696
			5 m, 3-wire	DSL-0803-G05MC	6032730*
			10 m, 3-wire	DSL-0803-G10MC	6032731
			20 m, 3-wire	DSL-0803-G20MC	6035805
	Female connector, M8, 4-pin, straight	Male connector, M8, 4-pin, straight	2 m, 4-wire	DSL-0804-G02MC	6036335
			5 m, 4-wire	DSL-0804-G05MC	6039090

Connecting cables with M12 female connector and M12 male connector

- **Cable material:** PUR, halogen-free
- **Connector material:** TPU
- **Locking nut material:** Zinc die-cast, nickel-plated
- **Shielding:** Unshielded

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
	Female connector, M12, 4-pin, straight	Male connector, M12, 4-pin, straight	0.6 m, 4-wire	DSL-1204-G0M6C	6025926
			1 m, 4-wire	DSL-1204-G01MC	6033244
			2 m, 4-wire	DSL-1204-G02MC	6025927
			5 m, 4-wire	DSL-1204-G05MC	6033245
			10 m, 4-wire	DSL-1204-G10MC	6033698
	Female connector, M12, 4-pin, angled	Male connector, M12, 4-pin, straight	2 m, 4-wire	DSL-1204-B02MC	6025929
			5 m, 4-wire	DSL-1204-B05MC	6037134
	Female connector, M12, 5-pin, straight, A-coded	Male connector, M12, 5-pin, straight, A-coded	2 m, 5-wire	DSL-1205-G02MC	6025931*^
			10 m, 5-wire	DSL-1205-G10MC	6038954*^
			15 m, 5-wire	DSL-1205-G15MC	6038956
			20 m, 5-wire	DSL-1205-G20MC	6038957

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Connecting cables with M12 female connector and M8 male connector

- **Cable material:** PUR, halogen-free
- **Connector material:** TPU
- **Locking nut material:** Zinc die-cast, nickel-plated
- **Shielding:** Unshielded

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
	Female connector, M12, 4-pin, straight	Male connector, M8, 4-pin, straight	2 m, 4-wire	DSL-2804-G02MC	6039180
			5 m, 4-wire	DSL-2804-G05MC	6039091

Connecting cables with M8 female connector and M12 male connector

- **Cable material:** PUR, halogen-free
- **Connector material:** TPU
- **Locking nut material:** Zinc die-cast, nickel-plated
- **Shielding:** Unshielded

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
	Female connector, M8, 4-pin, straight	Male connector, M12, 4-pin, straight	2 m, 4-wire	DSL-8204-G02MC	6025919
			5 m, 4-wire	DSL-8204-G05MC	6039181
	Female connector, M8, 4-pin, angled	Male connector, M12, 4-pin, straight	2 m, 4-wire	DSL-8204-B02MC	6025921
			5 m, 4-wire	DSL-8204-B05MC	6039182

Connecting cables with M12 male connector with open conductor heads

- **Cable material:** PUR, halogen-free
- **Connector material:** TPU
- **Locking nut material:** Zinc die-cast, nickel-plated
- **Shielding:** Unshielded

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
	Male connector, M12, 4-pin, straight	Cable	2 m, 4-wire	STL-1204-G02MC	6028077*^
			5 m, 4-wire	STL-1204-G05MC	6048170*
			10 m, 4-wire	STL-1204-G10MC	6041750*
			15 m, 4-wire	STL-1204-G15MC	6048171*
	Male connector, M12, 4-pin, angled	Cable	5 m, 4-wire	STL-1204-W05MC	6037472
			15 m, 4-wire	STL-1204-W15MC	6037473*

Connecting cables with M8 female connector

- **Cable material:** PP
- **Connector material:** PP
- **Locking nut material:** Stainless steel (V4A/1.4404/316L)
- **Shielding:** Unshielded

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
	Female connector, M8, 3-pin, straight	Cable	2 m, 3-wire	DOL-0803-G02MRN	6058504*^
			5 m, 3-wire	DOL-0803-G05MRN	6058505*^
			10 m, 3-wire	DOL-0803-G10MRN	6058506*^
	Female connector, M8, 3-pin, angled	Cable	2 m, 3-wire	DOL-0803-W02MRN	6058507*^
			5 m, 3-wire	DOL-0803-W05MRN	6058508*^
			10 m, 3-wire	DOL-0803-W10MRN	6058509*^
	Female connector, M8, 3-pin, angled, LED	Cable	2 m, 3-wire	DOL-0803-L02MRN	6058787*^
			5 m, 3-wire	DOL-0803-L05MRN	6058788*^
			10 m, 3-wire	DOL-0803-L10MRN	6058789*^
	Female connector, M8, 4-pin, straight	Cable	2 m, 4-wire	DOL-0804-G02MRN	6058510*^
			5 m, 4-wire	DOL-0804-G05MRN	6058511*^
			10 m, 4-wire	DOL-0804-G10MRN	6058512*^
			25 m, 4-wire	DOL-0804-G25MRN	6058513*^
	Female connector, M8, 4-pin, angled	Cable	2 m, 4-wire	DOL-0804-W02MRN	6058514*^
			5 m, 4-wire	DOL-0804-W05MRN	6058515*^
			10 m, 4-wire	DOL-0804-W10MRN	6058517*^
			25 m, 4-wire	DOL-0804-W25MRN	6058518*^
	Female connector, M8, 4-pin, straight, LED	Cable	2 m, 4-wire	DOL-0804-L02MRN	6058790*^
			5 m, 4-wire	DOL-0804-L05MRN	6058791*^
			10 m, 4-wire	DOL-0804-L10MRN	6058792*^

Connecting cables with M12 female connector

- **Cable material:** PP
- **Connector material:** PP
- **Locking nut material:** Stainless steel (V4A/1.4404/316L)
- **Shielding:** Unshielded

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
	Female connector, M12, 4-pin, straight	Cable	2 m, 4-wire	DOL-1204-G02MRN	6058291*^
			5 m, 4-wire	DOL-1204-G05MRN	6058476*^
			10 m, 4-wire	DOL-1204-G10MRN	6058478*^
			25 m, 4-wire	DOL-1204-G25MRN	6058480*^
	Female connector, M12, 4-pin, angled	Cable	2 m, 4-wire	DOL-1204-W02MRN	6058474*^
			5 m, 4-wire	DOL-1204-W05MRN	6058477*^
			10 m, 4-wire	DOL-1204-W10MRN	6058479*^
			25 m, 4-wire	DOL-1204-W25MRN	6058481*^
	Female connector, M12, 4-pin, angled, LED	Cable	2 m, 4-wire	DOL-1204-L02MRN	6058482*^
			5 m, 4-wire	DOL-1204-L05MRN	6058483*^
			10 m, 4-wire	DOL-1204-L10MRN	6058484*^
			25 m, 4-wire	DOL-1204-L25MRN	6058485*^
	Female connector, M12, 5-pin, straight	Cable	2 m, 5-wire	DOL-1205-G02MRN	6058494*^
			5 m, 5-wire	DOL-1205-G05MRN	6058495*^
			10 m, 5-wire	DOL-1205-G10MRN	6058496*^
			25 m, 5-wire	DOL-1205-G25MRN	6058497*^

Connecting cables with M12 female connector and M12 male connector

- **Cable material:** PP
- **Connector material:** PP
- **Locking nut material:** Stainless steel (V4A/1.4404)
- **Shielding:** Unshielded

	Connection type head A	Connection type head B	Cable length	Model name	Part no.
	Female connector, M12, 4-pin, straight	Male connector, M12, 4-pin, straight	0.6 m, 4-wire	DSL-1204-G0M6RN	6058498*^
			2 m, 4-wire	DSL-1204-G02MRN	6058499*^
			5 m, 4-wire	DSL-1204-G05MRN	6058500*^
	Female connector, M12, 4-pin, angled	Male connector, M12, 4-pin, straight	0.6 m, 4-wire	DSL-1204-B0M6RN	6058501*^
			2 m, 4-wire	DSL-1204-B02MRN	6058502*^
			5 m, 4-wire	DSL-1204-B05MRN	6058503*^

Female connectors (ready to assemble)

- **Shielding:** Unshielded

	Connection type head A	Connection type	Connector material	Model name	Part no.
	Female connector, M12, 4-pin, straight	Screw-type terminals	PA	DOS-1204-G	6007302*
	Female connector, M12, 4-pin, angled	Screw-type terminals	PBT	DOS-1204-W	6007303*
	Female connector, M8, 4-pin, straight	Screw-type terminals	PBT/PA	DOS-0804-G	6009974*^
	Female connector, M12, 4-pin, straight	Cutting technology	-	DOS-1204-GQU8	6053328

Male connectors (ready to assemble)

- **Shielding:** Unshielded

	Connection type head A	Connection type head B	Connector material	Model name	Part no.
	Male connector, M12, 4-pin, straight	Screw-type terminals	PA	STE-1204-GN	6028359*^

Adapters and distributors

- **Locking nut material:** Stainless steel (V4A/1.4404/316L)
- **Items supplied:** With 4 dust covers and 10 attachable labels

	Connection type head A	Number of slots	Cable length	Model name	Part no.
	Female connector, M12, 5-pin	4	5 m, 5-wire	SNL-08D12-KA05	6027586
			10 m, 5-wire	SNL-08D12-KA10	6027587

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Reflectors and optics

- **Material:** PMMA/ABS

	Description	Mounting system type	Reflective area	Model name	Part no.
	Fine triple, screw connection, suitable for laser sensors	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10F	5311210*
			38 mm x 16 mm	PL20F	5308844*
			47 mm x 47 mm	PL250F	5308843*^
	Rectangular, screw connection	Screw-on, 2 hole mounting	37 mm x 56 mm	PL40A	1012720*^
			38 mm x 15 mm	PL20A	1012719*^
	Rectangular, screw connection	Screw-on, 2 hole mounting	47 mm x 47 mm	PL250A	5304812*^
			80 mm x 80 mm	PL80A	1003865*^
			175 mm x 34 mm	PL180E01	1013289*^
	Round, screw connection	Center hole mounting, screw-on	80 mm (diameter)	C110	5304549*^

- **Material:** Plastic
- **Ambient operating temperature:** –20 °C ... +140 °C

	Description	Mounting system type	Reflective area	Model name	Part no.
	Fine triple, chemically resistant, screw connection	Screw-on, 2 hole mounting	18 mm x 18 mm	PL10FCHEM	5321636*
			38 mm x 15 mm	PL20CHEM	5321089*
			47 mm x 47 mm	P250CHEM	5321097*^

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- **Material:** Stainless steel V4A (1.4404, 316L)
- **Ambient operating temperature:** –20 °C ... +60 °C

	Description	Mounting system type	Reflective area	Model name	Part no.
	Stainless steel reflector, hygienic design, chemically resistant, Enclosure rating IP 69K	M12-adapter thread	25 mm x 25 mm	PLH25-M12	2063403
	Stainless steel reflector, hygienic design, chemically resistant, enclosure rating IP69K	D12-adapter shaft	25 mm x 25 mm	PLH25-D12	2063404*^
	Stainless steel reflector, wash-down design, chemically resistant, Enclosure rating IP 69K	Screw-on, 2 hole mounting	14 mm x 14 mm	PLV14-A	2063405*^

Adhesive Reflector Tape

	Description	Model name	Part no.
	Diamond Grade Reflective Tape, 50 mm x 912mm	REF-PLUSR50	4086634*^

Mounting systems

	Material	Description	Suitable for	Type	Part no.
	Steel, zinc coated	Mounting bracket for floor mounting, without mounting hardware	W2S-2	BEF-W2S-A	4034748
	Stainless steel 1.4571	Mounting bracket for floor mounting, mounting hardware included	W4-3	BEF-W4-B	2051630*
	Stainless steel 1.4571	Mounting bracket for wall mounting, mounting hardware included	W4-3	BEF-W4-A	2051628*
	Steel, zinc coated	Mounting bracket, mounting hardware included	CSM1, KT3, LUT2, W9 Laser, W9-3, W9-3 Glass, W9L-3 Laser, W9LG-3 Laser Glass	BEF-WN-W9-2	2022855*
	Stainless steel	Mounting bracket, large, mounting hardware included	W11-2, W12-3	BEF-WG-W12	2013942*
	Stainless steel	Mounting bracket, small, mounting hardware included	W11-2, W12-3	BEF-WK-W12	2012938*
	Steel, zinc coated	Mounting bracket, mounting hardware included	DT10, W14-2, W18-2, W18-3, W18-3 Ex	BEF-WN-W14	2019084
			Dx30, Reflex Array, W23 Laser, W23-2, W27-2, W27-2 AS-i, W27-2 Laser, W27-3	BEF-WN-W23	2019085
	Stainless steel (1.4301)	Mounting bracket, mounting hardware included	W24-2, W24-2 Ex, W34	BEF-WN-W24	2015248*
	Stainless steel	Mounting bracket, small, without mounting hardware	W24-2, W24-2 Ex, W34	BEF-WK-W24	4027532*

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	Material	Description	Suitable for	Type	Part no.
	Steel, zinc coated	Mounting bracket, M12 thread, right angle, without mounting hardware	IM Inox, IM Namur, IM Standard, IM Triplex, IMA, IN3000 Direct, MM, MM Namur, V12-2	BEF-WN-M12	5308447*^
		Mounting bracket, M18 thread, angled, without mounting hardware	GR18, V180-2, V18, W15, Z1, Z2-	BEF-WN-M18	5308446*^
		Mounting bracket, M30 thread, without mounting hardware	CM, IM Namur, IM Standard, IM Triplex, IMA, IN3000 Direct, L21, L4000 Systems, L41, UM30	BEF-WN-M30	5308445*^

Universal bar clamp systems

- **Items supplied:** Universal clamp (5322626), mounting hardware

	Material	Description	Suitable for	Type	Part no.
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N02 for universal clamp bracket	W4S-3 INOX , W11-2 W12-3 , W160 , W250, UC12 , KT2, DT2 P250	BEF-KHS-N02	2051608*^
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N02N for universal clamp bracket		BEF-KHS-N02N	2051618*^
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N08 for universal clamp bracket	W4-3 , W4S-3 , W8 , W100 , W140-2 , W150, W170 , W9-2 , W9-3 , KT3 , KT5-2 , KT8 KT10-2 , CS8 , CSL1 , LUT2 , LUT3 , CSM1	BEF-KHS-N08	2051607*^
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N08N for universal clamp bracket		BEF-KHS-N08N	2051616*^
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N03 for universal clamp bracket	W11-2 , W12-3 , W14-2, W18-3 , W24-2 , UC12 KT2 , DT2 , DT10 PL20A , PL30A , PL40A , PL50A , PL80A , P250	BEF-KHS-N03	2051609
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N03N for universal clamp bracket		BEF-KHS-N03N	2051619*^
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N04 for universal clamp	W11-2 , W12-3 , W14-2 ,W18-3 , W23-2 , W24-2 , W27-3 , W260, W280 , W30 , W32 , W34 , W36 , UC12 , KT2 , DT2, DT10 , DS30 , DS40 , DT50 , DS50 , DL50 , DT60 , DS60 , DL60 PL20A , PL40A , PL50A , PL80A , P250	BEF-KHS-N04	2051610*
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N04N for universal clamp bracket		BEF-KHS-N04N	2051620*^
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N07 for universal clamp bracket	PL20A , PL40A PL50A , P250 C110	BEF-KHS-N07	2051613*^
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N07N for universal clamp bracket		BEF-KHS-N07N	2051623*^

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	Material	Description	Suitable for	Type	Part no.
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N05 for universal clamp bracket, M12	W4-3 , V12-2 , IM12 IME12 , MM12 , UC4	BEF-KHS-N05	2051611*^
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N05N for universal clamp bracket, M12		BEF-KHS-N05N	2051621*^
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N06 for universal clamp bracket, M18	W15 , MH15 , V18 , V180-2 , IM18 IME18 , MM18 , CM18 , UM18 , KTM1	BEF-KHS-N06	2051612*^
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N06N for universal clamp bracket, M18		BEF-KHS-N06N	2051622*^
	Zinc plated steel (sheet), Zinc die cast (clamping bracket)	Plate N10 for universal clamp bracket, M30	-	BEF-KHS-N10	2062372
	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	Plate N10N for universal clamps	-	BEF-KHS-N10N	2062373

- **Items supplied:** Ring to connect two bar clamps (bar clamps not included)

	Material	Description	Suitable for	Type	Part no.
	Zinc plated steel	Ring to connect two clamping brackets 12 mm (clamping brackets 5322626)	-	BEF-KHS-VR	4075781
	Steel, zinc coated			BEF-KHS-VRN	4075320*^
	Hygienic Design, Stainless steel V4A (1.4404, 316L), Silicone (seal)	Hygienic design telescopic tube, angled, with bayonet lock with flange	Hygienic Design BeftecHD	BEF-HDSTRWF	2067777
	Hygienic Design, Stainless steel V4A (1.4404, 316L), Silicone (seal)	Hygienic design telescopic tube, straight, with bayonet lock with flange	Hygienic Design BeftecHD	BEF-HDSTRGF	2067779*^

- **Items supplied:** Without mounting hardware

	Material	Description	Type	Part no.
	Steel, zinc coated	Mounting bar, straight, 200 mm	BEF-MS12G-A	4056054*^
		Mounting bar, straight, 300 mm	BEF-MS12G-B	4056055*^
	Stainless steel (1.4571)	Mounting bar, straight, 200 mm	BEF-MS12G-NA	4058914*^
		Mounting bar, straight, 300 mm	BEF-MS12G-NB	4058915*^
	Steel, zinc coated	Mounting bar, L-shaped, 150 mm x 150 mm	BEF-MS12L-A	4056052*^
		Mounting bar, L-shaped, 250 x 250 mm	BEF-MS12L-B	4056053*^
	Stainless steel (1.4571)	Mounting bar, L-shaped, 150 mm x 150 mm	BEF-MS12L-NA	4058912*^
		Mounting bar, L-shaped, 250 mm x 250 mm	BEF-MS12L-NB	4058913*^

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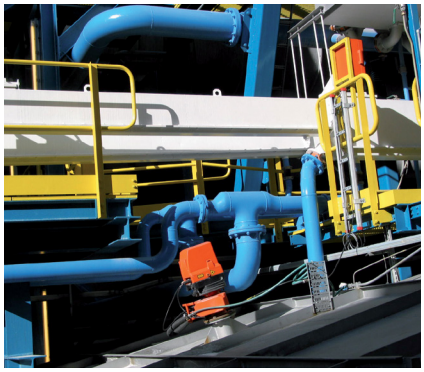
	Material	Description	Type	Part no.
	Steel, zinc coated	Mounting bar, Z-shaped, 150 mm x 70 mm x 150 mm	BEF-MS12Z-A	4056056*
		Mounting bar, Z-shaped, 150 mm x 70 mm x 250 mm	BEF-MS12Z-B	4056057*
	Stainless steel (1.4571)	Mounting bar, Z-shaped, 150 mm x 70 mm x 150 mm	BEF-MS12Z-NA	4058916*^
		Mounting bar, Z-shaped, 150 mm x 70 mm x 250 mm	BEF-MS12Z-NB	4058917*^

- **Items supplied:** 2 screws M6 x 30, 2 spring discs

	Material	Description	Type	Part no.
	Aluminum	Bar clamp for bar diameter of 12 mm (fixing the mounting rod)	BEF-RMC-D12	5321878*^

GAS ANALYZERS







Optimum solutions for analyzing gases in process- or emission-related applications

SICK offers a broad range of gas analyzers based on a variety of powerful measurement principles. With its in-situ and extractive measurement technology for equipping complete facilities, SICK can also provide solutions for a variety of systems and complex measurement tasks.

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TRANSIC100LP R-538
The good nose for oxygen



GM32 . . . . . .R-538
Measure aggressive gases directly and quickly – even in ATEX zones



GMS800 . . . . . .R-539
Tailor-made gas analysis solutions for process and emission monitoring



MERCEM300Z R-539
Innovative measurement of mercury in flue gases

R



TRANSIC100LP – At a glance

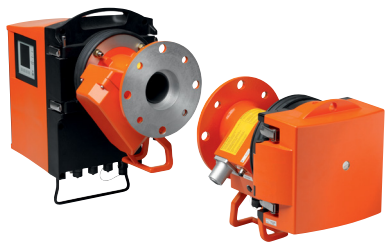
- O_2 transmitter based on high-performance laser spectroscopy (TDLS)
- For use in potentially explosive atmospheres (FM, ATEX and IECEx approvals)
- Measurement directly in-situ or extractive using a sample gas cell (option)
- Designed for heavy-duty industrial applications
- Compact design and easy to operate
- Long-term stability
- No moving parts

Your benefits

- Measures in real-time directly in the process
- Easy installation and operation
- Self-diagnostics with maintenance display
- Low requirements for gas conditioning
- Low operating costs: no consumables and no purging gas consumption
- Rugged: reliable measurement even in contaminated gases

→ www.mysick.com/en/TRANSIC100LP

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



GM32 – At a glance

- Direct, fast in-situ measurement
- No gas sampling, no gas transport, no gas conditioning
- Up to eight measuring components at the same time, plus process temperature and pressure
- DOAS and CDE evaluation process
- Numerous independent measuring ranges with consistent accuracy
- Automatic self-test function (QAL3) without test gases
- Overpressure encapsulated design for ATEX Zones 1 and 2
- The GM32 in-situ gas analyzer measures SO2, NO, NO2 and NH3, as well as TRS components in Kraft pulp processes including pressure and temperature in the gas duct.

Your benefits

- Measured values in real time without altering the gas composition
- Short-term process deviations are detected
- Representative measurement byselection of cross-duct or measuring probe versions
- Fast on-site service due to modular design
- Long maintenance-free intervals
- Cost-effective in-situ gas analyzer — also in ATEX design
- Low cost of installation and operation, no test gases required
- Complete emissions measurement in Kraft pulp process by way of simultaneous measurement of TRS components plus SO_2, NO, NH_3

→ www.mysick.com/en/GM32

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GMS800 – At a glance

- 7 different analyzer modules: DEFOR (NDUV, UVRAS), FIDOR (FID), MULTOR (NDIR), OXOR-E (electrochemical O_2), OXOR-P (paramagnetic O_2), THERMOR (TC) and UNOR (NDIR)
- 4 different types of enclosures
- Gas module with sample gas pump and/or control sensors
- New enclosure type for easy and quick integration in analyzer cabinets
- Remote diagnosis via Ethernet with software SOPAS ET

Your benefits

- Approved according to EN 15267-3 and EN 14181
- Installations in Non-Ex-areas and Ex-areas (Zone 1 and 2 according to ATEX) possible
- Minimum service and maintenance work as well as easy reconditioning of existing installations due to modular design
- Adjustment without test gases via optional adjustment unit
- Minimal influence of ambient temperature through thermostatic controlled modules
- System solutions with turn-key analyzer cabinets MAC800
- Reliable measuring results by proven measurement technology
- Easy maintenance and repair due to replacement of complete assemblies or modules

→ **www.mysick.com/en/GMS800**

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DUST MEASURING DEVICES







Innovative solutions for measuring dust

SICK is setting new standards in dust measurement with its rugged and low-maintenance measuring devices for detecting and monitoring dust concentrations. All dust measuring devices are easy to integrate into existing applications – and offer straightforward installation and commissioning along with user-friendly operation.

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DUSTHUNTER SB100 . . . . . .S-542
The approved dust monitor with scattered light backward measurement



DUSTHUNTER SP100 . . . . . .S-542
The probe version for scattered light forward measurement



DUSTHUNTER T200 . . . . . .S-543
The approved transmissiometer with self-alignment



FWE200DH S-543
Reliable dust measurement in wet gases

S



DUSTHUNTER SB100 – At a glance

- For very low to medium dust concentrations
- One-side installation
- Contamination check
- Automatic check of zero and reference point
- Automatic compensation of background radiation, therefore no light absorber necessary
- For medium to large duct diameters

Your benefits

- Easy installation, commissioning, and operation
- Measurement independent of gas velocity, humidity and particle charge
- Approved according to EN 15267
- Low maintenance due to self-monitoring

→ www.mysick.com/en/DUSTHUNTER_SB100

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



DUSTHUNTER SP100 – At a glance

- One-side installation
- For very low to medium dust concentrations
- Automatic check of zero and reference point
- Contamination check
- Hastelloy probe available for corrosive gas environments
- For small to medium duct diameters

Your benefits

- Ideal for thick- or double-walled ducts
- Approved according to EN 15267
- Low maintenance due to self-monitoring and contamination check

→ www.mysick.com/en/DUSTHUNTER_SP100

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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DUSTHUNTER T200 – At a glance

- Integrated contamination check for sender/receiver and reflector unit
- Automatic self-alignment of the optical assembly
- Automatic check of zero and reference point
- For medium to high dust concentrations
- For small to large measuring distances

Your benefits

- Easy installation, commissioning and operation
- Measurement independent of gas velocity, humidity and particle charge
- Low maintenance due to self-monitoring and contamination check
- Approved according to EN 15267

→ www.mysick.com/en/DUSTHUNTER_T200

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



FWE200DH – At a glance

- For very low to medium dust concentrations
- Gas sampling and return combined in one probe
- Contamination check
- Automatic monitoring of zero and reference point
- Easy parameterization and convenient operation – optionally via supplemental remote unit
- Integrated system diagnostics for early detection of maintenance requirements

Your benefits

- Reliable and approved dust measurement in wet gas
- Efficient operation due to very few expendable items and very low installation requirements
- Low-maintenance thanks to the absence of moving parts coming into contact with aggressive gas
- Compact design for installation directly on the duct
- Simple commissioning directly at the measuring site due to automatic measuring range adjustment
- Very long life cycle due to compact design

→ www.mysick.com/en/FWE200DH

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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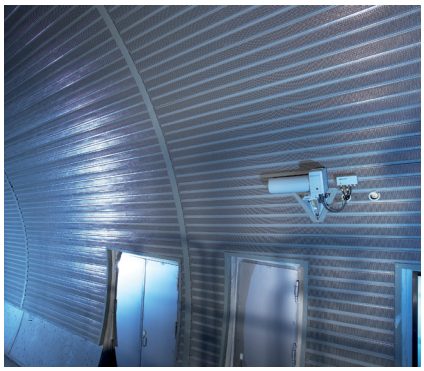
TRAFFIC SENSORS







Solutions for active traffic safety

Added safety – fewer backups: These are the key requirements of traffic service providers. Intelligent traffic sensors are absolutely fundamental to ensuring state-of-the-art traffic guidance technology. With its sophisticated equipment for measuring visual range, visibility, and wind speed, as well as detecting overheight, SICK is helping to find solutions to these tasks.

T

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VISIC50SF **T-546**
Early and reliable fire detection in tunnels


VISIC100SF **T-546**
Modernizes measurement performance for tunnel air quality


VICOTEC320 . . . . . **T-547**
For the control of ventilation and for filter monitoring in road tunnels


VICOTEC410 . . . . . **T-547**
For the control of ventilation and for filter monitoring in road tunnels


VISIC620 . . . . . **T-548**
Measurement of visual range for roads, tunnels, sea routes and in weather stations


HISIC450 . . . . . **T-548**
Overheight detection of vehicles


FLOWSIC200 . . . . . **T-549**
New generation: Easy, flexible, bus compatible

T



VISIC50SF – At a glance

- Visibility (K value) measured according to the scattered light measurement principle
- Highly reliable – no moving parts
- Quick and safe smoke detection
- Minimal error rate
- IP 6K9K enclosure rating thanks to a rugged stainless steel housing
- Fog evaporation via integrated heating element (optional)

Your benefits

- Perfect addition to temperature cables due to increased detection speeds
- High levels of reliability and operational safety
- No protective measures required for tunnel washing
- Delivers reliable performance even with portal fog
- Flexible connection options, easy to extend and integrate into existing networks
- Quick K value check with a testing tool
- Low level of effort due to simple mounting and quick commissioning
- Alarm signal with adjustable limit value

→ www.mysick.com/en/VISIC50SF

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



VISIC100SF – At a glance

- Visibility (K value) measured according to the scattered light measurement principle
- CO-, NO-, or NO2 measurement using electrochemical cells in accordance with EN 50545
- Highly reliable (no moving parts)
- Combines visibility measurement with two different gas measurements
- IP6K9K enclosure rating thanks to rugged stainless steel housing
- Fog compensation thanks to integrated heating (option)
- On-site calibration and adjustment of all new cells possible

Your benefits

- One sensor for three measuring components (VIS+2 gases)
- High levels of availability and operational safety
- No protective measures required for tunnel washing
- No impairment of ventilator control when tunnel portal is shrouded in fog
- Flexible connection options and easy to extend, can be easily integrated into existing networks
- Visibility measurement can be easily verified wih checking tool
- Low level of effort required thanks to easy mounting and quick commissioning
- Free selection of the 3 measuring components (CO,NO,NO2)
- Plug and measure
- Electrochemical cells calibration and adjustment on-site possible with service case and software driven operation
- Retrofitting of gas measurement at site possible

→ www.mysick.com/en/VISIC100SF

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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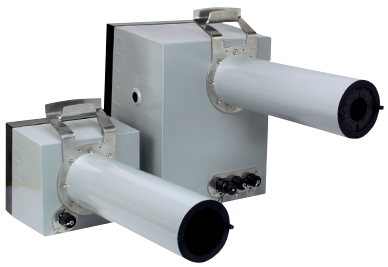

VICOTEC320 – At a glance

- Very low detection limits for NO and NO_2
- Automatic function monitoring and self-adjustment
- Very sturdy design in stainless steel
- Automatic beam alignment between sender/receiver unit and reflector

Your benefits

- Energy and cost savings for ventilation control due to very low zero offset and accurate measurement
- Low operational costs because no air aspiration system, no test gases and no ambient air required
- Low maintenance requirements due to long maintenance interval (1 year)

→ www.mysick.com/en/VICOTEC320

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



VICOTEC410 – At a glance

- Automatic adjustment function (AutoAdjust)
- Contamination check
- Menu-driven operation via evaluation unit
- Measuring components: CO and Visibility

Your benefits

- Direct measurement without time lag
- Cost savings during operation and maintenance (especially for VICOTEC411)
- Flexible system integration with analog outputs or PROFIBUS
- Rugged design and well-tested and proven in hundreds of tunnels around the world
- Automatic compensation for contamination on visibility and CO measuring channel
- Quick and easy testing of all measuring components, using a closed gas cuvette for CO, or glass filters for visibility

→ www.mysick.com/en/VICOTEC410

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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VISIC620 – At a glance

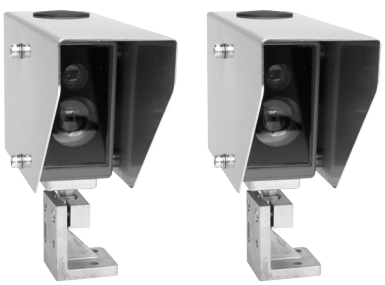
- Large measuring range for visual range
- Precipitation detector as an option
- Contamination check
- Minimum space requirements and low weight
- Self-sufficient design possible with solar panel and battery
- Rugged housing, also for salty air

Your benefits

- Reliable measured values
- Low operational costs
- Low maintenance requirements due to long maintenance intervals

➜ www.mysick.com/en/VISIC620

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



HISIC450 – At a glance

- Aluminum enclosure with anti-corrosion coating and high enclosure rating
- Built-in lens heaters to prevent condensation or icing
- Weather protection against snow, rain and dust clouds
- Accessories (weather hood and mounting bracket) made of stainless steel
- Sensitivity adjustment
- Insensitive to ambient light

Your benefits

- Reliable signals – even in nasty weather conditions

➜ www.mysick.com/en/HISIC450

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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FLOWSIC200 – At a glance

- Very large measuring distance possible
- Contact-free measurement
- Extremely rugged compounds made of titanium, stainless steel or die cast
- Versions for very corrosive atmospheres
- Determination of flow direction
- No mechanically moving parts
- Measuring components : Air velocity, direction and temperature

Your benefits

- Representative measurement across total tunnel width
- Very reliable measurement, compared with punctual measurement methods
- Accurate measurement of low flow velocities
- Long maintenance intervals up to 5 years
- Low operational costs due to reliable operation and low maintenance
- High availability of devices and therefore also of measurement data

→ www.mysick.com/en/FLOWSIC200

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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ULTRASONIC GAS FLOW MEASURING DEVICES







Ultrasonic technology by SICK: gas flow measurement at the highest level

With diverse ultrasonic gas flow measuring devices SICK provides solutions for a wide variety of measuring tasks – from calculating volume flows in processes, custody transfer applications in natural gas industry, environmental monitoring of plants, on test stands in automotive industry and many others.

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FLOWSIC100 . . . . . .U-552
Volume flow measuring devices for continuous emission monitoring



FLOWSIC100 Flare U-552
Reliable gas flow measurement for flare gas applications



FLOWSIC500 . . . . . .U-553
Custody transfer measurement in natural gas distribution



FLOWSIC600 . . . . . .U-553
Gas flow meters for custody transfer traffic and process applications

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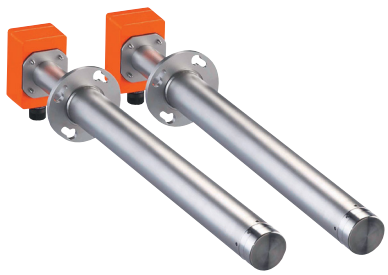


FLOWSIC100 – At a glance

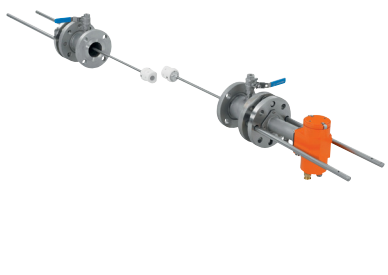
- Rugged titanium transducers for high durability
- Corrosion-resistant material for application in aggressive gases (option)
- Integral measurement over the duct diameter with types H, M and S
- Probe type PR for economic installation from one side of the duct
- Automatic function control with zero and span point check

Your benefits

- Reliable flow measurement for ducts with small up to very large diameters
- High durability of the device
- Minimum operating and maintenance costs
- Accurate measuring results under difficult measuring conditions
- Measurement without pressure loss, therefore no influences on the process
- User-friendly operation via SOPAS ET software
- Reliable function monitoring due to enhanced diagnosis
- No purge air required for applications with gas temperatures up to 260 °C; with the innovative internal cooling up to 450 °C max.(Except for the probe type)

→ www.mysick.com/en/FLOWSIC100

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



FLOWSIC100 Flare – At a glance

- Highest measurement resolution and short response time
- Innovative sensor design for very high gas velocities
- Optimal signal transmission also at atmospheric pressure
- Remote installation of control unit up to 1,000 m away
- Single and multipath meter configuration
- Field repeatable check procedure of factory zero flow test
- Check cycle for automatic self-diagnosis / signal optimization

Your benefits

- Reliable process control by accurate measurement near to zero flow readings
- High measurement availability also under emergency plant operation conditions with high gas velocities up to 120 m/s
- Cost saving by remote installation of control unit in safe area
- System solution to serve three different flare measurements with a single control unit
- Cost saving by minimized installation using single probe version FLOWSIC100 EX-PR
- Securing optimal meter performance by continuous monitoring of meter function and extended field diagnostic capabilities

→ www.mysick.com/en/FLOWSIC100_Flare

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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FLOWSIC500 – At a glance

- Cutting-edge technology: ultrasound
- Diagnostics and permanent operational check
- Durable and reliable without moving parts
- Replacable cartridge
- Straight inlet/outlet piping not required
- Overload-proof
- Optional integrated volume correction/ data registration
- Battery or intrinsically safe power supply

Your benefits

- Ultimate measurement certainty and safety of continuous gas supply
- Reduction of installation costs due to integrated volume correction
- Simple installation, compatible with conventional technologies (turbine and rotary displacement meters)
- Minimal operating costs due to being nearly maintenance-free
- Easy recalibration due to straightforward cartridge replacement
- Reliable under dynamic load changes
- Self-sufficient operation

→ www.mysick.com/en/FLOWSIC500

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





SYSTEM SOLUTIONS







Outstanding solutions for demanding tasks

We use cutting-edge technology in our components when implementing our system solutions for factory, logistics, and process automation. Our range of services covers everything from ideas and consulting to implementation and after-sales service on site.
The high quality of our components and the dedication and expertise of our employees validate the core concept behind SICK: outstanding solutions for demanding tasks.

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MINESIC100 TCW V-556
Operator assistance for underground mining vehicles



MINESIC100 WPS V-556
Collision warning and reverse assist for front end loaders and dozers



MINESIC100 TPS V-557
Collision awareness and operator guidelines for haul trucks



MINESIC100 EPS V-557
Collision warning and loading assistance for shovels and excavators

RAS Prime V-558
Operator assistance for collision free container handing



AOS Prime V-558
Improved system reliability in outdoor areas



TIC1xx Pro V-559
Reliable vehicle classification and axle counting, even over multiple lanes



VPS Pro V-559
Setting a benchmark in road and traffic technology



ICR89x System V-560
Faster. More reliable. More brillant.



Lector65x System V-560
Your objects are always in focus



RFGS Pro V-561
The complete RFID object identification system for logistics applications



RFMS Pro V-561
Flexible design and high throughput in a single system



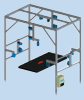
DWS Static V-562
Manual Dimensioning, Weighing and Scanning



DWS Dynamic V-562
Your “package solution” from a single source



DWS Pallet V-563
Measuring and weighing pallets and other bulky freight items



OPS Customised V-563
A clear edge in logistics sortation



VMS420/520 . . . . . .V-564
The dual-head, high-speed volume measurement system for nearly any shape



LAC1xx Prime V-565
A virtual lock for the secure movement of goods

V



MINESIC100 TCW – Operator assistance for underground mining vehicles

At a glance

- Front and rear-end tunnel collision warning
- Corner cutting and over shooting warning
- Active assistance for maneuvering in confined spaces – displays the tunnel wall outline
- Visual feedback (touch screen operator display) and audible alarm
- Open interface to fleet management / dispatch systems & event logging
- Full functional operation across speed range (0...vmax)

Your benefits

- Reduction of incidents, downtime and repair costs
- Detection and tracking of moving and stationary obstacles without the need for RFID tags
- Active situation dependent warning with low false alarm rates
- Simple installation, easy to operate
- Easy to maintain – Integrated test function and reporting
- Configurable to mine site operational requirements
- Full service package provided by SICK LifeTime Services
- Sound system knowledge thanks to comprehensive user training

➜ www.mysick.com/en/MINESIC100_TCW

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



MINESIC100 WPS – Collision warning and reverse assist for front end loaders and dozers

At a glance

- Full coverage rear-end collision warning
- Visual feedback (touch screen operator display) and audible alarm
- Open interface to fleet management / dispatch systems & event logging
- Full functional operation across speed range (0...vmax)
- Active reverse assist for maneuvering in confined spaces
- Displays accurately all obstacles behind the vehicle (windrows, vehicles, personnel) in real time

Your benefits

- Reduction of incidents, downtime and repair costs
- Detection and tracking of moving and stationary obstacles without the need for RFID tags
- Active situation dependant warning with low false alarm rates
- Simple installation, easy to operate
- Easy to maintain – Integrated test function and reporting
- Configurable to mine site operational requirements
- Full service package provided by SICK LifeTime Services
- Sound system knowledge thanks to comprehensive user training

➜ www.mysick.com/en/MINESIC100_WPS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



MINESIC100 TPS – Collision awareness and operator guidance for haul trucks

At a glance

- Intelligent front-end collision warning
- Road departure warning
- Reverse assist (collision, tyre and suspension protection)
- Black spot warning (geo fencing of hazardous areas)
- Visual feedback (touch screen operator display) & audible alarm
- Open interface to fleet management / dispatch systems & event logging
- Full functional operation across speed range (0...60 km/h)
- Adaptive warning zone dimensions

Your benefits

- Reduction of incidents, downtime and repair costs
- Detection and tracking of moving and stationary obstacles without the need for RFID tags
- Active situation dependent warning with low false alarm rates
- Simple installation, easy to operate
- Easy to maintain – Integrated test function and reporting
- Configurable to mine site operational requirements
- Full service package provided by SICK LifeTime Services
- Sound system knowledge thanks to comprehensive user training

→ **www.mysick.com/en/MINESIC100_TPS**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



MINESIC100 EPS – Collision warning and loading assistance for shovels and excavators

At a glance

- Active collision warnings for shovel operator and other heavy vehicles
- Vehicle positioning and loading assistance
- Highwall collision warning
- Visual feedback (touch screen operator display) and audible alarm
- Open interface to fleet management / dispatch systems & event logging

Your benefits

- Reduction of incidents, downtime and repair costs
- Detection and tracking of moving and stationary obstacles without the need for RFID tags
- Active situation dependent warning with low false alarm rates
- Simple installation, easy to operate
- Easy to maintain – Integrated test function and reporting
- Configurable to mine site operational requirements
- Full service package provided by SICK LifeTime Services
- Sound system knowledge thanks to comprehensive user training

→ **www.mysick.com/en/MINESIC100_EPS**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



RAS Prime – At a glance

- Rear-end collision warning
- 2-stage warning system provides the operator with advance warning of a collision and (stage 2) initiates a response
- Touchscreen that displays obstacle outlines
- Configurable safety distances
- Suppression of false alarms for higher operator acceptance
- Self-diagnostics for straightforward troubleshooting and maintenance

Your benefits

- Prevention of collisions and accidents reduces repair costs and spare part costs
- High machine availability for trouble-free container handling
- Collision avoidance extends machine service life
- Integrated installation wizard simplifies installation and operation
- Self-diagnostics function and reporting make system maintenance easy

→ www.mysick.com/en/RAS_Prime

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



AOS Prime – At a glance

- Enhanced system diagnostics
- Automatic self-test cycles for the entire system
- Safe monitoring of the correct switching behavior and connection cable of the laser scanner
- Easy implementation of additional logic functions
- Easily expandable due to modular concept

Your benefits

- The independent self-testing system ensures secure operation due to excellent diagnostic capabilities
- Reliable, industry-proven laser scanner with enhanced diagnostics for outdoor applications
- Variable monitoring fields make the AOS ideal for a wide range of applications
- Modular concept makes expanding the system simple
- Optional gateways ensure connection to bus systems or remote diagnostics
- Built-in control functions for peripheral devices, even for safety-related signals like emergency stop
- Supports and simplifies individual operating licenses for machinery

→ www.mysick.com/en/AOS_Prime

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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TIC1xx Pro – At a glance

- Highly precise vehicle classification and axle counting in all traffic conditions
- Reliable in multi-lane, free-flowing traffic and stop-and-go traffic
- Detection of lane changers
- Detection of up to 30 different vehicle classes
- Information about vehicle speed and dimensions
- Time synchronization with external systems

Your benefits

- Automatic calibration allows commissioning in just a few minutes
- Intuitive graphical user interface allows quick and easy operation
- Full detection of vehicles and axles increases classification accuracy
- Simple and economical installation on the side and above the roadway. No work is required on the road surface.
- The software trigger improves the detection and reading rate of license plate detection cameras or the DSRC antenna system
- Long maintenance intervals and fast installation reduce operating costs to a minimum
- Reliable operation even at night and in inclement weather

→ www.mysick.com/en/TIC1xx_Pro

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



VPS Pro – At a glance

- Automatic and precise measurement of vehicle dimensions
- Information about the measured vehicle via TCP/IP interface
- Step-by-step configuration wizard for commissioning
- 3D model of vehicle with colored oversize indication
- Additional engineering support, e.g., integration into a higher-level system

Your benefits

- High measurement accuracy thanks to state-of-the-art laser measurement technology
- Automated measurement process reduces manual labor
- No work is required on the road surface
- High efficiency thanks to short measurement time
- Certifications attainable thanks to precise measurement technology
- Low maintenance requirements save time
- Oversized dimensions are detected, even in hard to reach places
- Modular design enables customization based on your application

→ www.mysick.com/en/VPS_Pro

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

V



ICR89x System – At a glance

- Dual-line CMOS sensor for maximum bar code and OCR read rates
- Maximum scanning frequency up to 30 kHz for high-resolution images (200 dpi) at up to 3.8 m/s
- Large reading field of up to 1,200 mm
- Ability to read all common 1D and 2D codes and postal codes
- Five image output channels for OCR, video coding, archiving, and diagnostics
- Parameter cloning for all components
- Intelligent control standby mode
- Industrial design – an external PC is not required

Your benefits

- Outstanding image quality thanks to a unique dual-line CMOS sensor that provides high read rates and OCR results
- Intelligent decoding algorithms ensure reliable reading performance and high throughput.
- High scanning frequency for high-resolution images (200 dpi) up to a conveyor velocity of 3.8 m/s
- Integrated verifier for efficient analysis of 1D/2D code quality
- High reliability with 80,000 h MTBF
- Short downtime when devices are replaced thanks to the intelligent cloning module
- High-contrast, even with color printing, due to optional blue/white illumination
- Standby mode minimizes energy consumption

➜ **www.mysick.com/en/ICR89x**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



Lector65x System – At a glance

- Dynamic focus adjustment
- Big depth of field in fix focus operation
- Tracking function with MSC800
- Integration into the network concept of the MSC800
- JPEG image output in real time
- 2 or 4 megapixel resolution along with a high image capture rate of up to 40 Hz
- Highly versatile customer interfaces and protocols

Your benefits

- Dynamic focus and dynamic brightness adjustment provide sharp, uniform images for different object heights, code positioning and transport speeds
- Minimum object gaps and high package throughput in the sorting process via an integrated tracking function
- Modular system design: from low-cost to high performance
- Intelligent decoding algorithms and a high image recording frequency provide excellent read rates, even with codes that are difficult to read
- Ability to combine multiple products to create a tailored hybrid solution
- Read adjacent objects with “side-by-side” focusing, which increases the throughput
- Easy installation due to the slim, sophisticated design and partial pre-assembly

➜ **www.mysick.com/en/Lector65x**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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RFGS Pro – At a glance

- Remotely assigns tags to objects and detects the direction of the moving object
- Remotely distinguishes between moving and static tags and filters them for the host message
- Distinguishes between pallet and person
- Stand-alone gate with integrated controller
- Central interface for all sensors via CAN and TCP/IP network
- Integrated service, monitoring and diagnostic tools
- Parameter cloning of sensors via SD card

Your benefits

- Reliable pre-filtering of process-relevant tags reduces on-site adjustment costs
- Suppression of “false-positive reads” without using expensive licensed software saves money
- Simple ERP connectivity without any additional licensed software saves time and money
- High-quality sensors provide reliable detection capabilities
- Simple on-site commissioning via SOPAS software saves time
- Simple integration with SICK’s 4Dpro makes it easy to add bar code scanners to an application
- Durable mechanical design allows flexible adjustment of antennas for easy on-site adaptation, which saves time and money

→ www.mysick.com/en/RFGS_Pro

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



RFMS Pro – At a glance

- Standard modules with or without antenna
- Self-supporting modules
- Proven assignment algorithm for RFID tags on objects
- Static tag detection and filtering
- Integrated service, monitoring and diagnostic tools
- Object-based data output on relevant interfaces such as Ethernet, serial interface or PROFIBUS
- Parameter cloning of all components

Your benefits

- Wide range of tunnel design options with only two standard modules requires very little planning and design work
- Quick and easy commissioning of the modules reduces installation time
- Minimal space between objects ensures a high throughput
- Simple integration with SICK’s 4Dpro makes it easy to add bar code scanners to an application
- Maintenance-free design saves time and money
- High-quality system components are from a single source, ensuring system reliability and easy integration
- Self-supporting modules require no additional frame, eliminating additional design and material costs

→ www.mysick.com/en/RFMS_Pro

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



DWS Static – At a glance

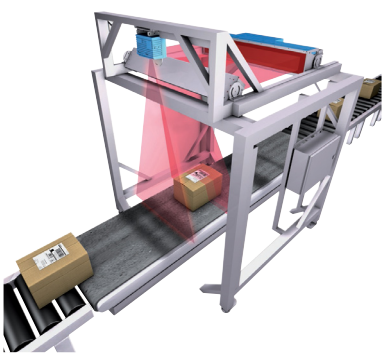
- Dimensioning, weighing and identification data with the push of a button
- Complete solution with integrated frame and roller conveyor
- Commissioning within a few minutes
- Legal-for-trade approved (according to OIML, MID and NAWI)
- Special versions for irregular and oversized objects available

Your benefits

- Economic alternative to expensive fully-automatic DWS systems
- Automated invoicing of freight charges using legal-for-trade weight and volume data (revenue recovery)
- Several freely programmable host interfaces can be used to generate additional data for sorting parcels

➜ **www.mysick.com/en/DWS_Static**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



DWS Dynamic – At a glance

- Legal-for-trade capture of volume and weight data with integrated code reading
- Flexible system design individually adapted for your application
- Highest measurement accuracy – even in rough industrial environments
- Extremely high read rates in combination with proven reliability
- Full integration in existing conveyor systems without reduction of throughput

Your benefits

- Automated invoicing of freight charges using legal-for-trade weight and volume data (revenue recovery)
- Highest read rates in combination with proven product reliability lead to the shortest return on investment period on the market
- Several freely programmable host interfaces can be used to generate additional data for sorting parcels

➜ **www.mysick.com/en/DWS_Dynamic**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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DWS Pallet – At a glance

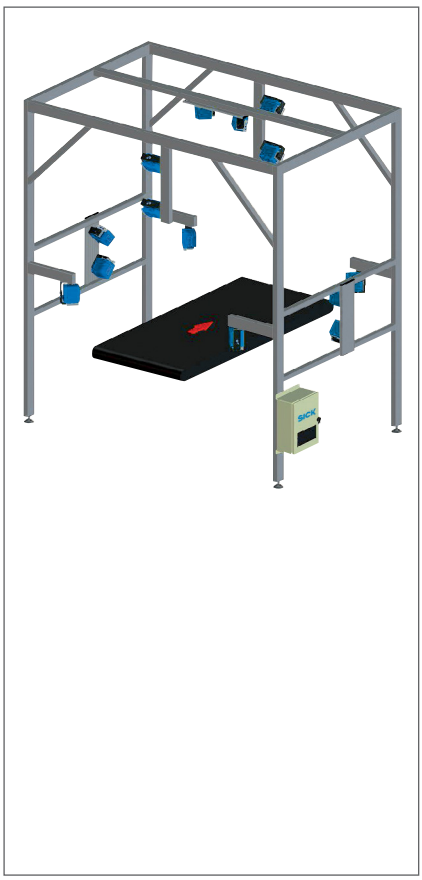
- Static dimensioning and weighing of pallets and other bulky freight items
- Complete solution with folding steel tube frame, evaluation computer and touch-screen display
- OIML certified and legal for trade according to international and local approval regulations

Your benefits

- Additional revenue for logistics service providers as a result of obtaining accurate dimension and weight measurements of bulky freight, which are typically greater than the values declared by the shipper
- Quick, economical commissioning thanks to pre-assembled, cabled complete system

→ www.mysick.com/en/DWS_Pallet

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



OPS Customised – At a glance

- Excellent performance
- Real-time auto focus function – no additional components needed for detection of object distances
- Use of SICK high-end scanners
- Cloning modules store the configuration parameters for each scanner and quick release brackets precisely maintain scanner alignment
- Variety of bus connection modules can be integrated

Your benefits

- Modular design permits individual adaptation to your application
- High level of operational reliability
- Highly cost-effective

→ www.mysick.com/en/OPS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



VMS420/520– At a glance

- Measurement of length, width and height of any shaped object
- Calculation of the smallest rectangular box that fully encloses the object (box volume)
- Calculation of real volume
- Optimized application software
- All measuring functions are built in the measuring head, no additional evaluation unit is required

Your benefits

- Simple mounting saves time on installation, commissioning, and provides flexibility for different application environments
- Compact design ensures easy integration into new and existing systems
- Low-maintenance system (short MTTR through plug & play unit exchange)
- Tested and certified to OIML, MID and further standards

➜ **www.mysick.com/en/VMS420_520**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

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LAC1xx Prime – At a glance

- Complete solution comprising of laser measurement technology, RFID and integrated software
- Prevents piggy-backing (tailgating) and avoids blockages in the transit areas
- Active laser detection and reliable long-range passive / semi-passive identification (UHF)
- Stand-alone system or network-compatible
- Tamper-proof
- Rugged IP67 enclosure rating

Your benefits

- The flow of goods is not interrupted as it passes the LAC - processes don't have to stop and people don't have to identify themselves.
- Avoids blockages in the transit areas
- Meets the objectives and requirements of the Customs-Trade Partnership Against Terrorism (C-TPAT) and the European "Authorized Economic Operator" (AEO) certificate
- Laser detectors VdS-certified (German security certificate), providing evidence of a reliable technology.
- Safe investment because of the world-wide usage also in tough industrial and logistics environments
- Can be retrofitted and reduce installation costs by quickly integrating sensor components into all common alarm and intrusion systems
- Can be easily adapted to the customer application requirements without using an additional external PC controller or software.

→ **www.mysick.com/en/LAC1xx_Prime**

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

SERVICES FOR MACHINES AND SYSTEMS: SICK LifeTime Services

SICK LifeTime Services is a comprehensive set of high-quality services provided to support the entire life cycle of products and applications from plant walk-through to upgrades. These services increase the safety of people, boost the productivity of machines and serve as the basis for our customers' sustainable business success. LifeTime Services range from product-independent consulting to traditional product services and are characterized by extensive industry expertise and more than 60 years of experience.



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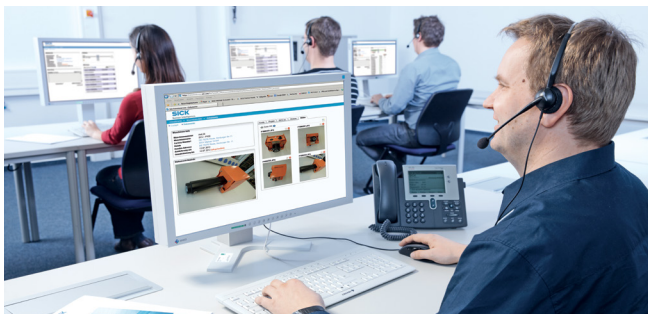
→ www.sick.com/service









Consulting & Design

- Plant walk-through
- Risk assessment
- Safety concept
- Safety software and hard-ware design
- Validation of functional safety
- CE-conformance check

Product & System Support

- Installation
- Commissioning
- Start-up support
- Calibration
- Helpline support
- 24 h helpline
- SICK Remote Service
- Troubleshooting on site
- Repair
- Exchange units
- Extended warranty

Verification & Optimization

- Inspection
- Stop time measurement
- Machine safety inspection
- Electrical equipment check
- Accident investigation
- Initial verification
- Maintenance
- Performance check

Upgrade & Retrofits

- Upgrade

Training & Education

- Training
- Seminars
- WebTraining

CONSULTING & DESIGN

Planning, constructing and commissioning equipment and special machinery requires a large amount of time and resources. The current legal regulations and requirements add to the complexity of this process. Experts from SICK are available worldwide to help our customers with this process. In addition, SICK LifeTime Services provide consulting and design from the start – to ensure clients benefit from efficient and cost saving solutions. SICK not only helps with the selection, design and commissioning of appropriate products, but also provides machine-specific analyses and design concepts. SICK also offers engineering services such as programming and functionality checks related to regulations, standards or specifications.

An overview of the services

- Machine safeguarding evaluation
- Risk assessment
- Safety concept
- Safety software and hardware design
- Validation of functional safety
- CE-conformance check

Your benefits:

- Compliant with all legal requirements and regulations
- Minimize project risk by involving experts from the start
- Save time and reduce costs using expert knowledge
- Highly trained and certified employees implement defined processes to ensure top quality
- Testing and documentation is conducted by independent third parties

Service for machine safety: "machine safeguarding evaluation"

- Status quo of machine safety, does safety exist (snap-shot at the time of service)
- Identification of existing electrical and mechanical hazards
- Identification of manipulation
- Sufficiency of existing protective measures (test of devices, triggering of safety functions)
- Report according to content of service variant
- 4-eye-principle

Specially tailored to your requirements: customer-specific bespoke solutions

Even with a wide range of standard sensors, individual solutions customized to meet customers' precise needs are sometimes required to fulfill the specific requirements and application conditions in the automation industry. Dialog with our specialists for customer-specific developments begins here.

From small but crucial adaptations to standard components or extensive new developments – our experts find the optimum solution. This enables us to guarantee a structured project procedure right from the start.



1 Application analysis
2 Assessment of requirements
3 Drawing up a specification
4 Prototyping
5 Test installation
6 Production and supply

From the analysis through to delivery: In every phase of the development of a bespoke solution, you can rely on our support and expertise – worldwide.

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Service for machine safety: "risk assessment"

- Performance of or instruction for risk assessments
- Determination of applicable directives and standards
- Identification of hazards
- Risk evaluation
- Specification and documentation of safety requirements
- Archiving of results in the SICK database
- 4-eye-principle

The "risk assessment" service carries the VERIFIED SAFETY seal of quality.

Service for machine safety: "safety concept"

- Safety concept specification (safety functions and required safety level (PLr or SILr))
- Recommendation for technical implementation of safety functions in the form of a block diagram
- Definition of parameters for the selection of protective devices
- Compilation of safety concept document
- Archiving of results in the SICK database
- 4-eye-principle

The "safety concept" service carries the VERIFIED SAFETY seal of quality.

VERIFIED SAFETY
by SICK

VERIFIED SAFETY – the seal of quality from SICK

Consulting and engineering services from SICK carry the VERIFIED SAFETY seal of quality. Documents bearing the VERIFIED SAFETY seal of quality guarantee results with proven quality and compliance with the prevailing regulations.

VERIFICATION & OPTIMIZATION

System operators are responsible for conducting their operations safely and productively. Complying with legal requirements and ensuring the safety of people and the environment are essential. With verification and optimization from SICK LifeTime Services, SICK ensures that the safety and reliability of equipment is guaranteed. Our customers benefit from the expertise of our specialists, who have a wealth of experience and knowledge. As a result, errors and downtime are significantly reduced to ensure operations run smoothly.

An overview of the services

- Accident investigation
- Electrical equipment check
- Inspections
- Machine safety inspection
- Stop time measurement
- Maintenance
- Initial Verification
- Performance check

Your benefits

- High level of process reliability due to expert inspections
- Documented safety via checklists, service reports and test seal
- Compliance with legal requirements and regulations
- Protection of personnel and the environment by detecting incorrect applications and preventing harmful incidents
- Regular inspections and maintenance checks ensure proper functioning
- Increased system performance by optimizing equipment settings

Service for machine safety: "accident investigation"

The professional, independent root cause analysis of accidents and near misses ensures that an incident or accident at a machine is fully examined. Aside from this, it forms the basis for introducing corresponding countermeasures, so, if possible, the incident or accident is not repeated.

Service for machine safety: "stop time measurement"

The stop time measurement determines the correct safety distance in accordance with the relevant standards.

It comprises, in detail:

- From the average of ten measurements of dangerous movement of a machine, the current stopping/run-down time is calculated
- Calculation of the correct safety distance from the hazardous point to the protective device





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Service for machine safety: "initial inspection"

The safety inspection is used to determine the occupational safety of protective devices from SICK for protection against mechanical dangers in the production plant.

Key focus areas:

- Mode of operation of the protective device during machine use
- Selection of protective devices according to the dangers which emerge
- Selection of protective devices according to the required type in accordance with IEC 61496
- Integration of the protective device up to the signal transfer in accordance with the required safety level





Maintenance

Regular and correct maintenance ensure a long service life and reduce wear on components. A maintenance contract with SICK provides customers with a consistently high level of reliability of their plants, systems and sensors. Individual services in a maintenance contract can be added according to the customer's requirements. During the consultation, experts from SICK rely on their experience to establish the maintenance intervals together with the customer. Practical maintenance is defined in advance and at a fixed price so that maintenance costs remain within budget.

At a glance:

- Creation of maintenance schedules, individually tailored to customer requirements
- Comprehensive maintenance documentation
- Service technicians available worldwide
- Regularly trained maintenance personnel from SICK
- Review and documentation in line with QAL3 in EN 14181
- Annual Surveillance Test (AST) according to EN 14181
- Genuine spare parts from the manufacturer





PRODUCT & SYSTEM SUPPORT

Every minute that a system is not in production costs money. With product and system support from SICK LifeTime Services, your machinery and system will always be ready for operation. SICK provides product selection, commissioning and troubleshooting support. Experienced service technicians are available around the world – by phone, remotely or directly on-site. Repairs and short-term provision of exchange units ensure that errors can be quickly corrected without having to locally store replacement units. Customized service offerings from SICK LifeTime Services ensure the highest level of reliability.

An overview of the services

- Installation
- Commissioning
- Start-up support
- Calibration
- Helpline support
- 24 h helpline
- SICK Remote Service
- Troubleshooting on-site
- Repair
- Exchange units
- Extended warranty

Your benefits

- Short response times: obtain direct help and quick support
- Worldwide network of service technicians provide local support around the clock
- Minimal downtime: fast, targeted troubleshooting via remote access
- Reduced storage costs: exchange units are available quickly
- Focused on success: experts support product selection, commissioning and equipment start-up



Commissioning

Specialist expertise and experience are required during commissioning to fully take advantage of the potential performance of a system. The experienced and skilled technicians from SICK provide plant commissioning in compliance with all formal and legal requirements, ensuring optimal performance. In a documented final inspection process, which includes training, the plant is handed over to the customer.By having their plant commissioned, customers benefit from the high level of planning reliability and quick installation by qualified technicians from SICK.



SICK Remote Service

Providing expert assistance and quick service to customers is not only a priority during commissioning, but also during operation. Fast, system-specific support provided by specialists is therefore more important than ever. Complex systems and growing pressure on costs require optimizing maintenance costs and providing proactive service. The SICK Remote Service meets these requirements. Safe Internet connections to enable expert support with just a click – with no travel and setup time needed. The customer gets the benefits of SICK Remote Service at a variety of levels, taking advantage of targeted expert support to speed up the installation phase, and optimizing the operational phase by saving time and travel expenses. And it's flexible: The modular SICK Remote Service contract model provides customers with support matching their needs at all times.

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UPGRADE & RETROFITS

System failures can result in high costs due to lost production. Upgrade and retrofit measures from SICK LifeTime Services ensure that the latest technology from SICK is readily available and can be easily and quickly integrated into existing applications. In addition, operators benefit from a longer service life of their system with less maintenance and increased efficiency. Based on SICK's planning and product conversion experience, clients will receive dependable, high-quality service that meets all applicable regulations. Upgrade measures from SICK LifeTime Services provide a cost-effective alternative to purchasing a new system.

Your benefits

- Increased efficiency by using the latest technologies
- Preventive upgrades reduce costly and unplanned downtime
- Extended service life of the system provides a more economical solution over the long term
- Function-compatible solution replacement: standardized upgrade kits
- Fast and safe product exchange with professional SICK technicians

Upgrade

When modifying systems to increase their performance or when replacing components after years of use, retrofit measures from SICK can extend the service life of the system and provide a cost-effective alternative to buying new devices. The experienced technicians from SICK simply and quickly integrate upgrade kits that are specifically tailored to the application with minimal system downtime. Using SICK experts to modify existing systems ensures high performance and increases the efficiency of existing systems.

- Selection of the right upgrade kit
- Coordination of the replacement service in consultation with the customer
- Mechanical and electrical integration, including configuration
- Functional testing and documentation of the modifications implemented
- Briefing of operating personnel



TRAINING & EDUCATION

Training and education from SICK LifeTime Services expand the expertise of employees. With our wide range of seminars and training courses, expert trainers offer valuable, targeted information about a variety of tasks. An important element of our training and education is providing practical tips for optimizing applications. In the form of user trainings, seminars and WebTrainings, employees will learn about efficient and legally-compliant planning to ensure safe operation.

An overview of the services

- Trainings
- Seminars
- WebTrainings

Your benefits

- Optimal use of products: gain in-depth product knowledge through hands-on training
- Minimize downtime: correct errors quickly using trained staff
- Simple transfer of practice: comprehensive training with user examples
- Up-to-date knowledge and information: communication of current legal regulations to ensure compliance
- Efficient knowledge transfer: individual training on-site, at SICK or via the Internet



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"Risk assessment and conformance check" seminar

This seminar shows you how to perform and document hazard analyses and risk assessments in practice. It provides practical experience in CE marking and risk assessment, and gives assurance when issuing declarations of conformity. The target groups are design engineers, developers, production engineers, and product managers from machine, plant and control engineering, as well as electrical construction, and technical documentation services.

Objectives of the seminar:

- Introduction to the legal requirements for risk assessment, meaning and research of standards
- Step-by-step formulation of practical measures for a case study
- To provide the skills to implement the procedure learned for CE marking and risk assessment into the company

"Machinery Directive – principles of machine-related safety" seminar

How to implement the requirements of the Machinery Directive adequately and correctly? This seminar for managers, design engineers, and those responsible for safety communicates knowledge of legislation and the requirements for machine safety. Safety regulations and safety technology are part of the content as well as standards and regulations on maintaining required safety for your machines and their users.

Objectives of the seminar:

- Communication of legal requirements to machine manufacturers
- Safe application of directives and standards with regard to:
  - General procedure
  - Types of protective devices and their application
  - Consideration of functional safety



MODULAR SERVICE CONTRACTS – FLEXIBLE FOR EVERY REQUIREMENT

An important part of LifeTime Services from SICK is the modular service concept, which allows every business to draw up its own individual service contract from different service modules.

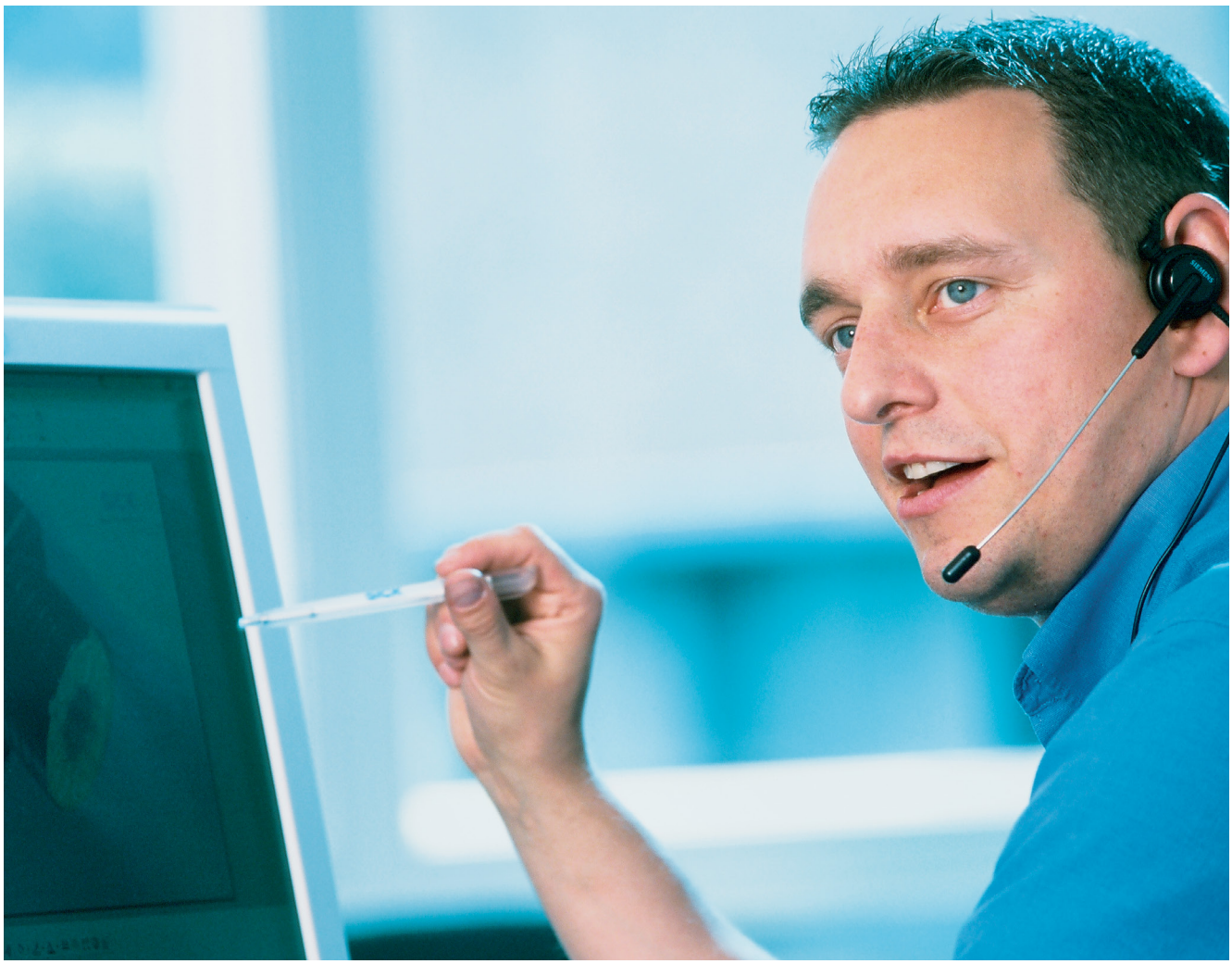
For performance, availability and safety

We advise you and you decide which service you'd like to use. With modular service contracts, we accommodate all your requirements. Combine your own individual service contract with different, standardized modules and only pay for what you need. Regardless of the service contract you have chosen, SICK always ensures optimum performance and maximum availability of machines and systems, as well as human safety.

Assured productivity – every time

SICK is available to you around the clock and worldwide as an experienced and competent partner throughout the entire life cycle of a machine or system.* As the operator, you are therefore able to concentrate on increasing productivity, efficiency, and income.

*Not all services are available in all countries, due to local restrictions on rights of use and service availability.



Service module remote support: With just one call, a SICK-service technician will make sure that your machines and systems are running without problems. In the same way, the whole system can be regularly inspected or its software can be updated.

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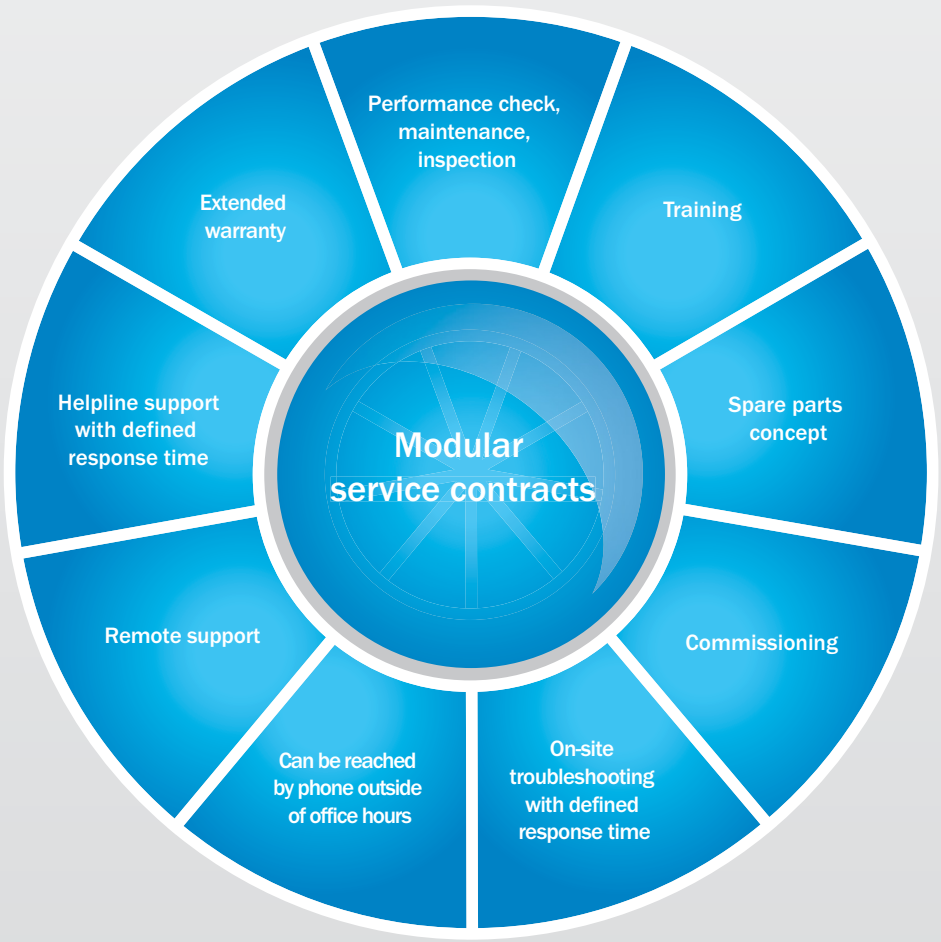
At a glance

- Individual preparation of the service package
- Quick reaction to critical situations
- Regular inspection of machines and systems
- Continuous software updates
- More than 550 service representatives worldwide
- You can contact us round the clock, seven days a week
- Training for machine operators and operating personnel

The advantages

- Regular inspection and continuous improvement of the machine or system
- Maximum system availability and reliability during its entire life cycle
- Cost reductions due to shorter downtime
- Qualified support team providing error analysis and trouble-shooting services
- Target-oriented training



As part of a modular service contract, you can combine and pay for the service modules you really need.

C4000 LIGHT CURTAIN – BASIC TRAINING



Objectives

- Mechanical mounting and alignment of the C4000
- Integration of the C4000 into a machine controller
- Configuration of the C4000
- Daily teasing of C4000 senders and receivers
- Fault diagnosis and troubleshooting

Target group

- Design and build / Equipment planning
- Maintenance

At a glance

- Function and application of the C4000
- Setup and mounting of the C4000
- Operating modes
- Device versions and accessories
- Commissioning
- Fault diagnosis and troubleshooting
- Applications

Ordering information

Prerequisites	Duration	Class size	Part no.
Windows knowledge	1 day	Maximum 8 participants	1681681

For course dates and pricing please contact your local representative – www.sick.com ▸ SICK worldwide

Your benefits

- Make full use of the options supported by the C4000
- Reduce downtimes to a minimum

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C4000 ENTRY/EXIT AND C4000 PALLETIZER – ADVANCED TRAINING

Objectives

- Advanced configuration of the C4000 Entry/Exit and C4000 Palletizer functionality
- Advanced troubleshooting and fault correction on C4000 Entry/Exit and C4000 Palletizer

Target group

- Service Technicians
- Maintenance Staff
- Electricians
- Planners
- Design Engineers

Content

- Function and use of C4000 Entry/Exit and C4000 Palletizer
- Device versions and accessories
- Additional fault diagnosis and correction on C4000 Entry/Exit and C4000 Palletizer
- Applications



Ordering information

Prerequisites	Duration	Class size	Part no.
• Windows knowledge • C4000 basic training	1 day	Min. 4 persons	1682399

For course dates and pricing please contact your local representative – www.sick.com ▸ SICK worldwide

BASIC TRAINING FOR THE MULTIPLE LIGHT BEAM SAFETY DEVICE



Objectives

- Mounting of the Multiple Light Beam
- Integration of the Multiple Light Beam into a machine controller
- Configuratio
- Daily testing of the Multiple Light Beam senders and receivers
- Fault diagnosis and troubleshooting
- Advanced configuration of the M4000 with UE403

Target group

- Design and build / Equipment planning
- Maintenance

At a glance

- Function and application of the M4000
- Setup and mounting of the M4000
- Operating modes
- Device versions and accessories
- Commissioning
- Fault diagnosis and troubleshooting
- Applications
- Function and application of the M4000 with UE403, fault diagnosis and troubleshooting on the M4000 and UE403

Ordering information

Prerequisites	Duration	Class size	Part no.
None	1 day	Maximum 8 participants	1682325

For course dates and pricing please contact your local representative – www.sick.com ▸ SICK worldwide

Your benefits

- Efficient access protection
- Rapid fault diagnosis

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MUTING APPLICATIONS WITH M4000 AND UE403 INTERFACE – ADVANCED TRAINING

Objectives

- Integration of UE403 into a machine control system
- Configuration of the M4000 with UE403 for advanced users in compliance with applicable safety regulations
- Troubleshooting for the M4000 and UE403 for advanced users

Target group

- Design and build / Equipment planning
- Maintenance

At a glance

- Function and application of the M4000 with UE403
- Operating modes in conjunction with UE403
- Device versions and accessories
- Additional fault diagnosis and troubleshooting on the M4000 and UE403
- Applications

Ordering information

Prerequisites	Duration	Class size	Part no.
Windows knowledge	1 day	Maximum 8 participants	1682327

For course dates and pricing please contact your local representative – www.sick.com ▸ SICK worldwide



Your benefits

- Safe use of muting
- Quick connection and fast commissioning

S3000/S300 LASER SCANNER – BASIC TRAINING



Objectives

- Description of operation of the S3000 and S300
- Selection and functions of the S3000 and S300
- Mounting the S3000 and S300
- Application-specific programming of the devices
- Fault diagnosis and troubleshooting

Target group

- Service
- Service / Maintenance
- Design and build / Equipment planning

At a glance

- Function and application of the S3000 and S300
- Setup and principle of operation of the S3000 and S300
- Installation on the machine
- Integration into a machine controller
- Programming of S3000 and S300 with SICK Configuration & Diagnostic Software
- Commissioning
- Fault diagnosis and troubleshooting

Ordering information

Prerequisites	Duration	Class size	Part no.
Windows knowledge	1 day each	Maximum 8 participants	1681916

For course dates and pricing please contact your local representative – www.sick.com ▸ SICK worldwide

Your benefits

- Easy and effective maintenance
- Rapid programming

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S3000/S300 LASER SCANNER – MOBILE APPLICATIONS

Objectives

- Description of the principle of operation of the laser scanner in automated guided vehicle applications
- Information about appropriate installation with a focus on practical aspects
- Application-specific programming of the device
- Fault diagnosis and troubleshooting

Target group

- Service
- Service / Maintenance
- Design and build / Equipment planning

At a glance

- Principle of operation of laser scanners in automated guided vehicles (driverless vehicles)
- Installation in the automated guided vehicle
- Integration of incremental encoders, S3000, and S300 into the controller
- Programming of S3000 and S300
- Commissioning
- Fault diagnosis and troubleshooting

Ordering information

Prerequisites	Duration	Class size	Part no.
Windows knowledge	1 day each	Maximum 8 participants	1681917

For course dates and pricing please contact your local representative – www.sick.com ▸ SICK worldwide



Your benefits

- Implementation of control tasks without external components
- Effective use in mobile applications

FLEXI SOFT – MODULAR SAFETY CONTROLLER



Objectives

- Understanding how Flexi Soft works
- Working with Flexi Soft Designer (www.sens-control.com)
- Recognizing and solving typical applications
- Fault diagnosis

Target group

- Design and build / Equipment planning
- Service / Maintenance

At a glance

- Setup and principle of operation of the Flexi Soft
- SICK safety controller portfolio
- Device versions and accessories
- Flexi Soft Designer
- Fault diagnosis

Ordering information

Prerequisites	Duration	Class size	Part no.
None	1 day	Maximum 8 participants	1682394

For course dates and pricing please contact your local representative – www.sick.com ▸ SICK worldwide

Your benefits

- Quick and easy configuration
- Integrate the Flexi Soft modular safety controller reliably into your own network

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AS/NZS 4024.1 MACHINE SAFETY TRAINING

Objectives

- We cover the new application guide and highlight the mandatory requirements within and the importance of the interrelationship between the AS/NZS 4024 series
- Learn about fault exclusion, good design principles to minimise attempts to defeat, safety distance calculation for presence sensing safety devices, the European vs Australian/ New Zealand standards hierarchy, how Performance Levels verses Categories affect your machine safety design decisions and much more

Target group

- Service
- Maintenance
- Design and build
- Equipment planning

At a glance

- AS/NZS 4024.1 legal requirements
- Identifying and assessment of risks
- AS/NZS 4024.1:2014 - how has it changed?
- Risk estimation, evaluation and reduction process
- Report writing process
- Hierarchy of machine guarding
- European machine directive, what does it mean?
- Device installation requirements & guidelines
- Programmable safety devices, overview & demonstration

Ordering information

Prerequisites	Duration	Class size	Part no.
Windows knowledge	1 day	Maximum 8 participants	7039912

For course dates and pricing please contact your local representative – www.sick.com ▸ SICK worldwide



Your benefits

- Know where to start and what steps to take in achieving compliance with AS/NZS 4024.1
- Improve your knowledge of and skill in machine safety

AS/NZS 4024.1 MACHINE SAFETY TRAINING - ADVANCED



Objectives

This course is tailored to those looking for a more detailed and in-depth machine safety standards training course than the one day course. You are introduced to international standards which may provide improved guidance & outcomes more specific to your application and needs than is covered by Australian & New Zealand standards. Practical examples of risk assessment are covered as well as the principles of safety distances & stop time measurement, so important for safe and productive outcomes. Finally, we explore the design side of safety systems using software tools available.

Target group

- Service
- Maintenance
- Design and build
- Equipment planning

At a glance

- Functional Safety per EN ISO 13849-1 and related AS/NZS 4024.1 content.
- Details on risk assessment and the relevant standards, requirements & objectives, documentation and tools.
- Assignment of measures and solutions from the risk assessment to achieve risk reduction.
- Evaluation and grading to appropriate SIL, Category and Performance Level.
- Safety interlock requirements with reference to AS/NZS 4024.1603, ISO 14118 & ISO 14119.
- Light Curtains and Safety Laser Scanner requirements including stop time measurement
- Safety controllers – their use, capabilities and suitable applications.
- Developing a Safety Concept and a Safety Requirements Specification (SRS) and working through a safety performance calculation.
- Introduction to SISTEMA, Safety Integrity Software Tool for the Evaluation of Machinery Applications

Your benefits

- Know where to start and what steps to take in achieving compliance with AS/NZS 4024.1
- Improve your knowledge of and skill in machine safety

Ordering information

Prerequisites	Duration	Class size	Part no.
Windows knowledge	3 days	Maximum 8 participants	7039912

For course dates and pricing please contact your local representative – www.sick.com ▸ SICK worldwide

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SERVICES

Customised Training

SICK can provide training courses customised to your needs or your staffs capabilities. This can be on product, applications, theory & practical, etc. Training can be carried out at the customers premises or in house at SICK. Contact your nearest SICK sales representative for a customised quotation.

Commissioning & Optimisation

For trouble free startup or peace of mind commissioning of SICK product to ensure minimum time from installation to operation and peak performance.

Preventative Maintenance

Prevent costly breakdowns by allowing experienced SICK engineers to review installed product looking for potential problems and adjust for peak operation. Contact your nearest SICK sales representative for a customised quotation including the scope of works for the maintenance requirements.

Solution Design / Application Testing

When you have an application that requires testing and development of the right solution or need to select the right product configured in the right way, contact SICK. We can test your application in the lab and determine the correct way to approach the solution saving you money with incorrect product purchases or poorly configured installations.

Troubleshooting

When somethings not working right or poor performance is costing you money, get an experienced SICK engineer to diagnose your problem remotely by looking at samples and reproducing the configuration or have us visit your facility to rectify the problem on site.

Ordering information

Service	Part no.
Industrial Safety Systems	7039912
Analyzers and Flow Solutions	7039913
Motion Control Sensors	7039917
Identification & Measuring	7039918
Industrial Instrumentation	7039919



SERVICES



Machine Safety Inspection - Initial

Inspection of SICK safety equipment carried out by a qualified SICK Safety Specialist to provide peace of mind that the equipment is operating correctly and protecting the machine as required.

- Inspection of the major mechanical hazards on a machine
- Inspection of all technical protective devices for correct alignment, installation, and functionality
- Inspection of the function and operation of electrical, pneumatic, and hydraulic safety-related control measures
- Production of an inspection report
- Depending on location, travel time/expense may be at additional cost
- There are certain prerequisites to enable provision of this service (eg: machine availability, size and complexity). Please check with SICK prior to scheduling service

Service	Part no.
Machine Safety Inspection	1682447

Stop Time Measurement - Recording of stop time measurement

Have a certified SICK Safety Specialist measure the stopping performance of your machine, ensuring your safety distance is compliant.

- Calculation of the necessary minimum safety distance between the hazardous point and safety device (in accordance with EN ISO 13855)
- Attaching test label with the most important information to the machine
- Creation of a stop time measurement report
- Depending on location, travel time/expense may be at additional cost
- There are certain prerequisites to enable provision of this service (eg: machine availability). Please check with SICK prior to scheduling service

Service	Part no.
Stop Time Measurement	1682946

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SERVICES

Risk Assessment

- Performance of or instruction for risk assessments
- Determination of applicable directives and standards
- Identification of hazards
- Risk evaluation
- Specification of safety requirements
- Depending on location, travel time/expense may be at additional cost
- There are certain prerequisites to enable provision of this service (eg: machine and personnel availability, machine size/complexity). Please check with SICK prior to scheduling service

Service	Part no.
Risk Assessment - Estimate based on ‘standard’ machine. Confirmation quote available on request	1682450



Machine Safeguarding Evaluation - Analysis of the system's current conformity status

- Identification of safety gaps with recommendations for reducing risk.
- The content is to be defined in a functional specification before order placement
- Depending on location, travel time/expense may be at additional cost
- There are certain prerequisites to enable provision of this service (eg: machine availability, size and complexity). Please check with SICK prior to scheduling service

Service	Part no.
Machine Safeguarding Evaluation	168472

SERVICES



Stop Time Meter Rental

Service	Part no.
Stop Time Meter rental (per day)	7039940

Hourly Rates for General Service Labour

Service[1)2)]
On Site Labour (Normal hours)
On Site Labour (After hours / Weekends)
Workshop Labour (Normal Hours)
Workshop Labour (After Hours / Weekends)
Travel Time (Normal Hours)
Travel Time (After Hours / Weekends)

[1)] These are for reference only
[2)] Flights, accomodation, rental cars etc are charged at actual cost + 10%.

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EASY INTEGRATION INTO YOUR AUTOMATION WORLD

Sensor integration with SICK is easy and fast for you: Our intelligent sensor solutions and safety controllers provide different integration technologies which allow easy access – from HMI, PLC, and engineering tools – to data from our sensors. In this way, we support you towards solving your application rapidly and easily and increase machine reliability with a continuous diagnostic concept.

PLC and engineering tool integration

Function Blocks	
IO-Link devices Level sensors Pressure sensors Presence detection sensors Distance sensors	**Bar code scanners, Image-based code readers** 1D and 2D
Vision sensors Inspectors	**RFID** RFH6xx RFU62x, RFU63x
Absolute encoders AFS60 AFM60	**Laser volume flowmeter** Bulkscan® LMS511

Function blocks

The SICK function blocks quickly allow you to establish acyclic communication to our sensors within your PLC program. Additionally, complex and variable process data can be parsed into their individual information contents without programmer effort.

DTM (Device Type Manager)

FDT/DTM is a cross-manufacturer concept, with which configuration and diagnosis of devices from different manufacturers can be done with just one engineering tool.

TCI (Tool Calling Interface)

The Tool Calling Interface (TCI) makes it possible to call up a tool used to carry out parameterization and diagnosis of a field device via the existing communication infrastructure.

HMI integration

OPC server

OPC technology is used to exchange data between field devices and Windows-based applications. The SOPAS OPC server from SICK follows the OPC DA specification and thus can be used on Windows operating systems.

Web server

The SOPAS web server from SICK can be used everywhere, where a web browser is available. The web server is distinguished by its ability to both carry out pure data exchange and also to provide visualizations for the devices, which is a big advantage, particularly for vision sensors.

Fieldbus Communication Interface

Modbus®TCP

Our fieldbus and network solutions allow SICK sensors and safety controllers to be connected to all conventional automation systems. This guarantees an easy and fast access to the available data.

➜ www.sick.com/industrial-communication

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SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With almost 7,000 employees and more than 50 subsidiaries and equity investments as well as numerous representative offices worldwide, we are always close to our customers. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in various industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services round out our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

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