



# SICK Essentials

CORE PRODUCT SELECTION

**SICK**  
Sensor Intelligence.

## WITH THIS CATALOG WE OFFER YOU AN EXTRACT OF OUR PRODUCT PORTFOLIO.

List of product families					
<b>Photoelectric sensors</b>		<b>Fluid sensors</b>		miniTwin4	K-178
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## WE DELIVER “SENSOR INTELLIGENCE.”

SICK sensor solutions for industrial automation are 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 with 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.



## 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.



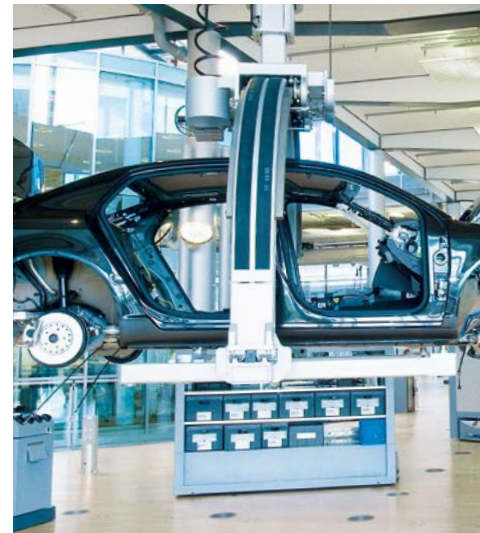
## “SENSOR INTELLIGENCE.” FOR ALL REQUIREMENTS

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 with precisely 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.



### 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](http://www.sick.com/industries)



A

## 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.







→ [www.sick.com/service](http://www.sick.com/service)



### Consulting & Design

- Plant walk-through
- Risk assessment
- Safety concept
- Safety software and hardware 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

# 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](http://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



### 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



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



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





## 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.



	<p><b>Miniature photoelectric sensors . . . B-16</b></p> <p>G6 . . . . . B-16      W8 . . . . . B-30                  W2S-2 . . . . . B-19      W8 Laser. . . . . B-32                  W4-3 . . . . . B-22      W8 Inox . . . . . B-34                  W4S-3 Inox . . . . . B-26</p>
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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](http://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](http://www.mysick.com/en/G6)

GTE6

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** energetic
- **Light spot size (distance):** Ø 7 mm (90 mm)
- **Type of light:** visible red light
- **Switching mode:** Light/dark-switching
- **Adjustment:** Mechanical spindle, 5 turns

Sensing range max. <sup>1)</sup>	Output type	Items supplied	Connection	Model name	Part no.
≤ 300 mm	PNP	Stainless steel mounting bracket (1.4301/304) BEF-W100-A	Cable, 3-wire, 2 m, PVC	GTE6-P1212	1051783
			Connector M8, 4-pin	GTE6-P4212	1051781
			Cable with connector M12, 4-pin, 300 mm, PVC	GTE6-P7212	1053628
	NPN	-	Cable, 3-wire, 2 m, PVC	GTE6-N1212	1051784
			Connector M8, 4-pin	GTE6-N4212	1051782

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)



## 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. <sup>1)</sup>	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
		-	Cable with connector M8, 3-pin, 300 mm	GTB6-P5211	1059333
			Cable with connector M8, 4-pin, 300 mm	GTB6-P6211	1059320
	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
		-	Cable with connector M8, 4-pin, 300 mm	GTB6-N6212	1058769

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

## 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. <sup>1)</sup>	Output type	Switching mode	Adjustment	Items supplied	Connection	Model name	Part no.	
≤ 6 m	PNP	Light switching	-	-	Connector M8, 4-pin	GL6-P4511	1052634	
					Connector M12, 4-pin, 300 mm, PVC	GL6-P7511	1056039	
		Light/dark-switching	-	-	Potentiometer, 270 °	Connector M8, 4-pin	GL6-P4211	1059241
					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	-	Potentiometer, 270 °	Cable, 3-wire, 2 m, PVC	GL6-N1211	1059923	
					Cable, 3-wire, 2 m, PVC	GL6-N1112	1051780	
				-	Stainless steel mounting bracket (1.4301/304) BEF-W100-A, Reflector P250	Connector M8, 4-pin	GL6-N4112	1051778

<sup>1)</sup> PL80A.

GL6G, clear material detection

- **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
- **Switching mode:** Light/dark-switching
- **Adjustment:** potentiometer, 270 °

Sensing range max. <sup>1)</sup>	Output type	Connection	Model name	Part no.
≤ 6 m	PNP	Connector M8, 4-pin	GL6G-P4211	1059632
	NPN	Cable, 3-wire, 2 m, PVC	GL6G-N1211	1059925





<sup>1)</sup> 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
		Cable with connector M8, 4-pin, 300 mm, PVC	GSE6-P6112	1054850
		Cable with connector M12, 4-pin, 300 mm, PVC	GSE6-P7112	1054831
	NPN	Cable, 3-wire, 2 m, PVC	GSE6-N1112	1052453
		Connector M8, 4-pin	GSE6-N4112	1052451
		Cable with connector M8, 4-pin, 300 mm, PVC	GSE6-N6112	1054852
		Cable with connector M12, 4-pin, 300 mm, PVC	GSE6-N7112	1054835

Recommended accessories

	Brief description	Model name	Part no.
Device protection (mechanical)			
	Safety bracket for floor mounting, Stainless steel 1.4571, Mounting hardware included	BEF-SW-W4S	2051497
Mounting brackets and mounting plates			
	Mounting bracket for wall mounting, Stainless steel, Mounting hardware included	BEF-W100-A	5311520
	Mounting bracket for floor mounting, Steel, zinc coated, Mounting hardware included	BEF-W100-B	5311521
Universal bar clamp systems			
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N08	2051607



### 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](http://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](http://www.mysick.com/en/W2S-2)

#### WTB2S-2, fix

- **Detection principle:** Background suppression

Sensing range max. <sup>1)</sup>	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
			Dark-switching	Cable with connector M8, 3-pin, 200 mm	WTB2S-2F3110	1064396
			Light/dark-switching	Cable with connector M8, 4-pin, 200 mm	WTB2S-2P3210	1063314
		NPN	Light switching	Cable, 3-wire, 2 m	WTB2S-2N1310	1064249
			Dark-switching	Cable, 3-wire, 2 m	WTB2S-2E1310	1064397
			Light/dark-switching	Cable, 4-wire, 2 m	WTB2S-2N1130	1063321
1 mm ... 36 mm	Ø 3 mm (15 mm)	PNP	Light switching	Cable with connector M8, 3-pin, 200 mm	WTB2S-2P3130	1064575
			Dark-switching	Cable with connector M8, 3-pin, 200 mm	WTB2S-2F3130	1064576
		NPN	Light switching	Cable, 3-wire, 2 m	WTB2S-2N1330	1064578
			Dark-switching	Cable, 3-wire, 2 m	WTB2S-2E1330	1064580
			Light/dark-switching	Cable, 4-wire, 2 m	WTB2S-2N1130	1063321
			Light/dark-switching	Cable, 4-wire, 2 m	WTB2S-2N1130	1063321
1 mm ... 66 mm	Ø 4.5 mm (40 mm)	PNP	Light switching	Cable with connector M8, 3-pin, 200 mm	WTB2S-2P3160	1064607
			Dark-switching	Cable with connector M8, 3-pin, 200 mm	WTB2S-2F3160	1064608
		NPN	Light switching	Cable, 3-wire, 2 m	WTB2S-2N1360	1064609
			Light switching	Cable, 3-wire, 2 m	WTB2S-2N1360	1064609

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

B

WTB2S-2, adjustable

- **Detection principle:** Background suppression

Sensing range max. <sup>1)</sup>	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

<sup>1)</sup> 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. <sup>1)</sup>	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

<sup>1)</sup> 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. <sup>1)</sup>	Output type	Switching mode	Connection	Model name	Part no.
0 m ... 1.2 m	PNP	Light switching	Cable with connector M8, 3-pin, 200 mm	WL2S-2P3130	1064592
		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	Light switching	Cable, 3-wire, 2 m	WL2S-2N1330	1064595
		Dark-switching	Cable, 3-wire, 2 m	WL2S-2E1330	1064596
		Light/dark-switching	Cable, 4-wire, 2 m	WL2S-2N1130	1063571







<sup>1)</sup> 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	PNP	Light switching	Cable with connector M8, 3-pin, 200 mm	WSE2S-2P3130	1063521
		Dark-switching	Cable with connector M8, 3-pin, 200 mm	WSE2S-2F3130	1063523
	NPN	Light switching	Cable, 3-wire, 2 m	WSE2S-2N1330	1064584
		Dark-switching	Cable, 3-wire, 2 m	WSE2S-2E1330	1064586

## Recommended accessories

	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 3-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-G02M	6010785
	Head A: Female connector, M8, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-G02M	6009870
<b>Reflectors</b>			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
	Rectangular, screw connection, 38 mm x 15 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL20A	1012719
	Rectangular, screw connection, 56 mm x 28 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL30A	1002314
	Rectangular, screw connection, 37 mm x 56 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL40A	1012720
	Rectangular, screw connection, 80 mm x 80 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865

**B**

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](http://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](http://www.mysick.com/en/W4-3)

**WTB4-3**

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light spot size (distance):** Ø 7 mm (50 mm)

Type of light	Sensing range max. <sup>1)</sup>	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
Visible red light	4 mm ... 150 mm	PNP	Light switching	Potentiometer, 5 turns	Cable with connector M8, 3-pin, 100 mm, PVC	WTB4-3P3161	1028097
				Single teach-in button	Connector M8, 3-pin	WTB4-3P2162	1028084
				Cable, Single teach-in button <sup>2)</sup>	Cable with connector M8, 3-pin, 100 mm, PVC	WTB4-3P3162	1028082
					Connector M8, 4-pin	WTB4-3P2264	1028086
			Dark-switching	Potentiometer, 5 turns	Cable with connector M12, 4-pin, 150 mm, PVC	WTB4-3P3464	1044013
				Potentiometer, 5 turns	Cable, 3-wire, 2 m, PVC	WTB4-3F1361	1028105
		NPN	Light/dark-switching	Potentiometer, 5 turns	Connector M8, 4-pin	WTB4-3P2261	1028100
				Cable with connector M8, 4-pin, 100 mm, PVC	WTB4-3P3261	1028098	
			Light switching	Potentiometer, 5 turns	Cable, 3-wire, 2 m, PVC	WTB4-3N1361	1028101
				Potentiometer, 5 turns	Cable, 4-wire, 2 m, PVC	WTB4-3N1161	1028102

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

<sup>2)</sup> External teach-in: pulse > 2 s with voltage U<sub>v</sub> with PNP and M with NPN.

**WTB4-3, line-shaped light spot**

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light spot size (distance):** 5 mm x 28 mm (50 mm)
- **Adjustment:** potentiometer, 5 turns

Type of light	Sensing range max. <sup>1)</sup>	Output type	Switching mode	Connection	Model name	Part no.
Visible red light	4 mm ... 150 mm	PNP	Light switching	Cable with connector M8, 3-pin, 100 mm, PVC	WTB4-3P3171	1028122
			Light/dark-switching	Connector M8, 4-pin	WTB4-3P2271	1042190
		NPN	Light switching	Cable, 3-wire, 2 m, PVC	WTB4-3N1371	1028125

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

**WTV4-3, V-optics**

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light spot size (distance):** Ø 10 mm (40 mm)

Type of light	Sensing range max. <sup>1)</sup>	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
Visible red light	4 mm ... 50 mm	PNP	Light/dark-switching	Potentiometer, 5 turns	Connector M8, 4-pin	WTV4-3P2241	1028114
					Cable with connector M12, 4-pin, 150 mm, PVC	WTV4-3P3441	1029582
Infrared light	4 mm ... 50 mm	PNP	Light switching	Potentiometer, 5 turns	Cable, 3-wire, 2 m, PVC	WTV4-3P1321	1029888
				Single teach-in button	Cable with connector M8, 4-pin, 100 mm, PVC	WTV4-3P3122	1046411
		NPN	Light switching	Potentiometer, 5 turns	Cable, 3-wire, 2 m, PVC	WTV4-3N1321	1029885

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

**WTV4-3, V-optics, line-shaped light spot**

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light spot size (distance):** 3 mm x 20 mm (40 mm)
- **Switching mode:** Light switching
- **Adjustment:** potentiometer, 5 turns

Type of light	Sensing range max. <sup>1)</sup>	Output type	Connection	Model name	Part no.
Visible red light	3 mm ... 50 mm	PNP	Connector M8, 4-pin	WTV4-3P2271	1046644
		NPN	Cable, 4-wire, 2 m, PVC	WTV4-3N1171	1046898

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

## 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. <sup>1)</sup>	Output type	Switching mode	Connection	Model name	Part no.
Visible red light	0.01 m ... 4.5 m	PNP	Light switching	Cable with connector M12, 4-pin, 150 mm, PVC	WL4-3P3430	1044347
			Dark-switching	Connector M8, 3-pin	WL4-3F2130	1028155
			Light/dark-switching	Connector M8, 4-pin	WL4-3P2230	1028147
		NPN	Light switching	Cable, 3-wire, 2 m, PVC	WL4-3N1330	1028148
			Dark-switching	Cable, 3-wire, 2 m, PVC	WL4-3E1330	1028156

<sup>1)</sup> 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	Light switching	-	Connector M8, 3-pin	WSE4-3P2130	1028163
			Dark-switching	Potentiometer, 5 turns	Cable with connector M8, 3-pin, 100 mm, PVC	WSE4-3P3131	1029898
				-		WSE4-3F3130	1028170
		Light/dark-switching	-	Connector M8, 4-pin	WSE4-3P2230	1028160	
		NPN	Dark-switching	-	Cable, 3-wire, 2 m, PVC	WSE4-3E1330	1028172



## Recommended accessories

	Brief description	Model name	Part no.
Device protection (mechanical)			
	Safety bracket for floor mounting, Stainless steel 1.4571, Mounting hardware included	BEF-SW-W4S	2051497
Universal bar clamp systems			
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N08	2051607
Reflectors			
	Fine triple, screw connection, suitable for laser sensors, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250F	5308843
	Fine triple, screw connection, suitable for laser sensors, 18 mm x 18 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL10F	5311210
	Fine triple, screw connection, suitable for laser sensors, 38 mm x 16 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL20F	5308844
	Round, self-adhesive, PMMA/ABS, self-adhesive	PL22-2	1003621
	Rectangular, screw connection, 37 mm x 56 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL40A	1012720
	Self-adhesive, customizable length by roll, 5 cm x 22.8 m, self-adhesive <sup>1)</sup>	REF-PLUS-50-K	4051185

<sup>1)</sup> Customizable length by roll. Width 5 cm, length max. 22.8 m.

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](http://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](http://www.mysick.com/en/W4S-3_Inox)

**WTB4S-3V**

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

Sensing range max. <sup>1)</sup>	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 M12, 4-pin	WTB4S-3P2432V	1054672
					Connector M8, 4-pin	WTB4S-3P2232V	1046396
			Light/dark-switching	Single teach-in button	Cable with connector M8, 4-pin, 150 mm, PVC	WTB4S-3P3232V	1046398
					Cable with connector M12, 4-pin, 150 mm, PVC	WTB4S-3P3432V	1046399

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

<sup>2)</sup> External teach-in: pulse > 2 s with voltage Uv with PNP and M with NPN.



Sensing range max. <sup>1)</sup>	Light spot size (distance)	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
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, Single teach-in button <sup>2)</sup>	Cable with connector M12, 4-pin, 150 mm, PVC	WTB4S-3P3464V	1048015
			Dark-switching	Single teach-in button	Connector M8, 3-pin	WTB4S-3F2162V	1046389
					Cable with connector M8, 3-pin, 150 mm, PVC	WTB4S-3F3162V	1046390
			Light/dark-switching	Single teach-in button	Cable, 4-wire, 2 m, PVC	WTB4S-3P1162V	1046388
					Connector M8, 4-pin	WTB4S-3P2262V	1046383
					Cable with connector M8, 4-pin, 150 mm, PVC	WTB4S-3P3262V	1046385
					Connector M12, 4-pin	WTB4S-3P2462V	1054675
		NPN	Light switching	Cable <sup>2)</sup>	Connector M8, 4-pin	WTB4S-3N2265V	1047620
				Single teach-in button	Cable, 3-wire, 2 m, PVC	WTB4S-3N1362V	1046393
					Connector M8, 3-pin	WTB4S-3N2162V	1046392
			Light/dark-switching	Single teach-in button	Cable, 4-wire, 2 m, PVC	WTB4S-3N1162V	1046391
					Connector M12, 4-pin	WTB4S-3N2462V	1054703

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

<sup>2)</sup> External teach-in: pulse > 2 s with voltage U<sub>v</sub> with PNP and M with NPN.

### 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. <sup>1)</sup>	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

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

B

WL4S-3V

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

Sensing range max. <sup>1)</sup>	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
				Connector M12, 4-pin, 150 mm, PVC	WL4S-3P2430V	1054707
				Cable with connector M12, 4-pin, 150 mm, PVC	WL4S-3P3430V	1046415
	NPN	Dark-switching	-	Cable, 3-wire, 2 m, PVC	WL4S-3E1330V	1046420
				Cable, 4-wire, 2 m, PVC	WL4S-3N1130V	1046418
	0 m ... 5 m	PNP	Light/dark-switching	Single teach-in button	Connector M12, 4-pin, PVC	WL4S-3P2432V
Cable with connector M12, 4-pin, 150 mm, PVC					WL4S-3P3432V	1046426
NPN		Light/dark-switching	Single teach-in button	Connector M12, 4-pin, PVC	WL4S-3N2432V	1054722

<sup>1)</sup> PL80A.

WL4S-3V, Alarm output

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

Sensing range max. <sup>1)</sup>	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
0 m ... 5 m	PNP	Dark-switching	Single teach-in button	Connector M8, 4-pin	WL4S-3V2232V	1046422











<sup>1)</sup> 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	Light switching	Connector M8, 3-pin	WSE4S-3P2130V	1046439
			Connector M8, 3-pin	WSE4S-3F2130V	1045099
		Dark-switching	Cable with connector M12, 4-pin, 150 mm, PVC	WSE4S-3F3430V	1048028
			Light/dark-switching	Connector M12, 4-pin	WSE4S-3P2430V
	NPN	Light switching	Connector M8, 3-pin	WSE4S-3N2130V	1047629

## Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket for wall mounting, Stainless steel 1.4571, Mounting hardware included	BEF-W4-A	2051628
<b>Other mounting accessories</b>			
	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
<b>Universal bar clamp systems</b>			
	Plate N08N for universal clamp bracket, Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp), Universal clamp, mounting hardware	BEF-KHS-N08N	2051616
	Mounting bar, straight, 300 mm, Stainless steel (1.4571)	BEF-MS12G-NB	4058915
	Bar clamp for bar diameter of 12 mm (fixing the mounting rod), Aluminum, 2 screws M6 x 30, 2 spring discs	BEF-RMC-D12	5321878
<b>Reflectors</b>			
	Chemically resistant, screw connection, 47 mm x 47 mm, Plastic, Screw-on, 2 hole mounting	P250 CHEM	5321097
	Fine triple, chemically resistant, screw connection, 18 mm x 18 mm, Plastic, Screw-on, 2 hole mounting	PL10F CHEM	5321636
	Chemically resistant, screw connection, 38 mm x 15 mm, Plastic, Screw-on, 2 hole mounting	PL20 CHEM	5321089
	Stainless steel reflector, hygienic design, chemically resistant, Enclosure rating IP 69K, D12-adaptor shaft, 25 mm x 25 mm, Stainless steel V4A (1.4404, 316L), D12-adaptor shaft	PLH25-D12	2063404
	Stainless steel reflector, hygienic design, chemically resistant, Enclosure rating IP 69K, M12-adaptor thread, 25 mm x 25 mm, Stainless steel V4A (1.4404, 316L), M12-adaptor thread	PLH25-M12	2063403
	Stainless steel reflector, wash-down design, chemically resistant, Enclosure rating IP 69K, screw connection, 14 mm x 14 mm, Stainless steel V4A (1.4404, 316L), Screw-on, 2 hole mounting	PLV14-A	2063405

B



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](http://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](http://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. <sup>1)</sup>	Output type	Connection	Model name	Part no.
5 mm ... 100 mm	PNP	Cable, 3-wire, 2 m, PVC	WTB8-P1111	6033211
		Connector M8, 3-pin	WTB8-P2111	6033213
		Connector M8, 4-pin	WTB8-P2211	6033215
	NPN	Cable, 3-wire, 2 m, PVC	WTB8-N1111	6033210
		Connector M8, 3-pin	WTB8-N2111	6033212
		Connector M8, 4-pin	WTB8-N2211	6033214
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

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

**WL8**

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

Sensing range max. <sup>1)</sup>	Output type	Connection	Model name	Part no.
0 m ... 4 m	PNP	Cable, 3-wire, 2 m, PVC	WL8-P1131	6033177
		Connector M8, 3-pin	WL8-P2131	6033180
		Connector M8, 4-pin	WL8-P2231	6033182
	NPN	Cable, 3-wire, 2 m, PVC	WL8-N1131	6033176
		Connector M8, 3-pin	WL8-N2131	6033179
		Connector M8, 4-pin	WL8-N2231	6033181






<sup>1)</sup> 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	Cable, 3-wire, 2 m, PVC	WSE8-P1131	6035581
		Connector M8, 3-pin	WSE8-P2131	6035582
		Connector M8, 4-pin	WSE8-P2231	6035583
	NPN	Cable, 3-wire, 2 m, PVC	WSE8-N1131	6035578
		Connector M8, 3-pin	WSE8-N2131	6035579
		Connector M8, 4-pin	WSE8-N2231	6035580

**Recommended accessories**

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket for wall mounting, Stainless steel, Mounting hardware included	BEF-W100-A	5311520
	Mounting bracket for floor mounting, Steel, zinc coated, Mounting hardware included	BEF-W100-B	5311521
<b>Universal bar clamp systems</b>			
	Mounting bar, straight, 200 mm, Steel, zinc coated, without mounting hardware	BEF-MS12G-A	4056054
	Mounting bar, straight, 300 mm, Stainless steel (1.4571)	BEF-MS12G-NB	4058915
	Bar clamp for bar diameter of 12 mm (fixing the mounting rod), Aluminum, 2 screws M6 x 30, 2 spring discs	BEF-RMC-D12	5321878
<b>Reflectors</b>			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812

B



**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](http://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](http://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. <sup>1)</sup>	Output type	Connection	Model name	Part no.
5 mm ... 100 mm	PNP	Cable, 4-wire 2 m PVC	WTB8L-P1111	6033223
		Connector M8, 3-pin	WTB8L-P2111	6033225
		Connector M8, 4-pin	WTB8L-P2211	6033227
	NPN	Cable, 4-wire 2 m PVC	WTB8L-N1111	6033222
		Connector M8, 3-pin	WTB8L-N2111	6033224
		Connector M8, 4-pin	WTB8L-N2211	6033226
30 mm ... 300 mm	PNP	Cable, 4-wire 2 m PVC	WTB8L-P1131	6033217
		Connector M8, 3-pin	WTB8L-P2131	6033219
		Connector M8, 4-pin	WTB8L-P2231	6033221
	NPN	Cable, 4-wire 2 m PVC	WTB8L-N1131	6033216
		Connector M8, 3-pin	WTB8L-N2131	6033218
		Connector M8, 4-pin	WTB8L-N2231	6033220

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)



## Recommended accessories

	Brief description	Model name	Part no.
<b>Device protection (mechanical)</b>			
	Safety bracket for floor mounting, Stainless steel 1.4571, Mounting hardware included	BEF-SW-W4S	2051497
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket for wall mounting, Stainless steel, Mounting hardware included	BEF-W100-A	5311520
	Mounting bracket for floor mounting, Steel, zinc coated, Mounting hardware included	BEF-W100-B	5311521
<b>Universal bar clamp systems</b>			
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N08	2051607
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 3-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-G02M	6010785
	Head A: Female connector, M8, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-G02M	6009870

**B**

B



### At a glance

- Rugged IP 69K stainless steel housing 1.4404/316L
- Front screen made of high-performance PPSU plastic that is resistant to heat and chemicals
- Potentiometer made of mechanically stable high-performance PEEK (polyether ketone) plastic
- Constructed with FDA-approved materials
- Well-defined, highly visible light spot
- M3 threaded mounting holes and stainless steel mounting bracket (1.4301/304) included with delivery

### Your benefits

- High reliability due to an IP 69K stainless steel housing, which withstands aggressive cleaning agents or cooling lubricants
- Quick and easy mounting due to universally compatible M3 threaded mounting holes
- Compact housing saves space (equal to W8 plastic version)
- Highly visible light spot provides easy alignment
- All necessary accessories are included, which simplifies installation

→ [www.mysick.com/en/W8\\_Inox](http://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](http://www.mysick.com/en/W8_Inox)

### WTB8 Inox

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

Sensing range max. <sup>1)</sup>	Output type	Connection	Model name	Part no.
5 mm ... 150 mm	PNP	Cable, 3-wire 2 m PVC	WTB8-P1111V	6041457
		Connector M8, 4-pin	WTB8-P2211V	6041459
		Cable with connector M12, 4-pin 300 mm PVC	WTB8-P3311V	6041460
	NPN	Cable, 3-wire 2 m PVC	WTB8-N1111V	6041453
		Connector M8, 4-pin	WTB8-N2211V	6041455
		Cable with connector M12, 4-pin 300 mm PVC	WTB8-N3311V	6041456
10 mm ... 500 mm	PNP	Cable, 3-wire 2 m PVC	WTB8-P1131V	6041465
		Connector M8, 4-pin	WTB8-P2231V	6041467
		Cable with connector M12, 4-pin 300 mm PVC	WTB8-P3331V	6041468
	NPN	Cable, 3-wire 2 m PVC	WTB8-N1131V	6041461
		Connector M8, 4-pin	WTB8-N2231V	6041463
		Cable with connector M12, 4-pin 300 mm PVC	WTB8-N3331V	6041464

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

**WTE8 Inox**

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** energetic
- **Switching mode:** Light/dark-switching
- **Adjustment:** potentiometer, 270 °

Sensing range max. <sup>1)</sup>	Output type	Connection	Model name	Part no.
0 mm ... 950 mm	PNP	Cable, 3-wire 2 m PVC	WTE8-P1131V	6041473
		Connector M8, 4-pin	WTE8-P2231V	6041475
		Cable with connector M12, 4-pin 300 mm PVC	WTE8-P3331V	6041476
	NPN	Cable, 3-wire 2 m PVC	WTE8-N1131V	6041469
		Connector M8, 4-pin	WTE8-N2231V	6041471
		Cable with connector M12, 4-pin 300 mm PVC	WTE8-N3331V	6041472

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

**WL8 Inox**

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

Sensing range max. <sup>1)</sup>	Output type	Connection	Model name	Part no.
0.01 m ... 6.5 m	PNP	Cable, 3-wire 2 m PVC	WL8-P1131V	6041481
		Connector M8, 4-pin	WL8-P2231V	6041483
		Cable with connector M12, 4-pin 300 mm PVC	WL8-P3331V	6041484
	NPN	Cable, 3-wire 2 m PVC	WL8-N1131V	6041477

<sup>1)</sup> PL80A.










**WSE8 Inox**

- **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 ... 45 m	PNP	Cable, 3-wire 2 m PVC	WSE8-P1131V	6041489
		Connector M8, 4-pin	WSE8-P2231V	6041491
		Cable with connector M12, 4-pin 300 mm PVC	WSE8-P3331V	6041492
	NPN	Cable, 3-wire 2 m PVC	WSE8-N1131V	6041485
		Connector M8, 4-pin	WSE8-N2231V	6041487
		Cable with connector M12, 4-pin 300 mm PVC	WSE8-N3331V	6041488

Recommended accessories

B

	Brief description	Model name	Part no.
<b>Universal bar clamp systems</b>			
	Plate NO8N for universal clamp bracket, Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp), Universal clamp, mounting hardware	BEF-KHS-N08N	2051616
	Mounting bar, straight, 200 mm, Stainless steel (1.4571)	BEF-MS12G-NA	4058914
	Bar clamp for bar diameter of 12 mm (fixing the mounting rod), Aluminum, 2 screws M6 x 30, 2 spring discs	BEF-RMC-D12	5321878
<b>Reflectors</b>			
	Chemically resistant, screw connection, 47 mm x 47 mm, Plastic, Screw-on, 2 hole mounting	P250 CHEM	5321097
	Fine triple, screw connection, suitable for laser sensors, 18 mm x 18 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL10F	5311210
	Chemically resistant, screw connection, 38 mm x 15 mm, Plastic, Screw-on, 2 hole mounting	PL20 CHEM	5321089
	Stainless steel reflector, hygienic design, chemically resistant, Enclosure rating IP 69K, D12-adaptor shaft, 25 mm x 25 mm, Stainless steel V4A (1.4404, 316L), D12-adaptor shaft	PLH25-D12	2063404
	Stainless steel reflector, hygienic design, chemically resistant, Enclosure rating IP 69K, M12-adaptor thread, 25 mm x 25 mm, Stainless steel V4A (1.4404, 316L), M12-adaptor thread	PLH25-M12	2063403
	Stainless steel reflector, wash-down design, chemically resistant, Enclosure rating IP 69K, screw connection, 14 mm x 14 mm, Stainless steel V4A (1.4404, 316L), Screw-on, 2 hole mounting	PLV14-A	2063405



### 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 save time

→ [www.mysick.com/en/G10](http://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](http://www.mysick.com/en/G10)

### GTB10

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

Voltage type	Sensing range max. <sup>1)</sup>	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	Cable, 3-wire, 2 m, PVC	GTB10-P1211	1065854
						Connector M12, 4-pin	GTB10-P4211	1064694
AC/DC	20 mm ... 950 mm	Ø 8 mm (700 mm)	Visible red light	Relay	-	Cable, 5-wire, 2 m, PVC	GTB10-R3811	1064686
						Cable, 5-wire, 2 m, PVC	GTB10-R3821	1065863
	20 mm ... 1,200 mm	Ø 22 mm (700 mm)	Infrared light	Relay	-			

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

GTE10

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** energetic
- **Adjustment:** potentiometer, 270 °

B

Voltage type	Sensing range max. <sup>1)</sup>	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	Cable, 3-wire, 2 m, PVC	GTE10-P1211	1065865
						Connector M12, 4-pin	GTE10-P4211	1064697
				NPN	Light/dark-switching	Cable, 3-wire, 2 m, PVC	GTE10-N1211	1065868
						Connector M12, 4-pin	GTE10-N4211	1065871
AC/DC	20 mm ... 1,300 mm	Ø 28 mm (1,400 mm)	Visible red light	Relay	-	Cable, 5-wire, 2 m, PVC	GTE10-R3811	1064688
	20 mm ... 2,000 mm	Ø 57 mm (1,500 mm)	Infrared light	Relay	-	Cable, 5-wire, 2 m, PVC	GTE10-R3821	1065874

<sup>1)</sup> 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 <sup>1)</sup> 0.08 m ... 12 m <sup>2)</sup>	PNP	Light/dark-switching	No/fix	Cable, 3-wire, 2 m, PVC	GL10-P1111	1065876
				Potentiometer, 270 °	Cable, 3-wire, 2 m, PVC	GL10-P1211	1065885
				No/fix	Connector M12, 4-pin	GL10-P4111	1065878
				Potentiometer, 270 °	Connector M12, 4-pin	GL10-P4211	1065890
		NPN	Light/dark-switching	No/fix	Cable, 3-wire, 2 m, PVC	GL10-N1111	1065880
				Potentiometer, 270 °	Cable, 3-wire, 2 m, PVC	GL10-N1211	1065888
				No/fix	Connector M12, 4-pin	GL10-N4111	1065883
				Potentiometer, 270 °	Connector M12, 4-pin	GL10-N4211	1064700
AC/DC	0.08 m ... 15 m <sup>1)</sup> 0.08 m ... 12 m <sup>2)</sup>	Relay	-	No/fix	Cable, 5-wire, 2 m, PVC	GL10-R3711	1065896
				Potentiometer, 270 °	Cable, 5-wire, 2 m, PVC	GL10-R3811	1064689

<sup>1)</sup> PL80A.

<sup>2)</sup> 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 <sup>1)</sup>	PNP	Connector M12, 4-pin	GL10G-P4251	1064704
0.15 m ... 10 m <sup>2)</sup>	NPN	Cable, 3-wire, 2 m, PVC	GL10G-N1251	1064705











<sup>1)</sup> PL80A.<sup>2)</sup> P250.**GSE10**

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

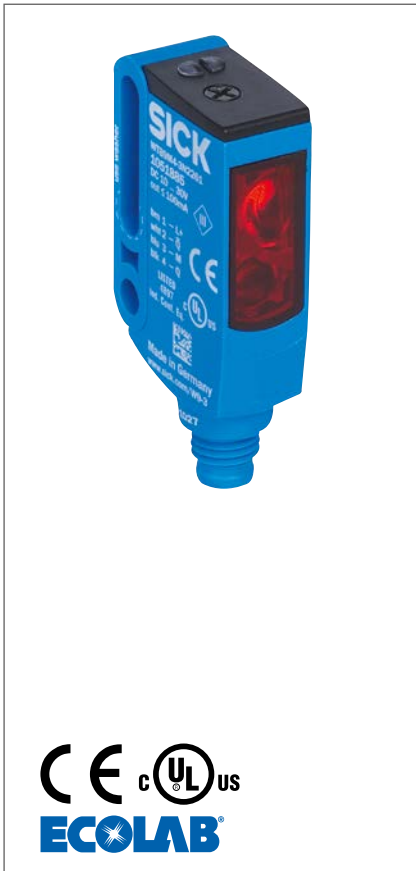
Voltage type	Sensing range max.	Light spot size (distance)	Type of light	Output type	Switching mode	Adjustment	Connection	Model name	Part no.
DC	0 m ... 40 m	Ø 180 mm (15 m)	Visible red light	PNP	Light/dark-switching	No/fix	Connector M12, 4-pin	GSE10-P4111	1065899
						Potentiometer, 270 °	Connector M12, 4-pin	GSE10-P4211	1064706
				NPN	Light/dark-switching	No/fix	Cable, 3-wire, 2 m, PVC	GSE10-N1111	1065901
						Potentiometer, 270 °	Cable, 3-wire, 2 m, PVC	GSE10-N1211	1065904
		Ø 433 mm (15 m)	Infrared light	PNP	Light/dark-switching	Potentiometer, 270 °	Connector M12, 4-pin	GSE10-P4221	1065906
				NPN	Light/dark-switching	Potentiometer, 270 °	Cable, 3-wire, 2 m, PVC	GSE10-N1221	1065908
AC/DC	0 m ... 40 m	Ø 180 mm (15 m)	Visible red light	Relay	-	No/fix	Cable, 5-wire, 2 m, PVC	GSE10-R3711	1065910
						Potentiometer, 270 °	Cable, 5-wire, 2 m, PVC	GSE10-R3811	1064691
		Ø 433 mm (15 m)	Infrared light	Relay	-	No/fix	Cable, 5-wire, 2 m, PVC	GSE10-R3721	1065913

Recommended accessories

B

	Brief description	Model name	Part no.
Device protection (mechanical)			
	Weather protection hood for G10, Steel, zinc coated, Mounting hardware included	BEF-G10WSG	2071960
	Weather protection hood for reflectors PL80A, P250, PL40A, Steel, zinc coated, Mounting hardware included	BEF-PL80AWSG	2071961
Mounting brackets and mounting plates			
	Mounting bracket for wall and floor mounting for G10 DC, Steel, zinc coated, Mounting hardware included	BEF-G10DC01	2071258
	Mounting bracket for wall and floor mounting for G10 AC/DC, Steel, zinc coated, Mounting hardware included	BEF-G10UC01	2071259
Universal bar clamp systems			
	Q-Lock, bar clamp system for G10 and reflector P250, Die-cast zinc, Steel, zinc coated	BEF-KHSQ12R01	2071260
	Q-Lock, bar clamp system for G10 and reflector P250, Die-cast zinc, Steel, zinc coated, incl. slot-in sheet clamp	BEF-KHSQ12ZR01	2071262
Plug connectors and cables			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383
Reflectors			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
	Self-adhesive	REF-IRF-56	5314244





**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](http://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](http://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. <sup>1)</sup>	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
				Cable, 4-wire, 2 m, PVC	WTB9-3P1161	1049043
				Cable with connector M12, 4-pin, 120 mm, PVC	WTB9-3P3461	1049051
			NPN	Connector M12, 4-pin	WTB9-3N2461	1049053
				Cable, 4-wire, 2 m, PVC	WTB9-3N1161	1049052

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

B

Type of light	Sensing range max. <sup>1)</sup>	Light spot size (distance)	Output type	Connection	Model name	Part no.
Infrared light	20 mm ... 500 mm	Ø 20 mm (250 mm)	PNP	Connector M8, 4-pin	WTB9-3P2211	1049045
				Connector M12, 4-pin	WTB9-3P2411	1049048
	20 mm ... 800 mm	Ø 40 mm (400 mm)	PNP	Connector M8, 4-pin	WTB9-3P2211S14	1052171
				Connector M12, 4-pin	WTB9-3P2411S14	1052172

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

### 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. <sup>1)</sup>	Adjustment	Output type	Connection	Model name	Part no.
Visible red light	0 m ... 4 m	-	PNP	Connector M8, 4-pin	WL9-3P2230	1049059
				Connector M12, 4-pin	WL9-3P2430	1049062
			NPN	Connector M8, 4-pin	WL9-3N2230	1049071
				Connector M12, 4-pin	WL9-3N2430	1049073
	0 m ... 5 m	Single teach-in button	PNP	Connector M8, 4-pin	WL9-3P2232	1049060
				Connector M12, 4-pin	WL9-3P2432	1049063
				Cable, 4-wire, 2 m, PVC	WL9-3P1132	1049056
				Cable with connector M12, 4-pin, 120 mm, PVC	WL9-3P3432	1049067
			NPN	Connector M12, 4-pin	WL9-3N2432	1049074
				Cable, 4-wire, 2 m, PVC	WL9-3N1132	1049070

<sup>1)</sup> PL80A.

### WSE9-3

- **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 M8, 4-pin	WSE9-3P2230	1049076
			Connector M12, 4-pin	WSE9-3P2430	1049077
		NPN	Connector M12, 4-pin	WSE9-3N2430	1049080

## 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. <sup>1)</sup>	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
				Connector M12, 4-pin	WTB9M4-3P2461	1051891
Infrared light	20 mm ... 500 mm	Ø 20 mm (250 mm)	NPN	Connector M8, 4-pin	WTB9M4-3N2261	1051885
				Connector M12, 4-pin	WTB9M4-3P2211	1051888
Infrared light	20 mm ... 500 mm	Ø 20 mm (250 mm)	PNP	Connector M8, 4-pin	WTB9M4-3P2211	1051888
				Connector M12, 4-pin	WTB9M4-3P2411	1051890

<sup>1)</sup> 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. <sup>1)</sup>	Output type	Connection	Model name	Part no.
Visible red light	0 m ... 5 m	PNP	Connector M8, 4-pin	WL9M4-3P2232	1051895
			Connector M12, 4-pin	WL9M4-3P2432	1051896
		NPN	Connector M8, 4-pin	WL9M4-3N2232	1051893

<sup>1)</sup> PL80A.















## WSE9M4-3

- **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
		NPN	WSE9M4-3N2230	1052938

Recommended accessories

B

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Fastening plate with threaded sleeve M3, PMMA, Brass (Br)	BEF-GPM3-W9	4066039
	Mounting bracket, Steel, zinc coated, Mounting hardware included	BEF-WN-W9-2	2022855
<b>Universal bar clamp systems</b>			
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N08	2051607
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-G02M	6009870
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
<b>Masks</b>			
	Mask card, vertical/horizontal slots, slot width: 0.5 mm / 1.0 mm / 1.5 mm / 2.0 mm	BL-9-2	4033253
<b>Reflectors</b>			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
	Rectangular, screw connection, 38 mm x 15 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL20A	1012719
	Rectangular, screw connection, 56 mm x 28 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL30A	1002314
	Rectangular, screw connection, 37 mm x 56 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL40A	1012720
	Rectangular, screw connection, 80 mm x 80 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865
	Self-adhesive	REF-IRF-56	5314244
	Self-adhesive, roll, 25 mm x 22.8 m, self-adhesive	REF-PLUS-R25	5319929
	Self-adhesive, roll, 50 mm x 22.8 m, self-adhesive	REF-PLUS-R50	5319981



**At a glance**

- Uniform housing, mounting and connection systems
- Rugged sensors for industrial use
- PinPoint LED technology provides highly visible light spot
- Space-saving plastic housing in chemically, thermally or mechanically resistant designs
- Dovetail mounting – mounting holes and oblong holes
- Highly visible 360° status LEDs

**Your benefits**

- Reliable object detection due to superior ASIC technology with a high immunity to ambient light
- PinPoint technology provides a bright, small and precise light spot that enables quick and easy sensor alignment
- Precise switching characteristics ensure high performance even in changing application conditions
- Highly visible 360° status LEDs provide quick and easy setup
- Compact and rugged housing design easily fits in tight spaces
- Uniform housing, mounting and connection systems simplify installation
- Versatile mounting options, including dovetail, side mounting and standard mounting holes enable quick installation



→ [www.mysick.com/en/W11-2](http://www.mysick.com/en/W11-2)

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/W11-2](http://www.mysick.com/en/W11-2)

**WTB11-2**

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

Light source	Sensing range max. <sup>1)</sup>	Switching mode	Adjustment	Output type	Connection	Model name	Part no.
LED	20 mm ... 350 mm	Light/dark-switching	Potentiometer, 5 turns	PNP	Connector M12, 4-pin	WTB11-2P2431	1041376
				NPN	Connector M12, 4-pin	WTB11-2N2431	1041378
PinPoint LED	30 mm ... 1,100 mm	Light/dark-switching	Potentiometer, 5 turns	PNP	Connector M12, 4-pin	WTB11-2P2461	1044442
				NPN	Connector M12, 4-pin	WTB11-2N2461	1051818

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

**WTF11-2**

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Foreground suppression
- **Light source:** LED
- **Light spot size (distance):** Ø 6 mm (200 mm)

Sensing range max. <sup>1)</sup>	Switching mode	Adjustment	Output type	Connection	Model name	Part no.
35 mm ... 350 mm	Light/dark-switching	Potentiometer, 5 turns	PNP	Connector M12, 4-pin	WTF11-2P2431	1041380

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

B

## WTE11-2

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** energetic
- **Light source:** LED
- **Light spot size (distance):** Ø 90 mm (600 mm)

Sensing range max. <sup>1)</sup>	Switching mode	Adjustment	Output type	Connection	Model name	Part no.
40 mm ... 1,000 mm	Light/dark-switching	Single teach-in button	PNP	Connector M12, 4-pin	WTE11-2P2432	1041381
			NPN	Connector M12, 4-pin	WTE11-2N2432	1041383

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

## WL11-2

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Light source:** LED
- **Light spot size (distance):** Ø 50 mm (3 m)

Sensing range max. <sup>1)</sup>	Switching mode	Output type	Adjustment	Connection	Model name	Part no.
0.15 m ... 10 m	Light/dark-switching	PNP	-	Connector M12, 4-pin	WL11-2P2430	1041385
			Single teach-in button	Connector M12, 4-pin	WL11-2P2432	1048542
		NPN	-	Connector M12, 4-pin	WL11-2N2430	1041387




<sup>1)</sup> PL80A.






## WSE11-2

- **Sensor principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Light spot size (distance):** Ø 220 mm (15 m)

Sensing range max.	Switching mode	Output type	Connection	Model name	Part no.
0 m ... 20 m	Light/dark-switching	PNP	Connector M12, 4-pin	WSE11-2P2430	1041394
		NPN	Connector M12, 4-pin	WSE11-2N2430	1041396

## Recommended accessories

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

	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
 Illustration may differ	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-G02M	6008899
<b>Reflectors</b>			
	Rectangular, screw connection, 38 mm x 15 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL20A	1012719
	Rectangular, screw connection, 56 mm x 28 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL30A	1002314
	Rectangular, screw connection, 37 mm x 56 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL40A	1012720
	Rectangular, screw connection, 80 mm x 80 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865
	Self-adhesive	REF-IRF-56	5314244

B



### 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](http://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](http://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. <sup>1)</sup>	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
			Double teach-in button	Connector M12, 4-pin	WTF12-3P2433	1041405
		NPN	Potentiometer, 5 turns	Connector M12, 4-pin	WTF12-3N2431	1041408
			Double teach-in button	Connector M12, 4-pin	WTF12-3N2433	1041409
30 mm ... 500 mm	Ø 7 mm (300 mm)	PNP	Potentiometer, 5 turns	Connector M12, 4-pin	WTF12-3P2441	1041400
			Single teach-in button	Connector M12, 4-pin	WTF12-3P2443	1041401
		NPN	Potentiometer, 5 turns	Connector M12, 4-pin	WTF12-3N2441	1041403

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)



**WTB12-3**

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

Sensing range max. <sup>1)</sup>	Adjustment	Connection	Model name	Part no.
20 mm ... 350 mm	Potentiometer, 5 turns	Connector M12, 4-pin	WTB12-3P2431	1041411
	Double teach-in button	Connector M12, 4-pin	WTB12-3P2433	1041412

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

**WTB12-3, IO-Link**

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Output type:** PNP
- **Switching mode:** Light/dark-switching
- **Adjustment:** Single teach-in button

Sensing range max. <sup>1)</sup>	Light spot size (distance)	IO-Link	Advanced functions	Connection	Model name	Part no.
20 mm ... 350 mm	Ø 6 mm (200 mm)	Standard functions	-	Connector M12, 4-pin	WTB12C-3P2432	1067771
		Standard functions, advanced functions	Time measurement / timer, decentralized debouncing	Connector M12, 4-pin	WTB12C-3P2432A70	1067772
			High speed counter, decentralized debouncing	Connector M12, 4-pin	WTB12C-3P2432A71	1067773
	15 mm x 15 mm (200 mm)	Standard functions, advanced functions	Time stamp, decentralized debouncing	Connector M12, 4-pin	WTB12C-3P2432A91	1060222

<sup>1)</sup> 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. <sup>1)</sup>	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

<sup>1)</sup> PL80A.

WL12-3, IO-Link

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** autocollimation
- **Polarisation filter:** ✓
- **Light spot size (distance):** Ø 100 mm (3 m)
- **Output type:** PNP
- **Switching mode:** Light/dark-switching
- **Adjustment:** Single teach-in button

Sensing range max. <sup>1)</sup>	IO-Link	Advanced functions	Connection	Model name	Part no.
0 m ... 7 m	Standard functions	-	Connector M12, 4-pin	WL12C-3P2432	1067774
	Standard functions, advanced functions	Time measurement / timer, decentralized debouncing	Connector M12, 4-pin	WL12C-3P2432A70	1067775
		High speed counter, decentralized debouncing	Connector M12, 4-pin	WL12C-3P2432A71	1067776
		Time stamp, decentralized debouncing	Connector M12, 4-pin	WL12C-3P2432A91	1067777

<sup>1)</sup> 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

WSE12-3, IO-Link

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** Ø 220 mm (15 m)
- **Output type:** PNP
- **Switching mode:** Light/dark-switching

Sensing range max.	IO-Link	Advanced functions	Connection	Model name	Part no.
0 m ... 20 m	Standard functions	-	Connector M12, 4-pin	WSE12C-3P2430	1067780
	Standard functions, advanced functions	Time measurement / timer, decentralized debouncing	Connector M12, 4-pin	WSE12C-3P2430A70	1067781
		High speed counter, decentralized debouncing	Connector M12, 4-pin	WSE12C-3P2430A71	1067782
		Time stamp, decentralized debouncing	Connector M12, 4-pin	WSE12C-3P2430A91	1067783

## Recommended accessories

	Brief description	Model name	Part no.
<b>Device protection (mechanical)</b>			
	Protective housing for universal clamp, Zinc plated steel (protective housing), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-SG-W12-3	2045175
<b>Terminal and alignment brackets</b>			
	Clamping block for dovetail mounting, Steel, zinc coated, Mounting hardware included	BEF-KH-W12	2013285
<b>Universal bar clamp systems</b>			
	Plate N02 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N02	2051608
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
<b>Reflectors</b>			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
	Rectangular, screw connection, 38 mm x 15 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL20A	1012719
	Rectangular, screw connection, 56 mm x 28 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL30A	1002314
	Rectangular, screw connection, 37 mm x 56 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL40A	1012720
	Rectangular, screw connection, 80 mm x 80 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865
	Self-adhesive	REF-IRF-56	5314244

B



### At a glance

- Highly visible red light spot thanks to the BrightLight LED
- Potentiometer for adjusting sensing range
- Light/dark switching (DC devices only)
- Rotatable connector, cable connection or terminal chamber
- Versions for 10 – 30 V DC or 24 – 240 V DC/AC voltage supply
- AC/DC (-2Hxxxx) devices are compliant with EN61000-6-3 (electromagnetic interference for “residential, commercial and light-industrial environments”)
- Stainless steel mounting bracket and P250 reflector (for WL280 only) are included in delivery

### Your benefits

- Simple and fast commissioning with the highly visible light spot of the BrightLight LED
- Simple operation via potentiometer
- Light/dark switching provides application flexibility
- All necessary mounting and operating accessories are included in delivery, enabling quick and easy setup: since mounting bracket (stainless steel 1.4301) is included in delivery scope
- DC devices and AC/DC devices available in the same housing, allowing electrical flexibility
- Less contamination due to high operating reserves, reducing downtime

→ [www.mysick.com/en/W280-2](http://www.mysick.com/en/W280-2)

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/W280-2](http://www.mysick.com/en/W280-2)

#### WTE280-2, DC

- **Sensor principle:** Photoelectric proximity sensor
- **Light spot size (distance):** Ø 45 mm (1,500 mm)
- **Switching mode:** Light/dark-switching
- **Connection:** Connector M12, 4-pin

Sensing range max. <sup>1)</sup>	Output type	Model name	Part no.
10 mm ... 2,000 mm	PNP	WTE280-2P2431	6044728
	NPN	WTE280-2N2431	6044729

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

#### WTE280-2, AC

- **Sensor principle:** Photoelectric proximity sensor
- **Light spot size (distance):** Ø 45 mm (1,500 mm)
- **Output type:** relay
- **Switching mode:** Light switching (Provide suitable spark suppression for inductive or capacitive loads.)

Sensing range max. <sup>1)</sup>	Connection	Overvoltage category	Model name	Part no.
10 mm ... 2,000 mm	Cable, 5-wire, 2 m	2	WTE280-2H1531	6044731
		3	WTE280-2R1531	6044759
	Cable gland	2	WTE280-2H4331	6044730
		3	WTE280-2R4331	6044758

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

### WL280-2, DC

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light spot size (distance):** Ø 260 mm (8 m)
- **Switching mode:** Light/dark-switching
- **Connection:** Connector M12, 4-pin

Sensing range max.	Output type	Model name	Part no.
0.01 m ... 15 m <sup>1)</sup> 0.01 m ... 12 m <sup>2)</sup>	PNP	WL280-2P2431	6044736
	NPN	WL280-2N2431	6044737

<sup>1)</sup> PL80A.

<sup>2)</sup> P250.

### WL280-2, AC

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light spot size (distance):** Ø 260 mm (8 m)
- **Output type:** relay
- **Switching mode:** Light switching (Provide suitable spark suppression for inductive or capacitive loads.)

Sensing range max. <sup>1)</sup>	Connection	Overtoltage category	Model name	Part no.
0.01 m ... 15 m	Cable, 5-wire, 2 m	2	WL280-2H1531	6044739
		3	WL280-2R1531	6044761
	Cable gland	2	WL280-2H4331	6044738
		3	WL280-2R4331	6044760

<sup>1)</sup> PL80A.

### WSE280-2, DC

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** Ø 0.6 m (20 m)
- **Switching mode:** Light/dark-switching
- **Connection:** Connector M12, 4-pin

Sensing range max.	Output type	Model name	Part no.
0 m ... 60 m	PNP	WSE280-2P2431	6044745
	NPN	WSE280-2N2431	6044746

### WSE280-2, AC

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** Ø 0.6 m (20 m)
- **Output type:** relay
- **Switching mode:** Light switching (Provide suitable spark suppression for inductive or capacitive loads.)

Sensing range max.	Connection	Overtoltage category	Model name	Part no.
0 m ... 60 m	Cable, 5-wire, 2 m	2	WSE280-2H1531	6044748
		3	WSE280-2R1531	6044763
	Cable gland	2	WSE280-2H4331	6044747
		3	WSE280-2R4331	6044762

Recommended accessories

B

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket, Stainless steel V2A (1.4301), Mounting hardware included	BEF-W280	5313885
<b>Universal bar clamp systems</b>			
	Plate N02 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N02	2051608
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
<b>Reflectors</b>			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
	Rectangular, screw connection, 38 mm x 15 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL20A	1012719
	Rectangular, screw connection, 56 mm x 28 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL30A	1002314
	Rectangular, screw connection, 37 mm x 56 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL40A	1012720
	Rectangular, screw connection, 80 mm x 80 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865
	Self-adhesive	REF-IRF-56	5314244



**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 commissioning 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](http://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](http://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 <sup>1)</sup> 200 mm ... 3,000 mm <sup>2)</sup>	PNP	Cable, 5-wire, 2 m, PVC	WTT280L-2P1531	6048065
		Connector M12, 5-pin	WTT280L-2P2531	6048061
	NPN	Cable, 5-wire, 2 m, PVC	WTT280L-2N1531	6048067
		Connector M12, 5-pin	WTT280L-2N2531	6048063
	2 x PNP	Cable, 5-wire, 2 m, PVC	WTT280L-2P1536	6048066
		Connector M12, 5-pin	WTT280L-2P2536	6048062
	2 x NPN	Cable, 5-wire, 2 m, PVC	WTT280L-2N1536	6048068
		Connector M12, 5-pin	WTT280L-2N2536	6048064

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

<sup>2)</sup> Objects to be sensed with 6 % reflectivity (based on black)

## 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

B

Sensing range max. <sup>1)</sup>	Output type	Model name	Part no.
200 mm ... 18,000 mm	2 x PNP	WLT280L-2P2536	6048069
	2 x NPN	WLT280L-2N2536	6048070

<sup>1)</sup> Reflector P250, PL80A.

## Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket, Stainless steel V2A (1.4301), Mounting hardware included	BEF-W280	5313885
<b>Universal bar clamp systems</b>			
	Plate N04 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N04	2051610
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-G02M	6008899
<b>Reflectors</b>			
	Fine triple, screw connection, suitable for laser sensors, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250F	5308843
	Fine triple, screw connection, suitable for laser sensors, 18 mm x 18 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL10F	5311210
	Fine triple, screw connection, suitable for laser sensors, 38 mm x 16 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL20F	5308844
	Fine triple, screw connection, suitable for laser sensors, 56 mm x 28 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL30F	5326523
	Fine triple, screw connection, suitable for laser sensors, 76 mm x 45 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL81-1F	5325060
	Suitable for laser sensors, self-adhesive, cut, see alignment note, 56.3 mm x 56.3 mm, self-adhesive	REF-AC1000-56	4063030





At a glance

- Low-cost cylindrical M18 sensor with extra short housing
- Five different housing styles
- Variety of plastic and metal housing styles, with straight or right angle optics
- Bright and highly visible PinPoint-LED
- Potentiometer for adjustment of switching threshold (depending on type)
- Special flush type, one-piece metal housing
- Highly visible signal indicator LED
- IP 67 rating

Your benefits

- Space-saving solution due to short housing
- Flexible mounting options due to versatile housing styles
- Easy installation and precise detection due to PinPoint LED
- Reduced maintenance costs due to high tightening torque of single piece flush metal housing
- Rugged and reliable with proven SICK technology
- Highly visible signal indicator LED saves maintenance and commissioning time

→ [www.mysick.com/en/GR18S](http://www.mysick.com/en/GR18S)

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/GR18S](http://www.mysick.com/en/GR18S)

GRTE18S, Metal

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** energetic
- **Adjustment:** potentiometer, 270 °
- **Connection:** Connector M12, 3-pin

Housing design	Sensing range max. <sup>1)</sup>	Light spot size (distance)	Switching mode	Output type	Model name	Part no.
Axial	3 mm ... 115 mm	Ø 8 mm (100 mm)	Light switching	PNP	GRTE18S-P2312	1058204
				NPN	GRTE18S-N2312	1059408
	5 mm ... 550 mm	Ø 9 mm (400 mm)	Light switching	PNP	GRTE18S-P2342	1058200
				NPN	GRTE18S-N2342	1059482
Axial, fully flush	3 mm ... 115 mm	Ø 8 mm (100 mm)	Light switching	PNP	GRTE18S-P231Z	1059436
				NPN	GRTE18S-E231Z	1059409
	5 mm ... 550 mm	Ø 9 mm (400 mm)	Dark-switching	PNP	GRTE18S-F234Z	1059486
				NPN	GRTE18S-E234Z	1059483
Radial, fully flush	3 mm ... 115 mm	Ø 8 mm (100 mm)	Light switching	PNP	GRTE18S-P231X	1059440
	5 mm ... 550 mm	Ø 9 mm (400 mm)	Light switching	PNP	GRTE18S-P234X	1059489

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

B

GRTE18S, Plastic

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** energetic
- **Adjustment:** potentiometer, 270 °
- **Connection:** Connector M12, 3-pin

Housing design	Sensing range max. <sup>1)</sup>	Light spot size (distance)	Switching mode	Output type	Model name	Part no.
Axial	3 mm ... 115 mm	Ø 8 mm (100 mm)	Light switching	PNP	GRTE18S-P2317	1058196
				NPN	GRTE18S-N2317	1059378
	5 mm ... 550 mm	Ø 9 mm (400 mm)	Light switching	PNP	GRTE18S-P2347	1058193
				NPN	GRTE18S-N2347	1059441
Radial	3 mm ... 115 mm	Ø 8 mm (100 mm)	Dark-switching	PNP	GRTE18S-F2319	1059406
	5 mm ... 550 mm	Ø 9 mm (400 mm)	Dark-switching	PNP	GRTE18S-F2349	1059480

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

GRL18S, Metal

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Light spot size (distance):** Ø 175 mm (7 m)

Housing design	Sensing range max. <sup>1)</sup>	Switching mode	Output type	Connection	Model name	Part no.
Axial	0.03 m ... 7.2 m	Light switching	PNP	Connector M12, 3-pin	GRL18S-P2331	1058199
			NPN	Cable, 3-wire, 2 m, PVC	GRL18S-N1331	1059538
		Dark-switching	NPN	Cable, 3-wire, 2 m, PVC	GRL18S-E1331	1059537
Axial, fully flush	0.03 m ... 7.2 m	Light switching	PNP	Connector M12, 3-pin	GRL18S-P233Y	1058207
Radial, fully flush	0.03 m ... 7.2 m	Light switching	PNP	Connector M12, 3-pin	GRL18S-P233W	1058210

<sup>1)</sup> PL80A.

GRL18S, Plastic

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Light spot size (distance):** Ø 175 mm (7 m)

Housing design	Sensing range max. <sup>1)</sup>	Switching mode	Output type	Connection	Model name	Part no.
Axial	0.03 m ... 7.2 m	Light switching	PNP	Connector M12, 3-pin	GRL18S-P2336	1058192
			NPN	Cable, 3-wire, 2 m, PVC	GRL18S-N1336	1059531
		Dark-switching	PNP	Connector M12, 3-pin	GRL18S-F2336	1059533
			NPN	Cable, 3-wire, 2 m, PVC	GRL18S-E1336	1059530
Radial	0.03 m ... 7.2 m	Light switching	PNP	Connector M12, 3-pin	GRL18S-P2338	1058212
		Dark-switching	PNP	Connector M12, 3-pin	GRL18S-F2338	1058211

<sup>1)</sup> PL80A.

**GRSE18S, Metal**

- **Sensor principle:** Through-beam photoelectric sensor
- **Light spot size (distance):** Ø 250 mm (10 m)

Housing design	Sensing range max.	Switching mode	Output type	Connection	Model name	Part no.
Axial	0 m ... 15 m	Light switching	PNP	Connector M12, 3-pin	GRSE18S-P2331	1059550
		Dark-switching	NPN	Cable, 3-wire, 2 m, PVC	GRSE18S-E1331	1059548
Radial, fully flush	0 m ... 15 m	Light switching	PNP	Connector M12, 3-pin	GRSE18S-P233W	1059552
		Dark-switching	PNP	Connector M12, 3-pin	GRSE18S-F233W	1059551

**GRSE18S, Plastic**








- **Sensor principle:** Through-beam photoelectric sensor
- **Housing design:** axial
- **Light spot size (distance):** Ø 250 mm (10 m)

Sensing range max.	Switching mode	Output type	Connection	Model name	Part no.
0 m ... 15 m	Light switching	PNP	Connector M12, 3-pin	GRSE18S-P2336	1058215
	Dark-switching	NPN	Cable, 3-wire, 2 m, PVC	GRSE18S-E1336	1059543

**Recommended accessories**

	Brief description	Model name	Part no.
<b>Universal bar clamp systems</b>			
	Plate N06 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N06	2051612
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383

B

	Brief description	Model name	Part no.
Reflectors			
	Round, screw connection, PMMA/ABS, Center hole mounting, screw-on	C110A	5304549
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
	Rectangular, screw connection, 38 mm x 15 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL20A	1012719
	Rectangular, screw connection, 56 mm x 28 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL30A	1002314
	Rectangular, screw connection, 37 mm x 56 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL40A	1012720
	Rectangular, screw connection, 80 mm x 80 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865
	Self-adhesive	REF-IRF-56	5314244



**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 troubleshooting, 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](http://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](http://www.mysick.com/en/V180-2)

**VTE180-2, Metal**

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background blanking
- **Light spot size (distance):** Ø 20 mm (400 mm)
- **Adjustment:** potentiometer, 270 °
- **Connection:** Connector M12, 4-pin

Sensing range max. <sup>1)</sup>	Optical axis	Output type	Switching mode	Model name	Part no.
1 mm ... 500 mm	Axial	PNP	Light/dark-switching <sup>2)</sup>	VTE180-2P42442	6041807
		NPN	Light/dark-switching <sup>3)</sup>	VTE180-2N42442	6041805
1 mm ... 450 mm	Radial	PNP	Light/dark-switching <sup>2)</sup>	VTE180-2P42444	6043815
		NPN	Light/dark-switching <sup>3)</sup>	VTE180-2N42444	6043813

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

<sup>2)</sup> Control wire open: dark-switching D.ON.

<sup>3)</sup> Control wire open: light-switching L.ON.

B

## VTE180-2, Plastic

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background blanking
- **Light spot size (distance):** Ø 20 mm (400 mm)
- **Adjustment:** potentiometer, 270 °
- **Connection:** Connector M12, 4-pin

Sensing range max. <sup>1)</sup>	Optical axis	Output type	Switching mode	Model name	Part no.
1 mm ... 500 mm	Axial	PNP	Light/dark-switching <sup>2)</sup>	VTE180-2P42447	6037484
		NPN	Light/dark-switching <sup>3)</sup>	VTE180-2N42447	6037482
1 mm ... 450 mm	Radial	PNP	Light/dark-switching <sup>2)</sup>	VTE180-2P42449	6043819
		NPN	Light/dark-switching <sup>3)</sup>	VTE180-2N42449	6043817

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

<sup>2)</sup> Control wire open: dark-switching D.ON.

<sup>3)</sup> Control wire open: light-switching L.ON.

## VTF180-2, Metal

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background blanking
- **Light spot size (distance):** Ø 8 mm (100 mm)
- **Adjustment:** potentiometer, 270 °
- **Connection:** Connector M12, 4-pin

Sensing range max. <sup>1)</sup>	Optical axis	Output type	Switching mode	Model name	Part no.
1 mm ... 130 mm	Radial	PNP	Light/dark-switching <sup>2)</sup>	VTF180-2P42414	6043806
		NPN	Light/dark-switching <sup>3)</sup>	VTF180-2N42414	6043804
1 mm ... 140 mm	Axial	PNP	Light/dark-switching <sup>2)</sup>	VTF180-2P42412	6041803
		NPN	Light/dark-switching <sup>3)</sup>	VTF180-2N42412	6041801

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

<sup>2)</sup> Control wire open: dark-switching D.ON.

<sup>3)</sup> Control wire open: light-switching L.ON.

## VTF180-2, Plastic

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background blanking
- **Light spot size (distance):** Ø 8 mm (100 mm)
- **Adjustment:** potentiometer, 270 °
- **Connection:** Connector M12, 4-pin

Sensing range max. <sup>1)</sup>	Optical axis	Output type	Switching mode	Model name	Part no.
1 mm ... 130 mm	Radial	PNP	Light/dark-switching <sup>2)</sup>	VTF180-2P42419	6043811
		NPN	Light/dark-switching <sup>3)</sup>	VTF180-2N42419	6043808
1 mm ... 140 mm	Axial	PNP	Light/dark-switching <sup>2)</sup>	VTF180-2P42417	6037480
		NPN	Light/dark-switching <sup>3)</sup>	VTF180-2N42417	6037478

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033)

<sup>2)</sup> Control wire open: dark-switching D.ON.

<sup>3)</sup> Control wire open: light-switching L.ON.

## VL180-2, Metal

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Adjustment:** potentiometer, 270 °
- **Connection:** Connector M12, 4-pin

Sensing range max. <sup>1)</sup>	Light spot size (distance)	Optical axis	Output type	Switching mode	Model name	Part no.
0.05 m ... 5.5 m	Ø 270 mm (4 m)	Radial	PNP	Light/dark-switching <sup>2)</sup>	VL180-2P42433	6043834
			NPN	Light/dark-switching <sup>3)</sup>	VL180-2N42433	6043830
0.05 m ... 7 m	Ø 400 mm (6 m)	Axial	PNP	Light/dark-switching <sup>2)</sup>	VL180-2P42431	6041819
			NPN	Light/dark-switching <sup>3)</sup>	VL180-2N42431	6041817

<sup>1)</sup> PL80A.

<sup>2)</sup> Control wire open: dark-switching D.ON.

<sup>3)</sup> Control wire open: light-switching L.ON.

## VL180-2, Plastic

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Detection principle:** Standard optics
- **Adjustment:** potentiometer, 270 °
- **Connection:** Connector M12, 4-pin

Sensing range max. <sup>1)</sup>	Light spot size (distance)	Optical axis	Output type	Switching mode	Model name	Part no.
0.05 m ... 5.5 m	Ø 270 mm (4 m)	Radial	PNP	Light/dark-switching <sup>2)</sup>	VL180-2P42438	6043838
			NPN	Light/dark-switching <sup>3)</sup>	VL180-2N42438	6043836
0.05 m ... 7 m	Ø 400 mm (6 m)	Axial	PNP	Light/dark-switching <sup>2)</sup>	VL180-2P42436	6037496
			NPN	Light/dark-switching <sup>3)</sup>	VL180-2N42436	6037494

<sup>1)</sup> PL80A.

<sup>2)</sup> Control wire open: dark-switching D.ON.

<sup>3)</sup> 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	Model name	Part no.
0 m ... 25 m	Radial	PNP	Light/dark-switching <sup>1)</sup>	VSE180-2P42434	6043850
		NPN	Light/dark-switching <sup>2)</sup>	VSE180-2N42434	6043848
0 m ... 28 m	Axial	PNP	Light/dark-switching <sup>1)</sup>	VSE180-2P42432	6041823
		NPN	Light/dark-switching <sup>2)</sup>	VSE180-2N42432	6041821

<sup>1)</sup> Control wire open: dark-switching D.ON.

<sup>2)</sup> Control wire open: light-switching L.ON.

VSE180-2, Plastic

- **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

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Sensing range max.	Optical axis	Output type	Switching mode	Model name	Part no.
0 m ... 25 m	Radial	PNP	Light/dark-switching <sup>1)</sup>	VSE180-2P42439	6043854
		NPN	Light/dark-switching <sup>2)</sup>	VSE180-2N42439	6043852
0 m ... 28 m	Axial	PNP	Light/dark-switching <sup>1)</sup>	VSE180-2P42437	6037500
		NPN	Light/dark-switching <sup>2)</sup>	VSE180-2N42437	6037498

<sup>1)</sup> Control wire open: dark-switching D.ON.

<sup>2)</sup> Control wire open: light-switching L.ON.

Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting plate for M18 sensors, Steel, zinc coated, without mounting hardware	BEF-WG-M18	5321870
	Mounting bracket, M18 thread, Steel, zinc coated, without mounting hardware	BEF-WN-M18	5308446
<b>Universal bar clamp systems</b>			
	Plate N06 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N06	2051612
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383
<b>Reflectors</b>			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
	Rectangular, screw connection, 37 mm x 56 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL40A	1012720
	Rectangular, screw connection, 80 mm x 80 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865
	Self-adhesive	REF-IRF-56	5314244





**At a glance**

- Selectable response time up to 16  $\mu$ s
- 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 change-over 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](http://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](http://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	Cable, 4-pole, 2 m	WLL180T-P432	6039093
	Male connector, M8, 4-pin	WLL180T-P434	6039095
NPN	Cable, 4-pole, 2 m	WLL180T-N432	6039094
	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	Cable, 4-pole, 2 m	WLL180T-M432	6039097
	Male connector, M8, 3-pin	WLL180T-M333	6042428
	Male connector, M8, 4-pin	WLL180T-M434	6039101
NPN	Cable, 4-pole, 2 m	WLL180T-L432	6039099
	Male connector, M8, 4-pin	WLL180T-L434	6039103



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.)

B

Output type	Connection	Model name	Part no.
PNP	Cable, 2-pole, 2 m	WLL180T-F232	6039098
	Male connector, M8, 3-pin	WLL180T-F333	6042429
	Male connector, M8, 4-pin	WLL180T-F434	6039102
NPN	Cable, 2-pole, 2 m	WLL180T-E232	6039100
	Male connector, M8, 4-pin	WLL180T-E434	6039104

Recommended accessories

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



**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](http://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](http://www.mysick.com/en/LL3)

**Proximity system**

Category	Core material	Sleeve material	Model name	Part no.
Threaded sleeve	PMMA	Stainless steel <sup>1)</sup>	LL3-DM01	5308071
			LL3-DM02	5308077
			LL3-DT01	5308076
			LL3-DB01	5308074
			LL3-DK67	5313025
		CuZn	LL3-DR01	5308078
Smooth sleeve	PMMA	Stainless steel <sup>1)</sup>	LL3-DR04	5308081
Long end sleeve	PMMA	Stainless steel <sup>1)</sup>	LL3-DK63Z	5313027
Flat type	PMMA	Stainless steel	LL3-DC47	5324268
		PC	LL3-DE03	5325986
		ABS	LL3-DC09	5326028
Area detection	PMMA	PC	LL3-DZ01	5326013
		Brass (Br)	LL3-DZ03	5326015
LCDs/transparent objects/semiconductors	PMMA	-	LL3-DC38	5322472
Heat-resistant	Glass	Stainless steel	LL3-DW01	5315234
	Si	Stainless steel <sup>1)</sup>	LL3-DH01	5308091
Liquid level	PMMA	PTFE	LL3-DF02-S01	5321924
Tip adapters	-	-	LL3-DA01	5308127
			LL3-DA02	5308130

<sup>1)</sup> Stainless steel.


Through-beam system

B

Category	Core material	Sleeve material	Model name	Part no.
Threaded sleeve	PMMA	Stainless steel	LL3-TX01	5324173
		CuZn	LL3-TR01	5308052
			LL3-TK77	5313035
Smooth sleeve	PMMA	Stainless steel <sup>1)</sup>	LL3-TK05	5313034
Long end sleeve	PMMA	Stainless steel <sup>1)</sup>	LL3-TS08	5308061
Flat type	PMMA	PC	LL3-TE03	5325908
Area detection	PMMA	CuZn	LL3-TS14	5313039
		PA	LL3-TS40	5323971
		Brass (Br)	LL3-TZ09	5326598
Heat-resistant	Glass	End head: stainless steel, jacket: stainless steel, head: brass	LL3-TH08	5325978
		Stainless steel	LL3-TW01	5315233
LCDs/transparent objects/semiconductors	PMMA	-	LL3-TG04	5324499
Resistant to oil/chemicals	PMMA	PTFE	LL3-TY01	5308066
90° deflection	PMMA	PA	LL3-TV07	5322548
Tip adapters	-	-	LL3-TA01	5308128
			LL3-TA02	5308129

<sup>1)</sup> Stainless steel.

Recommended accessories

	Brief 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





## 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 re-

quirements. SICK's inductive, capacitive and magnetic proximity sensors offer a long service life, extreme ruggedness and the utmost precision. SICK intel-

ligently and reliably solves industry-specific and individual automation tasks.



**IM Standard** . . . . . **.C-72**  
The industry standard for inductive sensors



**IM Inox** . . . . . **.C-75**  
Single-piece stainless steel sensors for the highest demands



**IMF** . . . . . **.C-77**  
Inductive sensors for washdown environments



**IQ Standard** . . . . . **.C-79**  
Industry-proven – the first choice for reliable detection



**CM** . . . . . **C-82**  
Sensors in cylindrical housing



**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](http://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](http://www.mysick.com/en/IM_Standard)

**IME08**

- **Output function:** NO
- **Connection:** Connector M8, 3-pin

Housing	Sensing range S <sub>D</sub>	Installation type	Electrical wiring	Output type	Housing	Model name	Part no.	
M8 x 1	2 mm	Flush	DC 3-wire	NPN	Standard	IME08-02BNSZT0S	1040878	
					Short-body	IME08-02BNSZT0K	1040877	
				PNP	Standard	IME08-02BPSZT0S	1040870	
					Short-body	IME08-02BPSZT0K	1040869	
			DC 2-wire	Standard	IME08-02BDSZT0S	1067109		
				-	-	-		
	4 mm	Non-flush	DC 3-wire	NPN	Standard	IME08-04NNSZT0S	1040894	
						Short-body	IME08-04NNSZT0K	1040893
					PNP	Standard	IME08-04NPSZT0S	1040886
						Short-body	IME08-04NPSZT0K	1040885
				DC 2-wire	Standard	IME08-04NDSZT0S	1067177	
					-	-	-	



**IME12**

- **Output function:** NO
- **Connection:** Connector M12, 4-pin

Housing	Sensing range $S_n$	Installation type	Electrical wiring	Output type	Housing	Model name	Part no.
M12 x 1	4 mm	Flush	DC 3-wire	NPN	Standard	IME12-04BNSZCOS	1040772
					Short-body	IME12-04BNSZCOK	1040771
			DC 2-wire	-	Standard	IME12-04BPSZCOS	1040764
					Short-body	IME12-04BPSZCOK	1040763
	8 mm	Non-flush	DC 3-wire	NPN	Standard	IME12-04BDSZCOS	1067178
					Short-body	IME12-08NNSZCOS	1040788
			DC 2-wire	-	Standard	IME12-08NNSZCOK	1040787
					Short-body	IME12-08NPSZCOS	1040780
			DC 3-wire	PNP	Standard	IME12-08NPSZCOK	1040779
					Short-body	IME12-08NDSZCOS	1067180

**IME18**

- **Output function:** NO
- **Connection:** Connector M12, 4-pin










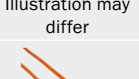
Housing	Sensing range $S_n$	Installation type	Electrical wiring	Output type	Housing	Model name	Part no.
M18 x 1	8 mm	Flush	DC 3-wire	NPN	Standard	IME18-08BNSZCOS	1040974
					Short-body	IME18-08BNSZCOK	1040973
			DC 2-wire	-	Standard	IME18-08BPSZCOS	1040966
					Short-body	IME18-08BPSZCOK	1040965
	12 mm	Non-flush	DC 3-wire	NPN	Standard	IME18-08BDSZCOS	1067207
					Short-body	IME18-12NNSZCOS	1040990
			DC 2-wire	-	Standard	IME18-12NNSZCOK	1040989
					Short-body	IME18-12NPSZCOS	1040982
			DC 3-wire	PNP	Standard	IME18-12NPSZCOK	1040981
					Short-body	IME18-12NDSZCOS	1067181

**IME30**

- **Output function:** NO
- **Connection:** Connector M12, 4-pin

Housing	Sensing range $S_n$	Installation type	Electrical wiring	Output type	Housing	Model name	Part no.
M30 x 1.5	15 mm	Flush	DC 3-wire	NPN	Standard	IME30-15BNSZCOS	1041038
					Short-body	IME30-15BNSZCOK	1041037
			DC 2-wire	-	Standard	IME30-15BPSZCOS	1041030
					Short-body	IME30-15BPSZCOK	1041029
	20 mm	Non-flush	DC 3-wire	NPN	Standard	IME30-15BDSZCOS	1067183
					Short-body	IME30-20NNSZCOS	1041054
			DC 2-wire	-	Standard	IME30-20NNSZCOK	1041053
					Short-body	IME30-20NPSZCOS	1041046
			DC 3-wire	PNP	Standard	IME30-20NPSZCOK	1041045
					Short-body	IME30-20NDSZCOS	1067184

Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting plate for M12 sensors, Steel, zinc coated, without mounting hardware	BEF-WG-M12	5321869
	Mounting plate for M18 sensors, Steel, zinc coated, without mounting hardware	BEF-WG-M18	5321870
	Mounting plate for M30 sensors, Steel, zinc coated, without mounting hardware	BEF-WG-M30	5321871
	Mounting bracket, M12 thread, Steel, zinc coated, without mounting hardware	BEF-WN-M12	5308447
	Mounting bracket, M18 thread, Steel, zinc coated, without mounting hardware	BEF-WN-M18	5308446
	Mounting bracket, M30 thread, Steel, zinc coated, without mounting hardware	BEF-WN-M30	5308445
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 3-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-G02M	6010785
	Head A: Female connector, M8, 3-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-W02M	6008489
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383





**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](http://www.mysick.com/en/IM_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/IM\\_Inox](http://www.mysick.com/en/IM_Inox)

**IM12**

- **Housing:** M12 x 1

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
6 mm	Flush	NO	NPN	Connector M12, 4-pin	IM12-06BNS-NC1	6027573
			PNP	Connector M12, 4-pin	IM12-06BPS-NC1	6027572
		NC	PNP	Connector M12, 4-pin	IM12-06BPO-NC1	6027574
10 mm	Non-flush	NO	NPN	Connector M12, 4-pin	IM12-10NNS-NC1	6027576
			PNP	Connector M12, 4-pin	IM12-10NPS-NC1	6027575

**IM18**

- **Housing:** M18 x 1







Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
10 mm	Flush	NO	NPN	Connector M12, 4-pin	IM18-10BNS-NC1	6027578
			PNP	Connector M12, 4-pin	IM18-10BPS-NC1	6027577
		NC	PNP	Connector M12, 4-pin	IM18-10BPO-NC1	6027579
20 mm	Non-flush	NO	NPN	Connector M12, 4-pin	IM18-20NNS-NC1	6027581
			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	NPN	Connector M12, 4-pin	IM30-20BNS-NC1	6027583
			PNP	Connector M12, 4-pin	IM30-20BPS-NC1	6027582
40 mm	Non-flush	NO	NPN	Connector M12, 4-pin	IM30-40NNS-NC1	6027585
			PNP	Connector M12, 4-pin	IM30-40NPS-NC1	6027584

Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting plate for M12 housing, stainless steel, without mounting hardware	BEF-WG-M12N	5320950
	Mounting plate for M18 housing, stainless steel, without mounting hardware	BEF-WG-M18N	5320948
	Mounting bracket for M12 housing, stainless steel, without mounting hardware	BEF-WN-M12N	5320949
	Mounting bracket for M18 housing, stainless steel, without mounting hardware	BEF-WN-M18N	5320947
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02MN	6028128
	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02MN	6028129



**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](http://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](http://www.mysick.com/en/IMF)

**IMF12**

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







Sensing range S <sub>n</sub>	Installation type	Output function	Electrical wiring	Model name	Part no.
2 mm	Flush	NC	DC 3-wire	IMF12-02BPVCO0S	6035454
		NO	DC 3-wire	IMF12-02BPSVCO0S	6035452
		Complementary	DC 4-wire	IMF12-02BPPVCO0S	6035215
4 mm	Flush	NC	DC 3-wire	IMF12-04BPVCO0S	6035462
		NO	DC 3-wire	IMF12-04BPSVCO0S	6035460
		Complementary	DC 4-wire	IMF12-04BPPVCO0S	6035219
	Non-flush	NC	DC 3-wire	IMF12-04NPVCO0S	6035458
		NO	DC 3-wire	IMF12-04NPSVCO0S	6035456
		Complementary	DC 4-wire	IMF12-04NPPVCO0S	6035217
8 mm	Non-flush	NC	DC 3-wire	IMF12-08NPVCO0S	6035466
		NO	DC 3-wire	IMF12-08NPSVCO0S	6035464
		Complementary	DC 4-wire	IMF12-08NPPVCO0S	6035221

IMF18

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

Sensing range $S_n$	Installation type	Output function	Electrical wiring	Model name	Part no.
5 mm	Flush	NC	DC 3-wire	IMF18-05BPOVCOS	6035470
		NO	DC 3-wire	IMF18-05BPSVCOS	6035468
		Complementary	DC 4-wire	IMF18-05BPPVCOS	6035223
8 mm	Flush	NC	DC 3-wire	IMF18-08BPOVCOS	6035478
		NO	DC 3-wire	IMF18-08BPSVCOS	6035476
		Complementary	DC 4-wire	IMF18-08BPPVCOS	6035227
	Non-flush	NC	DC 3-wire	IMF18-08NPOVCOS	6035474
		NO	DC 3-wire	IMF18-08NPSVCOS	6035472
		Complementary	DC 4-wire	IMF18-08NPPVCOS	6035225
12 mm	Non-flush	NC	DC 3-wire	IMF18-12NPOVCOS	6035482
		NO	DC 3-wire	IMF18-12NPSVCOS	6035480
		Complementary	DC 4-wire	IMF18-12NPPVCOS	6035229

Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting plate for M12 housing, stainless steel, without mounting hardware	BEF-WG-M12N	5320950
	Mounting plate for M18 housing, stainless steel, without mounting hardware	BEF-WG-M18N	5320948
	Mounting bracket for M12 housing, stainless steel, without mounting hardware	BEF-WN-M12N	5320949
	Mounting bracket for M18 housing, stainless steel, without mounting hardware	BEF-WN-M18N	5320947
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02MN	6028128
	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02MN	6028129



**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](http://www.mysick.com/en/IQ_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/IQ\\_Standard](http://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 <sub>n</sub>	Installation type	Output type	Connection	Model name	Part no.
3 mm	Flush	NPN	Connector M8, 3-pin	IQ10-03BNSKT0S	1055455
			Cable, 3-wire, 2 m, PVC	IQ10-03BNSKW2S	1055450
		PNP	Connector M8, 3-pin	IQ10-03BPSKT0S	1055453
			Cable, 3-wire, 2 m, PVC	IQ10-03BPSKW2S	1055447
6 mm	Non-flush	NPN	Connector M8, 3-pin	IQ10-06NNSKT0S	1055463
			Cable, 3-wire, 2 m, PVC	IQ10-06NNSKW2S	1055459
		PNP	Connector M8, 3-pin	IQ10-06NPSKT0S	1055461
			Cable, 3-wire, 2 m, PVC	IQ10-06NPSKW2S	1055457

**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	NPN	Connector M8, 3-pin	IQ12-04BNSKT0S	1055434
			Cable, 3-wire, 2 m, PVC	IQ12-04BNSKW2S	1055430
		PNP	Connector M8, 3-pin	IQ12-04BPSKT0S	1055432
			Cable, 3-wire, 2 m, PVC	IQ12-04BPSKW2S	1055428
8 mm	Non-flush	PNP	Connector M8, 3-pin	IQ12-08NPSKT0S	1055440
			Cable, 3-wire, 2 m, PVC	IQ12-08NPSKW2S	1055436
		NPN	Connector M8, 3-pin	IQ12-08NNSKT0S	1055442
			Cable, 3-wire, 2 m, PVC	IQ12-08NNSKW2S	1055438

**IQ40**

Sensing range $S_n$	Installation type	Output function	Output type	Housing	Electrical wiring	Connection	Model name	Part no.
15 mm	Flush	Complementary	PNP	40 mm x 40 mm x 118 mm	DC 4-wire	Cable gland	IQ40-15BPP-KK1	6025814
		NC or NO	PNP	40 mm x 40 mm x 121 mm	DC 3-wire	Terminal connection with M20 gland	IQ40-15BPP-KK0	7900219
			-	40 mm x 40 mm x 121 mm	AC/DC 2-wire	Terminal connection with M20 gland	IQ40-15BUP-KK0	7902136
				40 mm x 40 mm x 118 mm	AC 2-wire	Terminal connection with M20 gland	IQ40-15BAP-KK1	6025816
			DC 2-wire	Terminal connection with M20 gland	IQ40-15BDP-KK1	6025817		
20 mm	Flush	Complementary	PNP	40 mm x 40 mm x 66 mm	DC 4-wire	Connector M12, 4-pin	IQ40-20BPPK0K	6037072
		NO	PNP	40 mm x 40 mm x 66 mm	DC 3-wire	Connector M12, 4-pin	IQ40-20BPSK0K	6037070
	Non-flush	Complementary	PNP	40 mm x 40 mm x 118 mm	DC 4-wire	Terminal connection with M20 gland	IQ40-20NPP-KK1	6025815
		NC or NO	PNP	40 mm x 40 mm x 121 mm	DC 3-wire	Terminal connection with M20 gland	IQ40-20NPP-KK0	7900221
			-	40 mm x 40 mm x 121 mm	AC/DC 2-wire	Terminal connection with M20 gland	IQ40-20NUP-KK0	7902137
		40 mm	Non-flush	NO	PNP	40 mm x 40 mm x 66 mm	DC 3-wire	Connector M12, 4-pin
Complementary	PNP			40 mm x 40 mm x 66 mm	DC 4-wire	Connector M12, 4-pin	IQ40-40NPPK0K	6037073



IQ80

Sensing range S <sub>n</sub>	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-KCO	6026473
60 mm	Non-flush	NC or NO	PNP	80 mm x 40 mm x 105 mm	DC 3-wire	Terminal connection with M20 gland	IQ80-60NPP-KKO	7900227
			PNP, NPN	80 mm x 40 mm x 105 mm	AC/DC 2-wire	Terminal connection with M20 gland	IQ80-60NUP-KKO	7902138



Recommended accessories

	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 3-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-G02M	6010785
	Head A: Female connector, M8, 3-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-W02M	6008489
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383



### 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](http://www.mysick.com/en/CM)

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/CM](http://www.mysick.com/en/CM)

#### CM12

- **Housing:** M12 x 1
- **Electrical wiring:** DC 4-wire

Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
8 mm	Non-flush, flush	Programmable	PNP, NPN	Connector M12, 4-pin	CM12-08EBP-KC1	6051030
				Cable, 4-wire, 2 m, PVC	CM12-08EBP-KW1	6051029

#### 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	NPN	Connector M12, 4-pin	CM18-08BNP-KC1	6021456
				Cable, 4-wire, 2 m, PVC	CM18-08BNP-KW1	6021455
			PNP	Connector M12, 4-pin	CM18-08BPP-KC1	6020388
				Cable, 4-wire, 2 m, PVC	CM18-08BPP-KW1	6020136








Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
12 mm	Non-flush	Complementary	NPN	Connector M12, 4-pin	CM18-12NNP-KC1	6021458
				Cable, 4-wire, 2 m, PVC	CM18-12NNP-KW1	6021457
			PNP	Connector M12, 4-pin	CM18-12NPP-KC1	6020410
				Cable, 4-wire, 2 m, PVC	CM18-12NPP-KW1	6020389

## CM30

- **Housing:** M30 x 1.5
- **Electrical wiring:** DC 4-wire

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
16 mm	Flush	Complementary	NPN	Connector M12, 4-pin	CM30-16BNP-KC1	6021460
				Cable, 4-wire, 2 m, PVC	CM30-16BNP-KW1	6021459
			PNP	Connector M12, 4-pin	CM30-16BPP-KC1	6020475
				Cable, 4-wire, 2 m, PVC	CM30-16BPP-KW1	6020473
25 mm	Non-flush	Complementary	NPN	Connector M12, 4-pin	CM30-25NNP-KC1	6021462
				Cable, 4-wire, 2 m, PVC	CM30-25NNP-KW1	6021461
			PNP	Connector M12, 4-pin	CM30-25NPP-KC1	6020477
				Cable, 4-wire, 2 m, PVC	CM30-25NPP-KW1	6020476

## Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket, M18 thread, Steel, zinc coated, without mounting hardware	BEF-WN-M18	5308446
	Mounting bracket, M18 thread, Stainless steel, without mounting hardware	BEF-WN-M18N	5320947
	Mounting bracket, M30 thread, Steel, zinc coated, without mounting hardware	BEF-WN-M30	5308445
<b>Terminal and alignment brackets</b>			
	Clamping block for round sensors M12, without fixed stop, Plastic (PA12), glass-fiber reinforced, Mounting hardware included	BEF-KH-M12	2051479
	Clamping block for round sensors M12, with fixed stop, Plastic (PA12), glass-fiber reinforced, Mounting hardware included	BEF-KHF-M12	2051480
	Clamping block for round sensors M18, without fixed stop, Plastic (PA12), glass-fiber reinforced, Mounting hardware included	BEF-KH-M18	2051481
	Clamping block for round sensors M18, with fixed stop, Plastic (PA12), glass-fiber reinforced, Mounting hardware included	BEF-KHF-M18	2051482

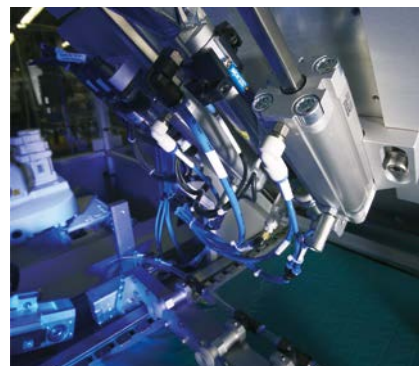


	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-G05M	6009866
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383
	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-W05M	6009867





## 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.



**MZC1** . . . . . **D-88**  
Drop-in, install, done



**RZC1**. . . . . **D-90**  
Drop-in, install, done



**MZT8**. . . . . **D-92**  
Compact, resistant, easily installed



**RZT6**. . . . . **D-94**  
Widest portfolio for versatile tasks



## 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

## 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

- 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)

- 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](http://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](http://www.mysick.com/en/MZC1)

### MZC1 – 4 mm

- **Overrun distance typ.:** 4 mm
- **Output function:** NO

Output type	Connection type	Enclosure rating	Cable material	Model name	Part no.
PNP	Cable, 3-wire, 2 m	IP 68, IP 69K	PUR	MZC1-2V2PS-KU0	1059738
	Cable, 3-wire, 5 m	IP 68, IP 69K	PUR	MZC1-2V2PS-KUB	1059739
			PVC	MZC1-2V2PS-KWB	1059741
	Cable with connector M8, 3-pin, 0.3 m	IP 68	PUR	MZC1-2V2PS-KP0	1059735
	Cable with connector M8, 3-pin, with knurled nuts, 0.3 m	IP 68	PUR	MZC1-2V2PS-KR0	1059737
NPN	Cable with connector M12, 3-pin, 0.3 m	IP 68	PUR	MZC1-2V2PS-KQ0	1059736
	Cable, 3-wire, 2 m	IP 68, IP 69K	PUR	MZC1-2V2NS-KU0	1059743
	Cable with connector M8, 3-pin, 0.3 m	IP 68	PUR	MZC1-2V2NS-KP0	1059744
	Cable with connector M8, 3-pin, with knurled nuts, 0.3 m	IP 68	PUR	MZC1-2V2NS-KR0	1059742









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, 3-wire, 2 m	IP 68, IP 69K	PUR	MZC1-4V3PS-KU0	1059755
	Cable with connector M8, 3-pin, 0.3 m	IP 68	PUR	MZC1-4V3PS-KP0	1059752
	Cable with connector M8, 3-pin, with knurled nuts, 0.3 m	IP 68	PUR	MZC1-4V3PS-KR0	1059753
	Cable with connector M12, 3-pin, 0.3 m	IP 68	PUR	MZC1-4V3PS-KQ0	1059754
NPN	Cable, 3-wire, 2 m	IP 68, IP 69K	PUR	MZC1-4V3NS-KU0	1059756
	Cable with connector M8, 3-pin, 0.3 m	IP 68	PUR	MZC1-4V3NS-KP0	1059757



Recommended accessories

	Brief description	Model name	Part no.
<b>Brackets for cylinder sensors</b>			
	Mounting bracket for mounting on SMC rails ECDQ2 (C-slot), Aluminum, without mounting hardware	BEF-KHZ-TC1	2046441
	Mounting bracket for mounting on SMC rails CDQ2 (C-slot), Aluminum	BEF-KHZ-TC2	2046442
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 3-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-G02M	6010785
	Head A: Female connector, M8, 3-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-W02M	6008489
	Head A: Female connector, M12, 3-pin, straight Head B: cable Cable: drag chain use, TPU, halogen-free, unshielded, 2 m	DOL-1203-G02MC	6039075
	Head A: Female connector, M12, 3-pin, angled Head B: cable Cable: drag chain use, TPU, halogen-free, unshielded, 2 m	DOL-1203-W02MC	6039078



## 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

## 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

- 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)

- Extremely rugged VISTAL-housing - rated for IP67 respectively IP 68 and IP 69K, enlarging sensor life time



→ [www.mysick.com/en/RZC1](http://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](http://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, 3-wire, 2 m	IP 68 <sup>1)</sup> IP 69K <sup>2)</sup>	RZC1-04ZRS-KU0	1059746
	Cable with connector M8, 3-pin, 0.3 m	IP 67 <sup>1)</sup>	RZC1-04ZRS-KPO	1059747

<sup>1)</sup> According to EN 60529 (IP67/IP68)

<sup>2)</sup> According to DIN 40050 (IP69K)







### AC/DC 2-wire

- **Electrical wiring:** AC/DC 2-wire
- **Voltage drop:** < 3.2 V
- **Output current  $I_a$ :** ≤ 50 mA

Supply voltage	Connection	Enclosure rating	Model name	Part no.
5 V AC/DC ... 120 V AC/DC	Cable, 2-wire, 2 m	IP 67 <sup>1)</sup>	RZC1-04ZUS-KU0	1059750
5 V AC/DC ... 30 V AC/DC	Cable with connector M8, 2-pin, 0.3 m	IP 67 <sup>1)</sup>	RZC1-04ZUS-KPO	1059751

<sup>1)</sup> According to EN 60529 (IP67/IP68)

Recommended accessories

	Brief description	Model name	Part no.
<b>Brackets for cylinder sensors</b>			
	Mounting bracket for mounting on SMC rails ECDQ2 (C-slot), Aluminum, without mounting hardware	BEF-KHZ-TC1	2046441
	Mounting bracket for mounting on SMC rails CDQ2 (C-slot), Aluminum	BEF-KHZ-TC2	2046442
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 3-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-G02M	6010785
	Head A: Female connector, M8, 3-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-W02M	6008489
	Head A: Female connector, M12, 3-pin, straight Head B: cable Cable: drag chain use, TPU, halogen-free, unshielded, 2 m	DOL-1203-G02MC	6039075
	Head A: Female connector, M12, 3-pin, angled Head B: cable Cable: drag chain use, TPU, halogen-free, unshielded, 2 m	DOL-1203-W02MC	6039078





### 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](http://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](http://www.mysick.com/en/MZT8)

### MZT8 - 3 mm

- **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	NC	Cable, 3-wire, 2 m	PUR	IP 68, IP 69K	MZT8-03VPO-KU0	1044931
		Cable with connector M8, 3-pin, 0.3 m	PUR	IP 68	MZT8-03VPO-KP0	1044930
	NO	Cable, 3-wire, 2 m	PUR	IP 68, IP 69K	MZT8-03VPS-KU0	1044469
		Cable with connector M8, 3-pin, 0.3 m	PUR	IP 68	MZT8-03VPS-KP0	1044458
		Cable with connector M8, 3-pin, with knurled nuts, 0.5 m	PUR	IP 68	MZT8-03VPS-KR0	1044459
		Cable with connector M12, 3-pin, 0.3 m	PUR	IP 68	MZT8-03VPS-KQ0	1044460
NPN	NO	Cable, 3-wire, 2 m	PUR	IP 68, IP 69K	MZT8-03VNS-KU0	1044934
		Cable with connector M8, 3-pin, 0.3 m	PUR	IP 68	MZT8-03VNS-KP0	1044932

MZT8 - 9 mm

- **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	PUR	IP 68, IP 69K	MZT8-28VPS-KU0	1048049
		Cable with connector M8, 3-pin, 0.3 m	PUR	IP 68	MZT8-28VPS-KPO	1048048
		Cable with connector M8, 3-pin, with knurled nuts, 0.5 m	PUR	IP 68	MZT8-28VPS-KRO	1048050
		Cable with connector M12, 3-pin, 0.3 m	PUR	IP 68	MZT8-28VPS-KQ0	1048051

Recommended accessories

	Brief description	Model name	Part no.
<b>Brackets for cylinder sensors</b>			
	Mounting bracket for integrated profile cylinder/tie-rod cylinder, Zinc diecast, Mounting hardware included	BEF-KHZ-PT1	2022702
	Mounting bracket on round body cylinder with piston diameter of 8 mm to 130 mm, Plastic, nickel silver, without mounting hardware	BEF-KHZ-RT1-130	5311506
	Mounting bracket on round body cylinder with diameter of 8 mm to 25 mm, Plastic, nickel silver, without mounting hardware	BEF-KHZ-RT1-25	5311171
	Mounting bracket on round body cylinder with diameter of 8 mm to 63 mm, Plastic, nickel silver, without mounting hardware	BEF-KHZ-RT1-63	5311172
	Mounting bracket for cylinder with dovetail slot, Aluminum, without mounting hardware	BEF-KHZ-ST1	2022703
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 3-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-G02M	6010785
	Head A: Female connector, M8, 3-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-W02M	6008489



D



## At a glance

- Compact housing design
- Combined Allen and flathead fixing screw
- LED function indicator

- For all commonly used cylinders with T-slots, e.g., Festo or SMC and it can be applied to multiple cylinders types such as round, tie-rod, integrated profile or dove-tail cylinders with mounting brackets

## Your benefits

- High resistance to shock, vibration and liquids
- Drop-in T-slot mounting from above makes assembly easy

- Easy installation with Allen wrench or flat head screwdriver

→ [www.mysick.com/en/RZT6](http://www.mysick.com/en/RZT6)

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/RZT6](http://www.mysick.com/en/RZT6)

### AC/DC 2-wire

- **Electrical wiring:** AC/DC 2-wire
- **Supply voltage:** 10 V AC/DC ... 120 V AC/DC
- **Output current  $I_a$ :** ≤ 100 mA

Connection	Cable material	Enclosure rating	Model name	Part no.
Cable, 2-wire, 2 m	PVC	IP 67 <sup>1)</sup>	RZT6-03ZUS-KW0	1025522

<sup>1)</sup> According to EN 60529.






### AC/DC 3-wire

- **Electrical wiring:** AC/DC 3-wire
- **Supply voltage:** 10 V AC/DC ... 30 V AC/DC
- **Output current  $I_a$ :** ≤ 500 mA

Connection	Cable material	Enclosure rating	Model name	Part no.
Cable, 3-wire, 2 m	PVC	IP 67 <sup>1)</sup>	RZT6-03ZRS-KW0	1023974
Cable, 3-wire, 5 m	PVC	IP 67 <sup>1)</sup>	RZT6-03ZRS-KWB	1025830
Cable with connector M8, 3-pin, 0.3 m	PUR	IP 67 <sup>1)</sup>	RZT6-03ZRS-KP0	1023973
Cable with connector M8, 3-pin, with knurled nuts, 0.5 m	PUR	IP 67 <sup>1)</sup>	RZT6-03ZRS-KR0	1023975
Cable with connector M12, 3-pin, 0.3 m	PUR	IP 67 <sup>1)</sup>	RZT6-03ZRS-KQ0	1025549

<sup>1)</sup> According to EN 60529.

Recommended accessories

	Brief description	Model name	Part no.
<b>Brackets for cylinder sensors</b>			
	Mounting bracket for integrated profile cylinder/tie-rod cylinder, Zinc diecast, Mounting hardware included	BEF-KHZ-PT1	2022702
	Mounting bracket on round body cylinder with diameter of 8 mm to 25 mm, Plastic, nickel silver, without mounting hardware	BEF-KHZ-RT1-25	5311171
	Mounting bracket on round body cylinder with diameter of 8 mm to 63 mm, Plastic, nickel silver, without mounting hardware	BEF-KHZ-RT1-63	5311172
	Mounting bracket for cylinder with dovetail slot, Aluminum, without mounting hardware	BEF-KHZ-ST1	2022703
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 3-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-G02M	6010785
	Head A: Female connector, M8, 3-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-W02M	6008489





E

## 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 identifica-

tion 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.





**CLV62x** . . . . . **E-98**  
 Powerful scanner – flexible use



**CLV63x** . . . . . **E-100**  
 Intelligent scanning solution for logistics and automation



**CLV65x** . . . . . **E-102**  
 Always in auto focus



**Lector®62x** . . . . . **E-104**  
 Clever. Simple. Industrial.



**IDM16x** . . . . . **E-106**  
 Industrial mobile reliability



**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](http://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](http://www.mysick.com/en/CLV62x)

Code resolution	Reading distance		Version
	Front	Side	
0.2 mm ... 1 mm	60 mm ... 365 mm <sup>1)</sup> (depending on type)	60 mm ... 365 mm <sup>1)</sup>	<b>CLV620 Mid Range</b>
0.35 mm ... 1 mm	60 mm ... 730 mm <sup>1)</sup>	60 mm ... 730 mm <sup>1)</sup>	<b>CLV621 Long Range</b>
0.15 mm ... 0.5 mm	55 mm ... 200 mm <sup>1)</sup>	55 mm ... 200 mm <sup>1)</sup>	<b>CLV622 Short Range</b>

<sup>1)</sup> For details see reading field diagram.









- **Focus:** Fixed focus

Version	Connection type	Reading field	Scanner design	Enclosure rating	Front screen	Model name	Part no.
<b>CLV620 Mid Range</b>	Cable	Front	Line scanner	IP 65	Glass	CLV620-0000	1040288
			Raster scanner	IP 65	Glass	CLV620-1000	1041548
		Side (105°)	Line scanner	IP 65	Glass	CLV620-2000	1041550
			Raster scanner	IP 65	Glass	CLV620-3000	1041552
	Ethernet	Front	Line scanner	IP 65	Glass	CLV620-0120	1041547
			Raster scanner	IP 65	Glass	CLV620-1120	1041549
			Line scanner	IP 65	Glass	CLV620-0830	1050940
		Side (105°)	Line scanner	IP 65	Glass	CLV620-2120	1041551
			Raster scanner	IP 65	Glass	CLV620-3120	1041553
		Front	Line scanner	IP 69K	Plastic	CLV620-0831S01	1066374
			Raster scanner	IP 69K	Plastic	CLV620-1831S01	1067933



Version	Connection type	Reading field	Scanner design	Enclosure rating	Front screen	Model name	Part no.
<b>CLV621 Long Range</b>	Cable	Front	Line scanner	IP 65	Glass	CLV621-0000	1041784
			Raster scanner	IP 65	Glass	CLV621-1000	1041786
		Side (105°)	Line scanner	IP 65	Glass	CLV621-2000	1041788
			Raster scanner	IP 65	Glass	CLV621-3000	1041790
	Ethernet	Front	Line scanner	IP 65	Glass	CLV621-0120	1041785
			Raster scanner	IP 65	Glass	CLV621-1120	1041787
			Line scanner	IP 65	Glass	CLV621-0830	1067571
			Raster scanner	IP 65	Glass	CLV621-1830	1067572
		Side (105°)	Line scanner	IP 65	Glass	CLV621-2120	1041789
			Raster scanner	IP 65	Glass	CLV621-3120	1041791
<b>CLV622 Short Range</b>	Cable	Front	Line scanner	IP 65	Glass	CLV622-0000	1041792
			Raster scanner	IP 65	Glass	CLV622-1000	1041794
		Side (105°)	Line scanner	IP 65	Glass	CLV622-2000	1041796
			Raster scanner	IP 65	Glass	CLV622-3000	1041798
	Ethernet	Front	Line scanner	IP 65	Glass	CLV622-0120	1041793
			Raster scanner	IP 65	Glass	CLV622-1120	1041795
			Line scanner	IP 65	Glass	CLV622-2120	1041797
		Side (105°)	Raster scanner	IP 65	Glass	CLV622-3120	1041799

**Recommended accessories**

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Bracket with adapter board	Mounting bracket	2042902
<b>Modules</b>			
	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
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 12-pin, straight Head B: male connector, D-Sub-HD, 15-pin, straight Cable: Power, serial, CAN, digital I/Os, unshielded, 2 m	Connection cable (male connector-female connector)	2041834
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, PUR, shielded, 2 m	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](http://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](http://www.mysick.com/en/CLV63x)

Code resolution	Reading distance			Version
	Front	Side	Oscillating mirror	
0.35 mm ... 1 mm	60 mm ... 735 mm <sup>1)</sup> 77 mm ... 718 mm <sup>1)</sup> (depending on type)	44 mm ... 683 mm <sup>1)</sup>	45 mm ... 659 mm <sup>1)</sup>	<b>CLV630 Long Range</b>
0.25 mm ... 0.5 mm	90 mm ... 450 mm <sup>1)</sup> (depending on type)	74 mm ... 412 mm <sup>1)</sup>	78 mm ... 397 mm <sup>1)</sup> (depending on type)	<b>CLV631 Mid Range</b>
0.2 mm ... 0.5 mm	60 mm ... 285 mm <sup>1)</sup> (depending on type)	44 mm ... 256 mm <sup>1)</sup>	45 mm ... 245 mm <sup>1)</sup>	<b>CLV632 Short Range</b>

<sup>1)</sup> 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.
<b>CLV630 Long Range</b>	Cable	Front	Line scanner	Optional	IP 65	Glass	CLV630-0000	1040706
			Raster scanner	Optional	IP 65	Glass	CLV630-1000	1041970
		Side (105°)	Line scanner	Optional	IP 65	Glass	CLV630-2000	1041972
			Raster scanner	Optional	IP 65	Glass	CLV630-3000	1041974
		Oscillating mirror	Line scanner	Optional	IP 65	Glass	CLV630-6000	1041976
		Ethernet	Front	Line scanner	Optional	IP 65	Glass	CLV630-0120
	Raster scanner			Optional	IP 65	Glass	CLV630-1120	1041971
	Side (105°)		Line scanner	Optional	IP 65	Glass	CLV630-2120	1041973
			Raster scanner	Optional	IP 65	Glass	CLV630-3120	1041975
	Oscillating mirror		Line scanner	Optional	IP 65	Glass	CLV630-6120	1041977
	Front		Line scanner	-	IP 69K	Plastic	CLV630-0831S01	1068600

Version	Connection type	Reading field	Scanner design	Heating	Enclosure rating	Front screen	Model name	Part no.	
<b>CLV631 Mid Range</b>	Cable	Front	Line scanner	Optional	IP 65	Glass	CLV631-0000	1041978	
			Raster scanner	Optional	IP 65	Glass	CLV631-1000	1041980	
		Side (105°)	Line scanner	Optional	IP 65	Glass	CLV631-2000	1041982	
			Raster scanner	Optional	IP 65	Glass	CLV631-3000	1041984	
		Oscillating mirror	Line scanner	Optional	IP 65	Glass	CLV631-6000	1041986	
		Ethernet	Front	Line scanner	Optional	IP 65	Glass	CLV631-0120	1041979
	Raster scanner			Optional	IP 65	Glass	CLV631-1120	1041981	
	Side (105°)		Line scanner	Optional	IP 65	Glass	CLV631-2120	1041983	
			Raster scanner	Optional	IP 65	Glass	CLV631-3120	1041985	
	Oscillating mirror		Line scanner	Optional	IP 65	Glass	CLV631-6120	1041987	
	Front		Line scanner	-	IP 69K	Plastic	CLV631-0831S01	1062070	
	Oscillating mirror		Line scanner	-	IP 69K	Plastic	CLV631-6831S01	1062136	
	<b>CLV632 Short Range</b>		Cable	Front	Line scanner	Optional	IP 65	Glass	CLV632-0000
		Raster scanner			Optional	IP 65	Glass	CLV632-1000	1041990
Side (105°)		Line scanner		Optional	IP 65	Glass	CLV632-2000	1041992	
		Raster scanner		Optional	IP 65	Glass	CLV632-3000	1041994	
Oscillating mirror		Line scanner		Optional	IP 65	Glass	CLV632-6000	1041996	
Ethernet		Front		Line scanner	Optional	IP 65	Glass	CLV632-0120	1041989
			Raster scanner	Optional	IP 65	Glass	CLV632-1120	1041991	
		Side (105°)	Line scanner	Optional	IP 65	Glass	CLV632-2120	1041993	
			Raster scanner	Optional	IP 65	Glass	CLV632-3120	1041995	
		Oscillating mirror	Line scanner	Optional	IP 65	Glass	CLV632-6120	1041997	
		Front	Raster scanner	-	IP 69K	Plastic	CLV632-1831S01	1062530	



**Recommended accessories**

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Hanger-shaped mounting bracket, Mounting hardware included	Mounting bracket	2042800
<b>Modules</b>			
	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
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 12-pin, straight Head B: male connector, D-Sub-HD, 15-pin, straight Cable: Power, serial, CAN, digital I/Os, unshielded, 2 m	Connection cable (male connector-female connector)	2041834
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, PUR, shielded, 2 m	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](http://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](http://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 <sup>1)</sup>	125 mm ... 1,570 mm <sup>1)</sup>	160 mm ... 1,400 mm <sup>1)</sup>	<b>CLV650 Standard Density</b>
0.5 mm	170 mm ... 930 mm <sup>1)</sup>	155 mm ... 880 mm <sup>1)</sup>	–	<b>CLV651 Low Density</b>

<sup>1)</sup> 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.
<b>CLV650 Standard Density</b>	Cable	Front	Optional	CLV650-0000	1041290
		Oscillating mirror	Optional	CLV650-6000	1042124
	Ethernet	Front	Optional	CLV650-0120	1042121
		Front, with polarizing filter	–	CLV650-0120S01	1051957
		Oscillating mirror	Optional	CLV650-6120	1042125
<b>CLV651 Low Density</b>	Cable	Front	Optional	CLV651-0000	1046557
		Oscillating mirror	Optional	CLV651-6000	1046559
	Ethernet	Front	Optional	CLV651-0120	1046558
		Oscillating mirror	Optional	CLV651-6120	1046560

Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Hanger-shaped mounting bracket, Mounting hardware included	Mounting bracket	2042800
<b>Modules</b>			
	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
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 12-pin, straight Head B: male connector, D-Sub-HD, 15-pin, straight Cable: Power, serial, CAN, digital I/Os, unshielded, 2 m	Connection cable (male connector-female connector)	2041834
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, PUR, shielded, 2 m	SSL-2J04-G02ME	6034414



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
- IDpro 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](http://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](http://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 ECO	7 mm	Red	IP 65	ICR620E-H12013 ECO	1054507
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
		Blue	IP 65	ICR620D-T17503 DPM Plus Solar	1060912
	12 mm	Red, blue	IP 65	ICR620D-T31503 DPM Plus	1064255
	18 mm	Red, blue	IP 65	ICR620D-T51503 DPM Plus	1064256
Lector®620 OCR	7 mm	Red, blue	IP 65	ICR620C-T11503S50 OCR	1062803

### Recommended accessories

	Brief description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket (simple bracket), Mounting hardware included	Mounting bracket	2020410



	Brief description	Model name	Part no.
<b>Modules</b>			
	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
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 17-pin, straight Head B: male connector, D-Sub-HD, 15-pin, straight Cable: Power, serial, CAN, digital I/Os, unshielded, 2 m	Connection cable (male connector-female connector)	2055419
	Head A: male connector, M12, 4-pin, D-coded Head B: male connector, M12, 4-pin, D-coded Cable: Ethernet, shielded, 2 m	SSL-1204-G02ME	6034420
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, PUR, shielded, 2 m	SSL-2J04-G02ME	6034414
	Head A: male connector, USB-A Head B: male connector, Micro-B Cable: USB 2.0, unshielded, 2 m	USB cable	6036106





**At a glance**

- Identification of all popular 1D codes, with PDF version also stacked codes
- Compact housing with up to IP 65 with-standing 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](http://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](http://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	Single scanner	-	IDM160-01E	6045078
				IDM160-PDF01E	6045081
		Kit	6045078 IDM160-01E 6045194 Connection cable	IDM160 PS/2 Kit	6045076
			6045078 IDM160-01E 6045196 Connection cable	IDM160 RS-232 Kit	6045077
			6045078 IDM160-01E 6045196 Connection cable 6036722 Power supply unit	IDM160 RS-232 Power Supply Kit	1056245
			6045078 IDM160-01E 6045195 Connection cable	IDM160 USB Kit	6045058
			6045081 IDM160-PDF01E 6045194 Connection cable	IDM160PDF PS/2 Kit	6045079
			6045081 IDM160-PDF01E 6045196 Connection cable 6036722 Power supply unit	IDM160PDF RS-232 Power Supply Kit	1056246
			6045081 IDM160-PDF01E 6045195 Connection cable	IDM160PDF USB Kit	6045059
			6045078 IDM160-01E 2057709 Adapter cable 6045196 Connection cable 1058965 CDF600-2100	IDM160 CDF600-2100 PROFIBUS Kit	1063767



Sub product family	Field of application	Items supplied	Included in delivery	Model name	Part no.	
<b>IDM160 Corded</b>	Industrial	Kit	6045078 IDM160-01E 2057709 Adapter cable 6045196 Connection cable 1058966 CDF600-2103	IDM160 CDF600-2103 PROFIBUS Kit	1063768	
		Single scanner	-	IDM160-BT11E IDM160-PDFBT11E	6045085 6045088	
<b>IDM161 Bluetooth</b>	Cordless, industrial	Kit	6045085 IDM160-BT11E 6045194 Connection cable 6045197 Base station 6036722 Power supply unit	IDM160BT PS/2 Kit	6045082	
			6045085 IDM160-BT11E 6045196 Connection cable 6045197 Base station 6036722 Power supply unit	IDM160BT RS-232 Kit	6045083	
		Kit	6045085 IDM160-BT11E 6045195 Connection cable 6045197 Base station 6036722 Power supply unit	IDM160BT USB Kit	6045060	
			6045088 IDM160-PDFBT11E 6045194 Connection cable 6045197 Base station 6036722 Power supply unit	IDM160PDF BT PS/2 Kit	6045086	
			6045088 IDM160-PDFBT11E 6045196 Connection cable 6045197 Base station 6036722 Power supply unit	IDM160PDF BT RS-232 Kit	6045087	
			6045088 IDM160-PDFBT11E 6045195 Connection cable 6045197 Base station 6036722 Power supply unit	IDM160PDF BT USB Kit	6045061	
			Single scanner	-	IDM160-WLAN12E IDM160-PDFWLAN12E	6047650 6047651
			Kit	6047650 IDM160-WLAN12E 6036728 Connection cable 6045198 Charging station 6036722 Power supply unit	IDM160 WLAN Kit	6045062
		6047651 IDM160-PDFWLAN12E 6036728 Connection cable 6045198 Charging station 6036722 Power supply unit		IDM160PDF WLAN Kit	6045063	

**Recommended accessories**

	Brief description	Model name	Part no.
<b>Other mounting accessories</b>			
	Desk holder	Table mount	6045192
	Tripod mount for industrial hand-held scanner	Tripod mount	6045193
<b>Plug connectors and cables</b>			
	Head A: male connector, USB-A Head B: male connector, RJ45 Cable: unshielded, 1.8 m For keyboard wedge or USB Com Port Emulation	Connection cable	6045195
	Head A: male connector Head B: male connector Cable: unshielded, 2 m	Connection cable	6045194
	Head A: male connector, RJ45, 10-pin, straight Head B: Female connector, D-Sub, 9-pin, straight Cable: RS-232 TTL, unshielded, 1.8 m Voltage via pin 9 or external power supply required	Connection cable	6045196



F

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 measure-

ment, 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.



F

	<b>LFP Inox</b> . . . . . The clean solution	<b>F-110</b>
	<b>LFP Cubic</b> . . . . . Flexible up to the probe tip	<b>F-112</b>
	<b>LFV200</b> . . . . . The point level sensor for all kinds of liquids	<b>F-114</b>
	<b>UP56</b> . . . . . Tough, non-contact, pressure-resistant	<b>F-117</b>
	<b>MHF15</b> . . . . . Simple, compact and robust	<b>F-119</b>
	<b>PBS</b> . . . . . Universal pressure switch	<b>F-120</b>
	<b>PBT</b> . . . . . All-around pressure transmitter	<b>F-122</b>
	<b>LFH</b> . . . . . At a high level	<b>F-124</b>
	<b>TBS</b> . . . . . Temperature monitoring made easy	<b>F-126</b>



### At a glance

- Level monitoring in hygienic applications
- Manually cuttable 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 cuttable 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

F

→ [www.mysick.com/en/LFP\\_Inox](http://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](http://www.mysick.com/en/LFP_Inox)

- **Enclosure rating:** IP 67: EN 60529, IP 69K: EN 40050
- **Process connection:** G 3/4 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
	400 mm	LFP0400-G1NMB	1052069
	500 mm	LFP0500-G1NMB	1052070
	600 mm	LFP0600-G1NMB	1052071
	700 mm	LFP0700-G1NMB	1052072
	800 mm	LFP0800-G1NMB	1052073
	900 mm	LFP0900-G1NMB	1052074
	1,000 mm	LFP1000-G1NMB	1052075
	1,100 mm	LFP1100-G1NMB	1052076
	1,200 mm	LFP1200-G1NMB	1052077
	1,300 mm	LFP1300-G1NMB	1052078
	1,400 mm	LFP1400-G1NMB	1052079
	1,500 mm	LFP1500-G1NMB	1052080
	1,600 mm	LFP1600-G1NMB	1052081
1,700 mm	LFP1700-G1NMB	1052082	

Housing design	Probe length	Model name	Part no.
with PMMA viewing window	1,800 mm	LFP1800-G1NMB	1052083
	1,900 mm	LFP1900-G1NMB	1052084
	2,000 mm	LFP2000-G1NMB	1052085
with closed cover	300 mm	LFP0300-G2NMB	1056287
	400 mm	LFP0400-G2NMB	1056225
	500 mm	LFP0500-G2NMB	1056288
	600 mm	LFP0600-G2NMB	1056289
	700 mm	LFP0700-G2NMB	1056290
	800 mm	LFP0800-G2NMB	1056291
	1,000 mm	LFP1000-G2NMB	1056204
	1,200 mm	LFP1200-G2NMB	1056294
	1,400 mm	LFP1400-G2NMB	1056296
	1,500 mm	LFP1500-G2NMB	1056297
	1,600 mm	LFP1600-G2NMB	1056298
	1,700 mm	LFP1700-G2NMB	1056299
	1,800 mm	LFP1800-G2NMB	1056300
	1,900 mm	LFP1900-G2NMB	1056301
	2,000 mm	LFP2000-G2NMB	1056302

## Recommended accessories

	Brief description	Model name	Part no.
<b>Flanges</b>			
	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 1/2"	BEF-HA-TCL110-LFP1	2058808
	Hygienic process connection adapter, Tri-Clamp 2"	BEF-HA-TCL120-LFP1	2058824
	Hygienic process connection adapter, Varivent Connector Type N	BEF-HA-VARTYN-LFP1	2058822



## At a glance

- No mechanical moving parts
- Manually cuttable 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 cuttable and exchangeable 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](http://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](http://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 length	Model name	Part no.
G 3/4 A	200 mm	LFP0200-A4NMB	1057073
	300 mm	LFP0300-A4NMB	1057074
	400 mm	LFP0400-A4NMB	1057075
	500 mm	LFP0500-A4NMB	1057076
	600 mm	LFP0600-A4NMB	1057077
	700 mm	LFP0700-A4NMB	1057078
	800 mm	LFP0800-A4NMB	1057079
	900 mm	LFP0900-A4NMB	1057080
	1,000 mm	LFP1000-A4NMB	1057081
	1,100 mm	LFP1100-A4NMB	1057082
	1,200 mm	LFP1200-A4NMB	1057083
	1,300 mm	LFP1300-A4NMB	1057084
	1,400 mm	LFP1400-A4NMB	1057085
	1,500 mm	LFP1500-A4NMB	1057086
	1,600 mm	LFP1600-A4NMB	1057087
	1,700 mm	LFP1700-A4NMB	1057088





Process connection	Probe length	Model name	Part no.
G 3/4 A	1,800 mm	LFP1800-A4NMB	1057089
	1,900 mm	LFP1900-A4NMB	1057090
	2,000 mm	LFP2000-A4NMB	1057091
3/4" NPT	200 mm	LFP0200-B4NMB	1057092
	300 mm	LFP0300-B4NMB	1057093
	400 mm	LFP0400-B4NMB	1057094
	500 mm	LFP0500-B4NMB	1057095
	600 mm	LFP0600-B4NMB	1057096
	700 mm	LFP0700-B4NMB	1057097
	800 mm	LFP0800-B4NMB	1057098
	1,000 mm	LFP1000-B4NMB	1057100
	1,200 mm	LFP1200-B4NMB	1057102
	1,400 mm	LFP1400-B4NMB	1057104
	1,500 mm	LFP1500-B4NMB	1057105
	1,600 mm	LFP1600-B4NMB	1057106
	1,800 mm	LFP1800-B4NMB	1057108
	2,000 mm	LFP2000-B4NMB	1057110

**Recommended accessories**

	Brief description	Model name	Part no.
<b>Device protection (mechanical)</b>			
 Illustration may differ	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 1000 mm	LFPCT-1000G1	2065702
	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
<b>Terminal and alignment brackets</b>			
	1 piece, Centering for bypass- and immersion tube installation with diameter 40 mm ... 100 mm, PTFE	BEF-FL-BYRD40-LFP1	2059612
<b>Nuts and screws</b>			
	Counter nut, G 3/4 A process connection, PA	BEF-MU-OPAG34-LFT1	5321681
	Counter nut, process connection 3/4" NPT, PA	BEF-MU-OPAN34-LFT1	5321680
<b>Modules and gateways</b>			
	Number of IO-Link ports: 4; Communication mode: COM1/COM2/COM3; Switching input: PNP; Supply voltage Vs, IO-Link ports: DC 24 V; Current loading: 800 mA; Data transmission rate: Max. 12 MBaud, Autobaud; Address space occupation: 1 bis 126; Connection type: Connector M12; Connection type, IO-Link ports: Connector M12, 5-pin; Supply voltage Vs, module: DC 18 ... 30 V; Power consumption: Typ. 75 mA / max. 100 mA (at UL with DC 24 V), Typ. 25 mA + sensor current / max. 800 mA (at Us with DC 24 V)	IOLSHPB-P3104R01	6039728
<b>Spare parts</b>			
 Illustration may differ	Spare probe for LFP Cubic, probe length 1000 mm, material 1.4404/316L, diameter 7 mm	BEF-ER-SN1000-LFPc	2065700
	Spare probe for LFP Cubic, probe length 2000 mm, material 1.4404/316L, diameter 7 mm	BEF-ER-SN2000-LFPc	2065701



**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](http://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](http://www.mysick.com/en/LFV200)

**LFV200**

- **Process connection:** G 1 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	Model name	Part no.
IP 65	Contactless electronic switch	-40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XXSGACPV	6036369
IP 67	1x PNP	-40 °C ... +100 °C	Round connector M12 x 1, 4-pin	LFV200-XXSGATPM	6036353
		-40 °C ... +150 °C	Round connector M12 x 1, 4-pin	LFV200-XXTGATPM	6036357

**LFV200**

- **Process connection:** G ½ A PN 64
- **Process temperature:** -40 °C ... +100 °C
- **Process pressure:** -1 bar ... 64 bar
- **Housing material:** Stainless steel 1.4404, PEI
- **Probe length:** 38 mm

Enclosure rating	Output signal	Electrical connection	Model name	Part no.
IP 65	1x PNP	Valve plug DIN 43650	LFV200-XXSGHTPV	6049356
	Contactless electronic switch	Valve plug DIN 43650	LFV200-XXSGHCPV	6048866
IP 67	1x PNP	Round connector M12 x 1, 4-pin	LFV200-XXSGHTPM	6048704

## LFB200

- **Process connection:** G 3/4 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	WHG approval	Model name	Part no.
IP 65	1x PNP	-40 °C ... +150 °C	Valve plug DIN 43650	✓	LFB200-XATGBTPV	6041094
	Contactless electronic switch	-40 °C ... +100 °C	Valve plug DIN 43650	-	LFB200-XXSGBCPV	6036367
		-40 °C ... +150 °C	Valve plug DIN 43650	-	LFB200-XXTGBCPV	6036371
IP 67	1x PNP	-40 °C ... +100 °C	Round connector M12 x 1, 4-pin	-	LFB200-XXSGBTPM	6036351
			Round connector M12 x 1, 4-pin	✓	LFB200-XASGBTPM	6036359
		-40 °C ... +150 °C	Round connector M12 x 1, 4-pin	-	LFB200-XXTGBTPM	6036355
			Round connector M12 x 1, 4-pin	✓	LFB200-XATGBTPM	6036363

## LFB200

- **Enclosure rating:** IP 67
- **Process connection:** Triclamp 1" (PN 16, 316L, Ra<0.8µm)
- **Output signal:** 1x PNP
- **Process temperature:** -40 °C ... +150 °C

Process pressure	Housing material	Electrical connection	Probe length	Model name	Part no.
-1 bar ... 64 bar	Stainless steel 1.4404, PEI	Round connector M12 x 1, 4-pin	38 mm	LFB200-XXHCLTPM	6036533

## LFB200

- **Enclosure rating:** IP 67
- **Process connection:** 1/2" NPT PN 64
- **Output signal:** 1x PNP
- **Process temperature:** -40 °C ... +100 °C

Process pressure	Housing material	Electrical connection	Probe length	Model name	Part no.
-1 bar ... 64 bar	Stainless steel 1.4404, PEI	Round connector M12 x 1, 4-pin	38 mm	LFB200-XXSNHTPM	6048864

## LFB200

- **Enclosure rating:** IP 67
- **Process connection:** 3/4" NPT PN 64
- **Output signal:** 1x PNP
- **Process temperature:** -40 °C ... +100 °C

Process pressure	Housing material	Electrical connection	Probe length	Model name	Part no.
-1 bar ... 64 bar	Stainless steel 1.4404, PEI	Round connector M12 x 1, 4-pin	38 mm	LFB200-XXSNBTPM	6036352

LFV230

- **Process connection:** G 3/4 A PN 64
- **Process pressure:** -1 bar ... 64 bar
- **Housing material:** Stainless steel 1.4404, PEI

Enclosure rating	Output signal	Process temperature	Electrical connection	Probe length	Model name	Part no.		
IP 65	Contactless electronic switch	-40 °C ... +100 °C	Valve plug DIN 43650	300 mm	LFV230-XXSGBCPV0300	6044007		
				200 mm	LFV230-XXSGBTPM0200	6041848		
IP 67	1x PNP	-40 °C ... +100 °C	Round connector M12 x 1, 4-pin	300 mm	LFV230-XXSGBTPM0300	6041850		
				500 mm	LFV230-XXSGBTPM0500	6041682		
				700 mm	LFV230-XXSGBTPM0700	6041857		
				1,000 mm	LFV230-XXSGBTPM1000	6041669		
				1,500 mm	LFV230-XXSGBTPM1500	6041871		
				2,000 mm	LFV230-XXSGBTPM2000	6041887		
				2,500 mm	LFV230-XXSGBTPM2500	6041894		
				-40 °C ... +150 °C	Round connector M12 x 1, 4-pin	200 mm	LFV230-XXTGBTPM0200	6041903
						300 mm	LFV230-XXTGBTPM0300	6041905
		500 mm	LFV230-XXTGBTPM0500			6041909		
		700 mm	LFV230-XXTGBTPM0700			6041913		
		1,000 mm	LFV230-XXTGBTPM1000			6041673		
		1,500 mm	LFV230-XXTGBTPM1500			6041926		
		2,000 mm	LFV230-XXTGBTPM2000			6041935		
		2,500 mm	LFV230-XXTGBTPM2500			6041940		



Recommended accessories

	Brief description	Model name	Part no.
Flanges			
	Welded flange/welded connector DIN11851-1 DN25/PN40, Stainless steel 1.4404	BEF-FL-851D25-LFV2	5321527
	Welded flange/welded connector DIN11851-1 DN40/PN40, Stainless steel 1.4404	BEF-FL-851D40-LFV2	5321459
	Welded flange/welded connector DIN11851-1 DN50/PN25, Stainless steel 1.4404	BEF-FL-851D50-LFV2	5321528
	Welded flange/welded connector, process connection G 1, Stainless steel 1.4404	BEF-FL-GEWG10-LFV2	4054605
	Welded flange/welded connector, G 3/4 process connection, Stainless steel 1.4404	BEF-FL-GEWG34-LFV2	4054604
	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



**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

→ [www.mysick.com/en/UP56](http://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](http://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
		2x NPN	UP56-211114	6041664
		2x PNP	UP56-211112	6041661

**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
		2x NPN	UP56-212114	6041665
		2x PNP	UP56-212112	6041662

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
		2x NPN	UP56-213114	6041666
		2x PNP	UP56-213112	6041663

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
		2x NPN	UP56-214114	6041694
		2x PNP	UP56-214112	6041695
	PVDF, PBT, TPU	1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V	UP56-214178	6039866
		2x NPN	UP56-214174	6039865
		2x PNP	UP56-214172	6039864

Recommended accessories

	Brief description	Model name	Part no.
<b>Flanges</b>			
	Welded flange, process connection G 1, Stainless steel 1.4404	BEF-FL-316G10-UP56	4064295
	Welded flange/welded connector, process connection G 2, Stainless steel 1.4404	BEF-FL-316G20-UP56	4063263
<b>Programming and configuration tools</b>			
	Tool for visualization, configuration and cloning, 3-digit LED display, supply voltage: DV 9 V ... 30 V	Connect+ adapter (CPA)	6037782



### 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.

→ [www.mysick.com/en/MHF15](http://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.



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### Ordering information

Other models and accessories → [www.mysick.com/en/MHF15](http://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 NPN	Normally open	MHF15-21NG1TSM	1052274
	Normally closed	MHF15-21NG1NSM	1052272
1x PNP	Normally open	MHF15-21NG1HSM	1052273
	Normally closed	MHF15-21NG1PSM	1052237

### Recommended accessories

	Brief description	Model name	Part no.
Flanges			
 Illustration may differ	Welded flange G1/2, Stainless steel V4A (1.4404, 316L)	BEF-FL-316G12-LMH1	4065669



### 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](http://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](http://www.mysick.com/en/PBS)

- 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	Round connector M12 x 1, 4-pin, IP 67	G ¼ female	Without seal	0 bar ... 600 bar	PBS-RB600SG2SS0AMA0Z	6041551
				0 bar ... 400 bar	PBS-RB400SG2SS0AMA0Z	6039495
				0 bar ... 250 bar	PBS-RB250SG2SS0AMA0Z	6039615
				0 bar ... 100 bar	PBS-RB100SG2SS0AMA0Z	6039614
				0 bar ... 10 bar	PBS-RB010SG2SS0AMA0Z	6039110
				0 bar ... 1 bar	PBS-RB1X0SG2SS0AMA0Z	6041777
		G ¼ A according to DIN 3852-E	NBR	0 bar ... 600 bar	PBS-RB600SG1SSNAMA0Z	6038867
				0 bar ... 400 bar	PBS-RB400SG1SSNAMA0Z	6041099
				0 bar ... 250 bar	PBS-RB250SG1SSNAMA0Z	6038866
				0 bar ... 100 bar	PBS-RB100SG1SSNAMA0Z	6038865
				0 bar ... 10 bar	PBS-RB010SG1SSNAMA0Z	6038862
				0 bar ... 1 bar	PBS-RB1X0SG1SSNAMA0Z	6038847



Output signal	Electrical connection	Process connection	Seal	Measuring range	Model name	Part no.
2 x PNP + 4 mA ... 20 mA	Round connector M12 x 1, 5-pin, IP 67	G ¼ A according to DIN 3852-E	NBR	0 bar ... 600 bar	PBS-RB600SG1SSND5A0Z	6038920
				0 bar ... 400 bar	PBS-RB400SG1SSND5A0Z	6042402
				0 bar ... 250 bar	PBS-RB250SG1SSND5A0Z	6038918
				0 bar ... 100 bar	PBS-RB100SG1SSND5A0Z	6038917
				0 bar ... 10 bar	PBS-RB010SG1SSND5A0Z	6038678
				0 bar ... 1 bar	PBS-RB1X0SG1SSND5A0Z	6038912
1 x PNP + 4 mA ... 20 mA	Round connector M12 x 1, 4-pin, IP 67	G ¼ female	Without seal	0 bar ... 600 bar	PBS-RB600SG2SS0BMA0Z	6044103
				0 bar ... 400 bar	PBS-RB400SG2SS0BMA0Z	6041019
				0 bar ... 250 bar	PBS-RB250SG2SS0BMA0Z	6041053
				0 bar ... 100 bar	PBS-RB100SG2SS0BMA0Z	6041615
				0 bar ... 10 bar	PBS-RB010SG2SS0BMA0Z	6039121
				0 bar ... 1 bar	PBS-RB1X0SG2SS0BMA0Z	6041279
		G ¼ A according to DIN 3852-E	NBR	0 bar ... 600 bar	PBS-RB600SG1SSNBMA0Z	6038893
				0 bar ... 400 bar	PBS-RB400SG1SSNBMA0Z	6041724
				0 bar ... 250 bar	PBS-RB250SG1SSNBMA0Z	6038892
				0 bar ... 100 bar	PBS-RB100SG1SSNBMA0Z	6038891
				0 bar ... 10 bar	PBS-RB010SG1SSNBMA0Z	6038888
				0 bar ... 1 bar	PBS-RB1X0SG1SSNBMA0Z	6038885



Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum	BEF-FL-ALUPBS-HLDR	5322501
<b>Modules and gateways</b>			
	Number of IO-Link ports: 4; Communication mode: COM1/COM2/COM3; Switching input: PNP; Supply voltage Vs, IO-Link ports: DC 24 V; Current loading: 800 mA; Data transmission rate: Max. 12 MBaud, Autobaud; Address space occupation: 1 bis 126; Connection type: Connector M12; Connection type, IO-Link ports: Connector M12, 5-pin; Supply voltage Vs, module: DC 18 ... 30 V; Power consumption: Typ. 75 mA / max. 100 mA (at UL with DC 24 V), Typ. 25 mA + sensor current / max. 800 mA (at Us with DC 24 V)	IOLSHPB-P3104R01	6039728



### 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

→ [www.mysick.com/en/PBT](http://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](http://www.mysick.com/en/PBT)

- 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	L-connector (DIN EN 175301-803 A), IP 65	G ¼ A according to DIN 3852-E	NBR	0 bar ... 600 bar	PBT-RB600SG1SSNALA0Z	6043580
				0 bar ... 400 bar	PBT-RB400SG1SSNALA0Z	6041553
				0 bar ... 250 bar	PBT-RB250SG1SSNALA0Z	6041438
				0 bar ... 100 bar	PBT-RB100SG1SSNALA0Z	6041999
				0 bar ... 10 bar	PBT-RB010SG1SSNALA0Z	6040974
				0 bar ... 1 bar	PBT-RB1X0SG1SSNALA0Z	6041998
	Round connector M12 x 1, 4-pin, IP 67	¼" NPT	Without seal	0 bar ... 600 bar	PBT-RB600SN1SS0AMA0Z	6044002
				0 bar ... 400 bar	PBT-RB400SN1SS0AMA0Z	6042070
				0 bar ... 250 bar	PBT-RB250SN1SS0AMA0Z	6042527
				0 bar ... 100 bar	PBT-RB100SN1SS0AMA0Z	6042006
				0 bar ... 10 bar	PBT-RB010SN1SS0AMA0Z	6039256
				0 bar ... 1 bar	PBT-RB1X0SN1SS0AMA0Z	6043720
	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 ... 10 bar	PBT-RB010SG1SSNAMA0Z	6038615
				0 bar ... 1 bar	PBT-RB1X0SG1SSNAMA0Z	6038716

Output signal	Electrical connection	Process connection	Seal	Measuring range	Model name	Part no.
0...10 V, 3-wire (R <sub>A</sub> > 10 kOhm)	L-connector (DIN EN 175301-803 A), IP 65	G ¼ A according to DIN 3852-E	NBR	0 bar ... 600 bar	PBT-RB600SG1SSNVLC0Z	6049654
0...10 V, 3-wire	L-connector (DIN EN 175301-803 A), IP 65	G ¼ A according to DIN 3852-E	NBR	0 bar ... 250 bar	PBT-RB250SG1SSNVLC0Z	6047659
				0 bar ... 100 bar	PBT-RB100SG1SSNVLC0Z	6047878
				0 bar ... 400 bar	PBT-RB400SG1SSNVLC0Z	6039721
				0 bar ... 10 bar	PBT-RB010SG1SSNVLC0Z	6042101
				0 bar ... 1 bar	PBT-RB1X0SG1SSNVLC0Z	6043989
	Round connector M12 x 1, 4-pin, IP 67	G ¼ A according to DIN 3852-E	NBR	0 bar ... 600 bar	PBT-RB600SG1SSNVMC0Z	6038662
				0 bar ... 400 bar	PBT-RB400SG1SSNVMC0Z	6038658
				0 bar ... 250 bar	PBT-RB250SG1SSNVMC0Z	6038654
				0 bar ... 100 bar	PBT-RB100SG1SSNVMC0Z	6038650
				0 bar ... 10 bar	PBT-RB010SG1SSNVMC0Z	6038638
0 bar ... 1 bar	PBT-RB1X0SG1SSNVMC0Z	6038627				

- Compound pressure
- **Electrical connection:** round connector M12 x 1, 4-pin, IP 67
- **Process connection:** G ¼ A according to DIN 3852-E
- **Seal:** NBR
- **Process temperature:** 0 °C ... +80 °C
- **Measuring range:** -1 bar ... 0 bar
- **Accuracy:** ≤ ± 1 % of span
- **Pressure port:** Standard

Output signal	Model name	Part no.
4 mA ... 20 mA	PBT-CB1X0SG1SSNAMA0Z	6040917
0...10 V, 3-wire	PBT-CB1X0SG1SSNVMC0Z	6043710





### 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

### Your benefits

- Enables level measurement under difficult conditions where other measurement technologies fail
- Rugged and reliable through robust mechanical design and high-grade materials

- Cable made from PUR, FEP-cable for aggressive media optionally available
- Optional temperature measurement with integrated Pt100 element
- Optional surge protection

- 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](http://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](http://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 ... 0.25 bar	1.5 m	LFH-SBX25G1AS01SZ0	6040938
	3 m	LFH-SBX25G1AS03SZ0	6040939
	5 m	LFH-SBX25G1AS05SZ0	6040940
	10 m	LFH-SBX25G1AS10SZ0	6040941
0 bar ... 0.4 bar	5 m	LFH-SBX40G1AS05SZ0	6040942
	10 m	LFH-SBX40G1AS10SZ0	6040943
	15 m	LFH-SBX40G1AS15SZ0	6040944
	20 m	LFH-SBX40G1AS20SZ0	6040945
0 bar ... 0.6 bar	5 m	LFH-SBX60G1AS05SZ0	6040946
	10 m	LFH-SBX60G1AS10SZ0	6040947
	15 m	LFH-SBX60G1AS15SZ0	6040948
	20 m	LFH-SBX60G1AS20SZ0	6040949
0 bar ... 1 bar	10 m	LFH-SB1X0G1AS10SZ0	6040950
	15 m	LFH-SB1X0G1AS15SZ0	6040951
	20 m	LFH-SB1X0G1AS20SZ0	6040952
	25 m	LFH-SB1X0G1AS25SZ0	6040953

Measuring range	Cable length	Model name	Part no.
0 bar ... 1.6 bar	15 m	LFH-SB1X6G1AS15SZ0	6040954
	20 m	LFH-SB1X6G1AS20SZ0	6040955
	25 m	LFH-SB1X6G1AS25SZ0	6040956
	30 m	LFH-SB1X6G1AS30SZ0	6040957

### Recommended accessories

	Brief description	Model name	Part no.
<b>Terminal and alignment brackets</b>			
	Cable tension clamp for mounting the connection cable of the level sensor, max. tensile load = 2.5 kN (not to be used with FEP cable), Steel, zinc coated, Plastic	BEF-CC-LFH001-0001	5324307
<b>Other mounting accessories</b>			
	Additional weight for stabilizing the LFH level sensor in moving liquids. Interior process connection G 1/2, is fastened to the level sensor instead of the protective cap. Weight: 500 g. Material: Stainless steel 1.4571., Stainless steel 1.4571	BEF-AW-LFHSST-0001	5324308
<b>Adapters and distributors</b>			
	Dimensions (W x D x H) 57 mm x 130 mm x 94 mm, for electrical connection of level probe LFH, with integrated pressure compensation and terminal block	ASK-CB-LFHPC0-0001	5324310
<b>Protection filter</b>			
	Protection filter for level probe LFH. Prevents humidity from entering the ventilation tube of the connection cable. For self-mounting at cable end.	APR-VF-LFH001-0001	5324309

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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)

### 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

- Various insertion lengths and connection threads
- Wetted parts made from corrosion-resistant stainless steel 1.4571
- Enclosure rating IP 65 and IP 67

- Very good long-term stability, accuracy and linearity
- Quick response time
- Versatile configuration allows for optimal solutions for specific requirements

→ [www.mysick.com/en/TBS](http://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](http://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	50 mm / 6 mm	TBS-1BSG10506NM	6048669
		100 mm / 6 mm	TBS-1BSG11006NM	6048670
		150 mm / 6 mm	TBS-1BSG11506NM	6048671
		250 mm / 6 mm	TBS-1BSG12506NM	6048672
	Thread G ½ A, according to DIN 3852-E	50 mm / 6 mm	TBS-1BSGT0506NM	6048673
		100 mm / 6 mm	TBS-1BSGT1006NM	6048674
		150 mm / 6 mm	TBS-1BSGT1506NM	6048675
		250 mm / 6 mm	TBS-1BSGT2506NM	6048676
2 x PNP	Thread G ¼ A, according to DIN 3852-E	50 mm / 6 mm	TBS-1ASG10506NM	6048661
		100 mm / 6 mm	TBS-1ASG11006NM	6048662
		150 mm / 6 mm	TBS-1ASG11506NM	6048663
		250 mm / 6 mm	TBS-1ASG12506NM	6048664
	Thread G ½ A, according to DIN 3852-E	50 mm / 6 mm	TBS-1ASGT0506NM	6048665
		100 mm / 6 mm	TBS-1ASGT1006NM	6048666
		150 mm / 6 mm	TBS-1ASGT1506NM	6048667
		250 mm / 6 mm	TBS-1ASGT2506NM	6048668

- **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	50 mm / 6 mm	TBS-1DSG10506NE	6048677
	100 mm / 6 mm	TBS-1DSG11006NE	6048678
	150 mm / 6 mm	TBS-1DSG11506NE	6048679
	250 mm / 6 mm	TBS-1DSG12506NE	6048680
Thread G ½ A, according to DIN 3852-E	50 mm / 6 mm	TBS-1DSGT0506NE	6048681
	100 mm / 6 mm	TBS-1DSGT1006NE	6048682
	150 mm / 6 mm	TBS-1DSGT1506NE	6048683
	250 mm / 6 mm	TBS-1DSGT2506NE	6048684



## REGISTRATION SENSORS

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### 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, mark-

less, color, luminescence, fork and array sensors to solve this wide spectrum of demanding tasks.





**KTM** . . . . .G-130  
Mini, easy, speedy



**KT5**. . . . .G-132  
Contrast sensor in standard metal housing



**CSM** . . . . .G-134  
Mini, easy, smart



**LUTM**. . . . .G-136  
Small, intelligent luminescence sensor



**UF** . . . . .G-138  
The clear choice for detecting transparent labels



**WF** . . . . .G-139  
WFnext - it's next for high-speed applications



**WFM** . . . . .G-141  
WFM fork sensors – connect and get started





### 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 Core for standard applications
- 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](http://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](http://www.mysick.com/en/KTM)

### KTM Core

- **Housing material:** ABS (plastic)
- **Response time:** 50 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, white <sup>1)</sup>	Potentiometer, manual	1 mm x 1 mm	Connector M8, 4-pin	PNP/NPN	KTM-MB8A191P	1066885
			2 mm x 2 mm	Connector M8, 4-pin	PNP/NPN	KTM-MB31191P	1062203
		Potentiometer, screw driver	2 mm x 2 mm	Connector M8, 4-pin	PNP/NPN	KTM-MB31111P	1062202

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C.

### 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, white <sup>1) 2)</sup>	2-point teach-in static/dynamic + proximity to mark	2 mm x 2 mm	Connector M8, 4-pin	PNP	KTM-MP31181P	1065756
				Connector M8, 4-pin	PNP	KTM-WP11181P	1062199
	1.5 mm x 6.5 mm		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	

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C.

<sup>2)</sup> Wave length: 470 nm, 525 nm, 625 nm.

Sensing distance	Light source	Adjustment	Light spot size	Connection type	Switching output	Model name	Part no.
12.5 mm	LED red, green, blue <sup>1) 2)</sup>	2-point teach-in static/dynamic + proximity to mark	1.5 mm x 6.5 mm	Connector M8, 4-pin	PNP, IO-Link	KTM-WP117A1P	1061770
					NPN, IO-Link	KTM-WN117A1P	1061787

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C.

<sup>2)</sup> Wave length: 470 nm, 525 nm, 625 nm.

### 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 <sup>1) 2)</sup>	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

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C.

<sup>2)</sup> Wave length: 470 nm, 525 nm, 625 nm.

### Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Adapter plate KT3 to KTM, Stainless steel, fastening screws included	BEF-AP-KTMS01	2068786
	Mounting bracket for wall mounting, Stainless steel, Mounting hardware included	BEF-W100-A	5311520
	Mounting bracket for floor mounting, Steel, zinc coated, Mounting hardware included	BEF-W100-B	5311521
<b>Universal bar clamp systems</b>			
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N08	2051607
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-G02M	6009870
	Head A: Female connector, M8, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-W02M	6009871
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383





### 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](http://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.



### Ordering information

Other models and accessories → [www.mysick.com/en/KT5](http://www.mysick.com/en/KT5)

Light source	Adjustment	Sensing distance	Light spot size	Light spot direction	Switching output	Model name	Part no.
LED green <sup>1) 2)</sup>	Manual adjustment, potentiometer	10 mm <sup>3)</sup>	1.2 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	KT5G-2P1111	1015993
				Horizontal <sup>4)</sup>	NPN	KT5G-2N1111	1015981
		20 mm <sup>3)</sup>	1.5 mm x 5.5 mm		Vertical <sup>4)</sup>	PNP	KT5G-2P2111
				NPN		KT5G-2N2111	1015990
		40 mm <sup>3)</sup>	1.1 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	KT5G-2P1211	1015999
					NPN	KT5G-2N1211	1015985
LED red, green <sup>5)</sup>	Static 2-point teach-in	10 mm <sup>3)</sup>	1.2 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	KT5G-2P1311	1016003
					NPN	KT5G-2N1311	1015988
						KT5RG-2P1116	1027393
						KT5RG-2P1126	1027396

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C.

<sup>2)</sup> Wave length: 520 nm.

<sup>3)</sup> From front edge of lens.

<sup>4)</sup> In relation to long side of housing.

<sup>5)</sup> Wave length: 525 nm, 640 nm.

<sup>6)</sup> Wave length: 470 nm, 525 nm, 640 nm.

Light source	Adjustment	Sensing distance	Light spot size	Light spot direction	Switching output	Model name	Part no.
LED red, green, blue <sup>1) 6)</sup>	Dynamic teach-in	10 mm <sup>3)</sup>	1.2 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	KT5W-2P1113	1016629
					NPN	KT5W-2N1113	1016630
		20 mm <sup>3)</sup>	1.5 mm x 5.5 mm	Vertical <sup>4)</sup>	PNP	KT5W-2P1213	1016715
	Static 2-point teach-in	10 mm <sup>3)</sup>	1.2 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	KT5W-2P1116	1018044
					NPN	KT5W-2N1116	1018045
					PNP/NPN	KT5W-2B1116	1043006
					PNP	KT5W-2P1126	1018587
					PNP	KT5W-2P2116	1022312
					NPN	KT5W-2N1216	1018586
		20 mm <sup>3)</sup>	1.5 mm x 5.5 mm	Vertical <sup>4)</sup>	PNP	KT5W-2P1216	1019022
					NPN	KT5W-2N1216	1018586
	Static 2-point teach-in with manual fine adjustment	40 mm <sup>3)</sup>	1.1 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	KT5W-2P1316	1018961
					PNP	KT5W-2P1116D	1026538
					NPN	KT5W-2N1116D	1026540
					PNP	KT5W-2P2116D	1026584
		10 mm <sup>3)</sup>	1.2 mm x 4.2 mm	Horizontal <sup>4)</sup>	NPN	KT5W-2N2116D	1026583
					PNP	KT5W-2P1216D	1026577
					NPN	KT5W-2N1216D	1026580
					PNP	KT5W-2P1316D	1026578
					NPN	KT5W-2N1316D	1026581
PNP					KT5W-2P1216D	1026577	

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C.

<sup>2)</sup> Wave length: 520 nm.

<sup>3)</sup> From front edge of lens.

<sup>4)</sup> In relation to long side of housing.

<sup>5)</sup> Wave length: 525 nm, 640 nm.

<sup>6)</sup> Wave length: 470 nm, 525 nm, 640 nm.



### Recommended accessories

	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383
 Illustration may differ	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-G02M	6008899
 Illustration may differ	Head A: Female connector, M12, 5-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-W02M	6008900



### 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

→ [www.mysick.com/en/CSM](http://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](http://www.mysick.com/en/CSM)

- **Light source:** LED red, green, blue (Average service life of 100,000 h at  $T_A = +25 \text{ }^\circ\text{C}$ .) (Wave length: 470 nm, 525 nm, 640 nm.)
- **Response time:** 250  $\mu\text{s}$  (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 <sup>1)</sup>	± 3 mm	1.5 mm x 6.5 mm	Vertical	PNP	CSM-WP11122P	1067291
				PNP, IO-Link	CSM-WP117A2P	1067294
				NPN	CSM-WN11122P	1067293

<sup>1)</sup> From front edge of lens.

### Recommended accessories

	Brief description	Model name	Part no.
Mounting brackets and mounting plates			
	Adapter plate KT3 to KTM, Stainless steel, fastening screws included	BEF-AP-KTMS01	2068786
	Mounting bracket for wall mounting, Stainless steel, Mounting hardware included	BEF-W100-A	5311520
	Mounting bracket for floor mounting, Steel, zinc coated, Mounting hardware included	BEF-W100-B	5311521

	Brief description	Model name	Part no.
Universal bar clamp systems			
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N08	2051607
Plug connectors and cables			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383





### 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

→ [www.mysick.com/en/LUTM](http://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](http://www.mysick.com/en/LUTM)

Scanning range	Operating range	Light spot size	Receiving range	Switching output	Model name	Part no.
12.5 mm <sup>1)</sup>	8 mm ... 20 mm	2 mm x 2.5 mm <sup>2)</sup>	450 nm ... 750 nm	PNP	LUTM-UP11162P	1067295
				PNP, IO-Link	LUTM-UP117A2P	1067297
				NPN	LUTM-UN11162P	1067296

<sup>1)</sup> From front edge of lens.

<sup>2)</sup> At sensing distance.

### Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Adapter plate KT3 to KTM, Stainless steel, fastening screws included	BEF-AP-KTMS01	2068786
	Mounting bracket for wall mounting, Stainless steel, Mounting hardware included	BEF-W100-A	5311520
	Mounting bracket for floor mounting, Steel, zinc coated, Mounting hardware included	BEF-W100-B	5311521
<b>Universal bar clamp systems</b>			
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N08	2051607



	Brief description	Model name	Part no.
Plug connectors and cables			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383



### At a glance

- Detection of transparent, opaque or printed labels
- Unaffected by metallic foils and labels
- Fast response time of 250  $\mu$ s
- 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](http://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.



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### Ordering information

Other models and accessories → [www.mysick.com/en/UF](http://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 $\mu$ s <sup>1)</sup>	Gap between labels: 2 m Size of labels: 2 mm <sup>2)</sup>	Dynamic teach-in, Static teach-in	Male connector M8, 4-pin	PNP	UFN3-70P415	6049679
				NPN	UFN3-70N415	6049680
				PNP/NPN	UFN3-70B413	6049678

<sup>1)</sup> Signal transit time with resistive load.

<sup>2)</sup> Minimum detectable object.

### Recommended accessories

	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-G02M	6009870
	Head A: Female connector, M8, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-W02M	6009871



### 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](http://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](http://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

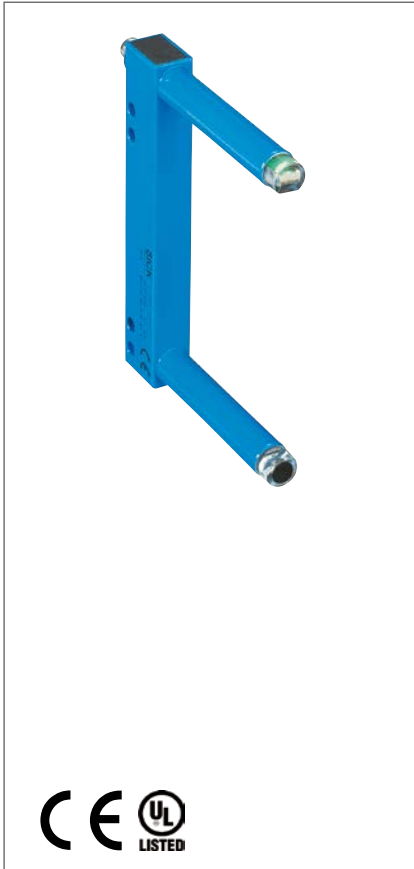
Fork width	Adjustment	Fork depth	Model name	Part no.
2 mm	Teach-in	42 mm	WF2-40B416	6028450
		59 mm	WF2-60B416	6028457
		95 mm	WF2-95B416	6028464
	Manual (“+”/“-” button)	42 mm	WF2-40B410	6028428
		59 mm	WF2-60B410	6028436
		95 mm	WF2-95B410	6028443
5 mm	Teach-in	42 mm	WF5-40B416	6028451
		59 mm	WF5-60B416	6028458
	Manual (“+”/“-” button)	42 mm	WF5-40B410	6028429
		59 mm	WF5-60B410	6028438
15 mm	Teach-in	42 mm	WF15-40B416	6028452
		59 mm	WF15-60B416	6028459
		95 mm	WF15-95B416	6028466
	Manual (“+”/“-” button)	42 mm	WF15-40B410	6028430
		59 mm	WF15-60B410	6028438
		95 mm	WF15-95B410	6028445
30 mm	Teach-in	42 mm	WF30-40B416	6028453
		59 mm	WF30-60B416	6028460
		95 mm	WF30-95B416	6028467
	Manual (“+”/“-” button)	42 mm	WF30-40B410	6028431
		59 mm	WF30-60B410	6028439
		95 mm	WF30-95B410	6028446



Fork width	Adjustment	Fork depth	Model name	Part no.
50 mm	Teach-in	42 mm	WF50-40B416	6028454
		59 mm	WF50-60B416	6028461
	Manual (“+”/“-” button)	42 mm	WF50-40B410	6028432
		59 mm	WF50-60B410	6028440
80 mm	Teach-in	42 mm	WF80-40B416	6028455
		59 mm	WF80-60B416	6028462
	Manual (“+”/“-” button)	42 mm	WF80-40B410	6028433
		59 mm	WF80-60B410	6028441
120 mm	Teach-in	42 mm	WF120-40B416	6028456
	Manual (“+”/“-” button)	42 mm	WF120-40B410	6028435
		59 mm	WF120-60B410	6028442

Recommended accessories

	Brief description	Model name	Part no.
Plug connectors and cables			
	Head A: Female connector, M8, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-G02M	6009870
	Head A: Female connector, M8, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-W02M	6009871



### At a glance

- Highly visible red emitted light
- No setup, out-of-the-box operation
- 360° output indicator
- 5 fork sizes: maximum depth 120 mm, maximum width 180 mm
- Rugged, IP 67 aluminum housing

### Your benefits

- Fixed housings guarantee a high level of operational safety with simple commissioning
- A visible red light enables easy alignment and fast adjustment
- The 360-degree yellow output indicator makes continual process control possible
- A wide range of different fork sizes increases installation flexibility
- The aluminum housing meets all requirements for use in harsh industrial conditions

→ [www.mysick.com/en/WFM](http://www.mysick.com/en/WFM)

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/WFM](http://www.mysick.com/en/WFM)

#### WFM30-40

- **Fork width:** 30 mm
- **Fork depth:** 42 mm

Response time	MDO	Connection type	Switching output	Output function	Model name	Part no.
125 µs <sup>1)</sup>	0.8 mm <sup>2)</sup>	Male connector M8, 3-pin	PNP	Dark-switching	WFM30-40P321	6037819
				Light switching	WFM30-40P311	6037820
		Cable 2 m, 3-pin	PNP	Dark-switching	WFM30-40N321	6037821
				Dark-switching	WFM30-40P121	6037823

<sup>1)</sup> Signal transit time with resistive load.

<sup>2)</sup> Minimum detectable object.

#### WFM50-60

- **Fork width:** 50 mm
- **Fork depth:** 60 mm

Response time	MDO	Connection type	Switching output	Output function	Model name	Part no.
125 µs <sup>1)</sup>	0.8 mm <sup>2)</sup>	Male connector M8, 3-pin	PNP	Dark-switching	WFM50-60P321	6037824
				Light switching	WFM50-60P311	6037825
			NPN	Dark-switching	WFM50-60N321	6037826

<sup>1)</sup> Signal transit time with resistive load.

<sup>2)</sup> Minimum detectable object.

### WFM80-60

- **Fork width:** 80 mm
- **Fork depth:** 60 mm

Response time	MDO	Connection type	Switching output	Output function	Model name	Part no.
125 µs <sup>1)</sup>	0.8 mm <sup>2)</sup>	Male connector M8, 3-pin	PNP	Dark-switching	WFM80-60P321	6037828
				Light switching	WFM80-60P311	6037829
			NPN	Dark-switching	WFM80-60N321	6037830

<sup>1)</sup> Signal transit time with resistive load.

<sup>2)</sup> Minimum detectable object.

### WFM120-120

- **Fork width:** 120 mm
- **Fork depth:** 124 mm

Response time	MDO	Connection type	Switching output	Output function	Model name	Part no.
125 µs <sup>1)</sup>	0.8 mm <sup>2)</sup>	Male connector M8, 3-pin	PNP	Dark-switching	WFM120-120P321	6037832
				Light switching	WFM120-120P311	6037833
			NPN	Dark-switching	WFM120-120N321	6037834

<sup>1)</sup> Signal transit time with resistive load.

<sup>2)</sup> Minimum detectable object.

### WFM180-120



- **Fork width:** 180 mm
- **Fork depth:** 124 mm

Response time	MDO	Connection type	Switching output	Output function	Model name	Part no.
125 µs <sup>1)</sup>	1 mm <sup>2)</sup>	Male connector M8, 3-pin	PNP	Dark-switching	WFM180-120P321	6037836
				Light switching	WFM180-120P311	6037837
			NPN	Light switching	WFM180-120N311	6037839

<sup>1)</sup> Signal transit time with resistive load.

<sup>2)</sup> Minimum detectable object.

### Recommended accessories

	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 3-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-G02M	6010785
	Head A: Female connector, M8, 3-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-W02M	6008489

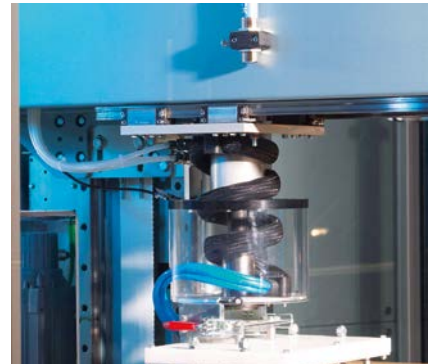
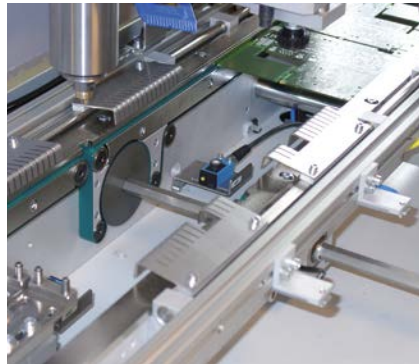




## DISTANCE SENSORS



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.







**OD Mini** . . . . . **.H-146**  
 Compact, lightweight sensor for precise measurement



**OD Value.** . . . . . **.H-148**  
 Simply accurate measurement



**Dx35** . . . . . **.H-150**  
 Larger than life performance – flexible measurement and detection up to 35 m



**Dx50** . . . . . **.H-152**  
 Measuring distances – reliable, precise and versatile



**UM30** . . . . . **.H-154**  
 The universal application solver



**UC4** . . . . . **.H-156**  
 Small, precise, ultrasonic



**UC12.** . . . . . **.H-158**  
 Ultrasonic technology housed in an industry-proven design





## 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  $\mu\text{m}$  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](http://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](http://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 Core	Aluminum housing with PPSU lens	20 mm ... 50 mm	-	Cable with connector M12, 5-pin 30 cm	1 x PNP/NPN, selectable	OD1-B035C15Q15	6052309
				Male connector M8, 4-pin	1 x PNP/NPN, selectable	OD1-B035C15Q14	6052308
		50 mm ... 250 mm	-	Cable with connector M12, 5-pin 30 cm	1 x PNP/NPN, selectable	OD1-B150FOAQ15	6052327
				Male connector M8, 4-pin	1 x PNP/NPN, selectable	OD1-B150FOAQ14	6052326

Sub product family	Housing material	Measurement range	Data interface	Connection type	Switching output	Model name	Part no.
OD Mini Prime	Aluminum 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-B015C05I25	6050520
				Male connector M8, 4-pin	-	OD1-B015C05I14	6050519
		20 mm ... 50 mm	1 x 4 mA ... 20 mA (< 300 Ω)	Cable with connector M12, 5-pin 30 cm	1 x PNP/NPN, selectable	OD1-B035C15I25	6050524
				Male connector M8, 4-pin	-	OD1-B035C15I14	6050523
		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-B100C50I25	6050528
				Male connector M8, 4-pin	-	OD1-B100C50I14	6050527
	Stainless steel housing with PPSU lens	10 mm ... 20 mm	1 x 0 V ... 10 V (> 10 kΩ)	Cable with connector M12, 5-pin 30 cm	1 x PNP/NPN, selectable	OD1-B015H05U25	6050498
				Male connector M8, 4-pin	-	OD1-B015H05U14	6050497
			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
		20 mm ... 50 mm	1 x 0 V ... 10 V (> 10 kΩ)	Cable with connector M12, 5-pin 30 cm	1 x PNP/NPN, selectable	OD1-B035H15U25	6050506
				Male connector M8, 4-pin	-	OD1-B035H15U14	6050505
			1 x 4 mA ... 20 mA (< 300 Ω)	Cable with connector M12, 5-pin 30 cm	1 x PNP/NPN, selectable	OD1-B035H15I25	6050504
				Male connector M8, 4-pin	-	OD1-B035H15I14	6050503
		50 mm ... 150 mm	1 x 0 V ... 10 V (> 10 kΩ)	Cable with connector M12, 5-pin 30 cm	1 x PNP/NPN, selectable	OD1-B100H50U25	6050514
				Male connector M8, 4-pin	-	OD1-B100H50U14	6050513
			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

	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-G02M	6009870
	Head A: Female connector, M8, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-W02M	6009871
 Illustration may differ	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-G02M	6008899



## 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 cost-effective
- 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](http://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](http://www.mysick.com/en/OD_Value)

## Measuring frequency: 1.3 kHz

- **Measuring range:** 100 mm ... 400 mm, 6 % ... 90 % remission
- **Resolution:** 75 µm ... 75 µm (At averaging function medium.)
- **Repeatability:** 225 µm (6 % ... 90 % remission.) (At averaging function medium.) (Constant ambient conditions.) (For best performance consider warm up time ≤ 5 minutes.)
- **Linearity:** ± 750 µm (At averaging function medium.) (Measurement on 90 % remission (ceramic, white)) (For best performance consider warm up time ≤ 5 minutes.) (When calibrated in the application regularly.)
- **Typ. light spot size (distance):** 1.8 mm x 3.5 mm (250 mm)
- **Response time:** 2 ms / 15 ms / 50 ms (Automatic sensitivity adjustment ≤ 4 ms, 6 ms for the models with measuring range of 100 mm ... 400 mm.)

Data interface	Connection type	Switching output <sup>1)</sup>	Model name	Part no.
-	Male connector M12, 8-pin	2 x PNP (100 mA)	OD2-P250W150C0	6036647
0 V ... 10 V (≥ 10 kΩ) <sup>2)</sup>	Male connector M12, 8-pin	2 x NPN (100 mA)	OD2-N250W150U0	6036638
		2 x PNP (100 mA)	OD2-P250W150U0	6036646
4 mA ... 20 mA (≤ 300 Ω) <sup>2)</sup>	Male connector M12, 8-pin	2 x NPN (100 mA)	OD2-N250W150I0	6036637
		2 x PNP (100 mA)	OD2-P250W150I0	6036645
RS-422 <sup>2)</sup>	Cable 2 m	1 x PNP (100 mA)	OD2-P250W150A2	6036644

<sup>1)</sup> PNP: HIGH = V<sub>S</sub> - (< 2 V) / LOW = < 2 V; NPN: HIGH = < 2 V / LOW = V<sub>S</sub>.

<sup>2)</sup> Resolution analog output 16 bit.

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.)

Measuring range	Resolution <sup>1)</sup>	Repeatability <sup>1) 2) 3) 4)</sup>	Linearity <sup>1) 4) 5) 6)</sup>	Typ. light spot size (distance)	Data interface <sup>7)</sup>	Connection type	Switching output <sup>8)</sup>	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)	0 V ... 10 V (≥ 10 kΩ)	Male connector M12, 8-pin	2 x PNP (100 mA)	OD2-P30W04U0	6036581
					4 mA ... 20 mA (≤ 300 Ω)	Cable 2 m	2 x PNP (100 mA)	OD2-P30W04I2	6036576
						Male connector M12, 8-pin	2 x PNP (100 mA)	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)	0 V ... 10 V (≥ 10 kΩ)	Cable 2 m	2 x NPN (100 mA)	OD2-N50W10U2	6036585
						Male connector M12, 8-pin	2 x PNP (100 mA)	OD2-P50W10U0	6036598
					4 mA ... 20 mA (≤ 300 Ω)	Cable 2 m	2 x NPN (100 mA)	OD2-N50W10I2	6036584
						Cable 2 m	2 x PNP (100 mA)	OD2-P50W10I2	6036592
						Male connector M12, 8-pin	2 x PNP (100 mA)	OD2-P50W10I0	6036597
						60 mm ... 180 mm, 6 % ... 90 % remission	30 μm ... 30 μm	90 μm	± 120 μm
Male connector M12, 8-pin	2 x PNP (100 mA)	OD2-P120W60U0	6036630						
4 mA ... 20 mA (≤ 300 Ω)	Cable 2 m	2 x PNP (100 mA)	OD2-P120W60I2	6036625					
	Male connector M12, 8-pin	2 x PNP (100 mA)	OD2-P120W60I0	6036629					
65 mm ... 105 mm, 6 % ... 90 % remission	10 μm ... 10 μm	30 μm	± 40 μm	0.8 mm x 1.3 mm (85 mm)	0 V ... 10 V (≥ 10 kΩ)	Male connector M12, 8-pin	1 x PNP (100 mA)	OD2-P120W60A0	6036632
						RS-422			
65 mm ... 105 mm, 6 % ... 90 % remission	10 μm ... 10 μm	30 μm	± 40 μm	0.8 mm x 1.3 mm (85 mm)	0 V ... 10 V (≥ 10 kΩ)	Cable 2 m	2 x PNP (100 mA)	OD2-P85W20U2	6036610
						Male connector M12, 8-pin	2 x PNP (100 mA)	OD2-P85W20U0	6036614

<sup>1)</sup> At averaging function medium.

<sup>2)</sup> 6 % ... 90 % remission.

<sup>3)</sup> Constant ambient conditions.

<sup>4)</sup> For best performance consider warm up time ≤ 5 minutes.


<sup>5)</sup> Measurement on 90 % remission (ceramic, white)

<sup>6)</sup> When calibrated in the application regularly.

<sup>7)</sup> Resolution analog output 16 bit.

<sup>8)</sup> PNP: HIGH = V<sub>S</sub> - (< 2 V) / LOW = < 2 V; NPN: HIGH = < 2 V / LOW = V<sub>S</sub>.

## Recommended accessories

	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: special color code, PVC, shielded, 2 m	DOL-1208-G02MF	6020663
Illustration may differ			





## 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

→ [www.mysick.com/en/Dx35](http://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](http://www.mysick.com/en/Dx35)

Measuring range	Analog output <sup>3)</sup>	Switching output <sup>4) 5)</sup>	Response time <sup>6) 7)</sup>	Variant	Model name	Part no.
50 mm ... 12,000 mm, 90 % remission <sup>1) 2)</sup> 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 <sup>3)</sup>	2.5 ms / 6.5 ms / 12.5 ms / 24.5 ms / 96.5 ms	Red laser, class 2	DT35-B15251	1057652
			4.5 ms / 12.5 ms / 24.5 ms / 48.5 ms / 192.5 ms	Red laser, class 1	DT35-B15551	1057651
			2.5 ms / 6.5 ms / 12.5 ms / 24.5 ms / 96.5 ms	Infrared laser, class 1	DT35-B15851	1057653
	-	2 x push-pull: PNP/NPN (100 mA), IO-Link <sup>8)</sup>	4.5 ms / 12.5 ms / 24.5 ms / 48.5 ms / 192.5 ms	Red laser, class 2	DS35-B15221	1057655
			2.5 ms / 6.5 ms / 12.5 ms / 24.5 ms / 96.5 ms	Red laser, class 1	DS35-B15521	1057654
			2.5 ms / 6.5 ms / 12.5 ms / 24.5 ms / 96.5 ms	Infrared laser, class 1	DS35-B15821	1057656
200 mm ... 35,000 mm, on reflective tape "Diamond Grade" <sup>2)</sup>	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 <sup>8)</sup>	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
	-	2 x push-pull: PNP/NPN (100 mA), IO-Link <sup>8)</sup>		Red laser, class 1	DR35-B15522	1057659
				Infrared laser, class 1	DR35-B15822	1057660

<sup>1)</sup> For speed setting Slow.

<sup>2)</sup> See characteristic curves repeatability.

<sup>3)</sup> Output Q<sub>2</sub> selectable: 4 mA ... 20 mA / 0 V ... 10 V / switching output.

<sup>4)</sup> Output Q short-circuit protected.








<sup>5)</sup> Voltage drop < 3 V.

<sup>6)</sup> Dependent on the set speed: Super Fast ... Super Slow.

<sup>7)</sup> Lateral entry of object into measuring range.

<sup>8)</sup> Output Q<sub>2</sub> selectable: 4 mA ... 20 mA / 0 V ... 10 V / switching output / Q<sub>1</sub> not / not active.

## Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket, steel, zinc coated, Steel, zinc coated, mounting hardware for the sensor included	BEF-WN-DX50	2048370
<b>Terminal and alignment brackets</b>			
	Alignment unit, steel, zinc coated, Steel, zinc coated, mounting hardware for the sensor included	BEF-AH-DX50	2048397
<b>Universal bar clamp systems</b>			
	Plate N02 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N02	2051608
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-G02M	6008899
 Illustration may differ	Head A: Female connector, M12, 5-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-W02M	6008900
<b>Reflectors</b>			
	Reflector plate, reflective tape "Diamond Grade", 330 mm x 330 mm, material base plate: aluminum, screw connection, Screw-on, 4 hole mounting	PL240DG	1017910
	Reflective tape "Diamond Grade", self-adhesive, customizable size by sheet, 74.9 cm x 91.4 cm, self-adhesive <sup>1)</sup>	REF-DG-K	4019634

<sup>1)</sup> Customizable length by sheet. Width max. 74.9 cm, length max. 91.4 cm.



## 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](http://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](http://www.mysick.com/en/Dx50)

Measuring range	Analog output	Switching output <sup>1)</sup>	Response time	Model name	Part no.
200 mm ... 10,000 mm, 90 % remission	1 x 4 mA ... 20 mA (≤ 300 Ω)	1 x PNP (100 mA) <sup>2)</sup>	20 ms / 30 ms <sup>3) 4)</sup>	DT50-P1113	1044369
200 mm ... 6,500 mm, 18 % remission	1 x 0 V ... 10 V (≥ 5 kΩ)	1 x PNP (100 mA) <sup>2)</sup>	20 ms / 30 ms <sup>3) 4)</sup>	DT50-P1114	1047581
200 mm ... 4,000 mm, 6 % remission	1 x 4 mA ... 20 mA (≤ 300 Ω)	1 x NPN (100 mA) <sup>5)</sup>	20 ms / 30 ms <sup>3) 4)</sup>	DT50-N1113	1047396
	1 x 0 V ... 10 V (≥ 5 kΩ)	1 x NPN (100 mA) <sup>5)</sup>	20 ms / 30 ms <sup>3) 4)</sup>	DT50-N1114	1047582
200 mm ... 10,000 mm, 90 % remission	1 x 4 mA ... 20 mA (≤ 300 Ω)	1 x PNP (100 mA) <sup>2)</sup>	20 ms / 30 ms <sup>3) 4)</sup>	DT50-P1123	1047118
200 mm ... 5,000 mm, 18 % remission	1 x 0 V ... 10 V (≥ 5 kΩ)	1 x PNP (100 mA) <sup>2)</sup>	20 ms / 30 ms <sup>3) 4)</sup>	DT50-P1124	1047616
200 mm ... 2,500 mm, 6 % remission	1 x 4 mA ... 20 mA (≤ 300 Ω)	1 x NPN (100 mA) <sup>5)</sup>	20 ms / 30 ms <sup>3) 4)</sup>	DT50-N1123	1047397
	1 x 0 V ... 10 V (≥ 5 kΩ)	1 x NPN (100 mA) <sup>5)</sup>	20 ms / 30 ms <sup>3) 4)</sup>	DT50-N1124	1047617
200 mm ... 20,000 mm, 90 % remission	1 x 4 mA ... 20 mA (≤ 300 Ω)	1 x PNP (100 mA) <sup>2)</sup>	15 ms / 30 ms / 80 ms <sup>4) 6)</sup>	DT50-P2113	1047314
200 mm ... 8,500 mm, 18 % remission		1 x NPN (100 mA) <sup>5)</sup>	15 ms / 30 ms / 80 ms <sup>4) 6)</sup>	DT50-N2113	1047398
200 mm ... 5,000 mm, 6 % remission					

<sup>1)</sup> Output Q short-circuit protected.

<sup>2)</sup> PNP: HIGH =  $V_s$  - (< 2.5 V) / LOW = 0 V.

<sup>3)</sup> Dependent on the set average: fast/slow.

<sup>4)</sup> Lateral entry of object into measuring range.

<sup>5)</sup> NPN: HIGH = < 2.5 V / LOW =  $V_s$ .

<sup>6)</sup> Dependent on the set average: fast/medium/slow.

<sup>7)</sup> On reflective tape "Diamond Grade"

<sup>8)</sup> Dependent on the set function MF: switching output 2 / laser off, external teach.



Measuring range	Analog output	Switching output <sup>1)</sup>	Response time	Model name	Part no.	
200 mm ... 13,000 mm, 90 % remission	1 x 4 mA ... 20 mA (≤ 300 Ω)	1 x PNP (100 mA) <sup>2)</sup>	15 ms / 30 ms / 80 ms <sup>4) 6)</sup>	DT50-P2123	1047399	
200 mm ... 5,800 mm, 18 % remission		1 x NPN (100 mA) <sup>5)</sup>	15 ms / 30 ms / 80 ms <sup>4) 6)</sup>	DT50-N2123	1047400	
200 mm ... 3,400 mm, 6 % remission	-	2 x PNP (100 mA) <sup>2)</sup>	10 ms / 50 ms <sup>3)</sup>	DS50-P1112	1047402	
200 mm ... 10,000 mm, 90 % remission		2 x NPN (100 mA) <sup>5)</sup>	10 ms / 50 ms <sup>3)</sup>	DS50-N1112	1047404	
200 mm ... 6,000 mm, 18 % remission		2 x PNP (100 mA) <sup>2)</sup>	20 ms / 100 ms <sup>3)</sup>	DS50-P1122	1047405	
200 mm ... 4,000 mm, 6 % remission		2 x NPN (100 mA) <sup>5)</sup>	20 ms / 100 ms <sup>3)</sup>	DS50-N1122	1047406	
200 mm ... 50,000 mm, on reflective tape "Diamond Grade" <sup>7)</sup>	1 x 4 mA ... 20 mA (≤ 300 Ω)	1 x PNP (100 mA) <sup>2)</sup>	15 ms / 30 ms <sup>3) 4)</sup>	DL50-P1123	1047361	
		1 x NPN (100 mA) <sup>5)</sup>	15 ms / 30 ms <sup>3) 4)</sup>	DL50-N1123	1047401	
	-	2 x / 1 x PNP (100 mA) <sup>2) 8)</sup>	10 ms / 40 ms / 160 ms <sup>4) 6)</sup>	DL50-P2225	1048418	
		2 x / 1 x NPN (100 mA) <sup>5) 8)</sup>	10 ms / 40 ms / 160 ms <sup>4) 6)</sup>	DL50-N2225	1048419	
		-	2 x / 1 x PNP (100 mA) <sup>2) 8)</sup>	10 ms / 40 ms / 160 ms <sup>4) 6)</sup>	DL50-N2228	1058987
			2 x / 1 x PNP (100 mA) <sup>2) 8)</sup>	10 ms / 40 ms / 160 ms <sup>4) 6)</sup>	DL50-P2228	1058986

<sup>1)</sup> Output Q short-circuit protected.

<sup>2)</sup> PNP: HIGH = V<sub>S</sub> - (< 2.5 V) / LOW = 0 V.

<sup>3)</sup> Dependent on the set average: fast/slow.

<sup>4)</sup> Lateral entry of object into measuring range.






<sup>5)</sup> NPN: HIGH = < 2.5 V / LOW = V<sub>S</sub>.

<sup>6)</sup> Dependent on the set average: fast/medium/slow.

<sup>7)</sup> On reflective tape "Diamond Grade"

<sup>8)</sup> Dependent on the set function MF: switching output 2 / laser off, external teach.

### Recommended accessories

	Brief description	Model name	Part no.
<b>Terminal and alignment brackets</b>			
	Alignment unit, steel, zinc coated, Steel, zinc coated, mounting hardware for the sensor included	BEF-AH-DX50	2048397
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-G02M	6008899
 Illustration may differ	Head A: Female connector, M12, 5-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-W02M	6008900
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: TPU, halogen-free, unshielded, 2 m	DOL-1208-G02MAH1	6032448
<b>Reflectors</b>			
	Reflector plate, reflective tape "Diamond Grade", 330 mm x 330 mm, material base plate: aluminum, screw connection, Screw-on, 4 hole mounting	PL240DG	1017910





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](http://www.mysick.com/en/UM30)

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/UM30](http://www.mysick.com/en/UM30)

- **Sub product family:** UM30-2
- **Sending axis:** straight

Working range, limiting range	Response time	Output rate	Switching output <sup>1)</sup>	Analog output	Model name	Part no.
30 mm ... 250 mm, 350 mm	50 ms	8 ms	1 x PNP (200 mA) <sup>2)</sup>	-	UM30-211111	6037660
			2 x PNP (200 mA) <sup>2)</sup>	-	UM30-211112	6037664
			-	1 x 0 V ... 10 V (≥ 100 kΩ) <sup>3)</sup>	UM30-211113	6036916
			1 x PNP (200 mA) <sup>2)</sup>	1 x 4 mA ... 20 mA (≤ 500 Ω) <sup>3) 4) 5)</sup>	UM30-211118	6036921
65 mm ... 350 mm, 600 mm	70 ms	16 ms	1 x PNP (200 mA) <sup>2)</sup>	-	UM30-212111	6037661
			2 x PNP (200 mA) <sup>2)</sup>	-	UM30-212112	6037665
			-	1 x 0 V ... 10 V (≥ 100 kΩ) <sup>3)</sup>	UM30-212113	6036917
			1 x NPN (200 mA) <sup>6)</sup>	-	UM30-212115	6037670
			1 x PNP (200 mA) <sup>2)</sup>	1 x 4 mA ... 20 mA (≤ 500 Ω) <sup>3) 4) 5)</sup>	UM30-212118	6036922

<sup>1)</sup> Output Q short-circuit protected.

<sup>2)</sup> PNP: HIGH = V<sub>S</sub> - (< 2 V) / LOW = 0 V.

<sup>3)</sup> Automatic selection of analog current or voltage output dependent on load.

<sup>4)</sup> For 4 mA ... 20 mA and V<sub>S</sub> ≤ 20 V max. load ≤ 100 Ω.

<sup>5)</sup> Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

<sup>6)</sup> NPN: HIGH ≤ 2 V / LOW = V<sub>S</sub>.

Working range, limiting range	Response time	Output rate	Switching output <sup>1)</sup>	Analog output	Model name	Part no.
200 mm ... 1,300 mm, 2,000 mm	110 ms	23 ms	1 x PNP (200 mA) <sup>2)</sup>	-	UM30-213111	6037537
			2 x PNP (200 mA) <sup>2)</sup>	-	UM30-213112	6037666
			-	1 x 0 V ... 10 V ( $\geq 100 \text{ k}\Omega$ ) <sup>3)</sup> 1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ ) <sup>3) 4) 5)</sup>	UM30-213113	6036918
			2 x NPN (200 mA) <sup>6)</sup>	-	UM30-213114	6037676
			1 x NPN (200 mA) <sup>6)</sup>	-	UM30-213115	6037671
			1 x PNP (200 mA) <sup>2)</sup>	1 x 0 V ... 10 V ( $\geq 100 \text{ k}\Omega$ ) <sup>3)</sup> 1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ ) <sup>3) 4) 5)</sup>	UM30-213118	6036923
350 mm ... 3,400 mm, 5,000 mm	180 ms	43 ms	1 x PNP (200 mA) <sup>2)</sup>	-	UM30-214111	6037662
			2 x PNP (200 mA) <sup>2)</sup>	-	UM30-214112	6037667
			-	1 x 0 V ... 10 V ( $\geq 100 \text{ k}\Omega$ ) <sup>3)</sup> 1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ ) <sup>3) 4) 5)</sup>	UM30-214113	6036919
			1 x NPN (200 mA) <sup>6)</sup>	-	UM30-214115	6037672
			1 x PNP (200 mA) <sup>2)</sup>	1 x 0 V ... 10 V ( $\geq 100 \text{ k}\Omega$ ) <sup>3)</sup> 1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ ) <sup>3) 4) 5)</sup>	UM30-214118	6036924
600 mm ... 6,000 mm, 8,000 mm	240 ms	60 ms	1 x PNP (200 mA) <sup>2)</sup>	-	UM30-215111	6037663
			2 x PNP (200 mA) <sup>2)</sup>	-	UM30-215112	6037668
			-	1 x 0 V ... 10 V ( $\geq 100 \text{ k}\Omega$ ) <sup>3)</sup>	UM30-215113	6036920
			1 x PNP (200 mA) <sup>2)</sup>	1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ ) <sup>3) 4) 5)</sup>	UM30-215118	6036925

<sup>1)</sup> Output Q short-circuit protected.

<sup>2)</sup> PNP: HIGH =  $V_s - (< 2 \text{ V})$  / LOW = 0 V.


<sup>3)</sup> Automatic selection of analog current or voltage output dependent on load.

<sup>4)</sup> For 4 mA ... 20 mA and  $V_s \leq 20 \text{ V}$  max. load  $\leq 100 \Omega$ .

<sup>5)</sup> Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

<sup>6)</sup> NPN: HIGH  $\leq 2 \text{ V}$  / LOW =  $V_s$ .

## Recommended accessories

	Brief 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



### 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 photo-electric 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](http://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](http://www.mysick.com/en/UC4)

- **Response time:** 30 ms
- **Output rate:** 8 ms
- **Sending axis:** straight

Working range, limiting range <sup>1)</sup>	Switching output <sup>2)</sup>	Model name	Part no.
13 mm ... 100 mm, 150 mm	1 x PNP (200 mA) <sup>3)</sup>	UC4-11341	6034667
	1 x NPN (200 mA) <sup>4)</sup>	UC4-11345	6034668
13 mm ... 150 mm, 250 mm	1 x PNP (200 mA) <sup>3)</sup>	UC4-13341	6034669
	1 x NPN (200 mA) <sup>4)</sup>	UC4-13345	6034670




<sup>1)</sup> Teach-in from 21 mm.

<sup>2)</sup> Output Q short-circuit protected.

<sup>3)</sup> PNP: HIGH = V<sub>S</sub> - (< 2 V) / LOW = 0 V.

<sup>4)</sup> NPN: HIGH ≤ 2 V / LOW = V<sub>S</sub>.

## Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket for wall mounting, Stainless steel 1.4571, Mounting hardware included	BEF-W4-A	2051628
<b>Terminal and alignment brackets</b>			
	Ball clamp bracket, Plastic, Mounting hardware included	BEF-GH-MINI02	2027128
<b>Universal bar clamp systems</b>			
	Plate H for universal clamp bracket, Steel, zinc coated, universal clamp and mounting hardware included	BEF-KHS-H01	2022465
<b>Plug connectors and cables</b>			
	Head A: Female connector, M8, 3-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-G02M	6010785
	Head A: Female connector, M8, 3-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-0803-W02M	6008489



### 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](http://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](http://www.mysick.com/en/UC12)

- **Response time:** 30 ms
- **Output rate:** 8 ms
- **Sending axis:** straight

Working range, limiting range	Switching output <sup>1) 2)</sup>	Model name	Part no.
20 mm ... 150 mm, 250 mm	2 x PNP (500 mA) <sup>3)</sup>	UC12-11231	6029831
	2 x NPN (500 mA) <sup>4)</sup>	UC12-11235	6029833
55 mm ... 250 mm, 350 mm	2 x PNP (500 mA) <sup>3)</sup>	UC12-12231	6029832
	2 x NPN (500 mA) <sup>4)</sup>	UC12-12235	6029834

<sup>1)</sup> Output Q short-circuit protected.




<sup>2)</sup> Complementary switching outputs (Q, /Q)

<sup>3)</sup> PNP: HIGH = V<sub>S</sub> - (< 2 V) / LOW = 0 V.

<sup>4)</sup> NPN: HIGH ≤ 2 V / LOW = V<sub>S</sub>.



Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket, large, Stainless steel, Mounting hardware included	BEF-WG-W12	2013942
	Mounting bracket, small, Stainless steel, Mounting hardware included	BEF-WK-W12	2012938
<b>Universal bar clamp systems</b>			
	Plate D for universal clamp bracket, Steel, zinc coated, universal clamp and mounting hardware included	BEF-KHS-D01	2022461
	Plate L for universal clamp bracket, Steel, zinc coated, universal clamp and mounting hardware included	BEF-KHS-L01	2023057
	Plate N02 for universal clamp bracket, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N02	2051608
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383





## AUTOMATION LIGHT GRIDS



### 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 ir-

regularly 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 applica-

tion. Light grids from SICK offer multiple ranges, heights, sizes, orientations, and resolutions which simplify integration through high flexibility and performance.





**ELG.** . . . . . **I-162**  
ELG – the extremely tough and versatile light grid for standard applications





### 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

→ [www.mysick.com/en/ELG](http://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](http://www.mysick.com/en/ELG)

Beam separation	Working range	Evaluation beams	Detection height	Switching output	Model name	Part no.
10 mm	3 m	Parallel beam	150 mm	2 x PNP (Q and /Q)	ELG1-0150P531	1026741
		Multiple scan	100 mm	2 x PNP (Q and /Q)	ELG1-0100P533	1026808
	5 m		Parallel beam	150 mm	2 x PNP (Q and /Q)	ELG1-0150P533
		150 mm		2 x PNP (Q and /Q)	ELG1-0150P571	1028333
30 mm	2 m	Parallel beam	90 mm	2 x PNP (Q and /Q)	ELG3-0090P511	1024290
			210 mm	2 x PNP (Q and /Q)	ELG3-0210P511	1025510
			390 mm	2 x PNP (Q and /Q)	ELG3-0390P591	1042615
			570 mm	2 x PNP (Q and /Q)	ELG3-0570P511	1025501
		Multiple scan	690 mm	2 x NPN (Q and /Q)	ELG3-0690N511	1041956
			150 mm	2 x PNP (Q and /Q)	ELG3-0150P513	1025578
			210 mm	2 x NPN (Q and /Q)	ELG3-0210N513	1052378
			12 m	Parallel beam	210 mm	2 x PNP (Q and /Q)
	450 mm	Relais (DC 60 V, AC 25 V)			ELG3-0450R221	1024268
	690 mm	2 x NPN (Q and /Q)			ELG3-0690N521	1025615
	930 mm	Relais (DC 60 V, AC 25 V)			ELG3-0930R521	1025449
	1,050 mm	2 x PNP (Q and /Q)			ELG3-1050P521	1025570
	2,370 mm	2 x PNP (Q and /Q)			ELG3-2370P521	1025573
	Multiple scan	930 mm	Relais (DC 60 V, AC 25 V)	ELG3-0930R523	1026537	
1,170 mm		2 x PNP (Q and /Q)	ELG3-1170P523	1040580		

Beam separation	Working range	Evaluation beams	Detection height	Switching output	Model name	Part no.
60 mm	12 m	Parallel beam	1,080 mm	2 x PNP (Q and /Q)	ELG6-1080P521	1025586
			1,380 mm	1 x PNP (Q and /Q)	ELG6-1380P521	1025587
			2,340 mm	0 x PNP (Q and /Q)	ELG6-2340P521	1025596
			2,460 mm	Relais (DC 60 V, AC 25 V)	ELG6-2460R521	1026183
			3,120 mm	1 x PNP (Q and /Q)	ELG6-3120P521	1047475
		Multiple scan	1,860 mm	2 x PNP (Q and /Q)	ELG6-1860P523	1025593
			2,040 mm	2 x PNP (Q and /Q)	ELG6-2040P523	1025594

### Recommended accessories

	Brief description	Model name	Part no.
Terminal and alignment brackets			
	4 pieces, Mounting kit 1, rotatable, swivel mount, Plastic	BEF-2SMKEAKU4	2019649
Plug connectors and cables			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382



## VISION



### 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 applica-

tions 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.

J



**Inspector** . . . . . **J-166**  
An intelligent vision solution in an easy-to-use sensor package



**Lector®62x** . . . . . **J-168**  
Clever. Simple. Industrial.





## 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](http://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.













## Ordering information

Other models and accessories → [www.mysick.com/en/Inspector](http://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	VSP-3F1122	1051982
Inspector I-series	384 px x 384 px	6 mm, integrated	PMMA	White	Inspector I10 Standard	VSPI-1R111	1042779
		6 mm, exchangeable (M12-mount)	PMMA	White	Inspector I20	VSPI-2F111	1046732
	Infrared			Inspector I20-IR	VSPI-2F141	1054704	
	640 px x 480 px	10 mm, exchangeable (M12-mount)	PMMA	White	Inspector I40	VSPI-4F2111	1047913
Infrared				Inspector I40-IR	VSPI-4F2411	1054705	
Inspector PI-series	640 px x 480 px	10 mm, exchangeable (M12-mount)	PMMA	White	Inspector PI50	VSP-5F2113	1056082
				Infrared	Inspector PI50-IR	VSP-5F2413	1057303
				White	Inspector PI50 EtherCAT	VSP-5F2134	1056394
Inspector PIM-series	640 px x 480 px	Not included (M12-mount)	No front window included	White	Inspector PIM60 Base	VSPM-6B2113	1064565
				Infrared	Inspector PIM60-IR Base	VSPM-6B2413	1064566
		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

## Recommended accessories

	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 12-pin, straight Head B: cable Cable: PUR, shielded, 5 m	DOL-1212-G05MAS01	6036556
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, PUR, shielded, 2 m	SSL-2J04-G02ME	6034414
<b>Lens and accessories</b>			
	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
<b>Optical filters</b>			
	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 (> 730 nm) for variants with exchangeable lens and front window, PMMA	Inspector Flex visible block filter	2061248
	Visible block filter (> 770 nm) for variants with exchangeable lens and front window, PMMA	Inspector Flex visible block filter	2073707
<b>Test and monitoring tools</b>			
	Inspector Viewer for Inspector I-/P-/PI-series	VSPV-22222	2057556



### 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
- IDpro 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](http://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](http://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 ECO	7 mm	Red	IP 65	ICR620E-H12013 ECO	1054507
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
		Blue	IP 65	ICR620D-T17503 DPM Plus Solar	1060912
	12 mm	Red, blue	IP 65	ICR620D-T31503 DPM Plus	1064255
	18 mm	Red, blue	IP 65	ICR620D-T51503 DPM Plus	1064256
Lector®620 OCR	7 mm	Red, blue	IP 65	ICR620C-T11503S50 OCR	1062803



## Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket (simple bracket), Mounting hardware included	Mounting bracket	2020410
<b>Modules</b>			
	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
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 17-pin, straight Head B: male connector, D-Sub-HD, 15-pin, straight Cable: Power, serial, CAN, digital I/Os, unshielded, 2 m	Connection cable (male connector-female connector)	2055419
	Head A: male connector, M12, 4-pin, D-coded Head B: male connector, M12, 4-pin, D-coded Cable: Ethernet, shielded, 2 m	SSL-1204-G02ME	6034420
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, PUR, shielded, 2 m	SSL-2J04-G02ME	6034414
	Head A: male connector, USB-A Head B: male connector, Micro-B Cable: USB 2.0, unshielded, 2 m	USB cable	6036106



## 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.

K



**Safety laser scanners**

S300 Mini Standard . . . . .	K-172
S3000 Standard . . . . .	K-174



**Safety light curtains**

deTec4 Core set . . . . .	K-176
miniTwin4 . . . . .	K-178
miniTwin2 . . . . .	K-180
deTec2 Core . . . . .	K-182



**Safety camera systems**

V300 Work Station Extended . . . . .	K-184
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**Multiple light beam safety devices**

M4000 Standard . . . . .	K-185
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**Single-beam photoelectric safety switches**

L41. . . . .	K-187
L21. . . . .	K-189





### 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

### 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

- Contour as reference for vertical applications
- Integrated external device monitoring (EDM)
- Easy-to-configure fields and functions

- 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](http://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](http://www.mysick.com/en/S300_Mini_Standard)

Protective field range	Model name	Part no.
2 m	S32B-2011BA	1050932
3 m	S32B-3011BA	1056430

### Recommended accessories

	Brief 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

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	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: TPU, halogen-free, shielded, 5 m	DOL-127SG05ME25KM0	6020354
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: TPU, halogen-free, shielded, 10 m	DOL-127SG10ME25KM0	6020352
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: TPU, halogen-free, shielded, 20 m	DOL-127SG20ME25KM0	6033096
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: TPU, halogen-free, shielded, 2.5 m	DOL-127SG2M5E25KM0	6020537
	Head A: Female connector, M12, 8-pin, angled Head B: cable Cable: TPU, halogen-free, shielded, 5 m	DOL-127SW05ME25KM0	6021342
	Head A: Female connector, M12, 8-pin, angled Head B: cable Cable: TPU, halogen-free, shielded, 10 m	DOL-127SW10ME25KM0	6035566
	Head A: Female connector, M12, 8-pin, angled Head B: cable Cable: TPU, halogen-free, shielded, 15 m	DOL-127SW15ME25KM0	6021343
	Head A: male connector, M8, 4-pin, straight Head B: male connector, USB-A, straight Cable: PVC, unshielded, 2 m For connecting the configuration connection to the USB interface on the PC	DSL-8U04G02M025KM1	6034574
<b>Spare parts</b>			
	Spare part set optic cover with replacement seal and screws	Spare part set optic cover	2039248



## At a glance

- 4 m, 5.5 m or 7 m protective field range
- One field set (one protective fields, 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
- Simultaneous monitoring of up to four protective fields
- Contour as reference for vertical applications
- Integrated external device monitoring (EDM)

## Your benefits

- Largest protective field range in the market increases the variety of application possibilities
- Safety engineering – with no loss of productivity.
- Quick recommissioning via configuration memory
- Expandable modular system, simple cabling and additional functions such as the simultaneous monitoring of up to four protective fields using SICK safety controllers with EFI
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Decades of proven safety technology guarantee maximum reliability and productivity – even under difficult conditions
- Simple alignment and safe operation in vertical mode

→ [www.mysick.com/en/S3000\\_Standard](http://www.mysick.com/en/S3000_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/S3000\\_Standard](http://www.mysick.com/en/S3000_Standard)





- **System part:** sensor head with I/O module

Protective field range	Model name	Part no.
4 m	S30A-4011BA	1028934
5.5 m	S30A-6011BA	1023546
7 m	S30A-7011BA	1023890

## Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	1 piece, Mounting bracket for direct mounting, from the rear, on wall or machine, not adjustable	Mounting kit 1	2015623
	1 piece, 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
	1 piece, 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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	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
	Head A: male connector, M8, 4-pin, straight Head B: male connector, USB-A, straight Cable: PVC, unshielded, 2 m For connecting the configuration connection to the USB interface on the PC	DSL-8U04G02M025KM1	6034574
	Head A: System plug Cable: without cable Not for use with incremental encoders, integrated configuration memory	SX0A-A0000B	2023797
	Head A: System plug Cable: pre-assembled, PVC, unshielded, 5 m Not for use with incremental encoders, integrated configuration memory	SX0A-B0905B	2027170
	Head A: System plug Cable: pre-assembled, PVC, unshielded, 10 m Not for use with incremental encoders, integrated configuration memory	SX0A-B0910B	2027171
	Head A: System plug Cable: pre-assembled, PVC, unshielded, 20 m Not for use with incremental encoders, integrated configuration memory	SX0A-B0920B	2027814
<b>Spare parts</b>			
	Front screen replacement kit with replacement seal and screws	Front screen replacement kit	2027180



### 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
- Additional functions restart interlock and external device monitoring (EDM) by using the UE48-20S2D2 safety relay

### 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
- Simplified order process by having only a single part number for the complete set - reduces efforts and costs

→ [www.mysick.com/en/deTec4\\_Core](http://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 → [www.mysick.com/en/deTec4\\_Core](http://www.mysick.com/en/deTec4_Core)

A set consists of:

- deTec4 Core, sender and receiver
- 1 x safety-relais UE48-20S (6024915)
- 4 x FlexFix-bracket (2066614)
- 2 x connecting cable, 5 m ( 6025907)
- **Resolution:** 14 mm
- **Scanning range:** 0 m ... 7 m

Protective field height	Model name	Part no.
300 mm	deTec4 Core Set 14/300	1062896
450 mm	deTec4 Core Set 14/450	1062897
600 mm	deTec4 Core Set 14/600	1062898
750 mm	deTec4 Core Set 14/750	1062899
900 mm	deTec4 Core Set 14/900	1062900
1.050 mm	deTec4 Core Set 14/1050	1062901
1.200 mm	deTec4 Core Set 14/1200	1062902
1.350 mm	deTec4 Core Set 14/1350	1062903
1.500 mm	deTec4 Core Set 14/1500	1062904
1.650 mm	deTec4 Core Set 14/1650	1062905
1.800 mm	deTec4 Core Set 14/1800	1062906
1.950 mm	deTec4 Core Set 14/1950	1062907
2.100 mm	deTec4 Core Set 14/2100	1062908



- **Resolution:** 30 mm
- **Scanning range:** 0 m ... 10 m

Protective field height	Model name	Part no.
300 mm	deTec4 Core Set 30/300	1062909
450 mm	deTec4 Core Set 30/450	1062910
600 mm	deTec4 Core Set 30/600	1062911
750 mm	deTec4 Core Set 30/750	1062912
900 mm	deTec4 Core Set 30/900	1062913
1.050 mm	deTec4 Core Set 30/1050	1062914
1.200 mm	deTec4 Core Set 30/1200	1062915
1.350 mm	deTec4 Core Set 30/1350	1062916
1.500 mm	deTec4 Core Set 30/1500	1062917
1.650 mm	deTec4 Core Set 30/1650	1062918
1.800 mm	deTec4 Core Set 30/1800	1062919
1.950 mm	deTec4 Core Set 30/1950	1062920
2.100 mm	deTec4 Core Set 30/2100	1062921



### At a glance

- Type 4 (IEC 61496), SIL3 (IEC 61508), PL e (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](http://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](http://www.mysick.com/en/miniTwin4)

### Standalone device

- **Resolution:** 14 mm

Cable length	Protective field height	Model name	Part no.
160 mm	120 mm	C4MT-01214ABB03BE0	1207094
	180 mm	C4MT-01814ABB03BE0	1207097
350 mm	240 mm	C4MT-02414ABB03DE0	1207098
	300 mm	C4MT-03014ABB03DE0	1207099
	360 mm	C4MT-03614ABB03DE0	1207100
	420 mm	C4MT-04214ABB03DE0	1207101
	480 mm	C4MT-04814ABB03DE0	1207102
	540 mm	C4MT-05414ABB03DE0	1207103
700 mm	600 mm	C4MT-06014ABB03FE0	1207104
	660 mm	C4MT-06614ABB03FE0	1207105
	720 mm	C4MT-07214ABB03FE0	1207106
	780 mm	C4MT-07814ABB03FE0	1207107
	840 mm	C4MT-08414ABB03FE0	1207108
	900 mm	C4MT-09014ABB03FE0	1207109

- **Resolution:** 24 mm

Cable length	Protective field height	Model name	Part no.
350 mm	240 mm	C4MT-02424ABB03DE0	1207224
	300 mm	C4MT-03024ABB03DE0	1207225
	360 mm	C4MT-03624ABB03DE0	1207227
	480 mm	C4MT-04824ABB03DE0	1207229








Cable length	Protective field height	Model name	Part no.
700 mm	600 mm	C4MT-06024ABB03FE0	1207231
	720 mm	C4MT-07224ABB03FE0	1207233
	900 mm	C4MT-09024ABB03FE0	1207236
	1,020 mm	C4MT-10224ABB03FE0	1207238
	1,200 mm	C4MT-12024ABB03FE0	1207241

### Cascade device

- **Resolution:** 14 mm

Cable length	Protective field height	Model name	Part no.
160 mm	180 mm	C4MT-01814ABB04BE0	1207116
350 mm	240 mm	C4MT-02414ABB04DE0	1207117
	300 mm	C4MT-03014ABB04DE0	1207118
	480 mm	C4MT-04814ABB04DE0	1207121
700 mm	600 mm	C4MT-06014ABB04FE0	1207123
	720 mm	C4MT-07214ABB04FE0	1207125
	900 mm	C4MT-09014ABB04FE0	1207128

### Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	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
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-1205-G05M	6009868
	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 10 m	DOL-1205-G10M	6010544
	Head A: male connector, M12, 5-pin, straight Head B: Female connector, M12, 5-pin, straight Cable: drag chain use, TPU, halogen-free, unshielded, 1 m	DSL-1205-G01MC	6029280
	Head A: male connector, M12, 5-pin, straight Head B: Female connector, M12, 5-pin, straight Cable: drag chain use, TPU, halogen-free, unshielded, 2 m	DSL-1205-G02MC	6025931
	Head A: Female connector, M12, 5-pin, straight Head B: male connector, M12, 5-pin, straight Cable: unshielded, 0.35 m Connector for cascaded Mini Twin, with 2 connecting cables and 1 male and 1 female connector M12, 5-pin	System plug cascade	2046454
	Head A: Female connector, M12, 5-pin, straight Head B: male connector, M12, 5-pin, straight Cable: unshielded, 0.7 m Connector for cascaded Mini Twin, with 2 connecting cables and 1 male and 1 female connector M12, 5-pin	System plug cascade	2046456
	Cable: unshielded, 10 m, for miniTwin Standalone	System plug standalone	2051290



### At a glance

- Type 2 (IEC 61496), SIL2 (IEC 61508), PL d (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 ... 8 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/miniTwin2](http://www.mysick.com/en/miniTwin2)

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/miniTwin2](http://www.mysick.com/en/miniTwin2)

### Standalone device

- **Resolution:** 14 mm

Cable length	Protective field height	Model name	Part no.
160 mm	120 mm	C2MT-01214BBC03BE0	1207793
	180 mm	C2MT-01814BBC03BE0	1207794
350 mm	240 mm	C2MT-02414BBC03DE0	1207795
	300 mm	C2MT-03014BBC03DE0	1207796
	360 mm	C2MT-03614BBC03DE0	1207797
	420 mm	C2MT-04214BBC03DE0	1207798
	480 mm	C2MT-04814BBC03DE0	1207799
	540 mm	C2MT-05414BBC03DE0	1207800
700 mm	600 mm	C2MT-06014BBC03FE0	1207801

- **Resolution:** 24 mm

Cable length	Protective field height	Model name	Part no.
350 mm	240 mm	C2MT-02424BBC03DE0	1207824
	300 mm	C2MT-03024BBC03DE0	1207825
	360 mm	C2MT-03624BBC03DE0	1207832
	480 mm	C2MT-04824BBC03DE0	1207834

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Cable length	Protective field height	Model name	Part no.
700 mm	600 mm	C2MT-06024BBC03FE0	1207836
	720 mm	C2MT-07224BBC03FE0	1207838
	900 mm	C2MT-09024BBC03FE0	1207841
	1,020 mm	C2MT-10224BBC03FE0	1207843
	1,200 mm	C2MT-12024BBC03FE0	1207846

### Cascade device

- **Resolution:** 24 mm

Cable length	Protective field height	Model name	Part no.
160 mm	180 mm	C2MT-01824BBC04BE0	1207886
350 mm	240 mm	C2MT-02424BBC04DE0	1207887
	300 mm	C2MT-03024BBC04DE0	1207888
	480 mm	C2MT-04824BBC04DE0	1207891
700 mm	600 mm	C2MT-06024BBC04FE0	1207893
	720 mm	C2MT-07224BBC04FE0	1207895
	900 mm	C2MT-09024BBC04FE0	1207898

### Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	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
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-1205-G05M	6009868
	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 10 m	DOL-1205-G10M	6010544
	Head A: male connector, M12, 5-pin, straight Head B: Female connector, M12, 5-pin, straight Cable: drag chain use, TPU, halogen-free, unshielded, 1 m	DSL-1205-G01MC	6029280
	Head A: male connector, M12, 5-pin, straight Head B: Female connector, M12, 5-pin, straight Cable: drag chain use, TPU, halogen-free, unshielded, 2 m	DSL-1205-G02MC	6025931
	Head A: Female connector, M12, 5-pin, straight Head B: male connector, M12, 5-pin, straight Cable: unshielded, 0.35 m Connector for cascaded Mini Twin, with 2 connecting cables and 1 male and 1 female connector M12, 5-pin	System plug cascade	2046454
	Head A: Female connector, M12, 5-pin, straight Head B: male connector, M12, 5-pin, straight Cable: unshielded, 0.7 m Connector for cascaded Mini Twin, with 2 connecting cables and 1 male and 1 female connector M12, 5-pin	System plug cascade	2046456
	Cable: unshielded, 10 m, for miniTwin Standalone	System plug standalone	2051290



### At a glance

- Type 2 (IEC 61496), SIL1 (IEC 61508), PL c (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/deTec2\\_Core](http://www.mysick.com/en/deTec2_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/deTec2\\_Core](http://www.mysick.com/en/deTec2_Core)





- **Resolution:** 14 mm
- **Scanning range:** 0 m ... 7 m

Protective field height	Sender		Receiver	
	Model name	Part no.	Model name	Part no.
300 mm	C2C-SA03010A10000	1213163	C2C-EA03010A10000	1213188
450 mm	C2C-SA04510A10000	1213189	C2C-EA04510A10000	1213190
600 mm	C2C-SA06010A10000	1213191	C2C-EA06010A10000	1213192
750 mm	C2C-SA07510A10000	1213193	C2C-EA07510A10000	1213194
900 mm	C2C-SA09010A10000	1213195	C2C-EA09010A10000	1213196
1,050 mm	C2C-SA10510A10000	1213197	C2C-EA10510A10000	1213198
1,200 mm	C2C-SA12010A10000	1213183	C2C-EA12010A10000	1213199

- **Resolution:** 30 mm
- **Scanning range:** 0 m ... 10 m

Protective field height	Sender		Receiver	
	Model name	Part no.	Model name	Part no.
300 mm	C2C-SA03030A10000	1213200	C2C-EA03030A10000	1213184
450 mm	C2C-SA04530A10000	1213202	C2C-EA04530A10000	1213203
600 mm	C2C-SA06030A10000	1213204	C2C-EA06030A10000	1213205
750 mm	C2C-SA07530A10000	1213206	C2C-EA07530A10000	1213207
900 mm	C2C-SA09030A10000	1213208	C2C-EA09030A10000	1213209
1,050 mm	C2C-SA10530A10000	1213210	C2C-EA10530A10000	1213211
1,200 mm	C2C-SA12030A10000	1213212	C2C-EA12030A10000	1213213
1,350 mm	C2C-SA13530A10000	1213214	C2C-EA13530A10000	1213215
1,500 mm	C2C-SA15030A10000	1213216	C2C-EA15030A10000	1213217
1,650 mm	C2C-SA16530A10000	1213218	C2C-EA16530A10000	1213219
1,800 mm	C2C-SA18030A10000	1213220	C2C-EA18030A10000	1213221
1,950 mm	C2C-SA19530A10000	1213222	C2C-EA19530A10000	1213223
2,100 mm	C2C-SA21030A10000	1213201	C2C-EA21030A10000	1213164

## Recommended accessories

	Brief description	Model name	Part no.
<b>Terminal and alignment brackets</b>			
	4 pieces, FlexFix bracket, Plastic	BEF-1SHABPKU4	2066614
	2 pieces, QuickFix bracket, Plastic	BEF-3SHABPKU2	2066048
<b>Adapters and distributors</b>			
	T-connector plugs directly into receiver, splits the single home run from control cabinet between sender and receiver	DSC-1205T000025KM0	6030664
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: TPU, halogen-free, unshielded, 5 m	DOL-1205-G05MC	6025907
	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: TPU, halogen-free, unshielded, 10 m	DOL-1205-G10MC	6025908
	Head A: Female connector, M12, 5-pin, straight Head B: cable Cable: TPU, halogen-free, unshielded, 20 m	DOL-1205-G20MC	6050247



## At a glance

- 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

- Flexible and individual definition of protective fields
- 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 for commissioning required
- High machine availability and simple maintenance

→ [www.mysick.com/en/V300\\_Work\\_Station\\_Extended](http://www.mysick.com/en/V300_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/V300\\_Work\\_Station\\_Extended](http://www.mysick.com/en/V300_Work_Station_Extended)

Description	Model name	Part no.
V300 Work Station Extended	V30W-0101000	1041542

## Recommended accessories




	Brief description	Model name	Part no.
<b>Terminal and alignment brackets</b>			
	Mounting kit for mounting the sensor on the profile frame	Mounting kit	2045375
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: TPU, halogen-free, shielded, 5 m	D0L-127SG05ME25KM0	6020354
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: TPU, halogen-free, shielded, 2.5 m	D0L-127SG2M5E25KM0	6020537
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: TPU, halogen-free, shielded, 7.5 m	D0L-127SG7M5E25KM0	6020353
<b>Sets and kits</b>			
	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

Illustration may differ





**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](http://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.



**Ordering information**

Other models and accessories → [www.mysick.com/en/M4000\\_Standard](http://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.
2	500 mm	M40S-025000ARO	1200000	M40E-025000RRO	1200017
4	300 mm	M40S-043000ARO	1200006	M40E-043000RRO	1200023

**M4000 Standard with integrated alignment aid and end cap with integrated LED**

- **Scanning range:** 0.5 m ... 70 m






Number of beams	Beam separation	Sender		Receiver	
		Model name	Part no.	Model name	Part no.
2	500 mm	M40S-025010ARO	1200011	M40E-025030RRO	1200038
3	400 mm	M40S-034010ARO	1200013	M40E-034030RRO	1200040
	450 mm	M40S-034510ARO	1200014	M40E-034530RRO	1200041
4	300 mm	M40S-043010ARO	1200015	M40E-043030RRO	1200042



## M4000 Standard A/P

Scanning range	Number of beams	Beam separation	Sender/receiver in one housing		Mirror	
			Model name	Part no.	Model name	Part no.
≤ 4.5 m	2	500 mm	M40Z-025000TRO	1200122	PSD01-2501	1027907
	4	300 mm	M40Z-043000TRO	1200123	PSD02-2301	1027908
≤ 7.5 m	2	500 mm	M40Z-025000RRO	1200120	PSD01-1501	1027906

## Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	4 pieces, Mounting kit 1, mounting bracket, rigid, L-shaped, including fixing screws and washers	BEF-3WNGBAST4	7021352
<b>Terminal and alignment brackets</b>			
	4 pieces, Mounting kit 6, side bracket, rotatable, Zinc diecast	BEF-1SHABAZN4	2019506
	4 pieces, Mounting kit 12, rotatable, swivel mount	BEF-2SMGEAKU4	2030510
<b>Plug connectors and cables</b>			
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: TPU, halogen-free, shielded, 5 m	DOL-127SG05ME25KM0	6020354
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: TPU, halogen-free, shielded, 10 m	DOL-127SG10ME25KM0	6020352
	Head A: Female connector, M12, 8-pin, straight Head B: cable Cable: TPU, halogen-free, shielded, 15 m	DOL-127SG15ME25KM0	6020872
<b>Device columns</b>			
	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



### 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 safety 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](http://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](http://www.mysick.com/en/L41)

Scanning range	Model	Housing material	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
0 m ... 5 m	M18 radial	Nickel-plated brass	L41S-11MA1A	6034868	L41E-11MA1A	6034869
0 m ... 10 m	M18 axial	Nickel-plated brass	L41S-21MA1A	6034866	L41E-21MA1A	6034867
		Plastic	L41S-21KA1A	6034864	L41E-21KA1A	6034865
0 m ... 60 m	M30 axial	Nickel-plated brass	L41S-33MA2A	6034863	L41E-33MA2A	6034862

### Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket, M18 thread, steel, zinc coated, without mounting hardware	BEF-WN-M18	5308446
	Mounting bracket, M30 thread, steel, zinc coated, without mounting hardware	BEF-WN-M30	5308445



	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-G05M	6009866
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-W05M	6009867
	Head A: Female connector, M12, 4-pin, straight Head B: - Cable: unshielded	DOS-1204-G	6007302
	Head A: Female connector, M12, 4-pin, angled Head B: - Cable: unshielded	DOS-1204-W	6007303



### At a glance

- Type 2 (IEC 61496), SIL1 (IEC 61508), PL c (EN ISO 13849), only in conjunction 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
- Metal and plastic version
- Radial optics (90° deflector mirror)
- Straightforward diagnostics and service

### Your benefits

- Easy integration due to small, compact versions with maximum range
- Directly connect to a safety controller – without a separate evaluation unit, 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/L21](http://www.mysick.com/en/L21)

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/L21](http://www.mysick.com/en/L21)

Scanning range	Model	Housing material	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
0 m ... 5 m	M18 radial	Nickel-plated brass	L21S-11MA1A	6034876	L21E-11MA1A	6034877
0 m ... 10 m	M18 axial	Nickel-plated brass	L21S-21MA1A	6034874	L21E-21MA1A	6034875
		Plastic	L21S-21KA1A	6034872	L21E-21KA1A	6034873
0 m ... 60 m	M30 axial	Nickel-plated brass	L21S-33MA2A	6034870	L21E-33MA2A	6034871

### Recommended accessories

	Brief description	Model name	Part no.
Mounting brackets and mounting plates			
	Mounting bracket, M18 thread, steel, zinc coated, without mounting hardware	BEF-WN-M18	5308446
	Mounting bracket, M30 thread, steel, zinc coated, without mounting hardware	BEF-WN-M30	5308445

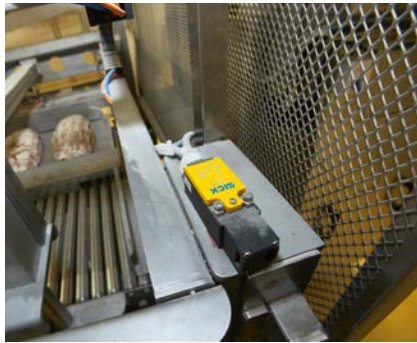


	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
 Illustration may differ	Head A: Female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-G05M	6009866
 Illustration may differ	Head A: Female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-W05M	6009867
	Head A: Female connector, M12, 4-pin, straight Head B: - Cable: unshielded	DOS-1204-G	6007302
	Head A: Female connector, M12, 4-pin, angled Head B: - Cable: unshielded	DOS-1204-W	6007303





## 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 determi-

nation 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.





	<b>Electro-mechanical safety switches</b>	
	i12S . . . . .	L-194
	i16S . . . . .	L-195
	i17S . . . . .	L-196
	i10 Lock . . . . .	L-197
	<b>Non-contact safety switches</b>	
	RE1. . . . .	L-199
	RE2. . . . .	L-201
	TR4 Direct . . . . .	L-203
	IN3000 Direct . . . . .	L-206
	IN4000 Direct . . . . .	L-207





### 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](http://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](http://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.
1	1	Cable gland, 1 x M16	6 N	i12-SA113	6025057
		Cable gland, 1 x M16	6 N	i12-SA203	6025100
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

	Brief description	Model name	Part no.
<b>Actuators</b>			
	Angled, rigid	iE12-A1	5311132
	Rigid, semiflexible	iE12-F1	5308842
	Straight, rubber-mounted	iE12-S1	5311131



### At a glance

- Compact plastic housing
- Rigid and mobile actuators
- Available with M20 X 1.5 cable entry glands or Flexi Loop-compatible M12 plug connector (depending on variant)
- Slow-action switching elements with two contacts
- High retaining force
- IP 67 enclosure rating

### Your benefits

- High availability and safety due to the cone shaped alignment aid
- High locking force offers machine reliability, even when exposed to shock and vibration
- Flexible electrical connectivity due to three cable entry glands
- Flexi Loop now enables a safe series connection with enhanced diagnostics capabilities and minimal wiring effort.

→ [www.mysick.com/en/i16S](http://www.mysick.com/en/i16S)

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/i16S](http://www.mysick.com/en/i16S)

- **Locking force:** 30 N

Number of positive action N/C contacts	Number of N/O contacts	Connection type	Model name	Part no.
1	1	Cable gland, 3 x M20	i16-SA113	6025065
2	0	Cable gland, 3 x M20	i16-SA203	6025063
		Plug connector, M12, 4-pin	i16-SA205	1064508

### Recommended accessories

	Brief description	Model name	Part no.
<b>Actuators</b>			
	Rigid, fully flexible	iE16-F1	5311129
	Rigid, semiflexible	iE16-F2	5311278
	Straight, rigid	iE16-S1	5311128
	Catch and retainer kit	iE16-SCR	5310780



### 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](http://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](http://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

### Recommended accessories

	Brief description	Model name	Part no.
<b>Actuators</b>			
	Rigid, fully flexible	iE16-F1	5311129
	Rigid, semiflexible	iE16-F2	5311278
	Catch and retainer kit	iE16-SCR	5310780
	Straight, rigid, self ejecting against simple manipulation	iE17-S1	5311130



### 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 and magnetic force
- Lock and door monitoring
- IP 67 enclosure rating

### 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](http://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](http://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
	0	0	1	1	Cable gland, 3 x M20	i10-E0253 Lock	6020536
		1	0	0	Plug connector, M12, 8-pin	i10-E0454 Lock	6045056
			1	0	Cable gland, 3 x M20	i10-E0313S02 Lock	6011368
		2	0	0	Cable gland, 3 x M20	i10-E0453 Lock	6020598



- **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
	0	0	1	1	Cable gland, 3 x M20	i10-M0253 Lock	6027397
		1	0	0	Plug connector, M12, 8-pin	i10-M0454 Lock	6045055
		2	0	0	Cable gland, 3 x M20	i10-M0453 Lock	6029934

## Recommended accessories

	Brief description	Model name	Part no.
<b>Actuators</b>			
	Angled, rigid	iE10-A1	5306535
	Angled, rigid, with overrun	iE10-A4	5308497
	Rigid, semiflexible, door hinged at top/bottom	iE10-R1	5306528
	Rigid, 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



**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)

**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

- Sensors with plug connector or connected cable
- Flexi Loop-compatible M12 plug connector (depending on variant)

- 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](http://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](http://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 $S_{30}$	Model name	Part no.
Plug connector, M8, 4-pin	–	–	3 mm	RE11-SAC	1059410
Cable	–	3 m	3 mm	RE11-SA03	1059411
		5 m	3 mm	RE11-SA05	1059501
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

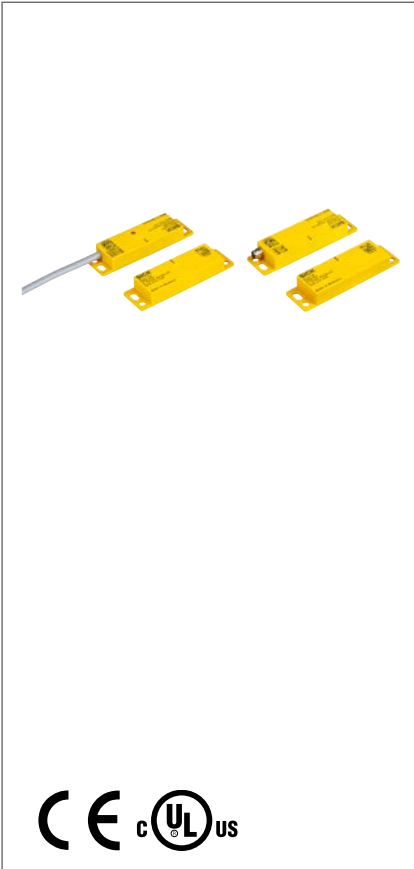


Recommended accessories

	Brief 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







### 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](http://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](http://www.mysick.com/en/RE2)

- **System part:** sensor & actuator
- **Design:** rectangular

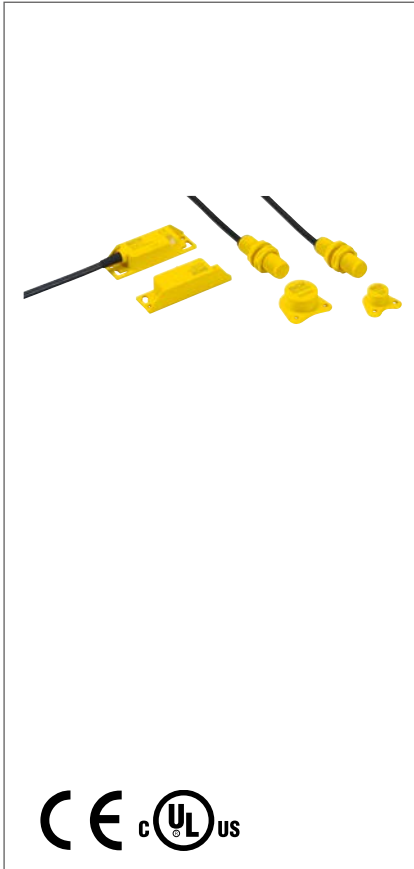
Status display	Connection type	Flexi Loop-compatible M12 plug connector	Cable length	Safe switch on distance $S_{ao}$	Model name	Part no.	
-	Plug connector, M8, 4-pin	-	-	6 mm	RE21-SAC	1059505	
	Cable	-	3 m	6 mm	RE21-SA03	1059506	
			5 m	6 mm	RE21-SA05	1059507	
	Plug connector, M8, 4-pin	-	-	9 mm	RE23-SAC	1059508	
	Cable	-	-	3 m	9 mm	RE23-SA03	1061725
				5 m	9 mm	RE23-SA05	1061726
Cable with connector M12, 4-pin	✓	-	0.2 m	9 mm	RE23-SA64	1062542	
Cable with connector M8, 4-pin	-	-	0.2 m	9 mm	RE23-SA84	1062541	
✓	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
				✓	0.2 m	9 mm	RE27-SA68LS04



Recommended accessories

	Brief 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





### 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](http://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](http://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









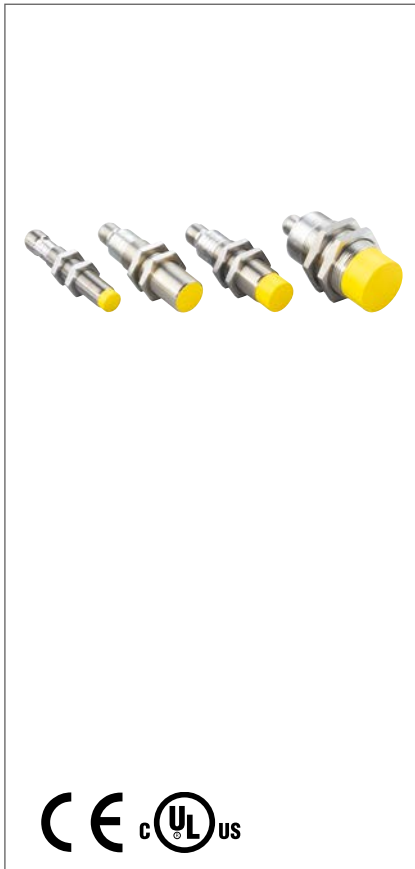
- **Design:** rectangular
- **System part:** sensor & actuator
- **Dimensions:** 25 mm x 88 mm x 20 mm
- **Safe switch on distance  $S_{ao}$ :** 15 mm
- **Safe switch off distance  $S_{ar}$ :** 35 mm

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	
	✓	✓	Multicoded	Cable with plug M12, 8-pin	0.2 m	TR4-SFM01C	6044650
				Cable	3 m	TR4-SFM03P	6044648
					10 m	TR4-SFM10P	6044649
			Unique coded	Cable with plug M12, 8-pin	0.2 m	TR4-SFU01C	6044653
				Cable	3 m	TR4-SFU03P	6044651
					10 m	TR4-SFU10P	6044652

## Recommended accessories

	Brief 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

	Brief description	Model name	Part no.
<b>Actuators</b>			
	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
	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



## 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)

## 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
- Flexi Loop-compatible M12 plug connector
- 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](http://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](http://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

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket, M12 thread, steel, zinc coated, without mounting hardware	BEF-WN-M12	5308447
	Mounting bracket, M18 thread, steel, zinc coated, without mounting hardware	BEF-WN-M18	5308446
	Mounting bracket, M30 thread, steel, zinc coated, without mounting hardware	BEF-WN-M30	5308445
<b>Terminal and alignment brackets</b>			
	Clamping block for round sensors M12, without fixed stop, plastic (PA12), glass-fiber reinforced, mounting hardware included	BEF-KH-M12	2051479
	Clamping block for round sensors M18, without fixed stop, plastic (PA12), glass-fiber reinforced, mounting hardware included	BEF-KH-M18	2051481



**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](http://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**

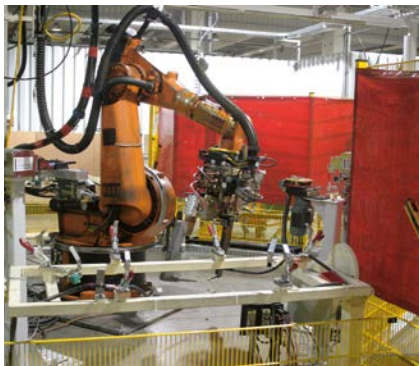
Other models and accessories → [www.mysick.com/en/IN4000\\_Direct](http://www.mysick.com/en/IN4000_Direct)

Design	Installation type	Model name	Part no.
Rectangular	Non-flush	IN40-E0109K	6050281





## SENS:CONTROL – SAFE CONTROL SOLUTIONS



### 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.





**Flexi Soft** . . . . . **M-210**  
The software-programmable safety controller



**Speed Monitor** . . . . . **M-212**  
Optimal safety protection in maintenance mode



**Standstill Monitor**. . . . . **M-213**  
Standstill monitoring without additional sensors



**UE10-2FG** . . . . . **M-214**  
The ideal solution to integrate relay outputs



**UE10-30S** . . . . . **M-215**  
The universal output expansion module



**UE23-3MF**. . . . . **M-216**  
Connection solution for safety switches and emergency stop pushbuttons



**UE48-20S** . . . . . **M-217**  
Safety relay for all common safety applications





### 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](http://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](http://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-GENTO0000	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	UE410-2R04	6032677
4	2	2	UE410-4R04	6032676
2	0	1	UE10-2FG3D0	1043916
			UE12-2FG3D0	1043918

## Recommended accessories

	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
	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
	Head A: male connector, M8, 4-pin, straight Head B: female connector, D-Sub, 9-pin, straight Cable: PVC, unshielded, 2 m For connecting the configuration connection to the serial interface of a PC	DSL-8D04G02M025KM1	6021195
	Head A: male connector, M8, 4-pin, straight Head B: male connector, USB-A, straight Cable: PVC, unshielded, 2 m For connecting the configuration connection to the USB interface on the PC	DSL-8U04G02M025KM1	6034574
	Head A: male connector, M8, 4-pin, angled Head B: cable Cable: TPU, halogen-free, unshielded, 3 m For connecting the configuration connection of a PLC	Connection cable	6036342
	Head A: male connector, USB-A, straight Head B: male connector, Mini-USB, straight Cable: USB, shielded, 3 m	Connection cable (male connector-male connector)	6042517
	Head A: cable Head B: cable Cable: PVC, shielded Fitting for EFI connections	EFI connecting cable	6029448
	Head A: open conductor heads Head B: cable Cable: Flexi Link, shielded	Flexi link cable	6034249



### 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](http://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](http://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
	Spring terminals	MOC3SA-AAB44D31	6034246
0.5 Hz ... 99 Hz	Screw-type terminals	MOC3SA-BAB43D31	6034247
	Spring terminals	MOC3SA-BAB44D31	6034248



### 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](http://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](http://www.mysick.com/en/Standstill_Monitor)

Supply voltage	Connection type	Model name	Part no.
24 V DC	Screw-type terminals	MOC3ZA-KAZ33D3	6044981
	Spring terminals	MOC3ZA-KAZ34D3	6047866
230 V AC	Screw-type terminals	MOC3ZA-KAZ33A3	6044982
	Spring terminals	MOC3ZA-KAZ34A3	6047865
400 V AC	Screw-type terminals	MOC3ZA-KAZ33A6	6044983
	Spring terminals	MOC3ZA-KAZ34A6	6047864



**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](http://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](http://www.mysick.com/en/UE10-2FG)

Connection type	Model name	Part no.
Screw-type terminals	UE10-2FG2D0	1043915
Plug-in screw-type terminals	UE10-2FG3D0	1043916





### 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/UE10-30S](http://www.mysick.com/en/UE10-30S)

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/UE10-30S](http://www.mysick.com/en/UE10-30S)

Connection type	Model name	Part no.
Screw-type terminals	UE10-30S2D0	6024917
Plug-in screw-type terminals	UE10-30S3D0	6024918



### At a glance

- Ideal for the connection of emergency stop pushbuttons and safety switches
- 3 safety outputs, 1 application diagnostic output
- Manual or automatic reset
- External device monitoring (EDM)
- Coded plugs for all slots

### Your benefits

- Saves space in the control cabinet thanks to its compact design
- Saves costs thanks to its application-oriented construction
- 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/UE23-3MF](http://www.mysick.com/en/UE23-3MF)

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/UE23-3MF](http://www.mysick.com/en/UE23-3MF)

Supply voltage	Model name	Part no.
24 V DC	UE23-3MF2D2	6034595
230 V AC	UE23-3MF2A3	6034597







### 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](http://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](http://www.mysick.com/en/UE48-20S)

Connection type	Model name	Part no.
Screw-type terminals	UE48-20S2D2	6024915
Plug-in screw-type terminals	UE48-20S3D2	6024916



## ENCODERS







### 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.



	<b>DFS60</b> . . . . .	<b>.N-220</b>
	High-resolution, programmable	
	<b>DBS36</b> . . . . .	<b>.N-222</b>
	EASIMA®: the MultiFit incremental encoder	
	<b>AFS/AFM60 SSI</b> . . . . .	<b>.N-224</b>
	Precise, flexible, versatile	
	<b>EcoLine</b> . . . . .	<b>.N-226</b>
	Modular wire draw encoder in miniature design	





**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](http://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](http://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.
Blind hollow shaft	10 mm	DFS60A-BDPC65536	1036815
	12 mm	DFS60A-BEPC65536	1036816
	15 mm	DFS60A-BHPC65536	1036819
	1/2"	DFS60A-BFPC65536	1036817
Through hollow shaft	10 mm	DFS60A-TDPC65536	1036955
	12 mm	DFS60A-TEPC65536	1036956
	15 mm	DFS60A-THPC65536	1036959
	1/2"	DFS60A-TFPC65536	1036957
Solid shaft, servo flange	6 mm	DFS60A-S1PC65536	1036761
Solid shaft, face mount flange	10 mm	DFS60A-S4PC65536	1036726

Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket for encoder with spigot 36 mm, mounting kit included	BEF-WF-36	2029164
<b>Other mounting accessories</b>			
	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
<b>Shaft adaptation</b>			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 8-pin, straight Cable: shielded, 5 m	DOL-1208-G05MAC1	6032867
	Head A: female connector, M12, 8-pin, straight, A-coded Head B: - Cable: Incremental, SSI, shielded	DOS-1208-GA01	6045001
	Head A: male connector, D-Sub, 9-pin, straight Head B: female connector, M12, 8-pin, straight Cable: Incremental, shielded, 0.5 m	DSL-2D08-G0M5AC3	2046579
<b>Programming and configuration tools</b>			
	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 incremental encoders DFS60, VFS60, DFV60 and wire draw encoders with DFS60. Compact dimensions, low weight and intuitive to use.	PGT-10-S	1052967



### 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 flexible 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 high 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

→ [www.mysick.com/en/DBS36](http://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.



### Ordering information

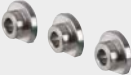





Other models and accessories → [www.mysick.com/en/DBS36](http://www.mysick.com/en/DBS36)

- **Connection type:** cable, 8-pin, universal, 1.5 m

Mechanical interface	Shaft diameter	Electrical interface	Range of pulses per revolution	Model name	Part no.		
Solid shaft, face mount flange	6 mm	HTL/Push pull	2,048	DBS36E-S3EK02048	1059907		
			1,024	DBS36E-S3EK01024	1060545		
			1,000	DBS36E-S3EK01000	1060544		
			500	DBS36E-S3EK00500	1060543		
			360	DBS36E-S3EK00360	1060541		
			100	DBS36E-S3EK00100	1060540		
		TTL/RS422			2,048	DBS36E-S3AK02048	1058602
					1,024	DBS36E-S3AK01024	1060144
					1,000	DBS36E-S3AK01000	1060539
					500	DBS36E-S3AK00500	1060538
					360	DBS36E-S3AK00360	1060536
					100	DBS36E-S3AK00100	1060535

Mechanical interface	Shaft diameter	Electrical interface	Range of pulses per revolution	Model name	Part no.
Blind hollow shaft	8 mm	HTL/Push pull	2,048	DBS36E-BBEK02048	1059910
			1,024	DBS36E-BBEK01024	1060534
			1,000	DBS36E-BBEK01000	1060533
			500	DBS36E-BBEK00500	1060532
			360	DBS36E-BBEK00360	1060530
		TTL/RS422	100	DBS36E-BBEK00100	1060529
			2,048	DBS36E-BBAK02048	1058603
			1,024	DBS36E-BBAK01024	1060147
			1,000	DBS36E-BBAK01000	1060528
			360	DBS36E-BBAK00360	1060525
		100	DBS36E-BBAK00100	1060524	

**Recommended accessories**

	Brief description	Model name	Part no.
<b>Other mounting accessories</b>			
	Servo clamps, small, for servo flange (clamping claws, mounting eccentric), (3 pcs), without mounting hardware	BEF-WK-RESOL	2039082
<b>Shaft adaptation</b>			
	Beam coupling, shaft diameter 6mm/8mm	KUP-0606-MS	2066285
		KUP-0608-MS	2066130
		KUP-0610-MS	2066298
	Collet for blind hollow shaft, shaft diameter 6 mm, outer diameter 8 mm	SPZ-005-AD-A	2066991
		SPZ-006-DD36-A	2056390
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 8-pin, straight, A-coded Head B: - Cable: Incremental, SSI, shielded	DOS-1208-GA01	6045001
	Head A: cable Head B: cable Cable: SSI, SSI, drag chain use, TPU, halogen-free, shielded	LTG-2308-MWENC	6027529
	Head A: male connector, M12, 8-pin, straight, A-coded Head B: - Cable: Incremental, shielded	STE-1208-GA01	6044892



**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](http://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](http://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	10 mm	32,768 x 4,096	AFM60B-BDPC032768	1051111
		32,768 x 1	AFS60B-BDPC032768	1051052
Through hollow shaft	10 mm	32,768 x 4,096	AFM60B-TDPC032768	1051096
		32,768 x 1	AFS60B-TDPC032768	1051069
Blind hollow shaft	12 mm	32,768 x 4,096	AFM60B-BEPC032768	1051112
		32,768 x 1	AFS60B-BEPC032768	1037927
Through hollow shaft	12 mm	32,768 x 4,096	AFM60B-TEPC032768	1038903
		32,768 x 1	AFS60B-TEPC032768	1037941
Blind hollow shaft	15 mm	32,768 x 4,096	AFM60B-BHPC032768	1053813
		32,768 x 1	AFS60B-BHPC032768	1039024
Through hollow shaft	15 mm	32,768 x 4,096	AFM60B-THPC032768	1053067
		32,768 x 1	AFS60B-THPC032768	1051522
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, 19 mm	32,768 x 4,096	AFM60B-S4PC032768	1037504
		32,768 x 1	AFS60B-S4PC032768	1037484



## Recommended accessories

	Brief description	Model name	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket for encoder with spigot 36 mm, mounting kit included	BEF-WF-36	2029164
<b>Shaft adaptation</b>			
	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981
	Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982
<b>Plug connectors and cables</b>			
	Head A: female connector, JST, 8-pin, straight Head B: cable Cable: SSI, drag chain use, TPU, halogen-free, shielded, 3 m	DOL-0J08-G03MAA6	2048591
	Head A: female connector, M12, 8-pin, straight Cable: shielded, 2 m	DOL-1208-G02MAC1	6032866
	Head A: female connector, M12, 8-pin, straight Cable: shielded, 5 m	DOL-1208-G05MAC1	6032867
	Head A: female connector, M12, 8-pin, straight, A-coded Head B: - Cable: Incremental, SSI, shielded	DOS-1208-GA01	6045001
	Head A: male connector, D-Sub, 9-pin, straight Head B: female connector, M12, 8-pin, straight Cable: SSI, TPU, halogen-free, shielded, 0.5 m	DSL-2D08-G0M5AC2	2048439
<b>Programming and configuration tools</b>			
	Programming Tool USB, for programmable SICK encoders AFS60, AFM60, DFS60, VFS60, DVF60 and wire draw encoders with programmable encoders.	PGT-08-S	1036616



### At a glance

- Measuring lengths: 1.25 m ... 10 m
- Modular measurement system with a wide range of interfaces / measuring lengths
- Analog interface with push-button teach
- Very small housing (55 ... 190 mm)
- Slim housing with spring integrated in the measuring drum
- Light yet shock-proof and temperature-resistant plastic housing

### Your benefits

- Space- and cost-saving design thanks to slim mechanics
- The absolute analog output allows for the use of a cost-effective interface card
- Easy to install
- Numerous combinations of interfaces and measuring lengths
- Advanced programming options lead to a reduction in the amount of variants, save costs, and reduce storage

→ [www.mysick.com/en/EcoLine](http://www.mysick.com/en/EcoLine)

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### Ordering information

Other models and accessories → [www.mysick.com/en/EcoLine](http://www.mysick.com/en/EcoLine)

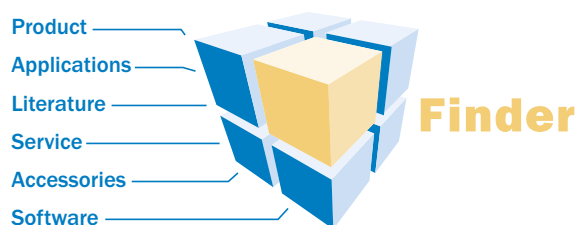
Measuring range	Electrical interface	Connection type	Model name	Part no.
0 m ... 1.25 m	4 mA ... 20 mA, analog	Cable, 3-wire, radial, 1.5 m	BCG05-K1KM01PP	6039745
	0 V ... 10 V, analog	Cable, 3-wire, radial, 1.5 m	BCG05-L1KM01PP	6039746
0 m ... 3 m	4 mA ... 20 mA, analog	Cable, 3-wire, radial, 1.5 m	BCG08-K1KM03PP	6039747
	0 V ... 10 V, analog	Cable, 3-wire, radial, 1.5 m	BCG08-L1KM01PP	6039748
0 m ... 5 m	4 mA ... 20 mA, analog	Cable, 3-wire, radial, 1.5 m	BCG13-K1KM05PP	6039749
	0 V ... 10 V, Analog	Cable, 3-wire, radial, 1.5 m	BCG13-L1KM05PP	6039750
0 m ... 10 m	4 mA ... 20 mA, analog	Connector 1 x M12, 5-pin, radial	BCG19-K1EM10PP	6048294
	0 V ... 10 V, analog	Connector 1 x M12, 5-pin, radial	BCG19-L1EM10PP	6048295

### Recommended accessories

	Brief description	Model name	Part no.
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 5-pin, straight Head B: - Cable: unshielded	DOS-1205-G	6009719
	Head A: male connector, M12, 5-pin, straight Head B: - Cable: unshielded For field bus technology	STE-1205-G	6022083

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