

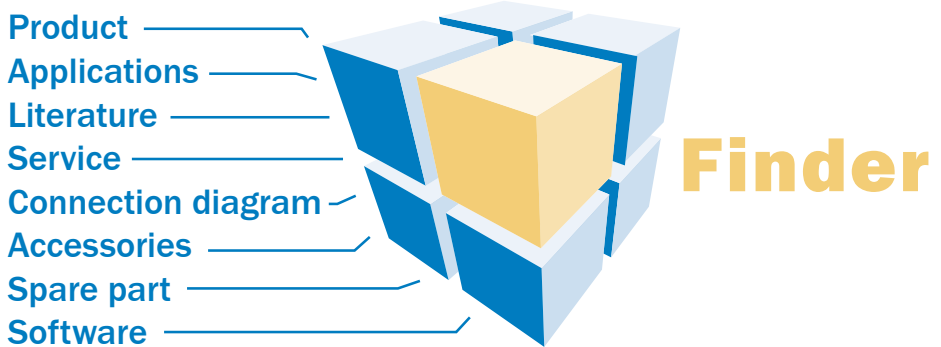


## Top Products from SICK

Core Product Selection for Factory, Logistics,  
and Process Automation



## Search online quickly and safely with the SICK “Finders”



### **Product Finder**

We can help you to quickly target the product that best matches your application.

### **Applications Finder**

Select the application description on the basis of the challenge posed, industrial sector, or product group.

### **Literature Finder**

Go directly to the operating instructions, technical information, and other literature on all aspects of SICK products.

These and other Finders at [www.mysick.com](http://www.mysick.com)

## Efficiency – with SICK e-commerce tools



### **Find out prices and availability**

Determine the price and possible delivery date of your desired product simply and quickly.

### **Request or view a quote**

You can have a quote generated online here. Every quote is confirmed to you via e-mail.

### **Order online**

You can go through the ordering process in just a few steps

**Clearly structured – available 24 hours a day – safe**

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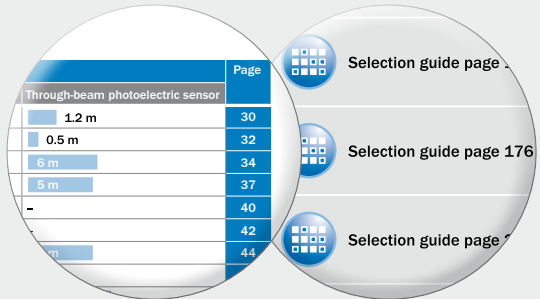


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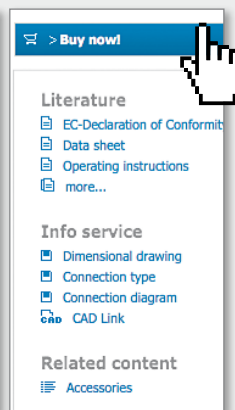


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## Links to www.mysick.com

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**B**

**Photoelectric sensors**

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



**C**

**Proximity sensors**

Reliable, powerful, rugged – proximity sensors from SICK



**D**

**Magnetic cylinder sensors**

With millimeter precision – cylinder sensors from SICK



**E**

**Identification solutions**

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



**F**

**Detection and ranging solutions**

Compact, reliable detection and distance measurement at all times



**G**

**Fluid sensors**

Efficient instrumentation solutions for factory automation



**H**

**Registration sensors**

SICK registration sensors – enhancing performance through precision and speed



**I**

**Distance sensors**

Distance sensors from SICK – precision for measuring tasks

Photo: viastore, Stuttgart



**J**

**Automation light grids**

SICK automation light grids – simple integration through high flexibility



**K**

**Vision**

A new dimension in vision



**L**

**Opto-electronic protective devices**

Optical protection – remove the barrier to greater productivity



**M**

**Safety switches**

Three product groups for tried and tested, intelligent safety solutions



**N**

**sens:Control – safe control solutions**

Safe control solutions for intelligent machine designs



**O**

**Motor feedback systems**

Measuring the speed and position with the greatest possible precision



**P**

**Encoders**

Perfect rotary and linear path measurement



**Q**

**Gas analyzers**

Optimum solutions for gas analysis in process or emission applications



**R**

**Dust measuring devices**

So nothing gets dusty: innovative solutions for dust measurement



**S**

**Tunnel sensors**

Sensor solutions for a better traffic safety



**T**

**Gas flow measuring devices**

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

**SICK**  
Sensor Intelligence.

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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 5,800 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 nearly 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.



# A

## "Sensor Intelligence." for all requirements

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

## For safety and productivity: 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 all the way 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.



### The benefit of SICK services

Each of our products and solutions is accompanied by a comprehensive range of services tuned precisely to the requirements of the product or solution – along its entire life cycle. Backed by extensive industry expertise and more than 60 years

of experience, LifeTime Services stand for maximum availability and an exceptional service life of our products and solutions.





### Consulting & Design

- Plant walk-through
- Risk assessment
- Safety concept
- Feasibility studies
- Software and hardware design



### Verification & Optimization

- Inspection
- Maintenance
- Barcode checks
- Accident investigation
- Stoptime measurement
- Machine safety inspection



### Training & Education

- User training
- Seminars
- WebTraining



### Product & System Support

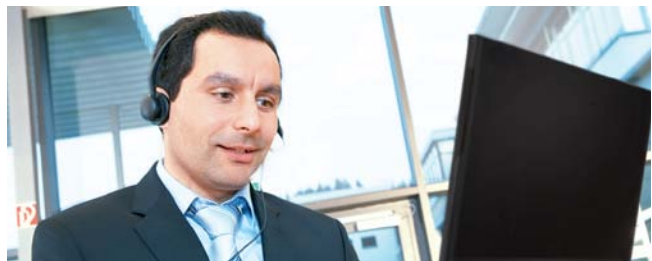
- Commissioning
- Exchange units and repairs
- Remote support
- Hotline



### Upgrade & Retrofits

- Machine conversion
- Sensor upgrades
- Retrofitting of technology

[www.sick.com/services](http://www.sick.com/services)



## Modular service contracts - flexible for every requirement

An important part of LifeTime Services from SICK is the modular service concept, which allows every business to draw up its own individual service contract from different service modules.

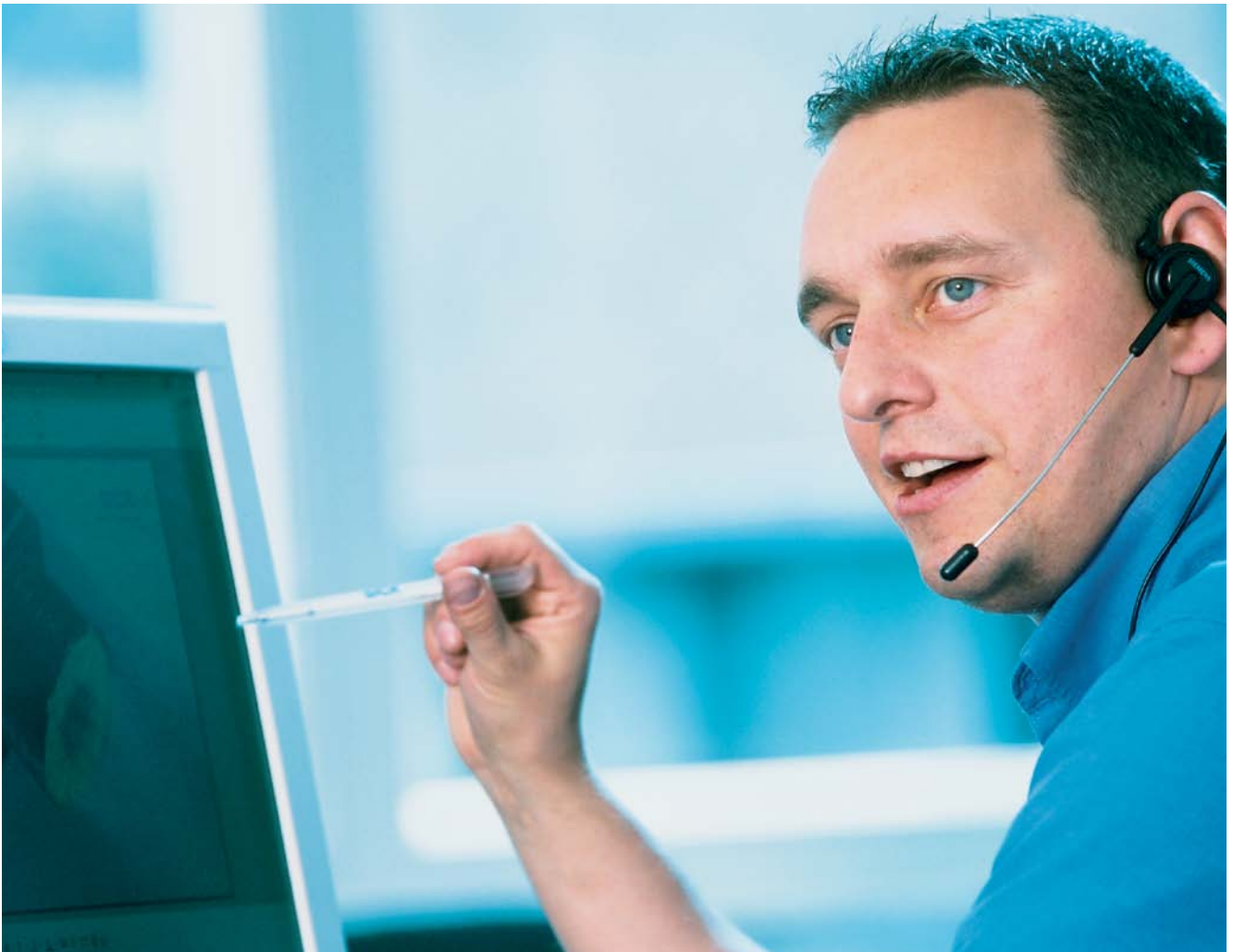
For performance,  
availability and safety

We advise you and you decide which service you'd like to use. With modular service contracts, we accommodate all your requirements. Combine your own individual service contract with different, standardized modules and only pay for what you need. Regardless of the service contract you have chosen, SICK always ensures optimum performance and maximum availability of machines and systems, as well as human safety.

Assured productivity - every time

SICK is available to you around the clock and worldwide as an experienced and competent partner throughout the entire life cycle of a machine or system.\* As the operator, you are therefore able to concentrate on increasing productivity, efficiency, and income.

\*Not all services are available in all countries, due to local restrictions on rights of use and service availability.



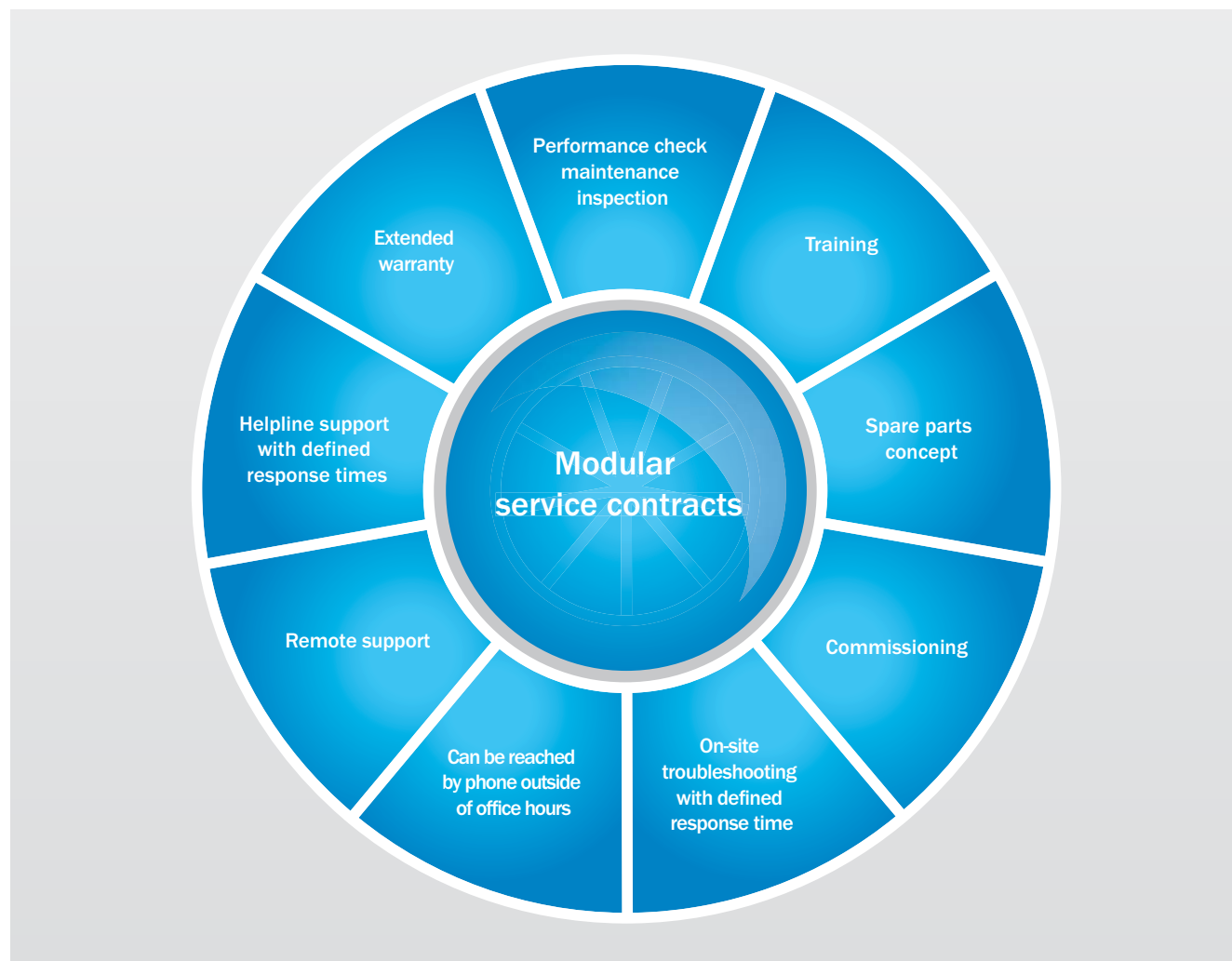
Service module remote support: With just one call, a SICK-service technician will make sure that your machines and systems are running without problems. In the same way, the whole system can be regularly inspected or its software can be updated.

## At a glance

- Individual preparation of the service package
- Quick reaction to critical situations
- Regular inspection of machines and systems
- Continuous software updates
- More than 550 service representatives worldwide
- You can contact us round the clock, seven days a week
- Training for machine operators and operating personnel

## The advantages

- Regular inspection and continuous improvement of the machine or system
- Maximum system availability and reliability during its entire life cycle
- Cost reductions due to shorter downtime
- Qualified support team providing error analysis and troubleshooting services
- Target-orientated training programs on products, solutions, and technologies



As part of a modular service contract, you can combine and pay for the service modules you really need.

## Secure your investment with consultation and design services

SICK LifeTime Services are brought in at a very early stage: with consulting, customer-orientated analyses, project management, and engineering. Secure your investment from the very start with our unique and comprehensive expertise.



### Service for industrial safety technology

With SICK LifeTime Services, the main objective always comes first: the safety of people and machines. And at the same time, services for industrial safety technology optimize the manufacturing process, increase machine availability, and decrease downtimes. More than 15,000 safety inspections per year demonstrate SICK's expertise.

An overview of what is on offer:

- Risk assessment
- Safety concept
- Project management
- Software and hardware design
- Functional safety assessment
- CE-conformance check
- Plant walk-through

### Service for machine safety: "plant walk-through"

- Overview for determining current machine safety status
- Appraisal of the safety status of all systems in a manufacturing plant in relation to suitable accident protection and the development of an appropriate safety strategy
- Analysis of the current system compliance status based on general data, technical data, and safety data
- Prioritized recommendations for minimizing risks



### Specially tailored to your requirements: customer-specific bespoke solutions

Even with a wide range of standard sensors, individual solutions customized to meet customers' precise needs are sometimes required to fulfill the specific requirements and application conditions in the automation industry. Dialog with our specialists for customer-specific developments begins here.


From small but crucial adaptations to standard components or extensive new developments - our experts find the optimum solution. This enables us to guarantee a structured project procedure right from the start.

- |                              |                         |
|------------------------------|-------------------------|
| 1 Application analysis       | 4 Prototyping           |
| 2 Assessment of requirements | 5 Test installation     |
| 3 Drawing up a specification | 6 Production and supply |

From the analysis through to delivery: in every phase of the development of a bespoke solution, you can rely on our support and expertise - worldwide.


### Service for machine safety: "risk assessment"

- List of safety requirements to ensure machine safety
- Analysis and evaluation of the hazards and risks resulting from the machine
- Responsibility for dangers and risk-reducing measures
- Prioritizing risk-reducing measures
- Preparation of safety requirements (SRS) for the machine

 The "risk assessment" service carries the VERIFIED SAFETY seal of quality

### Service for machine safety: "safety concept"

- Development of solutions to obtain the necessary risk reduction based on the risk assessment
- Recommendations on how health and safety protection requirements should be met as stipulated in the Machinery Directive
- Description of operation of a higher-level concept, including safety areas
- Layout, including location of the safety-related equipment
- Dimensioning of mechanical protection
- Specification of safety parameter category, PL, SIL, stop category, etc.
- Basis for selecting safety-relevant parts of the machine controller
- Provision of engineering results in a concept document

 The "safety concept" service carries the VERIFIED SAFETY seal of quality

### VERIFIED SAFETY – The SICK seal of quality

Consulting and engineering services from SICK carry the VERIFIED SAFETY seal of quality. Documents bearing the VERIFIED SAFETY seal of quality guarantee results with proven quality and compliance with the prevailing regulations.



## Increase safety through verification & optimization

Monitor, assess, control – with SICK LifeTime Services you'll stay on the safe side. Naturally every situation and every plant is different, but our experts will find the right solution for you.



Regular, thorough check for assured function of every machine

Of course, there are also "maintenance-free" sensors, for use in even the toughest of applications! But a regular inspection by experienced SICK service technicians ensures that you can rely on your sensor systems at all times.

Services for automatic identification:

SICK offers a range of benefits, which, when applied individually or combined, optimize the productivity of your plant. For services during operation, we offer inspection and maintenance, performance checks, bar code verification, helpline support, and more.

Service for machine safety:  
"accident investigation"

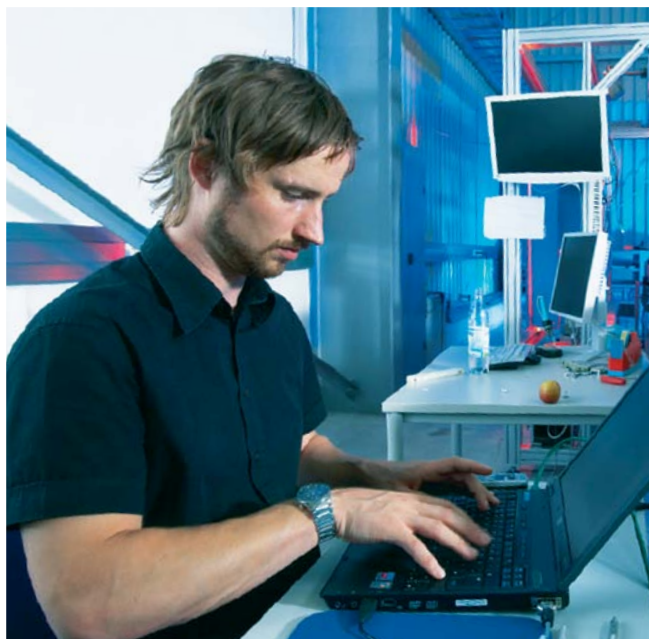
The professional, independent root cause analysis of accidents and near misses ensures that an incident or accident at a machine is fully examined. Aside from this, it forms the basis for introducing corresponding countermeasures, so, if possible, the incident or accident is not repeated.

Service for machine safety:  
"stoptime measurement"

The stoptime measurement determines the correct safety distance in accordance with the relevant standards.

It comprises, in detail:

- From the average of 10 measurements of dangerous movement of a machine, the current stopping/run-down time is calculated
- Calculation of the correct safety distance from the hazard-point to the protective device





## Service for machine safety: "initial inspection"

The safety inspection is used to determine the occupational safety of SICK protective devices for protection against mechanical dangers in the production plant.

Key focus areas:

- Mode of operation of the protective device during machine use
- Selection of protective devices according to the dangers which emerge
- Selection of protective devices according to the required type in accordance with IEC 61496
- Integration of the protective device up to the signal transfer in accordance with the required safety level



## Maintenance in process measurement technology

You receive expert and quick support from experienced SICK technicians so that your systems or components can be quickly restored to operation. Your recommendations help avoid faults. If defective components need to be repaired or replaced, this work is carried out by our experienced engineers.

Included in the range of services:

- Error analysis and rectification of faults at the customer's site
- Adaptation of components or systems in the event of application problems
- Configuration adaptation and optimization of operational parameters
- Documentation to avoid faults
- Regular maintenance increases availability



## Improving productivity with product and system support

We offer reliability and support you can trust, day in and day out. With SICK LifeTime Services you can be sure that the systems and sensors in your machines and systems are always ready and fully operational.



### An overview of the services

You can make use of SICK services for "product & system support" for individual products:

- Commissioning
- Commissioning check
- Initial verification
- Repairs
- Remote support
- Troubleshooting
- Start-up assistance
- Helpline support
- Exchange units and spare parts



### Mounting and commissioning in process automation

From laying electrical and pneumatic cables, to mounting devices at the measuring point, to setting the device parameters with subsequent instructions in device functions, SICK offers a one-stop solution. The result is problem-free startup of devices and systems. Furthermore, you receive in-depth support on implementing the legal requirements.



### Maintenance and maintenance contracts in process automation

Regular, professional maintenance secures long service life and low wear and tear of components and measuring systems. At the same time, system availability rises and the measurement accuracy of analysis devices increases. An individual maintenance contract offers additional advantages: fixed maintenance intervals and tasks, provided automatically when necessary. These contracts are at a fixed price - so that you have all your maintenance costs under control.

## Increasing performance through upgrade services and retrofitting

Conversion of systems and retrofitting with the latest technology opens up new potential.



### Modernizing systems with new sensors and software

**Conversion:** Efficient sensor systems enable, for example, production with higher clock rates and the manufacture of new products.

**Sensor replacement:** A new sensor in an existing system increases productivity and ensures availability.

**Technology retrofitting:** Sometimes the use of an intelligent sensor or efficient software ensures that a machine does not become outdated.

We will happily provide advice on a system-specific basis with regard to conversion, sensor upgrade, and sensor replacement services, as well as on retrofitting technology.

### Upgrade packages

Increase the productivity and economic efficiency of your plant through quick and easy integration of the newest technology. Whether your systems are due for modernization, your sensors have provided many years of service but you want to replace them as a precaution, or there has been an unexpected failure, the SICK upgrade kit has been designed so you can convert established devices to the latest version with a minimum of effort.

- PLS/S3000 safety laser scanner upgrade kit
- LCUR-411 safety light curtain upgrade kit
- DME-Dx100 distance sensor upgrade kit

[www.sick.com/services](http://www.sick.com/services)



## Build competence through basic training and advanced training

The human factor has a decisive impact on machine and plant productivity.  
With SICK's training the performance of your employees will reach new heights.



### From first contact to experts

Fundamentally, every sensor from SICK is designed to be as easy to put into operation as possible, and simple to use. In some cases, it may be vital for ensuring the sensor's reliability, that it is installed, configured, and maintained by a qualified professional. The range of services from SICK extends from simple coaching sessions and briefings, to wide-ranging workshops and product training courses, to professionally led seminars and web training courses. The seminars introduced here are just a few examples from our wide range of training opportunities.

### "Certified expert – functional safety in accordance with EN ISO 13849 (TUV®)" seminar

From planning and construction, up to safe operation: a practical seminar for anyone who has to assess, ensure, and guarantee safety around machines. After successfully taking the exam, the participant receives the "Certified expert - functional safety in accordance with EN-ISO 13849" from TÜV NORD CERT GmbH, Bosch Rexroth and SICK. This seminar for developers, design engineers, production engineers, and those responsible for safety in machine building teaches safety from the beginning.

#### Objectives of the seminar:

- To convey requirements of the Machinery Directive in accordance with the law
- Competence in functional safety assessment
- Practical application of current standards on implementing the functional safety of machines



## "Risk assessment and conformance check" seminar

This seminar shows you how to perform and document hazard analyses and risk assessments in practice. It provides practical experience in CE marking and risk assessment, and gives assurance when issuing declarations of conformity. The target groups are design engineers, developers, production engineers, and product managers from machine, plant and control engineering, as well as electrical construction, and technical documentation services.

### Objectives of the seminar:

- Introduction to the legal requirements for risk assessment, meaning and research of standards
- Step-by-step formulation of practical measures for a case study
- To provide the skills to implement the procedure learned for CE marking and risk assessment into the company

## "Machinery Directive – principles of machine-related safety" seminar

How to implement the requirements of the Machinery Directive adequately and correctly? This seminar for managers, design engineers, and those responsible for safety communicates knowledge of legislation and the requirements for machine safety, safety regulations and safety technology are part of the content as well as standards and regulations on maintaining required safety for your machines and their users.

### Objectives of the seminar:

- Communication of legal requirements to machine manufacturers
- Safe application of directives and standards with regard to:
  - General procedure
  - Types of protective devices and their application
  - Consideration of functional safety



## 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



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

### 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

### Identification solutions



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

## Detection and ranging solutions



- Laser measurement technology

## System solutions



- Volume measurement systems
- Code reading systems
- Dimension weighing scanning systems
- Vision systems

## Fluid sensors



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

## Registration sensors



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

## Distance sensors



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

### Automation light grids

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- Advanced automation light grids
- Smart light grids
- Standard automation light grids

### Vision

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- Vision sensors
- Smart cameras
- 3D cameras

### Opto-electronic protective devices

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

### Safety switches

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

### sens:Control – safe control solutions

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- Safety relays
- Safety controllers
- Network solutions



## Motor feedback systems



- Interfaces: incremental, HIPERFACE® and HIPERFACE DSL®
- Safety motor feedback systems
- Rotary and linear motor feedback systems for asynchronous, synchronous motors and linear motors

## Encoders



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

## Analyzers and systems



- Gas analyzers
- Dust measuring devices
- Analyzer systems
- Liquid analyzers
- Data acquisition systems
- Tunnel sensors

## Gas flow measuring devices



- Gas flow meters
- Mass flow meters
- Volume flow measuring devices

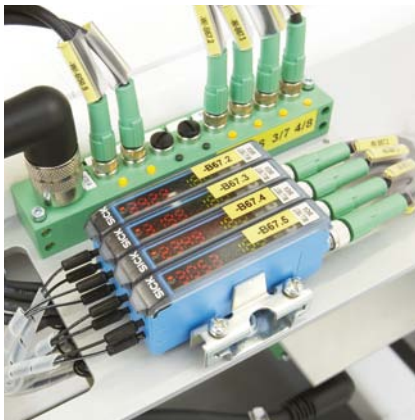
## Software



- Safexpert® safety software

B

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



### Photoelectric sensors

SICK's vast range of photoelectric sensors offer precise optics and advanced technology, creating market-leading solutions with sensor intelligence. By using the latest ASIC 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.



Photoelectric sensors

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<b>Housing material</b>																								
Plastic	■	■	■	■	■	■			■	■	■				■						■	■	■	■
VISTAL™													■	■										
Metal																■	■	■	■					
Stainless steel							■	■				■												
<b>Light source</b>																								
Red light LED		■							■		■	■		■		■		■	■	■	■	■	■	■
PinPoint LED	■		■	■	■	■	■						■	■	■	■		■						■
Laser LED										■							■		■					
Infrared LED																							■	■
<b>Special features</b>																								
Enclosure rating IP 69K	■							■	■				■	■	■	■	■	■	■	■	■			
PTFE coating			■																■					
Line-shaped light spot			■													■								■
Continuous threshold adaptation					■	■		■							■			■						
UC variants																								
IO-Link			■	■		■	■								■	■		■					■	
<b>Special requirements</b>																								
Detection of clear material					■	■		■			■		■	■	■			■				■		
Detection of shiny objects			■				■									■								
Detection of small objects				■			■			■							■		■					
Detection of perforated objects			■													■								■
Potentially explosive atmospheres																							■	
Zone control																								
Hygiene & wet areas							■	■				■							■					
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	Compact photoelectric sensors							Cylindrical photoelectric sensors						Fiber-optic sensors and fibers			MultiTask photoelectric sensors			
	W23-2	W23 Laser	W24-2	W27-3	W250-2	W280-2	W280L-2 Long Range	V12-2	V18V	GR18S	GR18SG	MH15V	V180-2	WLL170-2	WLL180T	LL3	MultiLine Sensor	Reflex Array	MultiPac	WTR
<b>Housing material</b>																				
Plastic	■	■		■	■	■	■							■	■	■	■	■	■	■
VISTAL™																				
Metal			■					■		■	■		■							
Stainless steel									■			■				■				
<b>Light source</b>																				
Red light LED			■		■	■	■						■	■					■	
PinPoint LED	■			■						■	■	■					■	■		
Laser LED		■					■													
Infrared LED	■		■	■																■
<b>Special features</b>																				
Enclosure rating IP 69K			■	■				■				■				■				
PTFE coating																				
Line-shaped light spot																■	■	■		
Continuous threshold adaptation																		■		
UC-Variants			■	■	■	■														
IO-Link				■																
<b>Special requirements</b>																				
Detection of clear material										■						■		■		
Detection of shiny objects																■	■		■	
Detection of small objects		■					■											■		
Detection of perforated objects																■	■			
Potentially explosive atmospheres			■	■																
Zone control																				■
Hygiene & wet areas								■				■				■				
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Maximum sensing range of photoelectric sensors by sensor principle

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Product family	Max. sensing range			Page
	Photoelectric proximity sensor	Photoelectric retro-reflective sensor	Through-beam photoelectric sensor	
W2 Slim	55 mm	0.8 m	1.2 m	30
W2 Flat	115 mm	-	0.5 m	32
W4-3	150 mm	4 m	6 m	34
W4S-3	180 mm	5 m	5 m	37
W4-3 Glass	-	4 m	-	40
W4S-3 Glass	-	5 m	-	42
W4S-3 Inox	500 mm	5 m	5 m	44
W4S-3 Inox Glass	-	5 m	-	47
W8	300 mm	4 m	10 m	49
W8 Laser	300 mm	-	-	51
W8G	-	3 m	-	53
W8 Inox	950 mm	6.5 m	45 m	54
G6	300 mm	7.2 m	15 m	56
W9-3	800 mm	5 m	10 m	59
W9-3 Glass	-	5 m	-	62
W12-3	600 mm	7 m	20 m	64
W12-2 Laser	200 mm	18 m	80 m	66
W12G	-	4 m	-	68
W12 Teflon	600 mm	7 m	20 m	70
W11-2	1,100 mm	10 m	20 m	72
W11G-2	-	4 m	-	74
W14-2	1,500 mm	17 m	15 m	76
W18-3	1,000 mm	7 m	20 m	78
W23-2	2,300 mm	15 m	-	80
W24-2	2,500 mm	22 m	60 m	82
W27-3	2,500 mm	19 m	35 m	84
W23 Laser	800 mm	-	-	86
W250-2	1,000 mm	15 m	50 m	87
W280-2	2,000 mm	15 m	60 m	89
W280L-2 Long Range	4,000 mm <sup>1)</sup>	-	-	91
V12-2	340 mm	2.8 m	5 m	93
V18V	900 mm	5 m	20 m	95
GR18S	550 mm	7.2 m	15 m	97
GR18SG	-	7.2 m	-	100
MH15V	350 mm	5 m	5 m	102
V180-2	500 mm	7 m	28 m	104
WLL170-2	-	-	4 m	106
WLL180T	-	-	20 m	108
MultiPac	500 mm	-	-	113
MultiLine Sensor	120 mm	-	-	114
Reflex Array	-	4.5 m	-	115
WTR	900 mm	-	-	117

<sup>1)</sup>A maximum sensing range of 18 m is achieved when using Reflector P250 or PL80A on target object.



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### At a glance

- Durable, overmolded housing with metal sleeves for 3 mm fixing bolts
- Background suppression proximity sensor with laser-like light spot
- PinPoint LED in all models provides small, bright, uniform light spot
- Fast response time of 0.6 ms

### Your benefits

- Rugged yet slim housing withstands ingress and vibrations, ensuring a long service life with fewer replacement costs
- PinPoint LED with highly visible light spot enables precise detection of objects with a high level of accuracy
- Durable metal sleeves for 3 mm fixing screws enable simple, time-saving machine integration

→ [www.mysick.com/en/W2\\_Slim](http://www.mysick.com/en/W2_Slim)

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



### Ordering information

Other models available at [www.mysick.com/en/W2\\_Slim](http://www.mysick.com/en/W2_Slim)

#### Photoelectric proximity sensor

Detection principle	Sensing range max.	Output function	Switching mode	Connection	Model name	Part no.
Background suppression	1 mm ... 15 mm	PNP	Light-switching	Cable, 3-wire	WT2S-P111	1022660
				Cable with plug, M8, 3-pin	WT2S-P211	1022658
			Cable with plug, M8, 4-pin	WT2S-P411	1023631	
		Dark-switching	Cable with plug, M8, 3-pin	WT2S-F211	1024171	
		NPN	Light-switching	Cable, 3-wire	WT2S-N111	1022662
			Dark-switching	Cable, 3-wire	WT2S-E111	1026684
	1 mm ... 30 mm	PNP	Light-switching	Cable, 3-wire	WT2S-P131	1022661
				Cable with plug, M8, 3-pin	WT2S-P231	1022659
			Cable with plug, M8, 4-pin	WT2S-P431	1023632	
		Dark-switching	Cable with plug, M8, 3-pin	WT2S-F231	1041690	
NPN		Light-switching	Cable, 3-wire	WT2S-N131	1022663	
		Cable with plug, M8, 3-pin	WT2S-N231	1029900		
Energetic	1 mm ... 55 mm	PNP	Light-switching	Cable, 3-wire	WT2S-P161	1022664
				Cable with plug, M8, 3-pin	WT2S-P261	1023640
			Cable with plug, M8, 4-pin	WT2S-P461	1023641	
		Dark-switching	Cable with plug, M8, 3-pin	WT2S-F261	1043913	
		NPN	Light-switching	Cable, 3-wire	WT2S-N161	1022665



## Photoelectric retro-reflective sensor

- **Detection principle:** standard optics
- **Sensing range max.:** 0.04 m ... 0.8 m (PL20A.)




Output function	Switching mode	Connection	Model name	Part no.
PNP	Light-switching	Cable, 3-wire	WL2S-P111	1023869
		Cable with plug, M8, 3-pin	WL2S-P211	1024249
	Dark-switching	Cable, 3-wire	WL2S-F111	1022666
		Cable with plug, M8, 4-pin	WL2S-F411	1023644
NPN	Light-switching	Cable, 3-wire	WL2S-N111	1023870
	Dark-switching	Cable, 3-wire	WL2S-E111	1022667

## Through-beam photoelectric sensor

- **Sensing range max.:** 0 m ... 1.2 m

Output function	Switching mode	Connection	Model name	Part no.
PNP	Light-switching	Cable, 3-wire	WS/WE2S-P113	1028550
		Cable with plug, M8, 3-pin	WS/WE2S-P213	1052245
	Dark-switching	Cable, 3-wire	WS/WE2S-F113	1022668
		Cable with plug, M8, 3-pin	WS/WE2S-F213	1023650
NPN	Dark-switching	Cable, 3-wire	WS/WE2S-E113	1022669
		Cable with plug, M8, 3-pin	WS/WE2S-E213	1048695

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Steel, zinc coated	BEF-W2S-A	4034748
					BEF-W2S-B	4034749
	Reflectors	Round	-	PMMA/ABS	PL22-2	1003621
		Angular	37 mm x 56 mm	PMMA/ABS	PL40A	1012720
	Terminal and alignment brackets	Alignment brackets	-	Plastic	BEF-GH-MINI01	2023160

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### At a glance

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

### Your benefits

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

→ [www.mysick.com/en/W2\\_Flat](http://www.mysick.com/en/W2_Flat)

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



## Ordering information

Other models available at [www.mysick.com/en/W2\\_Flat](http://www.mysick.com/en/W2_Flat)

### Photoelectric proximity sensor

- Detection principle: energetic

Sensing range max.	Output function	Switching mode	Connection	Model name	Part no.
1 mm ... 9 mm	PNP	Light-switching	Cable, 3-wire	WT2F-P170	6030588
			Cable with plug, M8, 3-pin	WT2F-P270	6030589
			Cable with plug, M8, 4-pin	WT2F-P470	6030590
2 mm ... 18 mm	NPN	Light-switching	Cable, 3-wire	WT2F-N170	6030587
			Cable, 3-wire	WT2F-P140	6030584
			Cable with plug, M8, 3-pin	WT2F-P240	6030585
2 mm ... 18 mm	PNP	Light-switching	Cable with plug, M8, 4-pin	WT2F-P440	6030586
			Cable, 3-wire	WT2F-N140	6030583
			Cable, 3-wire	WT2F-P150	6030580
2 mm ... 34 mm	PNP	Light-switching	Cable with plug, M8, 3-pin	WT2F-P250	6030581
			Cable with plug, M8, 4-pin	WT2F-P450	6030582
			Cable, 3-wire	WT2F-N150	6030576
4 mm ... 115 mm	NPN	Dark-switching	Cable, 3-wire	WT2F-E150	6043902
			Cable, 3-wire	WT2F-P180	6030573
			Cable with plug, M8, 3-pin	WT2F-P280	6030574
4 mm ... 115 mm	PNP	Light-switching	Cable with plug, M8, 4-pin	WT2F-P480	6030575
			Cable, 3-wire	WT2F-N180	6030572

## Through-beam photoelectric sensor

- Sensing range max.: 0 m ... 0.5 m

Output function	Switching mode	Connection	Model name	Part no.
PNP	Light-switching	Cable, 3-wire	WS/WE2F-P110	6049355
		Cable with plug, M8, 3-pin	WS/WE2F-P210	6030566
	Dark-switching	Cable, 3-wire	WS/WE2F-F110	6030569
		Cable with plug, M8, 3-pin	WS/WE2F-F210	6030570
NPN	Light-switching	Cable, 3-wire	WS/WE2F-N110	6030540
	Dark-switching	Cable, 3-wire	WS/WE2F-E110	6030554

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### 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
- IO-Link (depending on type)

### Your benefits

- Low-cost integration due to optimal machine integration in areas with limited space
- Application versatility due to reliable detection of shiny, transparent or jet-black objects
- IO-Link or teach-in pushbuttons enable quick commissioning
- 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
- Low maintenance due to a high performance device that will consistently detect challenging objects

→ [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 available at [www.mysick.com/en/W4-3](http://www.mysick.com/en/W4-3)

### Photoelectric proximity sensor

- **Detection principle:** background suppression
- **Sensing range max.:** 4 mm ... 150 mm (Object with 90 % reflectance (referred to standard white DIN 5033))

Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
PNP	Light-switching	Adjustable potentiometer, 5-turn	Cable with plug, M8, 3-pin	WTB4-3P3161	1028097
		Adjustable Teach	Connector M8, 3-pin	WTB4-3P2162	1028084
		Adjustable Teach, cable <sup>1)</sup>	Connector M8, 4-pin	WTB4-3P2264	1028086
		Adjustable Teach	Cable with plug, M8, 3-pin	WTB4-3P3162	1028082
		Adjustable Teach, cable <sup>1)</sup>	Cable with plug, M12, 4-pin	WTB4-3P3464	1044013
	Light/dark-switching	Adjustable potentiometer, 5-turn	Connector M8, 4-pin	WTB4-3P2261	1028100
			Cable with plug, M8, 4-pin	WTB4-3P3261	1028098
Connector M8, 4-pin			WTB4-3P2271	1042190	
Dark-switching	Adjustable potentiometer, 5-turn	Cable, 3-wire	WTB4-3F1361	1028105	
NPN	Light-switching	Adjustable potentiometer, 5-turn	Cable, 3-wire	WTB4-3N1361	1028101
	Light/dark-switching	Adjustable potentiometer, 5-turn	Cable, 4-wire	WTB4-3N1161	1028102
	Light-switching	Adjustable potentiometer, 5-turn	Cable, 3-wire	WTB4-3N1371	1028125

<sup>1)</sup> External teach-in: pulse > 2 s with voltage U<sub>v</sub> with PNP and M with NPN.

## Photoelectric proximity sensor with V-optics

- **Detection principle:** background suppression

Sensing range max. <sup>1)</sup>	Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
4 mm ... 50 mm	PNP	Light/dark-switching	Adjustable potentiometer, 5-turn	Connector M8, 4-pin	WTV4-3P2241	1028114
				Cable with plug, M12, 4-pin	WTV4-3P3441	1029582
		Light-switching	Adjustable potentiometer, 5-turn	Cable, 3-wire	WTV4-3P1321	1029888
			Adjustable Teach	Cable with plug, M8, 4-pin	WTV4-3P3122	1046411
	NPN	Light-switching	Adjustable potentiometer, 5-turn	Cable, 3-wire	WTV4-3N1321	1029885

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

## Photoelectric proximity sensor with line-shaped light spot

- **Detection principle:** background suppression

Sensing range max. <sup>1)</sup>	Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
3 mm ... 50 mm	PNP	Light-switching	Adjustable potentiometer, 5-turn	Connector M8, 4-pin	WTV4-3P2271	1046644
	NPN	Light-switching	Adjustable potentiometer, 5-turn	Cable, 4-wire	WTV4-3N1171	1046898
4 mm ... 150 mm	PNP	Light-switching	Adjustable potentiometer, 5-turn	Cable with plug, M8, 3-pin	WTB4-3P3171	1028122

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

## Photoelectric retro-reflective sensor

- **Detection principle:** standard optics
- **Sensing range max.:** 0.01 m ... 4 m (PL80A.)
- **Adjustment:** no/fix

Switching output	Switching mode	Connection	Model name	Part no.
PNP	Light/dark-switching	Connector M8, 4-pin	WL4-3P2230	1028147
	Light-switching	Cable with plug, M12, 4-pin	WL4-3P3430	1044347
	Dark-switching	Connector M8, 3-pin	WL4-3F2130	1028155
NPN	Light-switching	Cable, 3-wire	WL4-3N1330	1028148
	Dark-switching	Cable, 3-wire	WL4-3E1330	1028156









## Through-beam photoelectric sensor

- **Sensing range max.:** 0 m ... 6 m

Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
PNP	Light/dark-switching	No/fix	Connector M8, 4-pin	WSE4-3P2230	1028160
	Light-switching	No/fix	Connector M8, 3-pin	WSE4-3P2130	1028163
		Adjustable potentiometer, 5-turn	Cable with plug, M8, 3-pin	WSE4-3P3131	1029898
		No/fix	Cable with plug, M8, 3-pin	WSE4-3F3130	1028170
NPN	Dark-switching	No/fix	Cable, 3-wire	WSE4-3E1330	1028172

## Accessories

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	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	-	Stainless steel 1.4571	BEF-SW-W4S	2051497
	Reflectors	Fine triple reflectors	47 mm x 47 mm	PMMA/ABS	P250F	5308843
			18 mm x 18 mm	PMMA/ABS	PL10F	5311210
			16 mm x 38 mm	PMMA/ABS	PL20F	5308844
		Round	-	PMMA/ABS	PL22-2	1003621
		Angular	37 mm x 56 mm	PMMA/ABS	PL40A	1012720
		Reflective tape	22.8 m x 5 cm <sup>1)</sup>	-	REF-PLUS-50-K	4051185
		Terminal and alignment brackets	Universal terminal systems	-	Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N08

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



### At a glance

- Best background suppression sensor in its class
- Photoelectric retro-reflective sensor for transparent objects reliably detects all known objects
- Universal use of PinPoint LED technology in all models
- BGS proximity sensor with laser-like light spot for precise detection tasks
- Reliable setting via 5-turn potentiometer, teach-in pushbutton, teach-in via cable or IO-Link

### Your benefits

- Application versatility due to reliable detection of shiny, transparent or jet-black objects
- IO-Link or teach-in pushbuttons enable sensors to be quickly commissioned
- Very quick and easy alignment due to the highly visible, intense PinPoint LED light spot
- Rugged mounting system with M3 threaded metal inserts reduces maintenance costs due to a long service life
- Background suppression sensors with a laser-like light spot reduce costs and installation of additional protective measures by replacing laser sensors

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

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



### Ordering information

Other models available at [www.mysick.com/en/W4S-3](http://www.mysick.com/en/W4S-3)

#### Photoelectric proximity sensor

- **Detection principle:** background suppression

Sensing range max. <sup>1)</sup>	Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
4 mm ... 120 mm	PNP	Light/dark-switching	Adjustable Teach	Cable with plug, M12, 4-pin	WTB4S-3P3432	1051373
		Light-switching	Adjustable Teach, cable	Connector M8, 4-pin	WTB4SC-3P2232	1042049
				Cable with plug, M12, 4-pin	WTB4SC-3P3432	1042048
		Dark-switching	Adjustable potentiometer, 5-turn	Connector M8, 3-pin	WTB4S-3F2131	1042060
	NPN	Light-switching	Adjustable cable <sup>2)</sup>	Cable, 4-wire	WTB4S-3N1135	1047127
				Cable, 3-wire	WTB4S-3W1331	1050573
		Dark-switching	Adjustable potentiometer, 5-turn	Cable, 4-wire	WTB4S-3N1132	1051563
				Cable, 3-wire	WTB4S-3N1331	1042062
4 mm ... 150 mm	PNP	Light-switching	Adjustable Teach	Connector M8, 3-pin	WTB4S-3P2162	1042037
			Adjustable Teach, cable	Cable with plug, M8, 4-pin	WTB4S-3P3264	1042035
			Adjustable Teach	Connector M8, 4-pin	WTB4SC-3P2262	1042033
	NPN	Light-switching	Adjustable Teach, cable	Cable, 4-wire	WTB4S-3N1164	1042036

<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.

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Sensing range max. <sup>1)</sup>	Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
4 mm ... 180 mm	PNP	Light/dark-switching	Adjustable potentiometer, 5-turn	Connector M8, 4-pin	WTB4S-3P2261	1042041
				Cable with plug, M12, 4-pin	WTB4S-3P3461	1044809
	Dark-switching	Adjustable potentiometer, 5-turn	Connector M8, 3-pin	WTB4S-3F2161	1042044	
	NPN	Dark-switching	Adjustable potentiometer, 5-turn	Cable, 3-wire	WTB4S-3E1361	1042047

<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.

## Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation

Sensing range max. <sup>1)</sup>	Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
0 m ... 4 m	PNP	Light/dark-switching	No/fix	Connector M8, 4-pin	WL4S-3P2230	1042066
		Light-switching	No/fix	Connector M8, 3-pin	WL4S-3P2130	1042069
	Dark-switching	No/fix	Cable with plug, M8, 3-pin	WL4S-3P3130	1042070	
	NPN	Light-switching	No/fix	Cable, 3-wire	WL4S-3F1330	1042068
0 m ... 5 m	PNP	Light-switching	Adjustable Teach	Cable, 3-wire	WL4S-3N1330	1042073
		Dark-switching	Adjustable Teach	Cable with plug, M8, 3-pin	WL4S-3P3132	1044802
			Cable, 3-wire	WL4S-3F1332	1042076	
			Cable with plug, M8, 3-pin	WL4S-3F3132	1042075	
			Connector M8, 4-pin	WL4S-3V2232	1042079	
	NPN	Light-switching	Adjustable Teach	Cable, 3-wire	WL4S-3N1332	1042082
	Dark-switching	Adjustable Teach	Cable, 3-wire	WL4S-3E1332	1042081	
			Cable, 4-wire	WL4S-3W1132	1042083	

<sup>1)</sup> PL80A.

## Through-beam photoelectric sensor









- **Sensing range max.:** 0 m ... 5 m
- **Adjustment:** no/fix

Switching output	Switching mode	Connection	Model name	Part no.
PNP	Light-switching	Connector M8, 3-pin	WSE4S-3P2130	1052892
	Dark-switching	Cable with plug, M12, 4-pin	WSE4S-3F3430	1052884
NPN	Light-switching	Cable, 3-wire	WSE4S-3N1330	1052872
	Dark-switching	Cable, 3-wire	WSE4S-3E1330	1052867



Accessories



	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	-	Stainless steel 1.4571	BEF-SW-W4S	2051497
	Reflectors	Fine triple reflectors	47 mm x 47 mm	PMMA/ABS	P250F	5308843
			18 mm x 18 mm	PMMA/ABS	PL10F	5311210
			16 mm x 38 mm	PMMA/ABS	PL20F	5308844
		Round	-	PMMA/ABS	PL22-2	1003621
		Angular	37 mm x 56 mm	PMMA/ABS	PL40A	1012720
		Reflective tape	22.8 m x 5 cm <sup>1)</sup>	-	REF-PLUS-50-K	4051185
		Terminal and alignment brackets	Universal terminal systems	-	Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N08

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

B



### At a glance

- Setting via teach-in pushbutton
- PinPoint LED technology for highly visible intense light spot
- Versions available with and without polarization filter
- Sensing range from 0.01 - 4 m
- Detection of glass with an attenuation of > 8% (version with polarization filter)
- Detection of PET bottles and films with an attenuation of > 8% (version without polarization filter)
- Sensitivity control via cable (optional)

### Your benefits

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

→ [www.mysick.com/en/W4-3\\_Glass](http://www.mysick.com/en/W4-3_Glass)

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



### Ordering information

Other models available at [www.mysick.com/en/W4-3\\_Glass](http://www.mysick.com/en/W4-3_Glass)

#### Photoelectric retro-reflective sensor

- Housing design: flat
- Detection principle: autocollimation

Sensing range max. <sup>1)</sup>	Switching output	Switching mode	Polarisation filter	Sensitivity adjustment	Connection	Model name	Part no.
0.01 m ... 1.6 m	PNP	Light-switching	-	Teach	Connector M8, 3-pin	WLG4-3P2182	1044179
	NPN	Dark-switching	-	Teach	Cable, 3-wire, 2 m, PVC	WLG4-3E1382	1028138
0.01 m ... 4 m	PNP	Light-switching	✓	Teach	Cable, 3-wire, 2 m, PVC	WLG4-3P1332	1042844
					Connector M8, 3-pin	WLG4-3P2132	1029567
		Dark-switching	✓	Teach	Connector M8, 3-pin	WLG4-3F2132	1028127
					Cable with plug, M8, 3-pin, 100 mm, PVC	WLG4-3F3132	1028128
				Teach, cable	Connector M8, 4-pin	WLG4-3F2234	1028130
					Cable with plug, M8, 4-pin, 100 mm, PVC	WLG4-3F3234	1028129
	NPN	Dark-switching	✓	Teach, cable	Cable with plug, M12, 4-pin, 150 mm, PVC	WLG4-3F3434	1043683
					Cable, 4-wire, 2 m, PVC	WLG4-3E1134	1028133
				Teach	Cable, 3-wire, 2 m, PVC	WLG4-3E1332	1028131
					Connector M8, 3-pin	WLG4-3E2132	1028132

<sup>1)</sup> PL80A.

Accessories



	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Reflectors	Fine triple reflectors	47 mm x 47 mm	PMMA/ABS	P250F	5308843
			18 mm x 18 mm	PMMA/ABS	PL10F	5311210
			16 mm x 38 mm	PMMA/ABS	PL20F	5308844
		Round	-	PMMA/ABS	PL22-2	1003621
		Angular	37 mm x 56 mm	PMMA/ABS	PL40A	1012720
		Reflective tape	22.8 m x 5 cm <sup>1)</sup>	-	REF-PLUS-50-K	4051185
	Terminal and alignment brackets	Universal terminal systems	-	Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N08	2051607

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

B



### At a glance

- Continuous threshold adaption of the switching threshold compensates for environmental changes
- Single-lens autocollimation optics
- Simple setting either via teach-in pushbutton, cable or IO-Link
- PinPoint LED technology with a small, highly visible, well-defined light spot enables high reserve levels when using small reflectors
- Easy-to-use teach-in pushbutton

### Your benefits

- Optimal detection of any kind of transparent object
- Quick and easy operation via the push of a button – automatic setting of the correct switching threshold
- Less downtime due to a Continuous Threshold Adaption which compensates for changing environmental conditions, including temperature, dust and drift effects
- The well-defined, highly visible intense light spot provides quick and reliable alignment

→ [www.mysick.com/en/W4S-3\\_Glass](http://www.mysick.com/en/W4S-3_Glass)

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



## Ordering information

Other models available at [www.mysick.com/en/W4S-3\\_Glass](http://www.mysick.com/en/W4S-3_Glass)

### Photoelectric retro-reflective sensor









- **Housing design:** slim
- **Detection principle:** autocollimation
- **Sensing range max.:** 0.01 m ... 5 m (PL80A.)
- **Polarisation filter:** ✓

Switching output	Switching mode	Sensitivity adjustment	Connection	Model name	Part no.
PNP	Light-switching	Teach, cable	Connector M8, 4-pin	WLG4S-3P2234	1052999
		Teach	Cable with plug, M8, 3-pin, 100 mm, PVC	WLG4S-3P3132	1043839
		Teach, cable	Cable with plug, M8, 4-pin, 100 mm, PVC	WLG4S-3P3234	1054098
			Cable with plug, M12, 4-pin, 150 mm, PVC	WLG4S-3P3434	1046819
	Dark-switching	Teach	Cable with plug, M12, 4-pin, 150 mm, PVC	WLG4S-3P3432	1051097
		Teach	Cable, 4-wire, 2 m, PVC	WLG4S-3V1132	1055895
			Connector M8, 4-pin	WLG4S-3V2232	1042087
		Teach, cable	Cable with plug, M8, 3-pin, 100 mm, PVC	WLG4S-3F3132	1043838
			Cable with plug, M8, 4-pin, 100 mm, PVC	WLG4S-3F3234	1043840
		Teach	Cable with plug, M12, 3-pin, 150 mm, PVC	WLG4S-3F3332	1059718
	Light/dark-switching	Teach	Connector M8, 4-pin	WLG4S-3F2234	1042084
			Connector M8, 4-pin	WLG4S-3P2232	1044186
			Cable with plug, M8, 4-pin, 100 mm	WLG4S-3P3232	1052963



Switching output	Switching mode	Sensitivity adjustment	Connection	Model name	Part no.
NPN	Light-switching	Teach	Cable, 3-wire, 2 m, PVC	WLG4S-3N1332	1046111
	Dark-switching	Teach, cable	Cable, 4-wire, 2 m, PVC	WLG4S-3E1134	1042085
		Teach	Cable, 4-wire, 2 m, PVC	WLG4S-3W1132	1042086
	Light/dark-switching	Teach, cable	Cable with plug, M12, 4-pin, 150 mm, PVC	WLG4S-3N3432	1052210

Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	-	Stainless steel 1.4571	BEF-SW-W4S	2051497
	Reflectors	Fine triple reflectors	47 mm x 47 mm	PMMA/ABS	P250F	5308843
			18 mm x 18 mm	PMMA/ABS	PL10F	5311210
			16 mm x 38 mm	PMMA/ABS	PL20F	5308844
		Round	-	PMMA/ABS	PL22-2	1003621
		Angular	37 mm x 56 mm	PMMA/ABS	PL40A	1012720
		Reflective tape	22.8 m x 5 cm <sup>1)</sup>	-	REF-PLUS-50-K	4051185
		Terminal and alignment brackets	Universal terminal systems	-	Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N08

<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)
- Modern electrical connection available – M12 connector with pin casting
- Resistant to a variety of common cleaning and disinfection agents
- PinPoint LED technology provides a highly visible laser-like light spot
- Teach-in via stainless steel pushbutton with a metal membrane
- Remote monitoring and quick diagnostics via IO-Link (optional)

### 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
- Remote monitoring and quick diagnostics via IO-Link

→ [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 available at [www.mysick.com/en/W4S-3\\_Inox](http://www.mysick.com/en/W4S-3_Inox)

#### Photoelectric proximity sensor

Detection principle	Sensing range max. <sup>1)</sup>	Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
Foreground suppression	20 mm ... 200 mm	PNP	Light/dark-switching	Teach	Connector M8, 4-pin	WTF4S-3P2262V	1046410
					Connector M8, 4-pin	WTB4S-3P2232V	1046396
Background suppression	4 mm ... 120 mm	PNP	Light/dark-switching	Teach	Cable with plug, M8, 4-pin	WTB4S-3P3232V	1046398
					Cable with plug, M12, 4-pin	WTB4S-3P3432V	1046399
			Light-switching	Teach	Connector M12, 4-pin	WTB4S-3P2432V	1054672
					Cable, 4-wire	WTB4S-3P1162V	1046388
	4 mm ... 500 mm	PNP	Light/dark-switching	Teach	Connector M8, 4-pin	WTB4S-3P2262V	1046383
					Cable with plug, M8, 4-pin	WTB4S-3P3262V	1046385
					Connector M12, 4-pin	WTB4S-3P2462V	1054675
					Connector M8, 3-pin	WTB4S-3P2162V	1046384
			Light-switching	Teach, cable	Cable with plug, M12, 4-pin	WTB4S-3P3464V	1048015
					Connector M8, 3-pin	WTB4S-3F2162V	1046389
			Dark-switching	Teach	Cable with plug, M8, 3-pin	WTB4S-3F3162V	1046390
					Cable, 4-wire	WTB4S-3N1162V	1046391
NPN	Light/dark-switching	Teach	Connector M12, 4-pin	WTB4S-3N2462V	1054703		
			Connector M8, 4-pin	WTB4S-3N2265V	1047620		
		Light-switching	Cable	Connector M8, 4-pin	WTB4S-3N2265V	1047620	
				Cable, 3-wire	WTB4S-3N1362V	1046393	
Teach	Teach	Cable, 3-wire	WTB4S-3N1362V	1046393			
		Connector M8, 3-pin	WTB4S-3N2162V	1046392			

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



### Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation

Sensing range max. <sup>1)</sup>	Switching output	Switching mode	Adjustment	Alarm output	Connection	Model name	Part no.			
0 m ... 4 m	PNP	Light/dark-switching	-	-	Connector M8, 4-pin	WL4S-3P2230V	1045095			
					Connector M12, 4-pin	WL4S-3P2430V	1054707			
					Cable with plug, M12, 4-pin	WL4S-3P3430V	1046415			
	NPN	Dark-switching	-	-	Cable, 3-wire	WL4S-3E1330V	1046420			
					Cable, 4-wire	WL4S-3N1130V	1046418			
0 m ... 5 m	PNP	Light/dark-switching	Teach	-	Connector M12, 4-pin	WL4S-3P2432V	1054715			
					Cable with plug, M12, 4-pin	WL4S-3P3432V	1046426			
	NPN	Light/dark-switching	Teach	-	Dark-switching	Teach	✓	Connector M8, 4-pin	WL4S-3V2232V	1046422
					Connector M12, 4-pin	WL4S-3N2432V	1054722			







<sup>1)</sup> PL80A.

### Through-beam photoelectric sensor





- **Sensing range max.:** 0 m ... 5 m

Switching output	Switching mode	Connection	Model name	Part no.
PNP	Light-switching	Connector M8, 3-pin	WSE4S-3P2130V	1046439
	Light/dark-switching	Connector M12, 4-pin	WSE4S-3P2430V	1054784
	Dark-switching	Connector M8, 3-pin	WSE4S-3F2130V	1045099
		Cable with plug, M12, 4-pin	WSE4S-3F3430V	1048028
NPN	Light-switching	Connector M8, 3-pin	WSE4S-3N2130V	1047629

### Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.	
	Mounting brackets/plates	Mounting brackets	-	Stainless steel 1.4571	BEF-W4-A	2051628	
	Other mounting accessories	-	-	-	BEF-MR18G-NA	4065853	
	Reflectors	Angular	47 mm x 47 mm	Plastic	P250 CHEM	5321097	
		Fine triple reflectors	18 mm x 18 mm	-	PL10F CHEM	5321636	
			15 mm x 38 mm	-	PL20 CHEM	5321089	
		Special reflectors		25 mm x 25 mm	Stainless steel V4A (1.4404, 316L)	PLH25-D12	2063404
						PLH25-M12	2063403

B

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Reflectors	Special reflectors	14 mm x 14 mm	Stainless steel V4A (1.4404, 316L)	PLV14-A	2063405
	Terminal and alignment brackets	Universal terminal systems	-	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	BEF-KHS-N08N	2051616
				Stainless steel (1.4571)	BEF-MS12G-NB	4058915
				Aluminum	BEF-RMC-D12	5321878





### At a glance

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

### Your benefits

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

→ [www.mysick.com/en/W4S-3\\_Inox\\_Glass](http://www.mysick.com/en/W4S-3_Inox_Glass)

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



### Ordering information

Other models available at [www.mysick.com/en/W4S-3\\_Inox\\_Glass](http://www.mysick.com/en/W4S-3_Inox_Glass)








#### Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation
- **Sensing range max.:** 0,01 m ... 5 m (PL80A.)

Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
PNP	Light/dark-switching	Teach	Cable, 4-wire, 2 m, PVC	WLG4S-3P1132V	1055044
			Connector M8, 4-pin	WLG4S-3P2232V	1046446
			Connector M12, 4-pin, PVC	WLG4S-3P2432V	1054725
			Cable with plug, M8, 4-pin, 150 mm, PVC	WLG4S-3P3232V	1046448
			Cable with plug, M12, 4-pin, 150 mm, PVC	WLG4S-3P3432V	1046449
	Light-switching	Teach, cable	Connector M8, 4-pin	WLG4S-3P2234V	1051456
			Connector M12, 4-pin, PVC	WLG4S-3F2434V	1054727
	Dark-switching	Teach, cable	Connector M8, 4-pin	WLG4S-3F2234V	1047653
			Connector M12, 4-pin, PVC	WLG4S-3F2434V	1054727
			Cable with plug, M12, 4-pin, 150 mm, PVC	WLG4S-3F3434V	1048024
Cable		Connector M8, 4-pin	WLG4S-3F2235V	1045098	
NPN	Light/dark-switching	Teach	Connector M8, 4-pin	WLG4S-3V2232V	1046447
			Connector M12, 4-pin, PVC	WLG4S-3N2432V	1054728
	Dark-switching	Teach, cable	Cable, 4-wire, 2 m, PVC	WLG4S-3N1132V	1046450
			Cable, 4-wire, 2 m, PVC	WLG4S-3E1134V	1048027
		Cable	Cable, 4-wire, 2 m, PVC	WLG4S-3E1135V	1046438

**B**

**Accessories**

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Other mounting accessories	-	-	-	BEF-MR18G-NA	4065853
	Reflectors	Fine triple reflectors	18 mm x 18 mm	-	PL10F CHEM	5321636
		Special reflectors	25 mm x 25 mm	Stainless steel V4A (1.4404, 316L)	PLH25-D12	2063404
					PLH25-M12	2063403
			14 mm x 14 mm	Stainless steel V4A (1.4404, 316L)	PLV14-A	2063405
	Terminal and alignment brackets	Universal terminal systems	-	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	BEF-KHS-N02N	2051618
				Stainless steel (1.4571)	BEF-MS12G-NA	4058914
				Aluminum	BEF-RMC-D12	5321878



### 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 available at [www.mysick.com/en/W8](http://www.mysick.com/en/W8)

#### Photoelectric proximity sensor

- **Detection principle:** background suppression
- **Switching mode:** light/dark-switching

Sensing range max. <sup>1)</sup>	Switching output	Connection	Model name	Part no.
5 mm ... 100 mm	PNP	Cable, 3-wire	WTB8-P1111	6033211
		Connector M8, 3-pin	WTB8-P2111	6033213
		Connector M8, 4-pin	WTB8-P2211	6033215
	NPN	Cable, 3-wire	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	WTB8-P1131	6033205
		Connector M8, 3-pin	WTB8-P2131	6033207
		Connector M8, 4-pin	WTB8-P2231	6033209
	NPN	Cable, 3-wire	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)

## Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation
- **Sensing range max.:** 0 m ... 4 m (PL80A.)
- **Switching mode:** light/dark-switching






Switching output	Connection	Model name	Part no.
PNP	Cable, 3-wire	WL8-P1131	6033177
	Connector M8, 3-pin	WL8-P2131	6033180
	Connector M8, 4-pin	WL8-P2231	6033182
NPN	Cable, 3-wire	WL8-N1131	6033176
	Connector M8, 3-pin	WL8-N2131	6033179
	Connector M8, 4-pin	WL8-N2231	6033181

## Through-beam photoelectric sensor

- **Sensing range max.:** 0 m ... 10 m
- **Switching mode:** light/dark-switching

Switching output	Connection	Model name	Part no.
PNP	Cable, 3-wire	WSE8-P1131	6035581
	Connector M8, 3-pin	WSE8-P2131	6035582
	Connector M8, 4-pin	WSE8-P2231	6035583
NPN	Cable, 3-wire	WSE8-N1131	6035578
	Connector M8, 3-pin	WSE8-N2131	6035579
	Connector M8, 4-pin	WSE8-N2231	6035580

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Stainless steel	BEF-W100-A	5311520
				Steel, zinc coated	BEF-W100-B	5311521
	Reflectors	Angular	47 mm x 47 mm	PMMA/ABS	P250	5304812
	Terminal and align- ment brackets	Universal terminal systems	-	Steel, zinc coated	BEF-MS12G-A	4056054
				Stainless steel (1.4571)	BEF-MS12G-NB	4058915
				Aluminum	BEF-RMC-D12	5321878



### 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 available at [www.mysick.com/en/W8\\_Laser](http://www.mysick.com/en/W8_Laser)

#### Photoelectric proximity sensor






- **Detection principle:** background suppression
- **Switching mode:** light/dark-switching

Sensing range max. <sup>1)</sup>	Switching output	Connection	Model name	Part no.
5 mm ... 100 mm	PNP	Cable, 3-wire	WTB8L-P1111	6033223
		Connector M8, 3-pin	WTB8L-P2111	6033225
		Connector M8, 4-pin	WTB8L-P2211	6033227
	NPN	Cable, 3-wire	WTB8L-N1111	6033222
		Connector M8, 3-pin	WTB8L-N2111	6033224
		Connector M8, 4-pin	WTB8L-N2211	6033226
30 mm ... 300 mm	PNP	Cable, 3-wire	WTB8L-P1131	6033217
		Connector M8, 3-pin	WTB8L-P2131	6033219
		Connector M8, 4-pin	WTB8L-P2231	6033221
	NPN	Cable, 3-wire	WTB8L-N1131	6033216
		Connector M8, 3-pin	WTB8L-N2131	6033218
		Connector M8, 4-pin	WTB8L-N2231	6033220

<sup>1)</sup> PL80A.

## Accessories

B

	Accessory category	Accessory type	Material	Model name	Part no.
	Mounting brackets/plates	Mounting brackets	Stainless steel	BEF-W100-A	5311520
			Steel, zinc coated	BEF-W100-B	5311521
	Terminal and alignment brackets	Universal terminal systems	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	BEF-KHS-N08N	2051616
			Stainless steel (1.4571)	BEF-MS12G-NB	4058915
			Aluminum	BEF-RMC-D12	5321878



### At a glance

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

### Your benefits

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

→ [www.mysick.com/en/W8G](http://www.mysick.com/en/W8G)

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



### Ordering information

Other models available at [www.mysick.com/en/W8G](http://www.mysick.com/en/W8G)

#### Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation
- **Sensing range max.:** 0 m ... 3 m (PL80A.)
- **Switching mode:** light/dark-switching
- **Items supplied:** stainless steel mounting bracket (1.4301/304) BEF-W100-A, Reflector P250F

Switching output	Connection	Model name	Part no.
PNP	Cable, 3-wire	WL8G-P1131	6033184
	Connector M8, 3-pin	WL8G-P2131	6033186
	Connector M8, 4-pin	WL8G-P2231	6033188
NPN	Cable, 3-wire	WL8G-N1131	6033183
	Connector M8, 3-pin	WL8G-N2131	6033185
	Connector M8, 4-pin	WL8G-N2231	6033187

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

#### Photoelectric proximity sensor

- **Switching mode:** light/dark-switching

Detection principle	Sensing range max. <sup>1)</sup>	Switching output	Connection	Model name	Part no.
Energetic	0 mm ... 950 mm	PNP	Cable, 3-wire	WTE8-P1131V	6041473
			Connector M8, 4-pin	WTE8-P2231V	6041475
			Cable with plug, M12, 4-pin	WTE8-P3331V	6041476
		NPN	Cable, 3-wire	WTE8-N1131V	6041469
			Connector M8, 4-pin	WTE8-N2231V	6041471
			Cable with plug, M12, 4-pin	WTE8-N3331V	6041472
Background suppression	5 mm ... 150 mm	PNP	Cable, 3-wire	WTB8-P1111V	6041457
			Connector M8, 4-pin	WTB8-P2211V	6041459
			Cable with plug, M12, 4-pin	WTB8-P3311V	6041460
		NPN	Cable, 3-wire	WTB8-N1111V	6041453
			Connector M8, 4-pin	WTB8-N2211V	6041455
			Cable with plug, M12, 4-pin	WTB8-N3311V	6041456
	10 mm ... 500 mm	PNP	Cable, 3-wire	WTB8-P1131V	6041465
			Connector M8, 4-pin	WTB8-P2231V	6041467
			Cable with plug, M12, 4-pin	WTB8-P3331V	6041468
		NPN	Cable, 3-wire	WTB8-N1131V	6041461
			Connector M8, 4-pin	WTB8-N2231V	6041463
			Cable with plug, M12, 4-pin	WTB8-N3331V	6041464

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



## Photoelectric retro-reflective sensor

- **Detection principle:** standard optics
- **Sensing range max.:** 0.01 m ... 6.5 m (PLA80A.)
- **Switching mode:** light/dark-switching










Switching output	Connection	Model name	Part no.
PNP	Cable, 3-wire	WL8-P1131V	6041481
	Connector M8, 4-pin	WL8-P2231V	6041483
	Cable with plug, M12, 4-pin	WL8-P3331V	6041484
NPN	Cable, 3-wire	WL8-N1131V	6041477
	Connector M8, 4-pin	WL8-N2231V	6041479
	Cable with plug, M12, 4-pin	WL8-N3331V	6041480

## Through-beam photoelectric sensor

- **Sensing range max.:** 0 m ... 45 m
- **Switching mode:** light/dark-switching

Switching output	Connection	Model name	Part no.
PNP	Cable, 3-wire	WSE8-P1131V	6041489
	Connector M8, 4-pin	WSE8-P2231V	6041491
	Cable with plug, M12, 4-pin	WSE8-P3331V	6041492
NPN	Cable, 3-wire	WSE8-N1131V	6041485
	Connector M8, 4-pin	WSE8-N2231V	6041487
	Cable with plug, M12, 4-pin	WSE8-N3331V	6041488

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.	
	Other mounting accessories	-	-	-	BEF-MR18G-NA	4065853	
	Reflectors	Angular	47 mm x 47 mm	Plastic	P250 CHEM	5321097	
		Fine triple reflectors	18 mm x 18 mm	-	PL10F CHEM	5321636	
		Special reflectors		15 mm x 38 mm	-	PL20 CHEM	5321089
				25 mm x 25 mm	Stainless steel V4A (1.4404, 316L)	PLH25-D12	2063404
						PLH25-M12	2063403
				14 mm x 14 mm	Stainless steel V4A (1.4404, 316L)	PLV14-A	2063405
	Terminal and alignment brackets	Universal terminal systems	-	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	BEF-KHS-N08N	2051616	
				Stainless steel (1.4571)	BEF-MS12G-NA	4058914	
				Aluminum	BEF-RMC-D12	5321878	

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### 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 available at [www.mysick.com/en/G6](http://www.mysick.com/en/G6)

### Photoelectric proximity sensor

- **Switching mode:** light/dark-switching

Detection principle	Sensing range max. <sup>1)</sup>	Output function	Adjustment	Connection	Model name	Part no.	
Energetic	300 mm	PNP	Potentiometer, 5-turn	Cable, 3-wire	GTE6-P1212	1051783	
				Connector M8, 4-pin	GTE6-P4212	1051781	
				Cable with plug, M12, 4-pin	GTE6-P7212	1053628	
		NPN	Potentiometer, 5-turn	Cable, 3-wire	GTE6-N1212	1051784	
				Connector M8, 4-pin	GTE6-N4212	1051782	
Background suppression	5 mm ... 250 mm	PNP	Potentiometer	Cable with plug, M8, 3-pin	GTB6-P5211	1059333	
				Cable with plug, M8, 4-pin	GTB6-P6211	1059320	
				Cable with plug, M12, 4-pin	GTB6-P7211	1057705	
			Potentiometer, 5-turn	Cable, 3-wire	GTB6-P1212	1052444	
				Connector M8, 4-pin	GTB6-P4212	1052442	
		NPN	Potentiometer	Cable with plug, M8, 4-pin	GTB6-N6212	1058769	
				Potentiometer, 5-turn	Cable, 3-wire	GTB6-N1212	1052445
					Connector M8, 4-pin	GTB6-N4212	1052443

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

### Photoelectric retro-reflective sensor

- **Detection principle:** standard optics
- **Sensing range max.:** ≤ 7.2 m (PL80A.)

Output function	Switching mode	Adjustment	Connection	Model name	Part no.	
PNP	Light/dark-switching	-	Cable, 3-wire	GL6-P1112	1051779	
			Connector M8, 4-pin	GL6-P4112	1051777	
			Connector M12, 4-pin	GL6-P7112	1053590	
	Light-switching	-	Potentiometer, 270°	Connector M8, 4-pin	GL6-P4211	1059241
					GL6G-P4211 <sup>1)</sup>	1059632
				Connector M12, 4-pin	GL6-P7511	1056039
NPN	Light/dark-switching	-	Cable, 3-wire	GL6-N1112	1051780	
			Connector M8, 4-pin	GL6-N4112	1051778	
			Potentiometer, 270°	Cable, 3-wire	GL6G-N1211 <sup>1)</sup>	1059925
	GL6-N1211	1059923				






<sup>1)</sup> Sensor for detection of transparent objects

### Through-beam photoelectric sensor

- **Sensing range max.:** 0 m ... 15 m
- **Switching mode:** light/dark-switching

Output function	Connection	Model name	Part no.
PNP	Cable, 3-wire	GSE6-P1112	1052452
	Connector M8, 4-pin	GSE6-P4112	1052450
	Cable with plug, M8, 4-pin	GSE6-P6112	1054850
	Cable with plug, M12, 4-pin	GSE6-P7112	1054831
NPN	Cable, 3-wire	GSE6-N1112	1052453
	Connector M8, 4-pin	GSE6-N4112	1052451
	Cable with plug, M8, 4-pin	GSE6-N6112	1054852
	Cable with plug, M12, 4-pin	GSE6-N7112	1054835




### Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/ tubes	-	Stainless steel 1.4571	BEF-SW-W4S	2051497
	Mounting brackets/ plates	Mounting brackets	-	Stainless steel	BEF-W100-A	5311520
				Steel, zinc coated	BEF-W100-B	5311521
	Reflectors	Angular	47 mm x 47 mm	PMMA/ABS	P250	5304812
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865

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

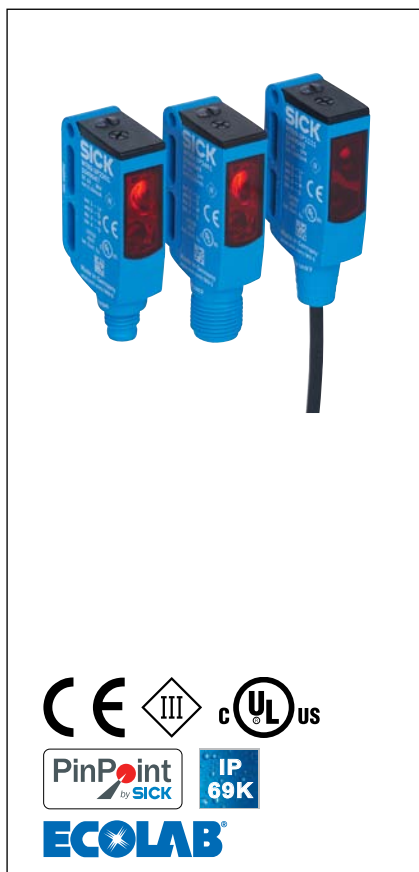
<sup>2)</sup> Customizable length by roll. Width 5 cm, length max. 22.8 m.

B

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Reflectors	Reflective tape	91.4 cm x 74.9 cm <sup>1)</sup>	-	REF-DG-K	4019634
			22.8 m x 5 cm <sup>2)</sup>	-	REF-PLUS-50-K	4051185
	Terminal and alignment brackets	Universal terminal systems	-	Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N08	2051607

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

<sup>2)</sup> Customizable length by roll. Width 5 cm, length max. 22.8 m.



### 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, mouting 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 available at [www.mysick.com/en/W9-3](http://www.mysick.com/en/W9-3)

#### Photoelectric proximity sensor

- **Detection principle:** background suppression
- **Switching mode:** light/dark-switching
- **Adjustment:** adjustable potentiometer, 5-turn

Mounting hole	Type of light	Sensing range max. <sup>1)</sup>	Switching output	Connection	Model name	Part no.
M3	Visible red light	20 mm ... 350 mm	PNP	Cable, 4-wire	WTB9-3P1161	1049043
				Connector M8, 4-pin	WTB9-3P2261	1049047
			Connector M12, 4-pin	WTB9-3P2461	1049049	
			Cable with plug, M12, 4-pin	WTB9-3P3461	1049051	
	Infrared light	20 mm ... 500 mm	NPN	Connector M12, 4-pin	WTB9-3N2461	1049053
				Cable, 4-wire	WTB9-3N1161	1049052
			PNP	Connector M8, 4-pin	WTB9-3P2211	1049045
				Connector M12, 4-pin	WTB9-3P2411	1049048
M4	Visible red light	20 mm ... 350 mm	PNP	Connector M8, 4-pin	WTB9M4-3P2261	1051889
				Connector M12, 4-pin	WTB9M4-3P2461	1051891
			NPN	Connector M8, 4-pin	WTB9M4-3N2261	1051885
				Connector M12, 4-pin	WTB9M4-3N2411	1051890
	Infrared light	20 mm ... 500 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)

## Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation
- **Switching mode:** light/dark-switching

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Mounting hole	Sensing range max. <sup>1)</sup>	Switching output	Adjustment	Connection	Model name	Part no.		
M3	0 m ... 4 m	PNP	No/fix	Connector M8, 4-pin	WL9-3P2230	1049059		
				Connector M12, 4-pin	WL9-3P2430	1049062		
		NPN	No/fix	Connector M8, 4-pin	WL9-3N2230	1049071		
				Connector M12, 4-pin	WL9-3N2430	1049073		
	0 m ... 5 m	PNP	Adjustable Teach	Cable, 4-wire	WL9-3P1132	1049056		
				Connector M8, 4-pin	WL9-3P2232	1049060		
				Connector M12, 4-pin	WL9-3P2432	1049063		
				Cable with plug, M12, 4-pin	WL9-3P3432	1049067		
				NPN	Adjustable Teach	Cable, 4-wire	WL9-3N1132	1049070
				Connector M12, 4-pin		WL9-3N2432	1049074	
M4	0 m ... 5 m	PNP	Adjustable Teach	Connector M8, 4-pin	WL9M4-3P2232	1051895		
				Connector M12, 4-pin	WL9M4-3P2432	1051896		
		NPN	Adjustable Teach	Connector M8, 4-pin	WL9M4-3N2232	1051893		





<sup>1)</sup> PL80A.





## Through-beam photoelectric sensor

- **Sensing range max.:** 0 m ... 10 m
- **Switching mode:** light/dark-switching
- **Adjustment:** no/fix

Mounting hole	Switching output	Connection	Model name	Part no.
M3	PNP	Connector M8, 4-pin	WSE9-3P2230	1049076
		Connector M12, 4-pin	WSE9-3P2430	1049077
	NPN	Connector M12, 4-pin	WSE9-3N2430	1049080
M4	PNP	Connector M8, 4-pin	WSE9M4-3P2230	1051912
	NPN	Connector M8, 4-pin	WSE9M4-3N2230	1052938

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Masks	-	-	-	BL-9-2	4033253
	Mounting brackets/ plates	Mounting plates	-	PMMA, Brass (Br)	BEF-GPM3-W9	4066039
		Mounting brackets	-	Steel, zinc coated	BEF-WN-W9-2	2022855
	Reflectors	Angular	47 mm x 47 mm	PMMA/ABS	P250	5304812
			15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			28 mm x 56 mm	PMMA/ABS	PL30A	1002314

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Reflectors	Angular	37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
		Reflective tape	22.8 m x 25 mm	-	REF-PLUS-R25	5319929
			22.8 m x 50 mm	-	REF-PLUS-R50	5319981

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### At a glance

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

### Your benefits

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

→ [www.mysick.com/en/W9-3\\_Glass](http://www.mysick.com/en/W9-3_Glass)

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



### Ordering information

Other models available at [www.mysick.com/en/W9-3\\_Glass](http://www.mysick.com/en/W9-3_Glass)









#### Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation
- **Sensing range max.:** 0 m ... 5 m (PL80A.)
- **Switching mode:** light/dark-switching
- **Adjustment:** teach

Mounting hole	Switching output	Connection	Model name	Part no.
M3	PNP	Connector M8, 4-pin	WL9G-3P2232	1049082
		Connector M12, 4-pin	WL9G-3P2432	1049083
		Cable, 4-wire	WL9G-3P1132	1049081
		Cable with plug, M12, 4-pin	WL9G-3P3432	1049084
M4	NPN	Cable, 4-wire	WL9G-3N1132	1049085
		Connector M8, 4-pin	WL9M4G-3P2232	1051899
	PNP	Connector M12, 4-pin	WL9M4G-3P2432	1051900
		Cable, 4-wire	WL9M4G-3P1132	1051898
		Cable with plug, M12, 4-pin	WL9M4G-3P3432	1051910
NPN	Cable, 4-wire	WL9M4G-3N1132	1051897	



## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.	
	Mounting brackets/ plates	Mounting plates	-	PMMA, Brass (Br)	BEF-GPM3-W9	4066039	
		Mounting brackets	-	Steel, zinc coated	BEF-WN-W9-2	2022855	
	Reflectors	Fine triple reflectors	47 mm x 47 mm	PMMA/ABS	P250F	5308843	
			18 mm x 18 mm	PMMA/ABS	PL10F	5311210	
			16 mm x 38 mm	PMMA/ABS	PL20F	5308844	
		Angular	37 mm x 56 mm	PMMA/ABS	PL40A	1012720	
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865	
		Reflective tape		22.8 m x 25 mm	-	REF-PLUS-R25	5319929
				22.8 m x 50 mm	-	REF-PLUS-R50	5319981

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### At a glance

- Best-in-class optical performance due to superior OES technology
- Autocollimation with retro-reflective sensors
- Background and foreground suppression with second emitter LED on proximity sensors
- Highly visible, precise light spot and high-energy IR transmitters
- Rugged die-cast zinc housing, optional with Teflon® coating
- Connection via cable or rotatable connector
- Mounting options with through holes, base blind holes, oblong through holes and dovetail
- IO-Link communication available (optional)

### 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
- Remote diagnostics and maintenance using IO-Link reduces overall downtime (optional)
- Flexible mounting options reduce installation time
- Easy installation using SICK accessories

→ [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 available at [www.mysick.com/en/W12-3](http://www.mysick.com/en/W12-3)

#### Photoelectric proximity sensor

- **Switching mode:** light/dark-switching
- **Connection:** connector M12, 4-pin

Detection principle	Type of light	Sensing range max. <sup>1)</sup>	Switching output	Adjustment	Model name	Part no.
Foreground suppression	Visible red light	30 mm ... 175 mm	PNP	Adjustable potentiometer, 5-turn	WTF12-3P2431	1041404
				Adjustable Teach	WTF12-3P2433	1041405
			NPN	Adjustable potentiometer, 5-turn	WTF12-3N2431	1041408
				Adjustable Teach	WTF12-3N2433	1041409
		30 mm ... 500 mm	PNP	Adjustable potentiometer, 5-turn	WTF12-3P2441	1041400
				Adjustable Teach	WTF12-3P2443	1041401
NPN	Adjustable potentiometer, 5-turn	WTF12-3N2441	1041403			
	Background suppression	Visible red light	PNP	Adjustable potentiometer, 5-turn	WTB12-3P2431	1041411
Adjustable Teach				WTB12-3P2433	1041412	
NPN			Adjustable potentiometer, 5-turn	WTB12-3P2411	1041422	
			Adjustable Teach	WTB12-3P2413	1041423	
Infrared light		20 mm ... 600 mm	PNP	Adjustable potentiometer, 5-turn	WTB12-3N2411	1041427
				Adjustable Teach	WTB12-3N2413	1041428

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

## Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation
- **Type of light.:** visible red light
- **Sensing range max.:** 0 m ... 7 m (PL80A.)
- **Switching mode:** light/dark-switching
- **Adjustment:** adjustable potentiometer, 5-turn
- **Connection:** connector M12, 4-pin









Switching output	Model name	Part no.
PNP	WL12-3P2431	1041436
NPN	WL12-3N2431	1041440

## Through-beam photoelectric sensor

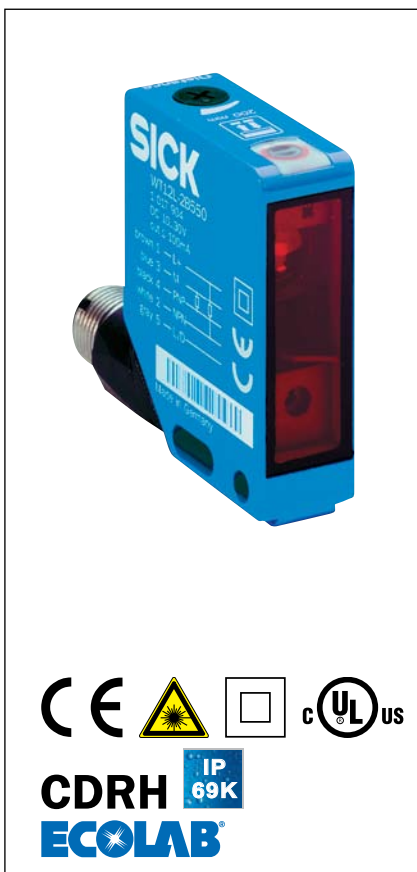
- **Type of light.:** visible red light
- **Sensing range max.:** 0 m ... 20 m
- **Switching mode:** light/dark-switching
- **Adjustment:** adjustable potentiometer, 5-turn
- **Connection:** connector M12, 4-pin

Switching output	Model name	Part no.
PNP	WSE12-3P2431	1041459
NPN	WSE12-3N2431	1041462

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.	
	Mounting brackets/ plates	Mounting brackets	-	Stainless steel	BEF-WG-W12	2013942	
		Angular		47 mm x 47 mm	PMMA/ABS	P250	5304812
			15 mm x 38 mm	PMMA/ABS	PL20A	1012719	
			28 mm x 56 mm	PMMA/ABS	PL30A	1002314	
	Reflectors			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
				80 mm x 80 mm	PMMA/ABS	PL80A	1003865
			Reflective tape		22.8 m x 25 mm	-	REF-PLUS-R25
		22.8 m x 50 mm		-	REF-PLUS-R50	5319981	

B



### At a glance

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

### Your benefits

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

→ [www.mysick.com/en/W12-2\\_Laser](http://www.mysick.com/en/W12-2_Laser)

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



### Ordering information

Other models available at [www.mysick.com/en/W12-2\\_Laser](http://www.mysick.com/en/W12-2_Laser)

#### Photoelectric proximity sensor

- **Detection principle:** background suppression
- **Sensing range max.:** 30 mm ... 200 mm (Objects to be sensed with 18 % reflectivity (based on DIN 5033 white standard))
- **Switching output:** PNP, NPN
- **Switching mode:** light-switching, Dark-switching
- **Adjustment:** adjustable Potentiometer
- **Connection:** connector M12, 5-pin

Housing material	Laser class	Model name	Part no.
Metal	II	WT12L-2B550	1017904
	I	WT12L-2B551	1047958
PTFE-coating	II	WT12L-2B550T01	1018582

#### Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation
- **Sensing range max.:** 0 m ... 18 m (PL80A.)
- **Switching output:** PNP, NPN
- **Switching mode:** light-switching, Dark-switching
- **Adjustment:** adjustable Potentiometer
- **Connection:** connector M12, 5-pin

Laser class	Model name	Part no.
II	WL12L-2B530	1018252
I	WL12L-2B531	1047959

## Through-beam photoelectric sensor

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

Sensing range max.	Laser class	Switching output	Adjustment	Model name	Part no.
0 m ... 10 m	II	PNP	Adjustable Potentiometer	WS/WE12L-2P410	1018256
		NPN	Adjustable Potentiometer	WS/WE12L-2N410	1018257
0 m ... 80 m	II	PNP	No/fix	WS/WE12L-2P430	1018254
	I		-	WS/WE12L-2P431	1047960
	II	NPN	No/fix	WS/WE12L-2N430	1018255

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Stainless steel	BEF-WG-W12	2013942
	Reflectors	Angular	15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			28 mm x 56 mm	PMMA/ABS	PL30A	1002314
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			47 mm x 47 mm	PMMA/ABS	P250	5304812
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
			Fine triple reflectors	16 mm x 38 mm	PMMA/ABS	PL20F
		18 mm x 18 mm		PMMA/ABS	PL10F	5311210
		47 mm x 47 mm		PMMA/ABS	P250F	5308843

B



### At a glance

- Rugged die-cast zinc housing with optional Teflon® coating
- Reliable detection of transparent objects
- Precise autocollimation optics
- Robust sensors for industrial use
- Precise PinPoint LED technology with highly visible light spot
- Dovetail mounting – mounting holes and oblong holes
- Highly visible status LEDs

### Your benefits

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

→ [www.mysick.com/en/W12G](http://www.mysick.com/en/W12G)

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



### Ordering information










Other models available at [www.mysick.com/en/W12G](http://www.mysick.com/en/W12G)

#### Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation
- **Sensing range max.:** 0 m ... 4 m (PL80A.)
- **Housing material:** metal
- **Connection:** connector M12, 5-pin

Continuous threshold adaption	Switching output	Switching mode	Adjustment	Model name	Part no.
✓	PNP	Light/dark-switching	Teach-in button	WL12G-3P2572	1053535
	NPN	Light/dark-switching	Teach-in button	WL12G-3N2572	1053530
-	PNP, NPN	Light-switching, Dark-switching	Potentiometer, 11-turn	WL12G-3B2531	1041456

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Stainless steel	BEF-WG-W12	2013942
	Reflectors	Angular	15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			28 mm x 56 mm	PMMA/ABS	PL30A	1002314
			47 mm x 47 mm	PMMA/ABS	P250	5304812
		Fine triple reflectors	16 mm x 38 mm	PMMA/ABS	PL20F	5308844
			18 mm x 18 mm	PMMA/ABS	PL10F	5311210
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			47 mm x 47 mm	PMMA/ABS	P250F	5308843
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865

B

B



### At a glance

- Best-in-class optical performance due to superior OES technology
- Autocollimation in retro-reflective sensors
- Background and foreground suppression with second emitter LED in proximity sensors
- Highly visible, bright, precise light spot
- Rugged metal housing, optional with Teflon® coating
- Connection via cable or rotatable connector
- Mounting options with through holes, base blind holes, oblong through holes and dovetail
- IO-Link communication available (optional)

### 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 for a bright, small and precise light spot, enabling 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
- Uniform design for entire product family regardless of connection, which ensures simple machine integration
- Quick and easy mounting due to several mounting options
- Easy installation using SICK accessories

→ [www.mysick.com/en/W12\\_Teflon](http://www.mysick.com/en/W12_Teflon)

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



### Ordering information

Other models available at [www.mysick.com/en/W12\\_Teflon](http://www.mysick.com/en/W12_Teflon)

#### Photoelectric proximity sensor

- **Switching output:** PNP
- **Switching mode:** light/dark-switching
- **Connection:** connector M12, 4-pin

Detection principle	Type of light	Sensing range max. <sup>1)</sup>	Adjustment	Model name	Part no.
Foreground suppression	Visible red light	30 mm ... 150 mm	Adjustable potentiometer, 5-turn	WTF12-3P2431T01	1041407
Background suppression	Visible red light	20 mm ... 350 mm	Adjustable potentiometer, 5-turn	WTB12-3P2431T01	1041414
	Infrared light	20 mm ... 600 mm	Adjustable Teach	WTB12-3P2433T01	1048278
			Adjustable potentiometer, 5-turn	WTB12-3P2411T01	1041425

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

#### Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation
- **Type of light:** visible red light

Sensing range max. <sup>1)</sup>	Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
0 m ... 4 m	PNP, NPN	Light-switching, Dark-switching	Adjustable potentiometer, 11-turn	Connector M12, 5-pin	WL12G-3B2531T01	1041458
0 m ... 7 m	PNP	Light/dark-switching	Adjustable potentiometer, 5-turn	Connector M12, 4-pin	WL12-3P2431T01	1041439
	NPN	Light/dark-switching	Adjustable potentiometer, 5-turn	Connector M12, 4-pin	WL12-3N2431T01	1041443

<sup>1)</sup> PL80A.











## Through-beam photoelectric sensor

- **Type of light:** visible red light

Sensing range max.	Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
0 m ... 20 m	PNP	Light/dark-switching	Adjustable potentiometer, 5-turn	Connector M12, 4-pin	WSE12-3P2431T01	1041461

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Stainless steel	BEF-WG-W12	2013942
		Angular		47 mm x 47 mm	PMMA/ABS	P250
			15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			28 mm x 56 mm	PMMA/ABS	PL30A	1002314
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
	Reflectors		Reflective tape	22.8 m x 25 mm	-	REF-PLUS-R25
		22.8 m x 50 mm		-	REF-PLUS-R50	5319981

B



### 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 available at [www.mysick.com/en/W11-2](http://www.mysick.com/en/W11-2)

#### Photoelectric proximity sensor

- **Switching mode:** light/dark-switching
- **Connection:** connector M12, 4-pin

Detection principle	Sensing range max. <sup>1)</sup>	Switching output	Adjustment	Model name	Part no.
Foreground suppression	35 mm ... 350 mm	PNP	Adjustable potentiometer, 5-turn	WTF11-2P2431	1041380
Energetic	40 mm ... 1,000 mm	PNP	Adjustable Teach	WTE11-2P2432	1041381
		NPN	Adjustable Teach	WTE11-2N2432	1041383
Background suppression	20 mm ... 350 mm	PNP	Adjustable potentiometer, 5-turn	WTB11-2P2431	1041376
		NPN	Adjustable potentiometer, 5-turn	WTB11-2N2431	1041378
	30 mm ... 1,100 mm	PNP	Adjustable potentiometer, 5-turn	WTB11-2P2461	1044442
		NPN	Adjustable potentiometer, 5-turn	WTB11-2N2461	1051818

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

#### Photoelectric retro-reflective sensor

- **Detection principle:** standards optics
- **Sensing range max.:** 0.15 m ... 10 m (PL80A.)
- **Switching mode:** light/dark-switching
- **Connection:** connector M12, 4-pin

Switching output	Adjustment	Model name	Part no.
PNP	No/fix	WL11-2P2430	1041385
	Adjustable Teach	WL11-2P2432	1048542
NPN	No/fix	WL11-2N2430	1041387









## Through-beam photoelectric sensor

- **Sensing range max.:** 0 m ... 20 m
- **Switching mode:** light/dark-switching
- **Adjustment:** no/fix
- **Connection:** connector M12, 4-pin

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Switching output	Model name	Part no.
PNP	WSE11-2P2430	1041394
NPN	WSE11-2N2430	1041396

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Stainless steel	BEF-WG-W12	2013942
	Reflectors	Angular	47 mm x 47 mm	PMMA/ABS	P250	5304812
			15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			28 mm x 56 mm	PMMA/ABS	PL30A	1002314
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
		Reflective tape	22.8 m x 25 mm	-	REF-PLUS-R25	5319929
			22.8 m x 50 mm	-	REF-PLUS-R50	5319981

B



**At a glance**

- Retro-reflective for detection of clear material objects
- Rugged housing for industrial use
- PinPoint LED technology with a highly visible light spot
- Space-saving plastic housing in chemically, thermally or mechanically resistant designs
- Dovetail mounting – standard mounting holes and oblong holes
- Highly visible 360° status LEDs
- Simple sensitivity adjustment via potentiometer

**Your benefits**

- Superior ASIC ensures reliable detection of transparent objects
- PinPoint LED 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 fast and easy commissioning
- Rugged housing design withstands harsh environments, reducing downtime and maintenance effort
- Uniform housing, mounting and connection systems reduce mounting and installation time
- High immunity to optical interferences reduces false readings and downtime

→ [www.mysick.com/en/W11G-2](http://www.mysick.com/en/W11G-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 available at [www.mysick.com/en/W11G-2](http://www.mysick.com/en/W11G-2)





**Photoelectric retro-reflective sensor**

Detection principle	Sensing range max. <sup>1)</sup>	Switching frequency	Switching output	Switching mode	Adjustment	Connection	Model name	Part no.
Autocolimation	0 m ... 4 m	1,500 Hz	PNP, NPN	Light/dark-switching	Adjustable, potentiometer, 11-turn	Connector M12, 5-pin	WL11G-2B2531	1041390

<sup>1)</sup> PL80A.

**Accessories**

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Stainless steel	BEF-WG-W12	2013942
			47 mm x 47 mm	PMMA/ABS	P250	5304812
	Reflectors	Angular	15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			28 mm x 56 mm	PMMA/ABS	PL30A	1002314

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Reflectors	Angular	37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
		Reflective tape	22.8 m x 25 mm	-	REF-PLUS-R25	5319929
			22.8 m x 50 mm	-	REF-PLUS-R50	5319981

B

B



### At a glance

- Outstanding background suppression with OES3 technology
- Highly visible and precise light spot due to PinPoint LED in selected products
- Slim, durable plastic housing
- Complete sensor family with proximity, retro-reflective and through-beam variants

### Your benefits

- Reliable object detection at a cost-effective price
- PinPoint LED technology provides a highly visible red light that enables quick and easy setup
- Broad product range gives users a variety of choices to fit their application
- Rugged plastic housing in a slim design simplifies installation
- Quick and easy installation using SICK accessories saves time

→ [www.mysick.com/en/W14-2](http://www.mysick.com/en/W14-2)

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 available at [www.mysick.com/en/W14-2](http://www.mysick.com/en/W14-2)

#### Photoelectric proximity sensor

- **Switching output:** PNP
- **Switching mode:** light/dark-switching

Detection principle	Type of light	Sensing range max. <sup>1)</sup>	Adjustment	Connection	Model name	Part no.
Energetic	Infrared light	50 mm ... 1,500 mm	Adjustable Teach	Cable, 4-wire	WT14-2P111	1026058
				Connector M12, 4-pin	WT14-2P411	1026059
Background suppression	Visible red light	20 mm ... 250 mm	Adjustable potentiometer, 4-turn	Cable, 4-wire	WT14-2P132	1026055
				Connector M12, 4-pin	WT14-2P432	1026056
	Infrared light	20 mm ... 500 mm	Adjustable potentiometer, 4-turn	Cable, 4-wire	WT14-2P122	1026051
				Connector M12, 4-pin	WT14-2P422	1026052
					WT14-2P422S03	1041679
				Connector M12, 4-pin	WT14-2P432S08	1045104

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

## Photoelectric retro-reflective sensor

- **Detection principle:** standard optics
- **Type of light:** visible red light
- **Switching output:** PNP
- **Switching mode:** light/dark-switching

Sensing range max. <sup>1)</sup>	Adjustment	Connection	Model name	Part no.
0.15 m ... 6 m	No/fix	Cable, 4-wire	WL14-2P130	1026050
		Connector M12, 4-pin	WL14-2P430	1026049
0.15 m ... 17 m	Adjustable Teach	Connector M12, 4-pin	WL14-2P431	1050271
	No/fix	Connector M12, 4-pin	WL14-2P430S07	1045089









<sup>1)</sup> PL80A.

## Through-beam photoelectric sensor

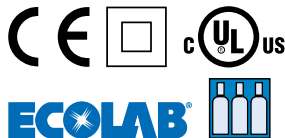
- **Type of light:** visible red light
- **Sensing range max.:** 0 m ... 15 m
- **Switching output:** PNP
- **Switching mode:** light/dark-switching
- **Adjustment:** no/fix

Connection	Model name	Part no.
Cable, 4-wire	WS/WE14-2P130	1026430
Connector M12, 4-pin	WS/WE14-2P430	1026431

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	-	Zinc plated steel (protective housing), Diecast zinc (clamp)	BEF-SG-W14	2058124
	Mounting brackets/plates	Mounting brackets	-	Steel, zinc coated	BEF-WN-W14	2019084
					BEF-WN-W18	2009317
	Reflectors	Angular	47 mm x 47 mm	PMMA/ABS	P250	5304812
			15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
	Terminal and alignment brackets	Universal terminal systems	-	Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N03	2051609

B



### At a glance

- Best-in-class optical performance due to superior OES technology
- Autocollimation optics
- Background suppression with second sender LED
- Slim, durable plastic housing
- IO-Link communication
- Operation via double teach-in push-button or potentiometer
- Wide variety of options for operation, connection, and optics

### Your benefits

- Reliable object detection due to best-in-class background suppression and resistance to ambient light
- A wide range of product variants provides increased user flexibility
- Less downtime in industrial environments
- IO-Link enables remote diagnostics and maintenance as well as application-specific add-on functionalities
- Quick and easy installation using SICK accessories saves time

→ [www.mysick.com/en/W18-3](http://www.mysick.com/en/W18-3)

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



### Ordering information

Other models available at [www.mysick.com/en/W18-3](http://www.mysick.com/en/W18-3)

#### Photoelectric proximity sensor

- **Detection principle:** background suppression
- **Switching output:** PNP
- **Switching mode:** light/dark-switching

Sensing range max. <sup>1)</sup>	Type of light	Adjustment	Connection	Model name	Part no.
10 mm ... 600 mm	Visible red light	Adjustable potentiometer, 4-turn	Connector M12, 4-pin	WT18-3P430	1025896
		Adjustable Teach	Connector M12, 4-pin	WT18-3P431	1026032
10 mm ... 700 mm	Infrared light	Adjustable potentiometer, 4-turn	Connector M12, 4-pin	WT18-3P410	1025889
		Adjustable Teach	Cable, 4-wire	WT18-3P110	1025887
10 mm ... 1,000 mm	Infrared light	Adjustable potentiometer, 4-turn	Connector M12, 4-pin	WT18-3P411	1026031
		Adjustable Teach	Connector M12, 4-pin	WT18-3P420	1025905

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



## Photoelectric retro-reflective sensor

- **Detection principle:** autocollimation
- **Type of light:** visible red light
- **Switching output:** PNP
- **Switching mode:** light/dark-switching
- **Adjustment:** adjustable potentiometer, 1-turn

Sensing range max. <sup>1)</sup>	Connection	Model name	Part no.
0 m ... 2 m	Cable with plug, M12, 4-pin	WL18-3P030S07	1042484
0 m ... 7 m	Connector M12, 4-pin	WL18-3P430	1025911
	Cable, 4-wire	WL18-3P130	1025909
	Cable, 5-wire	WL18-3P730	1026029







<sup>1)</sup> PL80A.

## Through-beam photoelectric sensor

- **Sensing range max.:** 0 m ... 20 m
- **Type of light:** visible red light
- **Switching output:** PNP
- **Switching mode:** light/dark-switching
- **Adjustment:** adjustable potentiometer, 1-turn
- **Connection:** connector M12, 4-pin

Model name	Part no.
WS/WE18-3P430	1025923
WS/WE18-3P410	1025927

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	-	Zinc plated steel (protective housing), Diecast zinc (clamp)	BEF-SG-W14	2058124
	Mounting brackets/plates	Mounting brackets	-	Steel, zinc coated	BEF-WN-W18	2009317
	Reflectors	Angular	47 mm x 47 mm	PMMA/ABS	P250	5304812
			15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865

B



### At a glance

- Energetic photoelectric sensor with easy teach-in
- Photoelectric proximity sensors with background suppression
- Intense red emitting LED with consistent light spot on PinPoint models
- Retro-reflective versions provided with and without adjustment
- Teach-in pushbutton on energetic proximity versions for quick, repeatable commissioning
- Cable or M12 connection

### Your benefits

- Teach-in pushbutton option for quick commissioning
- Easy alignment with PinPoint LED and laser technology
- 360° LEDs provide device status indication from multiple angles

→ [www.mysick.com/en/W23-2](http://www.mysick.com/en/W23-2)

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 available at [www.mysick.com/en/W23-2](http://www.mysick.com/en/W23-2)

### Photoelectric proximity sensor

- **Switching output:** PNP
- **Switching mode:** light/dark-switching
- **Connection:** connector M12, 4-pin

Type of light	Detection principle	Sensing range max. <sup>1)</sup>	Model name	Part no.
Infrared light	Background blanking	50 mm ... 1,000 mm	WT23-2P2421	1027778
	Energetic	50 mm ... 2,300 mm	WTE23-2P2412	1027781
Visible red light	Background suppression	30 mm ... 1,100 mm	WTB23-2P2461	1044164

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









### Photoelectric retro-reflective sensor

- **Type of light:** visible red light
- **Switching output:** PNP
- **Switching mode:** light/dark-switching

Sensing range max.	Connection	Model name	Part no.
0.1 m ... 10 m	Cable, 4-wire	WL23-2P1130	1027784
0.1 m ... 10 m <sup>1)</sup>	Connector M12, 4-pin	WL23-2P2430P02	1028056
0.1 m ... 4 m <sup>1)</sup>	Connector M12, 4-pin	WL23-2P2430S01	1041159
0.1 m ... 12 m <sup>1)</sup>	Connector M12, 4-pin	WL23-2P2460	1044165
0.1 m ... 15 m <sup>1)</sup>	Connector M12, 4-pin	WL23-2P2432S02	1043566
0.1 m ... 10 m <sup>1)</sup>	Cable with plug, M12, 4-pin	WL23-2P3430	1027786

<sup>1)</sup> PL80A.

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	-	Zinc plated steel (protective housing), Diecast zinc (clamp)	BEF-SG-W27	2039601
	Mounting brackets/plates	Mounting brackets	-	Steel, zinc coated	BEF-WN-W23	2019085
					BEF-WN-W27	2009122
	Reflectors	Angular	15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
	Terminal and alignment brackets	Universal terminal systems	-	Steel, zinc coated	BEF-KHS-A01	2022458
				Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N04	2051610

B

B



### At a glance

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

### Your benefits

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

→ [www.mysick.com/en/W24-2](http://www.mysick.com/en/W24-2)

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



## Ordering information

Other models available at [www.mysick.com/en/W24-2](http://www.mysick.com/en/W24-2)

### Photoelectric proximity sensor

- **Detection principle:** background suppression
- **Switching mode:** light/dark-switching

Type of light	Sensing range max. <sup>1)</sup>	Switching output	Connection	Model name	Part no.
Infrared light	100 mm ... 2,500 mm	NPN, PNP	Terminal connection with M16 gland	WT24-2B210	1016931
			Connector M12, 4-pin	WT24-2B410	1016933
			Connector M12, 5-pin	WT24-2V510	1017855
		Relay	Terminal connection with M16 gland	WT24-2B220	1017882
			Connector M12, 4-pin	WT24-2B420	1017885
			Terminal connection with M16 gland	WT24-2R210	1016932
Visible red light	100 mm ... 1,200 mm	NPN, PNP	Terminal connection with M16 gland	WT24-2B240	1017813
			Connector M12, 4-pin	WT24-2B440	1016934
		Relay	Terminal connection with M16 gland	WT24-2B250	1017883
			Terminal connection with M16 gland	WT24-2R240	1017854

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

## Photoelectric retro-reflective sensor

- **Sensing range max.:** 0 m ... 22 m (PL80A.)
- **Type of light:** visible red light
- **Switching mode:** light/dark-switching








Switching output	Connection	Model name	Part no.
NPN, PNP	Connector M12, 4-pin	WL24-2B430	1017860
	Connector M12, 5-pin	WL24-2V530	1017881
	Connector M12, 4-pin	WL24-2B440	1017879
Relay	Terminal connection with M16 gland	WL24-2R230	1017857
		WL24-2R240	1017858

## Through-beam photoelectric sensor

- **Sensing range max.:** 0 m ... 60 m
- **Type of light:** visible red light
- **Switching mode:** light/dark-switching

Switching output	Connection	Model name	Part no.
NPN, PNP	Connector M12, 4-pin	WS/WE24-2B430	1017853
		WS/WE24-2B440	1017875
Relay	Terminal connection with M16 gland	WS/WE24-2R230	1017863
		WS/WE24-2R240	1017864

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	-	Aluminum (anodised)	OBS-W24	2015069
				Steel, zinc coated	OBW-KHS-M01	2023240
	Mounting brackets/plates	Mounting brackets	-	Stainless steel	BEF-WK-W24	4027532
				Stainless steel (1.4301)	BEF-WN-W24	2015248
	Reflectors	Angular	15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865

B



**At a glance**

- Intense visible red emitter LED with consistent light spot for PinPoint versions
- Long sensing ranges with IR LED achieve up to 2500 mm
- Precise background suppression for detection of multi-colored objects
- Universal DC or DC/AC supply voltage
- Operating temperature: -40 °C - +60 °C
- IO-Link provides access to sensor information and optimizes operating processes

**Your benefits**

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

→ [www.mysick.com/en/W27-3](http://www.mysick.com/en/W27-3)

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



**Ordering information**

Other models available at [www.mysick.com/en/W27-3](http://www.mysick.com/en/W27-3)

**Photoelectric proximity sensor**

- **Detection principle:** background suppression
- **Switching mode:** light/dark-switching

Type of light	Sensing range max. <sup>1)</sup>	Switching output	Connection	Model name	Part no.
Visible red light	30 mm ... 1,100 mm	PNP	Connector M12, 4-pin	WTB27-3P2443	1027745
		Relay	Connector Q6, 6-pin, AC/UC-coding	WTB27-3R2641	1027750
	30 mm ... 2,000 mm	PNP	Connector M12, 4-pin	WTB27-3P2461	1044163
			Cable with plug, M12, 4-pin	WTB27-3P3461	1048546
Infrared light	30 mm ... 1,600 mm	PNP	Connector M12, 4-pin	WTB27-3P2411	1025994
			Cable with plug, M12, 4-pin	WTB27-3P3411	1044438
			Connector M12, 4-pin	WTB27-3F2411	1027753
		NPN	Connector M12, 4-pin	WTB27-3E2411	1027755
			Connector M12, 4-pin	WTB27-3N2413	1027761
			Relay	Connector Q6, 6-pin, AC/UC-coding	WTB27-3R2611
	30 mm ... 2,500 mm	PNP	Connector M12, 4-pin	WTB27-3P2411S18	1044508

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

## Photoelectric retro-reflective sensor

- **Type of light:** visible red light
- **Detection principle:** standard optics
- **Switching mode:** light/dark-switching

Sensing range max. <sup>1)</sup>	Switching output	Connection	Model name	Part no.
0.1 m ... 15 m	PNP	Connector Q6, 6-pin, DC-coding	WL27-3F2631	1027772
	NPN	Connector Q6, 6-pin, DC-coding	WL27-3E2631	1027773
	Relay	Connector Q6, 6-pin, AC/UC-coding	WL27-3R2631	1027776
0.1 m ... 19 m	PNP	Cable with plug, M12, 4-pin	WL27-3P3460	1047955
		Connector M12, 4-pin	WL27-3P2461	1044166









<sup>1)</sup> PL80A.

## Through-beam photoelectric sensor

- **Type of light:** visible red light
- **Sensing range max.:** 0 m ... 35 m
- **Switching mode:** light/dark-switching

Switching output	Connection	Model name	Part no.
PNP	Connector M12, 4-pin	WSE27-3P2430	1027790
	Connector Q6, 6-pin, DC-coding	WSE27-3F2631	1027792
NPN	Connector M12, 4-pin	WSE27-3N2430	1028072

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	-	Zinc plated steel (protective housing), Diecast zinc (clamp)	BEF-SG-W27	2039601
	Mounting brackets/plates	Mounting brackets	-	Steel, zinc coated	BEF-WN-W23	2019085
					BEF-WN-W27	2009122
	Reflectors	Angular	15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
	Terminal and alignment brackets	Universal terminal systems	-	Steel, zinc coated	BEF-KHS-A01	2022458
				Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N04	2051610

B



**At a glance**

- 2 mm light spot diameter at 400 mm range
- Visible red light
- Class I laser
- Precise background suppression

**Your benefits**

- Precise detection of small objects due to the miniature 2 mm light spot at 400 mm
- No laser safety measures required due to the Class I laser
- Red laser light for quick and easy alignment
- Familiar potentiometer adjustment ensure simple adjustment of the sensing range

→ [www.mysick.com/en/W23\\_Laser](http://www.mysick.com/en/W23_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 available at [www.mysick.com/en/W23\\_Laser](http://www.mysick.com/en/W23_Laser)

Photoelectric proximity sensor

Detection principle	Sensing range max.	Switching output	Switching mode	Connection	Model name	Part no.
Background suppression	50 mm ... 800 mm	PNP	Light/dark-switching	Connector M12, 4-pin	WT23L-F430	1045643

**Accessories**

	Accessory category	Accessory type	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	Zinc plated steel (protective housing), Diecast zinc (clamp)	BEF-SG-W27	2039601
	Mounting brackets/plates	Mounting brackets	Steel, zinc coated	BEF-WN-W23	2019085
				BEF-WN-W27	2009122
	Terminal and alignment brackets	Universal terminal systems	Steel, zinc coated	BEF-KHS-A01	2022458





### At a glance

- Mounting brackets included in delivery
- Visible red Bright Light LED
- Cable or rotatable M12 connector
- Operating mode (light/dark) selectable via control wire
- Versions for 10 – 30 V DC or 24 – 240 V DC/ 24 – 240 V AC voltage supply in compact design

### Your benefits

- Mounting bracket is included to ease installation
- Visible red Bright Light LED for simpler alignment of the sensors
- Cable or rotatable M12 connector provide installation flexibility
- Operating mode (light/dark) is selectable via a control cable to reduce the number of device variants
- Variants with DC voltage and universal AC/DC voltage in the same housing provide increased flexibility

→ [www.mysick.com/en/W250-2](http://www.mysick.com/en/W250-2)

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 available at [www.mysick.com/en/W250-2](http://www.mysick.com/en/W250-2)

### Photoelectric proximity sensor

Voltage type	Sensing range max. <sup>1)</sup>	Output function	Switching mode	Connection	Model name	Part no.
DC	100 mm ... 300 mm	PNP	Light/dark-switching	Connector M12, 4-pin	WTB250-2P2431	6044675
		NPN	Light/dark-switching	Connector M12, 4-pin	WTB250-2N2431	6044673
	150 mm ... 500 mm	PNP	Light/dark-switching	Connector M12, 4-pin	WTB250-2P2441	6044682
		NPN	Light/dark-switching	Connector M12, 4-pin	WTB250-2N2441	6044679
	200 mm ... 1,000 mm	PNP	Light/dark-switching	Connector M12, 4-pin	WTB250-2P2451	6044692
		NPN	Light/dark-switching	Connector M12, 4-pin	WTB250-2N2451	6044689
AC/DC	100 mm ... 300 mm	Relay	Light-switching	Cable, 5-wire, 2 m, PVC	WTB250-2R1531	6044676
	150 mm ... 500 mm	Relay	Light-switching	Cable, 5-wire, 2 m, PVC	WTB250-2R1541	6044683
	200 mm ... 1,000 mm	Relay	Light-switching	Cable, 5-wire, 2 m, PVC	WTB250-2R1551	6044693

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

### Photoelectric retro-reflective sensor

- Sensing range max.: 0.01 m ... 15 m (PL80A.)

Voltage type	Output function	Switching mode	Connection	Model name	Part no.
DC	PNP	Light/dark-switching	Cable, 4-wire, 2 m, PVC	WL250-2P1131	6044697
			Connector M12, 4-pin	WL250-2P2431	6044699
	NPN	Light/dark-switching	Cable, 4-wire, 2 m, PVC	WL250-2N1131	6044695
			Connector M12, 4-pin	WL250-2N2431	6044696
AC/DC	Relay	Light-switching	Cable, 5-wire, 2 m, PVC	WL250-2R1531	6044700







## Through-beam photoelectric sensor

- Sensing range max.: 0 m ... 50 m

B

Voltage type	Output function	Switching mode	Connection	Model name	Part no.
DC	PNP	Light/dark-switching	Connector M12, 4-pin	WSE250-2P2431	6044705
	NPN	Light/dark-switching	Connector M12, 4-pin	WSE250-2N2431	6044711
AC/DC	Relay	Light-switching	Cable, 5-wire, 2 m, PVC	WSE250-2R1531	6044707

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/plates	Mounting brackets	-	Steel, zinc coated	BEF-W250	5305850
	Reflectors	Angular	47 mm x 47 mm	PMMA/ABS	P250	5304812
			15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
	Terminal and alignment brackets	Universal terminal systems	-	Steel, zinc coated	BEF-KHS-N08	2023057



### 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 (-2Hxxx) 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 available at [www.mysick.com/en/W280-2](http://www.mysick.com/en/W280-2)

### Photoelectric proximity sensor

- Sensing range max.: 10 mm ... 2,000 mm (Object with 90 % reflectance (referred to standard white DIN 5033))

Voltage type	Output function	Switching mode	Connection	Model name	Part no.
DC	PNP	Light/dark-switching	Connector M12, 4-pin	WTE280-2P2431	6044728
	NPN	Light/dark-switching	Connector M12, 4-pin	WTE280-2N2431	6044729
AC	Relay	Light-switching	Cable, 5-wire, 2 m	WTE280-2H1531	6044731
				WTE280-2R1531	6044759
			Cable gland	WTE280-2H4331	6044730
				WTE280-2R4331	6044758

### Photoelectric retro-reflective sensor

Voltage type	Sensing range max.	Output function	Switching mode	Connection	Model name	Part no.
DC	0.01 m ... 15 m <sup>1)</sup>	PNP	Light/dark-switching	Connector M12, 4-pin	WL280-2P2431	6044736
	0.01 m ... 12 m <sup>2)</sup>	NPN	Light/dark-switching	Connector M12, 4-pin	WL280-2N2431	6044737
AC	0.01 m ... 15 m <sup>1)</sup>	Relay	Light-switching	Cable, 5-wire, 2 m	WL280-2H1531	6044739
					WL280-2R1531	6044761
				Cable gland	WL280-2H4331	6044738
					WL280-2R4331	6044760

<sup>1)</sup> PL80A.

<sup>2)</sup> P250.







## Through-beam photoelectric sensor

- Sensing range max.: 0 m ... 60 m

B

Voltage type	Output function	Switching mode	Connection	Model name	Part no.
DC	PNP	Light/dark-switching	Connector M12, 4-pin	WSE280-2P2431	6044745
	NPN	Light/dark-switching	Connector M12, 4-pin	WSE280-2N2431	6044746
AC	Relay	Light-switching	Cable, 5-wire, 2 m	WSE280-2H1531	6044748
				WSE280-2R1531	6044763
			Cable gland	WSE280-2H4331	6044747
				WSE280-2R4331	6044762

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Stainless steel V2A (1.4301)	BEF-W280	5313885
	Reflectors	Angular	47 mm x 47 mm	PMMA/ABS	P250	5304812
			15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
	Terminal and align- ment brackets	Universal terminal systems	-	Steel, zinc coated	BEF-KHS-F01	2022463



### At a glance

- WTT280L-2: sensing distance up to 4 m
- WLT280L-2: sensing distance up to 18 m (expected to be available from October 2012)
- Complete background suppression: very small black/white shift, insensitive against reflections from the background (e.g. shiny metal, window, safety vest)
- Ignores cross talk from adjacent sensors
- 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 available at [www.mysick.com/en/W280L-2\\_Long\\_Range](http://www.mysick.com/en/W280L-2_Long_Range)

#### Photoelectric proximity sensor

- **Switching mode:** light/dark-switching

Sensing range max.	Output function	Connection	Model name	Part no.
200 mm ... 4,000 mm <sup>1)</sup> 200 mm ... 3,000 mm <sup>2)</sup>	PNP	Cable 2 m, 5-pin, 2 m, PVC	WTT280L-2P1531	6048065
		Connector M12, 5-pin	WTT280L-2P2531	6048061
	2 x PNP	Cable 2 m, 5-pin, 2 m, PVC	WTT280L-2P1536	6048066
		Connector M12, 5-pin	WTT280L-2P2536	6048062
	NPN	Cable 2 m, 5-pin, 2 m, PVC	WTT280L-2N1531	6048067
		Connector M12, 5-pin	WTT280L-2N2531	6048063
	2 x NPN	Cable 2 m, 5-pin, 2 m, PVC	WTT280L-2N1536	6048068
		Connector M12, 5-pin	WTT280L-2N2536	6048064
200 mm ... 18,000 mm <sup>3)</sup>	2 x PNP	Connector M12, 5-pin	WLT280L-2P2536	6048069
	2 x NPN	Connector M12, 5-pin	WLT280L-2N2536	6048070





<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)

<sup>3)</sup> Reflector P250, PL80A.

## Accessories

B

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Stainless steel V2A (1.4301)	BEF-W280	5313885
	Reflectors	Angular	47 mm x 47 mm	PMMA/ABS	P250	5304812
	Terminal and align- ment brackets	Universal terminal systems	-	Steel, zinc coated	BEF-KHS-F01	2022463
					BEF-KHS-J01	2022719



### At a glance

- M12 metal housing with an IP 67 enclosure rating
- Long sensing distances, short response times
- 2 teach-in modes: Standard teach mode for basic applications and precise teach mode with small hysteresis for special applications
- Adjustable light or dark switching as complementary outputs
- PNP or NPN output available
- Complements inductive sensor portfolio with an M12 housing
- 4-pin M12 connector or 2 m cable

### Your benefits

- Standard M12 miniature housing saves installation space on the machine
- Simple design and time-saving installation due to a standard M12 housing
- Operating reserve display simplifies commissioning and saves maintenance time
- Standardized connection technology and broad application use
- Fast response times ensure reliable detection of objects at high speeds, increasing machine throughput
- Tough metal housing provides a long service life, reducing maintenance time and costs

→ [www.mysick.com/en/V12-2](http://www.mysick.com/en/V12-2)

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 available at [www.mysick.com/en/V12-2](http://www.mysick.com/en/V12-2)

#### Photoelectric proximity sensor

- **Detection principle:** energetic
- **Type of light:** infrared light
- **Housing material:** metal
- **Switching mode:** light/dark-switching
- **Adjustment:** adjustable manual, via teach-in button, electronic, via control input C (0 V)

Sensing range max. <sup>1)</sup>	Switching output	Connection	Model name	Part no.
0 mm ... 115 mm	PNP	Cable, 4-wire	VT12T-2P112	6026211
		Connector M12, 4-pin	VT12T-2P410	6026212
	NPN	Cable, 4-wire	VT12T-2N112	6026209
		Connector M12, 4-pin	VT12T-2N410	6026210
0 mm ... 340 mm	PNP	Cable, 4-wire	VT12T-2P132	6026215
		Connector M12, 4-pin	VT12T-2P430	6026216
	NPN	Cable, 4-wire	VT12T-2N132	6026213
		Connector M12, 4-pin	VT12T-2N430	6026214

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

B

## Photoelectric retro-reflective sensor

- **Type of light:** visible red light
- **Housing material:** metal
- **Sensing range max.:** 0.03 m ... 2.8 m (PL80A.)
- **Switching mode:** light/dark-switching
- **Adjustment:** no/fix




Switching output	Connection	Model name	Part no.
PNP	Cable, 4-wire	VL12-2P132	6026219
	Connector M12, 4-pin	VL12-2P430	6026220
NPN	Cable, 4-wire	VL12-2N132	6026217
	Connector M12, 4-pin	VL12-2N430	6026218

## Through-beam photoelectric sensor

- **Type of light:** infrared light
- **Housing material:** metal
- **Sensing range max.:** 0 m ... 5 m
- **Switching mode:** light/dark-switching
- **Adjustment:** no/fix

Switching output	Connection	Model name	Part no.
PNP	Cable, 4-wire	VS/VE12-2P132	6026223
	Connector M12, 4-pin	VS/VE12-2P430	6026224
NPN	Cable, 4-wire	VS/VE12-2N132	6026221
	Connector M12, 4-pin	VS/VE12-2N430	6026222

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Steel, zinc coated	BEF-WG-M12	5321869
		Mounting plates	-	Stainless steel	BEF-WG-M12N	5320950
		Mounting brackets	-	Steel, zinc coated	BEF-WN-M12	5308447
		Mounting plates	-	Stainless steel	BEF-WN-M12N	5320949
	Reflectors	Angular	37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			47 mm x 47 mm	PMMA/ABS	P250	5304812
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
		Round	-	PMMA/ABS	PL22-2	1003621
	Terminal and align- ment brackets	Universal terminal systems	-	Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N05	2051611
				BEF-KHS-N06	2051612	





## At a glance

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

## Your benefits

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

→ [www.mysick.com/en/V18V](http://www.mysick.com/en/V18V)

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



## Ordering information

Other models available at [www.mysick.com/en/V18V](http://www.mysick.com/en/V18V)

### Photoelectric proximity sensor

- **Switching mode:** light/dark-switching
- **Connection:** connector M12, 4-pin

Detection principle	Type of light	Sensing range max. <sup>1)</sup>	Switching output	Model name	Part no.
Background suppression	Visible red light	0 mm ... 100 mm	PNP	VTB18-4P1240VS01	6037754
			NPN	VTB18-4N1240VS01	6037755
	Visible red light	0 mm ... 140 mm	PNP	VTB18-4P1240V	6035493
			NPN	VTB18-4N1240V	6035494
Energetic	Visible red light	0 mm ... 110 mm	PNP	VTF18-4P1240V	6035487
			NPN	VTF18-4N1240V	6035488
	Infrared light	0 mm ... 450 mm	PNP	VTE18-4P4240V	6035489
			NPN	VTE18-4N4240V	6035490
		0 mm ... 900 mm	PNP	VTE18-4P8240V	6035491
			NPN	VTE18-4N8240V	6035492

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

## Photoelectric retro-reflective sensor

- **Detection principle:** standard optics
- **Type of light:** visible red light
- **Switching mode:** light/dark-switching
- **Connection:** connector M12, 4-pin

Sensing range max. <sup>1)</sup>	Switching output	Model name	Part no.
0.035 m ... 4.5 m	PNP	VL18-4P2240V	6035497
	NPN	VL18-4N2240V	6035498
0.1 m ... 5 m	PNP	VL18-4P3140V	6035495
	NPN	VL18-4N3140V	6035496






<sup>1)</sup> PL80A.

## Through-beam photoelectric sensor

- **Sensing range max.:** 0 m ... 20 m
- **Type of light:** infrared light
- **Switching mode:** light/dark-switching
- **Connection:** connector M12, 4-pin

Switching output	Model name	Part no.
PNP	VS/VE18-4P3140V	6035499
NPN	VS/VE18-4N3140V	6035500

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting plates	-	Stainless steel	BEF-WG-M18N	5320948
					BEF-WN-M18N	5320947
	Reflectors	Angular	47 mm x 47 mm	Plastic	P250 CHEM	5321097
	Terminal and align- ment brackets	Universal terminal systems	-	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	BEF-KHS-N06N	2051622
		Terminal brackets	-	Stainless steel	BEF-WN-MH15-2V	4053358



### 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
- 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 available at [www.mysick.com/en/GR18S](http://www.mysick.com/en/GR18S)

#### Photoelectric proximity sensor

- **Detection principle:** energetic
- **Housing design:** axial
- **Switching mode:** light-switching
- **Adjustment:** adjustable, Potentiometer, 270°

Sensing range max. <sup>1)</sup>	Housing material	Switching output	Connection	Model name	Part no.
3 mm ... 115 mm	Metal	PNP	Cable, 3-wire, 2 m, PVC	GRTE18S-P1312	1058203
			Connector M12, 3-pin	GRTE18S-P2312	1058204
		NPN	Cable, 3-wire, 2 m, PVC	GRTE18S-N1312	1058201
	Plastic	PNP	Cable, 3-wire, 2 m, PVC	GRTE18S-P1317	1058195
			Connector M12, 3-pin	GRTE18S-P2317	1058196
		NPN	Cable, 3-wire, 2 m, PVC	GRTE18S-N1317	1058194
5 mm ... 550 mm	Metal	PNP	Cable, 3-wire, 2 m, PVC	GRTE18S-P1342	1058205
			Connector M12, 3-pin	GRTE18S-P2342	1058200
		NPN	Cable, 3-wire, 2 m, PVC	GRTE18S-N1342	1058202
	Plastic	PNP	Cable, 3-wire, 2 m, PVC	GRTE18S-P1347	1058197
			Connector M12, 3-pin	GRTE18S-P2347	1058193
		NPN	Cable, 3-wire, 2 m, PVC	GRTE18S-N1347	1058393

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

## Photoelectric retro-reflective sensor

- **Detection principle:** standard optics
- **Sensing range max.:** 0.03 m ... 7.2 m (PL80A.)
- **Switching output:** PNP
- **Adjustment:** no/fix
- **Connection:** connector M12, 3-pin




Housing material	Housing design	Switching mode	Model name	Part no.
Metal	Axial	Dark-switching	GRL18S-F2331	1058198
		Light-switching	GRL18S-P2331	1058199
	Axial, fully flush	Dark-switching	GRL18S-F233Y	1058206
		Light-switching	GRL18S-P233Y	1058207
	Radial, fully flush	Dark-switching	GRL18S-F233W	1058209
		Light-switching	GRL18S-P233W	1058210
Plastic	Axial	Dark-switching	GRL18S-F2336	1059533
		Light-switching	GRL18S-P2336	1058192
	Radial	Dark-switching	GRL18S-F2338	1058211
		Light-switching	GRL18S-P2338	1058212



## Through-beam photoelectric sensor

- **Sensing range max.:** 0 m ... 15 m
- **Housing material:** plastic
- **Housing design:** axial
- **Switching output:** PNP
- **Adjustment:** no/fix
- **Connection:** connector M12, 3-pin

Switching mode	Model name	Part no.
Dark-switching	GRSE18S-F2336	1058214
Light-switching	GRSE18S-P2336	1058215

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Steel, zinc coated	BEF-WG-M18	5321870
					BEF-WN-M18	5308446
	Reflectors	Angular	15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			47 mm x 47 mm	PMMA/ABS	P250	5304812
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Reflectors	Round	-	PMMA/ABS	PL22-2	1003621
	Terminal and alignment brackets	Terminal brackets	-	Plastic (PA12)	BEF-WN-MH15-1	4039533

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### At a glance

- Low-cost cylindrical M18 sensor with extra short housing
- Potentiometer for adjustment of switching threshold
- Five different housing styles
- Variety of plastic and metal housing styles, with straight or right angle optics
- Bright and highly visible PinPoint-LED
- 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
- Potentiometer for adjustment of switching threshold allows detection of transparent objects.
- 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/GR18SG](http://www.mysick.com/en/GR18SG)

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



### Ordering information









Other models available at [www.mysick.com/en/GR18SG](http://www.mysick.com/en/GR18SG)

#### Photoelectric retro-reflective sensor

- **Detection principle:** standard optics
- **Sensing range max.:** 0.03 m ... 7.2 m (PL80A.)
- **Switching output:** PNP
- **Switching mode:** dark-switching
- **Adjustment:** potentiometer, 270°
- **Connection:** connector M12, 3-pin

Housing material	Housing design	Model name	Part no.
Metal	Axial	GRL18SG-F2331	1059555
	Axial, fully flush	GRL18SG-F233Y	1059556
	Radial, fully flush	GRL18SG-F233W	1059557
Plastic	Axial	GRL18SG-F2336	1059553
	Radial	GRL18SG-F2338	1059554

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Steel, zinc coated	BEF-WG-M18	5321870
					BEF-WN-M18	5308446
	Reflectors	Angular	15 mm x 38 mm	PMMA/ABS	PL20A	1012719
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			47 mm x 47 mm	PMMA/ABS	P250	5304812
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
		Round	-	PMMA/ABS	PL22-2	1003621
		Terminal and align- ment brackets	Terminal brackets	-	Plastic (PA12)	BEF-WN-MH15-1

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**At a glance**

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

**Your benefits**

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

→ [www.mysick.com/en/MH15V](http://www.mysick.com/en/MH15V)

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



**Ordering information**

Other models available at [www.mysick.com/en/MH15V](http://www.mysick.com/en/MH15V)

**Photoelectric proximity sensor**

- **Adjustment:** potentiometer, 270°
- **Connection:** connector M12, 4-pin

Detection principle	Type of light	Sensing range max. <sup>1)</sup>	Switching output	Switching mode	Model name	Part no.
Energetic	Infrared light	10 mm ... 100 mm	PNP	Dark-switching	MHT15-P3217V	1043805
				Light-switching	MHT15-P3317V	1043806
			NPN	Dark-switching	MHT15-N3217V	1043803
				Light-switching	MHT15-N3317V	1043804
		10 mm ... 350 mm	PNP	Dark-switching	MHT15-P3247V	1043810
				Light-switching	MHT15-P3347V	1043811
NPN	Dark-switching	MHT15-N3247V	1043808			
	Light-switching	MHT15-N3347V	1043809			
Background suppression	Visible red light	3 mm ... 300 mm	PNP	Dark-switching	MHTB15-P3267V	1047160
				Light-switching	MHTB15-P3367V	1046537
			NPN	Dark-switching	MHTB15-N3267V	1047159
				Light-switching	MHTB15-N3367V	1046536

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



## Photoelectric retro-reflective sensor

- **Detection principle:** standard optics
- **Type of light:** visible red light
- **Sensing range max.:** 0.035 m ... 5 m (PL80A.)
- **Connection:** connector M12, 4-pin






Switching output	Switching mode	Model name	Part no.
PNP	Dark-switching	MHL15-P3236V	1043814
	Light-switching	MHL15-P3336V	1043815
NPN	Dark-switching	MHL15-N3236V	1043812
	Light-switching	MHL15-N3336V	1043813

## Through-beam photoelectric sensor

- **Type of light:** visible red light
- **Sensing range max.:** 0 m ... 5 m
- **Connection:** connector M12, 4-pin

Switching output	Switching mode	Model name	Part no.
PNP	Dark-switching	MHSE15-P3236V	1043818
	Light-switching	MHSE15-P3336V	1043819
NPN	Dark-switching	MHSE15-N3236V	1043816
	Light-switching	MHSE15-N3336V	1043817

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting plates	-	Stainless steel	BEF-WG-M18N	5320948
					BEF-WN-M18N	5320947
	Reflectors	Angular	47 mm x 47 mm	Plastic	P250 CHEM	5321097
	Terminal and align- ment brackets	Universal terminal systems	-	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	BEF-KHS-N06N	2051622
		Terminal brackets	-	Stainless steel	BEF-WN-MH15-2V	4053358

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### At a glance

- Low-cost M18 housing sensor on the market
- Long sensing distances: 100 mm, 400 mm, 800 mm (proximity sensor), 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 available at [www.mysick.com/en/V180-2](http://www.mysick.com/en/V180-2)

### Photoelectric proximity sensor

- **Detection principle:** background blanking
- **Switching mode:** light/dark-switching
- **Adjustment:** adjustable Potentiometer, 270°
- **Connection:** connector M12, 4-pin

Sensing range max. <sup>1)</sup>	Housing material	Switching output	Model name	Part no.
1 mm ... 450 mm	Metal	PNP	VTE180-2P42442	6041807
		NPN	VTE180-2N42442	6041805
	Plastic	NPN	VTE180-2N42447	6037482
		PNP	VTE180-2P42447	6037484
1 mm ... 500 mm	Metal	PNP	VTE180-2P42444	6043815
		NPN	VTE180-2N42444	6043813
	Plastic	PNP	VTE180-2P42449	6043819
		NPN	VTE180-2N42449	6043817
1 mm ... 130 mm	Metal	PNP	VTF180-2P42414	6043806
		NPN	VTF180-2N42414	6043804
	Plastic	PNP	VTF180-2P42419	6043811
		NPN	VTF180-2N42419	6043808
1 mm ... 140 mm	Metal	PNP	VTF180-2P42412	6041803
		NPN	VTF180-2N42412	6041801
	Plastic	PNP	VTF180-2P42417	6037480
		NPN	VTF180-2N42417	6037478

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

## Photoelectric retro-reflective sensor

- **Detection principle:** standard optics
- **Switching mode:** light/dark-switching
- **Adjustment:** adjustable Potentiometer, 270°
- **Connection:** connector M12, 4-pin

Sensing range max. <sup>1)</sup>	Housing material	Switching output	Model name	Part no.
0.05 m ... 5.5 m	Metal	PNP	VL180-2P42433	6043834
		NPN	VL180-2N42433	6043830
	Plastic	PNP	VL180-2P42438	6043838
		NPN	VL180-2N42438	6043836
0.05 m ... 7 m	Metal	PNP	VL180-2P42431	6041819
		NPN	VL180-2N42431	6041817
	Plastic	PNP	VL180-2P42436	6037496
		NPN	VL180-2N42436	6037494

<sup>1)</sup> PL80A.







## Through-beam photoelectric sensor

- **Switching mode:** light/dark-switching
- **Connection:** connector M12, 4-pin

Sensing range max.	Housing material	Switching output	Adjustment	Model name	Part no.
0 m ... 25 m	Metal	PNP	Adjustable Potentiometer, 270° <sup>1)</sup>	VSE180-2P42434	6043850
		NPN	Adjustable Potentiometer, 270° <sup>1)</sup>	VSE180-2N42434	6043848
	Plastic	PNP	Adjustable Potentiometer, 270° <sup>1)</sup>	VSE180-2P42439	6043854
		NPN	Adjustable Potentiometer, 270° <sup>1)</sup>	VSE180-2N42439	6043852
0 m ... 28 m	Metal	PNP	Adjustable Potentiometer, 270°	VSE180-2P42432	6041823
		NPN	Adjustable Potentiometer, 270°	VSE180-2N42432	6041821
	Plastic	PNP	Adjustable Potentiometer, 270°	VSE180-2P42437	6037500
		NPN	Adjustable Potentiometer, 270°	VSE180-2N42437	6037498

<sup>1)</sup> Receiver.

## Accessories

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	Steel, zinc coated	BEF-WG-M18	5321870
					BEF-WN-M18	5308446
	Reflectors	Angular	47 mm x 47 mm	PMMA/ABS	P250	5304812
			37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
	Terminal and alignment brackets	Universal terminal systems	-	Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)	BEF-KHS-N06N	2051622

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### At a glance

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

### Your benefits

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

→ [www.mysick.com/en/WLL170-2](http://www.mysick.com/en/WLL170-2)

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



## Ordering information

Other models available at [www.mysick.com/en/WLL170-2](http://www.mysick.com/en/WLL170-2)

### WLL170-2

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

Response time	Sensing range max. <sup>1)</sup>	Switching mode	Connection	Model name	Part no.
$\leq 0.25$ ms	0 mm ... 4,000 mm, through-beam system	PNP	Cable, 3-pole, 2 m	WLL170-2P132	6029511
			Connector, M8, 3-pin	WLL170-2P330	6029513
			Connector, M8, 4-pin	WLL170-2P430	6029514
		NPN	Cable, 3-pole, 2 m	WLL170-2N132	6029515
			Connector, M8, 3-pin	WLL170-2N330	6029517
			Connector, M8, 4-pin	WLL170-2N430	6029518
$\leq 50$ $\mu$ s	0 mm ... 1,600 mm, through-beam system	PNP	Cable, 3-pole, 2 m	WLL170-2P162	6029527
			Connector, M8, 3-pin	WLL170-2P360	6029529
			Connector, M8, 4-pin	WLL170-2P460	6029530
		NPN	Cable, 3-pole, 2 m	WLL170-2N162	6029531
			Connector, M8, 3-pin	WLL170-2N360	6029533
			Connector, M8, 4-pin	WLL170-2N460	6029534

<sup>1)</sup> LL3-TB02 and tip adapter LL3-TA01.



## WLL170T-2

- **Type of light:** visible red light

Response time	Sensing range max. <sup>1)</sup>	Adjustment	Switching mode	Connection	Model name	Part no.
≤ 0.25 ms	0 mm ... 3,500 mm, through-beam system	Teach-in button	PNP	Connector, M8, 3-pin	WLL170T-2P330	6033949
			NPN	Connector, M8, 3-pin	WLL170T-2N330	6033952
		Teach-in button Cable	PNP	Cable, 4-pole, 2 m	WLL170T-2P132	6033948
			NPN	Connector, M8, 4-pin	WLL170T-2P430	6033950
				Cable, 4-pole, 2 m	WLL170T-2N132	6033951
				Connector, M8, 4-pin	WLL170T-2N430	6033953
≤ 50 μs	0 mm ... 1,500 mm, through-beam system	Teach-in button	PNP	Connector, M8, 3-pin	WLL170T-2P360	6033964
			NPN	Connector, M8, 3-pin	WLL170T-2N360	6033961
		Teach-in button Cable	PNP	Cable, 4-pole, 2 m	WLL170T-2P162	6033963
			NPN	Connector, M8, 4-pin	WLL170T-2P460	6033965
				Cable, 4-pole, 2 m	WLL170T-2N162	6033960
				Connector, M8, 4-pin	WLL170T-2N460	6033962

<sup>1)</sup> LL3-TB02 and tip adapter LL3-TA01.

## Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Mounting brackets/plates	Mounting brackets	Steel, zinc coated	BEF-WLL170	5306574
	Other mounting accessories	Others	-	BF-EB01-W190	5313011

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### At a glance

- Selectable response time up to 16  $\mu$ s
- Sensing range up to 20 m, sensing distance up to 1400 mm
- Bus-compatible with anti-interference
- 2 x 4-digit display
- Adjustable hysteresis
- Rotatable display screen
- High-resolution signal processing
- Programmable time delays

### Your benefits

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

→ [www.mysick.com/en/WLL180T](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 available at [www.mysick.com/en/WLL180T](http://www.mysick.com/en/WLL180T)

- **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. Scanning range reduction with shorter response time (see tables LL3/WLL180T)) (LL3-TX01.)

Device type	Switching output	Connection	Model name	Part no.
Stand-alone	PNP	Cable, 4-pole, 2 m	WLL180T-P432	6039093
		Connector, M8, 4-pin	WLL180T-P434	6039095
	NPN	Cable, 4-pole, 2 m	WLL180T-N432	6039094
		Connector, M8, 4-pin	WLL180T-N434	6039096
Base unit <sup>1)</sup>	PNP	Cable, 4-pole, 2 m	WLL180T-M432	6039097
		Connector, M8, 4-pin	WLL180T-M434	6039101
		Connector, M8, 3-pin	WLL180T-M333	6042428
	NPN	Cable, 4-pole, 2 m	WLL180T-L432	6039099
		Connector, M8, 4-pin	WLL180T-L434	6039103
		Connector, M8, 3-pin	WLL180T-F333	6042429
Expansion unit	PNP	Cable, 2-pole, 2 m	WLL180T-F232	6039098
		Connector, M8, 4-pin	WLL180T-F434	6039102
	NPN	Cable, 2-pole, 2 m	WLL180T-E232	6039100
		Connector, M8, 4-pin	WLL180T-E434	6039104

<sup>1)</sup> Up to 15 expansion units can be connected.

## Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Mounting brackets/plates	Mounting brackets	Steel, zinc coated	BEF-WLL170	5306574
	Other mounting accessories	Others	-	BF-EB01-W190	5313011

**B**

B



### At a glance

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

### Your benefits

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

→ [www.mysick.com/en/LL3](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 available at [www.mysick.com/en/LL3](http://www.mysick.com/en/LL3)

### Proximity system

Category fiber-optic cables	Housing length	Diameter, connection	Fiber-optic cable cuttable	Minimal object diameter <sup>2)</sup>	Bend radius, fibre-optic cable	Heat resistance	Ambient operating temperature	Model name	Part no.
Threaded sleeve	2 m	1.3 mm	✓ <sup>1)</sup>	0.015 mm	25 mm	+70 °C	-40 °C +70 °C	LL3-DM01	5308071
					15 mm	+70 °C	-40 °C +70 °C	LL3-DT01	5308076
								LL3-DM02	5308077
		2.2 mm	✓ <sup>1)</sup>	0.015 mm	25 mm	+70 °C	-40 °C +70 °C	LL3-DB01	5308074
Threaded sleeve, Flexible fiber-optic cable	2 m	2.2 mm	✓ <sup>1)</sup>	0.015 mm	2 mm	+70 °C	-40 °C +70 °C	LL3-DK67	5313025
					4 mm	+70 °C	-40 °C +70 °C	LL3-DR01	5308078
Smooth sleeve, Flexible fiber-optic cable	1 m	1.3 mm	-	0.015 mm	4 mm	+70 °C	-40 °C +70 °C	LL3-DR04	5308081
Long end sleeve, Flexible fiber-optic cable	2 m	1.3 mm	✓ <sup>1)</sup>	0.015 mm	2 mm	+70 °C	-40 °C +70 °C	LL3-DK63Z	5313027
Area detection	2 m	2.2 mm	✓ <sup>1)</sup>	0.02 mm	25 mm	+60 °C	-40 °C +60 °C	LL3-DZ01	5326013
						+70 °C	-40 °C +70 °C	LL3-DZ03	5326015

<sup>1)</sup> FC fiber optic cable cutter included in delivery.

<sup>2)</sup> Minimum detectable object was determined at optimal measuring distance and optimal setting.



Category fiber-optic cables	Housing length	Diameter, connection	Fiber-optic cable cuttable	Minimal object diameter <sup>2)</sup>	Bend radius, fibre-optic cable	Heat resistance	Ambient operating temperature	Model name	Part no.
Flat type, Flexible fiber-optic cable	2 m	1 mm	✓ <sup>1)</sup>	0.01 mm	1 mm	+60 °C	-40 °C +60 °C	LL3-DC47	5324268
		1.3 mm	✓ <sup>1)</sup>	0.03 mm	1 mm	+60 °C	-40 °C +60 °C	LL3-DE03	5325986
Flat type, LCDs/transparent objects/semiconductors	2 m	1 mm	✓ <sup>1)</sup>	0.02 mm	10 mm	+70 °C	-40 °C +70 °C	LL3-DC09	5326028
						+50 °C	-40 °C +50 °C	LL3-DC38	5322472
Heat-resistant, Liquid level, Threaded sleeve	1 m	4 mm	-	0.02 mm	25 mm	+200 °C	-40 °C +200 °C	LL3-DW01	5315234
Heat-resistant, Threaded sleeve	2 m	2.2 mm	✓ <sup>1)</sup>	0.015 mm	35 mm	+180 °C	-40 °C +180 °C	LL3-DH01	5308091
Liquid level	2 m	2.2 mm	✓ <sup>1)</sup>	-	30 mm	+105 °C	-40 °C +105 °C	LL3-DF02-S01	5321924

<sup>1)</sup> FC fiber optic cable cutter included in delivery.

<sup>2)</sup> Minimum detectable object was determined at optimal measuring distance and optimal setting.

### Through-beam system

Category fiber-optic cables	Housing length	Diameter, connection	Fiber-optic cable cuttable	Minimal object diameter <sup>2)</sup>	Bend radius, fibre-optic cable	Heat resistance	Ambient operating temperature	Model name	Part no.
Threaded sleeve	-	2.2 mm	✓ <sup>1)</sup>	0.5 mm	25 mm	+60 °C	-40 °C +60 °C	LL3-TX01	5324173
Threaded sleeve, Flexible fiber-optic cable	2 m	2.2 mm	✓ <sup>1)</sup>	0.3 mm	4 mm	+70 °C	-40 °C +70 °C	LL3-TR01	5308052
				0.2 mm	2 mm	+70 °C	-40 °C +70 °C	LL3-TK77	5313035
Smooth sleeve, Flexible fiber-optic cable	2 m	2.2 mm	✓ <sup>1)</sup>	0.2 mm	2 mm	+70 °C	-40 °C +70 °C	LL3-TK05	5313034
Long end sleeve, 90° deflection	2 m	2.2 mm	✓ <sup>1)</sup>	0.2 mm	25 mm	+70 °C	-40 °C +70 °C	LL3-TS08	5308061
Area detection	2 m	2.2 mm	✓ <sup>1)</sup>	0.5 mm	25 mm	+70 °C	-40 °C +70 °C	LL3-TS14	5313039
	-	2.2 mm	✓ <sup>1)</sup>	0.4 mm	2 mm	+60 °C	-40 °C +60 °C	LL3-TS40	5323971
Area detection, Flexible fiber-optic cable	2 m	1.3 mm	✓ <sup>1)</sup>	0.25 mm	1 mm	+50 °C	-40 °C +55 °C	LL3-TZ09	5326598
Flat type, Flexible fiber-optic cable	2 m	1.3 mm	✓ <sup>1)</sup>	0.08 mm	1 mm	+60 °C	-40 °C +60 °C	LL3-TE03	5325908
Heat-resistant	-	2.2 mm	-	0.04 mm	25 mm	+350 °C	-30 °C +350 °C	LL3-TH08	5325978
Heat-resistant, Liquid level, Threaded sleeve	-	3 mm	-	0.4 mm	25 mm	+200 °C	-40 °C +200 °C	LL3-TW01	5315233
LCDs/transparent objects/semiconductors	-	1 mm	✓ <sup>1)</sup>	0.02 mm	10 mm	+60 °C	-40 °C +60 °C	LL3-TG04	5324499
Resistant to oil/chemicals, PTFE	2 m	6 mm	- <sup>1)</sup>	0.3 mm	60 mm	+70 °C	-40 °C +70 °C	LL3-TY01	5308066
90° deflection, Flexible fiber-optic cable, Threaded sleeve	-	2.2 mm	✓ <sup>1)</sup>	0.4 mm	2 mm	+70 °C	-40 °C +70 °C	LL3-TV07	5322548

<sup>1)</sup> FC fiber optic cable cutter included in delivery.

<sup>2)</sup> Minimum detectable object was determined at optimal measuring distance and optimal setting.

## Tip adapters

B

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

## Accessories

Accessory category	Accessory type	Dimensions (L x W x H)	Model name	Part no.
Other mounting accessories	Others	-	BF-WLL160-10	5305479
			BF-WLL160-13	5306094
		65 mm x 10 mm x 37 mm	FC	5304141



## At a glance

- Two complete and independent receiver systems
- HighPower LED, extreme light intensity
- Special software
- Sensing distance up to 500 mm
- Fast and easy commissioning thanks to the very good visible red HighPower LED

## Your benefits

- Highest functionality with low invest: due to the extreme reliable, redundant detection of objects (shiny, glossy, irregular) without any interruption of the signal.
- Reduced mechanical effort: One fixed position of the sensor, no mechanical adjustment during operation while changing of the product.
- Increase of the productivity of multi transport lines: Therefore each line of bundle transport can be monitored and controlled more efficiently ( $\geq 2$  lines). No need to mount a reflector.

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

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



## Ordering information




Other models available at [www.mysick.com/en/MultiPac](http://www.mysick.com/en/MultiPac)

### Photoelectric proximity sensor

- **Detection principle:** background suppression
- **Sensing range max.:** 30 mm ... 500 mm (Object with 90 % reflectance (referred to standard white DIN 5033))
- **Switching mode:** light/dark-switching
- **Connection:** connector M12, 4-pin

Switching output	Model name	Part no.
NPN	WTB27-3N2483	1056385
PNP	WTB27-3P2483	1056384

## Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	Zinc plated steel (protective housing), Diecast zinc (clamp)	BEF-SG-W27	2039601
	Mounting brackets/plates	Mounting brackets	Steel, zinc coated	BEF-WN-W27	2009122
	Terminal and alignment brackets	Universal terminal systems	Steel, zinc coated	BEF-KHS-A01	2022458

B



### At a glance

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

### Your benefits

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

→ [www.mysick.com/en/MultiLine\\_Sensor](http://www.mysick.com/en/MultiLine_Sensor)

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



### Ordering information



Other models available at [www.mysick.com/en/MultiLine\\_Sensor](http://www.mysick.com/en/MultiLine_Sensor)

#### Photoelectric proximity sensor

- **Detection principle:** multi-background suppression
- **Sensing range max.:** 5 mm ... 120 mm
- **Adjustment:** teach-in button

Switching output	Switching mode	Connection	Model name	Part no.
PNP	Light-switching	Connector M8, 3-pin	WTB4-3P2192	1058268
NPN	Light/dark-switching	Cable, 4-wire	WTB4-3N1192	1059272

### Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	Stainless steel 1.4571	BEF-SW-W4S	2051497
	Terminal and alignment brackets	Universal terminal systems	Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N08	2051607



### At a glance

- Minimum Detectable Object > 12 mm with a 50 mm detection area for the standard resolution variant
- Sensing range from 0 up to max. 4.5 m
- Minimum distance between sensor and reflector 0.5 m
- Intensive red light for easy alignment
- CTA automatically adjusts the switching threshold as contamination occurs over time

### Your benefits

- Reliable detection regardless of target position within the array: detection height 50 mm (MDO: > 12 mm) or detection height 24 mm (MDO: > 5 mm)
- Less installation effort compared to light grids or multiple single-point photoelectric sensors
- PinPoint technology and optical alignment procedure enables simple and quick commissioning
- Continuous Threshold Adjustment (CTA) ensures less downtime

→ [www.mysick.com/en/Reflex\\_Array](http://www.mysick.com/en/Reflex_Array)

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



### Ordering information

Other models available at [www.mysick.com/en/Reflex\\_Array](http://www.mysick.com/en/Reflex_Array)

#### Reflex Array Sensor

- Switching output: PNP








Sensing range max.	Detection height	Minimum object size	Connection	Model name	Part no.
0 m ... 1.5 m <sup>1)</sup>	24 mm	≥ 5 mm	Cable with plug, M12, 4-pin	WL27-3P3402S17	1051529
0 m ... 3.5 m <sup>2)</sup>	45 mm	≥ 8 mm	Cable with plug, M12, 4-pin	WL27-3P3402S19	1056382
0 m ... 4.5 m <sup>2)</sup>	50 mm	≥ 12 mm	Cable with plug, M12, 4-pin	WL27-3P3402S13	1046538
0 m ... 2 m <sup>1)</sup>			Cable, 4-wire	WL27-3P1102S16	1050825

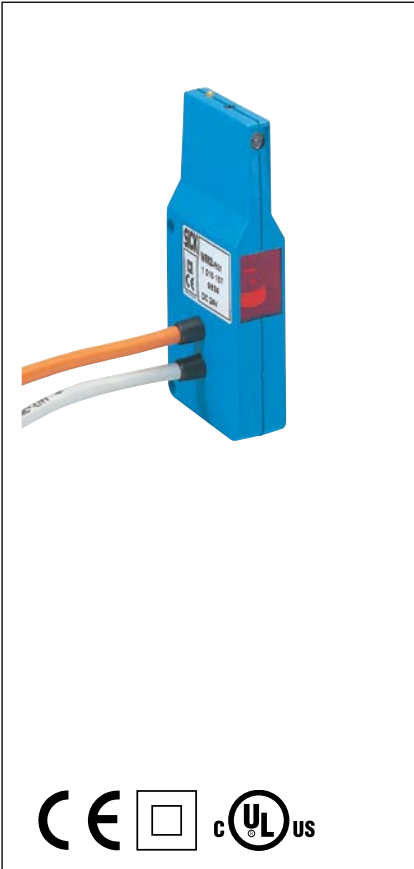
<sup>1)</sup> PL40A.

<sup>2)</sup> PL80A.

Accessories

B

	Accessory category	Accessory type	Dimensions (L x W)	Material	Model name	Part no.
	Device protection (mechanical)	Protective housing/tubes	-	Zinc plated steel (protective housing), Diecast zinc (clamp)	BEF-SG-W27	2039601
	Mounting brackets/plates	Mounting brackets	-	Steel, zinc coated	BEF-WN-W23	2019085
					BEF-WN-W27	2009122
	Reflectors	Angular	37 mm x 56 mm	PMMA/ABS	PL40A	1012720
			80 mm x 80 mm	PMMA/ABS	PL80A	1003865
	Terminal and alignment brackets	Universal terminal systems	-	Steel, zinc coated	BEF-KHS-A01	2022458
				Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N04	2051610



### At a glance

- Product variants of sensor + logic + valve in one housing are available
- Housing design suited for mounting between the rollers of roller conveyor
- Precise background suppression with adjustable sensing range from 300 mm to 900 mm
- Modular structure - with or without solenoid valve or motor actuation, with or without logic

### Your benefits

- Easy installation due to all-in-one solution: sensor + logic + valve in one housing
- Unique design allows mounting under the conveyor protecting the sensor from damage, increasing product life
- Adjustable background suppression ignores background and reliably detects products without a reflector
- Stand-alone solution that consolidates cabling, and allows for modular expansion
- Easy and reliable control of product flow reduces damage and jams, therefore reducing cost

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

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



### Ordering information



Other models available at [www.mysick.com/en/WTR](http://www.mysick.com/en/WTR)

#### Photoelectric proximity sensor

- **Detection principle:** background suppression
- **Sensing range:** 300 mm x 900 mm
- **Connection:** connector M12, 4-pin

Actuator control	Switching output	Switching mode	Model name	Part no.
None, passive sensor head	PNP	Light-switching	WTR2-P511	1015158
		Dark-switching	WTR2-P521	1015074
			WTR2-P521S09	1024302
	Light/dark-switching	WTR2-P551S08	1022927	
Pneumatic	PNP	Light/dark-switching	WTR2-N551	1018877
			Dark-switching	WTR2-P621S22
		Dark-switching	WTR2-P621S27	1042271

### Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Mounting brackets/plates	Mounting brackets	Steel, zinc coated	BEF-WK-WTR	2051786
		Mounting plates	Steel, zinc coated	BEF-WN-WTR	2017417

B



**At a glance**

- Terminal screwed connectors with-screw connection or push-in connection (M8 angled)
- Connecting and extension cables with PUR cable for flexible and demanding areas of application. Very high resistance to oils, lubricants, and coolants.
- Connecting and extension cables with PVC cable for use with medium mechanical stresses in dry zones, such as assembly lines, packaging, and material handling. The outer sheath features good resistance to chemicals, but PVC has only limited resistance to lubricants and coolants.
- Connecting and extension cables from the IP 69K series are especially suitable for use in the food and beverage industry due to their high resistance to chemicals, acids, alkalis, and cleaning agents

**Your benefits**

- Operational reliability because the connection systems are designed for the sensors
- High quality components with long-service life helps reduce costs
- Reliable signal transmission is critical to high productivity

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

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



**Ordering information**

Other models available at [www.mysick.com](http://www.mysick.com)

- **Model:** female connector

Connection	Flying leads	Cable material	Cable length	Model name	Part no.
M8, 3-pin	Straight	PVC	2 m	DOL-0803-G02M	6010785
			5 m	DOL-0803-G05M	6022009
		PUR halogen-free	2 m	DOL-0803-G02MC	6025888
			5 m	DOL-0803-G05MC	6025889
	Angled	PVC	2 m	DOL-0803-W02M	6008489
			5 m	DOL-0803-W05M	6022010
		PUR halogen-free	2 m	DOL-0803-W02MC	6025891
			5 m	DOL-0803-W05MC	6025892
M8, 4-pin	Straight	PVC	2 m	DOL-0804-G02M	6009870
			5 m	DOL-0804-G05M	6009872
		PUR halogen-free	2 m	DOL-0804-G02MC	6025894
			5 m	DOL-0804-G05MC	6025895
	Angled	PVC	2 m	DOL-0804-W02M	6009871
			5 m	DOL-0804-W05M	6009873
		PUR halogen-free	2 m	DOL-0804-W02MC	6025897
			5 m	DOL-0804-W05MC	6025898
M12, 4-pin	Straight	PVC	2 m	DOL-1204-G02M	6009382
			5 m	DOL-1204-G05M	6009866
		PUR halogen-free	2 m	DOL-1204-G02MC	6025900
			5 m	DOL-1204-G05MC	6025901





Connection	Flying leads	Cable material	Cable length	Model name	Part no.
M12, 4-pin	Angled	PVC	2 m	DOL-1204-W02M	6009383
			5 m	DOL-1204-W05M	6009867
		PUR halogen-free	2 m	DOL-1204-W02MC	6025903
			5 m	DOL-1204-W05MC	6025904
M12, 5-pin	Straight	PVC	2 m	DOL-1205-G02M	6008899
			5 m	DOL-1205-G05M	6009868
		PUR halogen-free	2 m	DOL-1205-G02MC	6025906
			5 m	DOL-1205-G05MC	6025907
	Angled	PVC	2 m	DOL-1205-W02M	6008900
			5 m	DOL-1205-W05M	6009869
		PUR halogen-free	2 m	DOL-1205-W02MC	6025909
			5 m	DOL-1205-W05MC	6025910

## Reliable, powerful, rugged – proximity sensors from SICK



### Proximity sensors

Proximity sensors provide non-contact detection of a wide variety of objects and media. SICK's sensors are perfectly suited to industrial applications and require-


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

and reliably solves industry-specific and individual automation tasks.




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Selection guide proximity sensors

C

	Inductive proximity sensors											Capacitive proximity sensors		Magnetic proximity sensors		
	IM Miniature	IM Standard	IM Triplex	IM Inox	IMF Food & Beverage	IMA Analog	IQ Miniature	IQ Standard	IQ Flat	IH Miniature	IH Standard	CM	CQ	MM	MM Namur	MQ
<b>Task</b>																
Detection of metal	■	■	■	■	■	■	■	■	■	■	■					
Detection of powders, granules, liquid, solid												■	■			
Detection of magnets														■	■	■
<b>Design</b>																
Cylindrical	■	■	■	■	■	■						■		■	■	
Rectangular							■	■	■				■			■
Sleeve design										■	■					
<b>Maximum sensing range in mm</b>																
≤ 1	■						■				■					
≤ 2	■	■			■		■	■	■		■					
≤ 4		■	■		■	■	■	■	■		■					
≤ 8		■	■	■	■	■		■	■			■				
≤ 10		■	■	■	■	■		■				■	■			
≤ 20		■	■	■	■	■		■				■	■			
≤ 40			■	■		■		■				■	■			
≤ 60								■						■	■	■
≤ 120														■	■	
<b>Housing material</b>																
Plastic							■		■	■	■		■			■
VISTAL™								■								
Nickel-plated brass		■	■			■			■			■		■	■	
Stainless steel	■			■	■											
<b>Special features</b>																
Namur output															■	
Analog output						■										
Full metal sensors				■												
Triple sensing range			■	■												
IO-Link		■														
<b>Special requirements</b>																
Hygiene & wet areas				■	■											
Potentially explosive atmospheres															■	
High mechanical load capability				■												
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## Dimensions of proximity sensors

	Inductive proximity sensors											Capacitive proximity sensors		Magnetic proximity sensors		
	IM Miniature	IM Standard	IM Triplex	IM Inox	IMF Food & Beverage	IMA Analog	IQ Miniature	IQ Standard	IQ Flat	IH Miniature	IH Standard	CM	CQ	MM	MM Namur	MQ
<b>Thread size</b>																
M4	■															
M5	■															
M8		■	■			■								■		
M12		■	■	■	■	■								■	■	
M18		■	■	■	■	■						■		■	■	
M30		■	■	■		■						■				
<b>Dimensions in mm (W x H x D)</b>																
5 x 5 x 25							■									
8 x 8 x 40							■									
8 x 16 x 4									■							
10 x 30 x 6									■							
10 x 16 x 28								■								
10.3 x 37 x 16																■
12 x 26 x 40								■								
20 x 32 x 8									■							
25 x 50 x 10									■							
28 x 46 x 5,5													■			
35 x 15 x 69.5													■			
40 x 40 x 66								■								
40 x 40 x 121								■								
80 x 40 x 105								■								
<b>Diameter in mm</b>																
Ø 3										■						
Ø 4										■						
Ø 6.5											■					
<b>Page</b>	124	126	129	132	134	136	138	140	142	144	145	147	149	150	152	154

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### At a glance

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

### Your benefits

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

→ [www.mysick.com/en/IM\\_Miniature](http://www.mysick.com/en/IM_Miniature)

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



### Ordering information

Other models available at [www.mysick.com/en/IM\\_Miniature](http://www.mysick.com/en/IM_Miniature)

#### IM04

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
M4 x 0,5	0.6 mm	Flush	NO	PNP	Cable, 3-wire, 2 m, PUR	IM04-0B6PS-ZU1	6020145
					Cable with plug, M8, 3-pin, with knurled screws, 0.2 m, PUR	IM04-0B6PS-ZR1	6042085
			NC	PNP	Cable, 3-wire, 2 m, PUR	IM04-0B6NS-ZU1	6020146
					Cable, 3-wire, 2 m, PUR	IM04-0B6PO-ZU1	6020147

## IM05

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
M5 x 0,5	0.8 mm	Flush	NO	PNP	Cable, 3-wire, 2 m, PVC	IM05-0B8PS-ZW1	6011591
					Connector M8, 3-pin	IM05-0B8PS-ZT1	6020110
			NPN	Cable, 3-wire, 2 m, PVC	IM05-0B8NS-ZW1	6020155	
				Connector M8, 3-pin	IM05-0B8NS-ZT1	6020158	
			NC	PNP	Connector M8, 3-pin	IM05-0B8PO-ZT1	6020159
				NPN	Cable, 3-wire, 2 m, PVC	IM05-0B8NO-ZW1	6020157
	1.5 mm	Flush	NO	PNP	Cable, 3-wire, 2 m, PUR	IM05-1B5PSVU2S	6049735
						Connector M8, 3-pin	IM05-1B5PSVT0S
				NPN	Cable, 3-wire, 2 m, PUR	IM05-1B5NSVU2S	6049733
					Connector M8, 3-pin	IM05-1B5NSVT0S	6049737
			NC	PNP	Cable, 3-wire, 2 m, PUR	IM05-1B5POVU2S	6049736
						Connector M8, 3-pin	IM05-1B5POVT0S
				NPN	Cable, 3-wire, 2 m, PUR	IM05-1B5NOVU2S	6049734
						Connector M8, 3-pin	IM05-1B5NOVT0S

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### At a glance

- Precise operating distances due to ASIC technology
- Extra tough thanks to high fastener torque and hot melt adhesive filling
- M8 to M30 sizes available
- Operating distance 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 available at [www.mysick.com/en/IM\\_Standard](http://www.mysick.com/en/IM_Standard)

#### IME08

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Housing	Model name	Part no.			
M8 x 1	1.5 mm	Flush	NO	PNP	Connector M8, 3-pin	Standard	IME08-1B5PSZT0S	1040838			
						Short-body housing	IME08-1B5PSZT0K	1040837			
	Standard					IME08-02BPSZT0S	1040870				
	Short-body housing					IME08-02BPSZT0K	1040869				
	2.5 mm	Non-flush	NO	PNP	Connector M8, 3-pin	Standard	IME08-2N5PSZT0S	1040854			
						Short-body housing	IME08-2N5PSZT0K	1040853			
	Standard					IME08-04NPSZT0S	1040886				
	Short-body housing					IME08-04NPSZT0K	1040885				
4 mm											



## IME12

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Housing	Model name	Part no.
M12 x 1	2 mm	Flush	NO	PNP	Connector M12, 4-pin	Standard	IME12-02BPSZC0S	1040732
						Short-body housing	IME12-02BPSZC0K	1040731
	Standard					IME12-04BPSZC0S	1040764	
	Short-body housing					IME12-04BPSZC0K	1040763	
	4 mm	Non-flush	NO	PNP	Connector M12, 4-pin	Standard	IME12-04NPSZC0S	1040748
						Short-body housing	IME12-04NPSZC0K	1040747
	Standard					IME12-08NPSZC0S	1040780	
	Short-body housing					IME12-08NPSZC0K	1040779	
8 mm								

## IME18







Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Housing	Model name	Part no.
M18 x 1	5 mm	Flush	NO	PNP	Connector M12, 4-pin	Standard	IME18-05BPSZC0S	1040934
						Short-body housing	IME18-05BPSZC0K	1040933
	Standard					IME18-08BPSZC0S	1040966	
	Short-body housing					IME18-08BPSZC0K	1040965	
	8 mm	Non-flush	NO	PNP	Connector M12, 4-pin	Standard	IME18-08NPSZC0S	1040950
						Short-body housing	IME18-08NPSZC0K	1040949
	Standard					IME18-12NPSZC0S	1040982	
	Short-body housing					IME18-12NPSZC0K	1040981	
12 mm								

## IME30

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Housing	Model name	Part no.
M30 x 1.5	10 mm	Flush	NO	PNP	Connector M12, 4-pin	Standard	IME30-10BPSZC0S	1040998
						Short-body housing	IME30-10BPSZC0K	1040997
	Standard					IME30-15BPSZC0S	1041030	
	Short-body housing					IME30-15BPSZC0K	1041029	
	15 mm	Non-flush	NO	PNP	Connector M12, 4-pin	Standard	IME30-15NPSZC0S	1041014
						Short-body housing	IME30-15NPSZC0K	1041013
	Standard					IME30-20NPSZC0S	1041046	
	Short-body housing					IME30-20NPSZC0K	1041045	
20 mm								

Accessories

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	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
	Mounting brackets/plates	Mounting brackets, straight	Steel, zinc coated	M12	BEF-WG-M12	5321869
				M18	BEF-WG-M18	5321870
				M30	BEF-WG-M30	5321871
		Mounting brackets, 90°		M12	BEF-WN-M12	5308447
				M18	BEF-WN-M18	5308446
				M30	BEF-WN-M30	5308445



**At a glance**

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

**Your benefits**

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

→ [www.mysick.com/en/IM\\_Triplex](http://www.mysick.com/en/IM_Triplex)

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



**Ordering information**

Other models available at [www.mysick.com/en/IM\\_Triplex](http://www.mysick.com/en/IM_Triplex)

IM08

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
M8 x 1	3 mm	Quasi-flush	NO	PNP	Connector M8, 3-pin	IM08-03BPS-ZT1	6025574
					Cable, 3-wire, 2 m, PVC	IM08-03BPS-ZW1	6027505
				NPN	Cable, 3-wire, 2 m, PVC	IM08-03BNS-ZW1	6028074
	6 mm	Non-flush	NO	PNP	Connector M8, 3-pin	IM08-06NPS-ZT1	6027508
					Cable, 3-wire, 2 m, PVC	IM08-06NPS-ZW1	6027506
				NPN	Cable, 3-wire, 2 m, PVC	IM08-06NNS-ZW1	6027507

## IM12

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
M12 x 1	6 mm	Quasi-flush	NO	PNP	Connector M12, 4-pin	IM12-06BPS-ZC1	6027511
					Cable, 3-wire, 2 m, PVC	IM12-06BPS-ZW1	6027509
			NPN	Connector M12, 4-pin	IM12-06BNS-ZC1	6030524	
	10 mm	Non-flush	NO	PNP	Cable, 3-wire, 2 m, PVC	IM12-06BPO-ZW1	6027510
					NPN	Connector M12, 4-pin	IM12-10NPS-ZC1
			Cable, 3-wire, 2 m, PVC	IM12-10NPS-ZW1	6027512		
				NPN	Cable, 3-wire, 2 m, PVC	IM12-10NNS-ZW1	6027513








## IM18

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.	
M18 x 1	12 mm	Quasi-flush	NO	PNP	Connector M12, 4-pin	IM18-12BPS-ZC1	6027517	
					Cable, 3-wire, 2 m, PVC	IM18-12BPS-ZW1	6027515	
					Connector M12, 4-pin	IM18-12BPS-ZCK	6025569	
	20 mm	Non-flush	NO	NPN	Cable, 3-wire, 2 m, PVC	IM18-12BNS-ZW1	6027516	
					PNP	Connector M12, 4-pin	IM18-20NPS-ZC1	6027519
						Cable, 3-wire, 2 m, PVC	IM18-20NPS-ZW1	6027518
NPN	Connector M12, 4-pin	IM18-20NNS-ZC1	6041997					
	Cable, 3-wire, 2 m, PVC	IM18-20NNS-ZW1	6028093					

## IM30

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
M30 x 1.5	22 mm	Quasi-flush	NO	PNP	Connector M12, 4-pin	IM30-22BPS-ZC1	6027521
					Cable, 3-wire, 2 m, PVC	IM30-22BPS-ZCK	6025566
			NPN	Connector M12, 4-pin	IM30-22BNS-ZC1	6033033	
	Cable, 3-wire, 2 m, PVC	IM30-22BNS-ZW1		6027520			
	40 mm	Non-flush	NO	PNP	Connector M12, 4-pin	IM30-22BPO-ZCK	6025568
					NPN	Connector M12, 4-pin	IM30-40NNS-ZC1
PNP			Connector M12, 4-pin	IM30-40NPS-ZC1	6027522		

Accessories

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
	Mounting brackets/plates	Mounting brackets	Steel, zinc coated	M8	BEF-WN-M08	5321721
				M12	BEF-WN-M12	5308447
				M18	BEF-WN-M18	5308446
				M30	BEF-WN-M30	5308445
	Terminal and alignment brackets	Terminal brackets	Plastic (PA12), glass-fiber reinforced	M8	BEF-KHF-M08	2051478
				M12	BEF-KHF-M12	2051480
				M18	BEF-KHF-M18	2051482



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### At a glance

- Stainless steel housing (316L/1.4404)
- Extremely watertight (IP 68/IP 69K)
- Triple sensing distance
- 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 distance
- 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 available at [www.mysick.com/en/IM\\_INOX](http://www.mysick.com/en/IM_INOX)

#### IM12

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
M12 x 1	6 mm	Flush	NO	PNP	Connector M12, 4-pin	IM12-06BPS-NC1	6027572
				NPN	Connector M12, 4-pin	IM12-06BNS-NC1	6027573
			NC	Connector M12, 4-pin	IM12-06BPO-NC1	6027574	
	10 mm	Non-flush	NO	PNP	Connector M12, 4-pin	IM12-10NPS-NC1	6027575
				NPN	Connector M12, 4-pin	IM12-10NNS-NC1	6027576





#### IM18

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
M18 x 1	10 mm	Flush	NO	PNP	Connector M12, 4-pin	IM18-10BPS-NC1	6027577
				NPN	Connector M12, 4-pin	IM18-10BNS-NC1	6027578
			NC	Connector M12, 4-pin	IM18-10BPO-NC1	6027579	
	20 mm	Non-flush	NO	PNP	Connector M12, 4-pin	IM18-20NPS-NC1	6027580
				NPN	Connector M12, 4-pin	IM18-20NNS-NC1	6027581

## IM30

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
M30 x 1.5	20 mm	Flush	NO	PNP	Connector M12, 4-pin	IM30-20BPS-NC1	6027582
				NPN	Connector M12, 4-pin	IM30-20BNS-NC1	6027583
	40 mm	Non-flush	NO	PNP	Connector M12, 4-pin	IM30-40NPS-NC1	6027584
				NPN	Connector M12, 4-pin	IM30-40NNS-NC1	6027585

## Accessories

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
	Mounting brackets/plates	Mounting brackets, straight	Steel, zinc coated	M12	BEF-WG-M12	5321869
			Stainless steel	M18	BEF-WG-M18N	5320948
		Mounting brackets, 90°	Steel, zinc coated	M12	BEF-WN-M12	5308447
			Stainless steel	M18	BEF-WN-M18N	5320947

C



JohnsonDiversey



ECOLAB®

### 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 available at [www.mysick.com/en/IMF](http://www.mysick.com/en/IMF)

### IMF12





Housing	Sensing range $S_n$	Installation type	Electrical wiring	Output function	Output type	Connection	Model name	Part no.
M12 x 1	2 mm	Flush	DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF12-02BPSVCOS	6035452
				NC	PNP	Connector M12, 4-pin	IMF12-02BPOVCOS	6035454
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF12-02BPPVCOS	6035215
	4 mm	Flush	DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF12-04BPSVCOS	6035460
				NC	PNP	Connector M12, 4-pin	IMF12-04BPOVCOS	6035462
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF12-04BPPVCOS	6035219
		Non-flush	DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF12-04NPSVCOS	6035456
				NC	PNP	Connector M12, 4-pin	IMF12-04NPOVCOS	6035458
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF12-04NPPVCOS	6035217
	8 mm	Non-flush	DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF12-08NPSVCOS	6035464
				NC	PNP	Connector M12, 4-pin	IMF12-08NPOVCOS	6035466
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF12-08NPPVCOS	6035221



## IMF18

Housing	Sensing range $S_n$	Installation type	Electrical wiring	Output function	Output type	Connection	Model name	Part no.
M18 x 1	5 mm	Flush	DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF18-05BPSVC0S	6035468
				NC	PNP	Connector M12, 4-pin	IMF18-05BPOVC0S	6035470
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF18-05BPPVC0S	6035223
	8 mm	Flush	DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF18-08BPSVC0S	6035476
				NC	PNP	Connector M12, 4-pin	IMF18-08BPOVC0S	6035478
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF18-08BPPVC0S	6035227
		Non-flush	DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF18-08NPSVC0S	6035472
				NC	PNP	Connector M12, 4-pin	IMF18-08NPOVC0S	6035474
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF18-08NPPVC0S	6035225
	12 mm	Non-flush	DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF18-12NPSVC0S	6035480
				NC	PNP	Connector M12, 4-pin	IMF18-12NPOVC0S	6035482
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF18-12NPPVC0S	6035229

## Accessories

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
	Mounting brackets/ plates	Mounting plate, straight	Stainless steel	M12	BEF-WG-M12N	5320950
				M18	BEF-WG-M18N	5320948
		Mounting plate, 90°		M12	BEF-WN-M12N	5320949
				M18	BEF-WN-M18N	5320947

C



### At a glance

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

### Your benefits

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

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

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



## Ordering information

Other models available at [www.mysick.com/en/IMA](http://www.mysick.com/en/IMA)

### IMA08

Housing	Detection range	Installation type	Repeat accuracy typ <sup>1) 2) 3)</sup>	Repeatability (T <sub>a</sub> constant)	Connection	Model name	Part no.
M8 x 1	0 mm ... 4 mm	Quasi-flush	0.3 mm	± 0.01 mm	Connector M12, 4-pin	IMA08-04BE3ZC0K	6041782

<sup>1)</sup> As per IEC 60947-5-2.

<sup>2)</sup> U<sub>b</sub> = DC 20 V ... 30 V.

<sup>3)</sup> T<sub>A</sub> = 23 °C ± 5 °C.

### IMA12

Housing	Detection range	Installation type	Repeat accuracy typ <sup>1) 2) 3)</sup>	Repeatability (T <sub>a</sub> constant)	Connection	Model name	Part no.
M12 x 1	0 mm ... 6 mm	Quasi-flush	0.3 mm	± 0.01 mm	Connector M12, 4-pin	IMA12-06BE3ZC0K	6041792

<sup>1)</sup> As per IEC 60947-5-2.

<sup>2)</sup> U<sub>b</sub> = DC 20 V ... 30 V.

<sup>3)</sup> T<sub>A</sub> = 23 °C ± 5 °C.

## IMA18

Housing	Detection range	Installation type	Repeat accuracy typ <sup>1) 2) 3)</sup>	Repeatability (T <sub>a</sub> constant)	Connection	Model name	Part no.
M18 x 1	0 mm ... 10 mm	Quasi-flush	0.3 mm	± 0.02 mm	Connector M12, 4-pin	IMA18-10BE1ZCOK	6041793
	0 mm ... 20 mm	Non-flush	0.3 mm	± 0.05 mm	Connector M12, 4-pin	IMA18-20NE1ZCOK	6041794

<sup>1)</sup> As per IEC 60947-5-2.

<sup>2)</sup> U<sub>b</sub> = DC 20 V ... 30 V.

<sup>3)</sup> T<sub>A</sub> = 23 °C ± 5 °C.

## IMA30








Housing	Detection range	Installation type	Repeat accuracy typ <sup>1) 2) 3)</sup>	Repeatability (T <sub>a</sub> constant)	Connection	Model name	Part no.
M30 x 1.5	0 mm ... 20 mm	Quasi-flush	0.3 mm	± 0.05 mm	Connector M12, 4-pin	IMA30-20BE1ZCOK	6041795
	0 mm ... 40 mm	Non-flush	0.6 mm	± 0.1 mm	Connector M12, 4-pin	IMA30-40NE1ZCOK	6041796

<sup>1)</sup> As per IEC 60947-5-2.

<sup>2)</sup> U<sub>b</sub> = DC 20 V ... 30 V.

<sup>3)</sup> T<sub>A</sub> = 23 °C ± 5 °C.

## Accessories

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
	Mounting brackets/plates	Mounting bracket, 90°	Steel, zinc coated	M8	BEF-WN-M08	5321721
				M12	BEF-WN-M12	5308447
				M18	BEF-WN-M18	5308446
				M30	BEF-WN-M30	5308445
	Terminal and alignment brackets	Terminal brackets	Plastic (PA12), glass-fiber reinforced	M8	BEF-KHF-M08	2051478
				M12	BEF-KHF-M12	2051480
				M18	BEF-KHF-M18	2051482

C



### At a glance

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

### Your benefits

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

→ [www.mysick.com/en/IQ\\_Miniature](http://www.mysick.com/en/IQ_Miniature)

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



### Ordering information

Other models available at [www.mysick.com/en/IQ\\_Miniature](http://www.mysick.com/en/IQ_Miniature)

#### IQ05

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
5 mm x 5 mm x 25 mm	0.8 mm	Flush	NO	PNP	Cable, 3-wire, 2 m, PUR	IQ05-0B8PS-ZU1	6020161
				NPN	Cable, 3-wire, 2 m, PUR	IQ05-0B8NS-ZU1	6020162
			NC	PNP	Cable, 3-wire, 2 m, PUR	IQ05-0B8PO-ZU1	6020163

## IQ08

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
8 mm x 8 mm x 40 mm	2 mm	Flush	NO	PNP	Connector M8, 3-pin	IQ08-02BPSKT0S	1055494
					Cable, 3-wire, 2 m, PVC	IQ08-02BPSKW2S	1055490
				NPN	Connector M8, 3-pin	IQ08-02BNSKT0S	1055496
					Cable, 3-wire, 2 m, PVC	IQ08-02BNSKW2S	1055492
			NC	PNP	Connector M8, 3-pin	IQ08-02BPOKT0S	1055495
					Cable, 3-wire, 2 m, PVC	IQ08-02BPOKW2S	1055491
				NPN	Connector M8, 3-pin	IQ08-02BNOKT0S	1055497
					Cable, 3-wire, 2 m, PVC	IQ08-02BNOKW2S	1055493
	4 mm	Non-flush	NO	PNP	Connector M8, 3-pin	IQ08-04NPSKT0S	1055502
					Cable, 3-wire, 2 m, PVC	IQ08-04NPSKW2S	1055498
				NPN	Connector M8, 3-pin	IQ08-04NNSKT0S	1055504
					Cable, 3-wire, 2 m, PVC	IQ08-04NNSKW2S	1055500
			NC	PNP	Connector M8, 3-pin	IQ08-04NPOKT0S	1055503
					Cable, 3-wire, 2 m, PVC	IQ08-04NPOKW2S	1055499
				NPN	Connector M8, 3-pin	IQ08-04NNOKT0S	1055505
					Cable, 3-wire, 2 m, PVC	IQ08-04NNOKW2S	1055501

C

C



### At a glance

- Long sensing distance 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 available at [www.mysick.com/en/IQ\\_Standard](http://www.mysick.com/en/IQ_Standard)

#### IQ10

- Dimensions (W x H x D) in mm: 10 mm x 16 mm x 28 mm

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
3 mm	Flush	NO	PNP	DC 3-wire	Connector M8, 3-pin	IQ10-03BPSKT0S	1055453
					Cable, 3-wire, 2 m, PVC	IQ10-03BPSKW2S	1055447
		Complementary	NPN	DC 3-wire	Connector M8, 3-pin	IQ10-03BNSKT0S	1055455
					Cable, 3-wire, 2 m, PVC	IQ10-03BNSKW2S	1055450
6 mm	Non-flush	NO	PNP	DC 3-wire	Connector M8, 3-pin	IQ10-06NPSKT0S	1055461
					Cable, 3-wire, 2 m, PVC	IQ10-06NPSKW2S	1055457
		NO	NPN	DC 3-wire	Connector M8, 3-pin	IQ10-06NNSKT0S	1055463
					Cable, 3-wire, 2 m, PVC	IQ10-06NNSKW2S	1055459

## IQ12

- Dimensions (W x H x D) in mm: 12 mm x 26 mm x 40 mm

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
4 mm	Flush	NO	PNP	DC 3-wire	Connector M8, 3-pin	IQ12-04BPSKT0S	1055432
					Cable, 3-wire, 2 m, PVC	IQ12-04BPSKW2S	1055428
			NPN	DC 3-wire	Connector M8, 3-pin	IQ12-04BNSKT0S	1055434
		Cable, 3-wire, 2 m, PVC			IQ12-04BNSKW2S	1055430	
		Complementary	PNP	DC 4-wire	Cable, 4-wire, 2 m, PVC	IQ12-04BPPKW2S	1055444
8 mm	Non-flush	NO	PNP	DC 3-wire	Connector M8, 3-pin	IQ12-08NPSKT0S	1055440
					Cable, 3-wire, 2 m, PVC	IQ12-08NPSKW2S	1055436
			NPN	DC 3-wire	Connector M8, 3-pin	IQ12-08NNSKT0S	1055442
		Cable, 3-wire, 2 m, PVC			IQ12-08NNSKW2S	1055438	

## IQ40, Short-body version

- Dimensions (W x H x D) in mm: 40 mm x 40 mm x 66 mm

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
20 mm	Flush	NO	PNP	DC 3-wire	Connector M12, 4-pin	IQ40-20BPSKC0K	6037070
		Complementary	PNP	DC 4-wire	Connector M12, 4-pin	IQ40-20BPPKC0K	6037072
40 mm	Non-flush	NO	PNP	DC 3-wire	Connector M12, 4-pin	IQ40-40NPSKC0K	6037071
		Complementary	PNP	DC 4-wire	Connector M12, 4-pin	IQ40-40NPPKC0K	6037073

## IQ40, Standard version

- Dimensions (W x H x D) in mm: 40 mm x 40 mm x 118/121 mm

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
15 mm	Flush	NC or NO	–	DC 2-wire	Terminal connection with M20 gland	IQ40-15BDP-KK1	6025817
				DC 3-wire	Terminal connection with M20 gland	IQ40-15BPP-KK0	7900219
			AC 2-wire	Terminal connection with M20 gland	IQ40-15BAP-KK1	6025816	
				Terminal connection with M20 gland	IQ40-15BUP-KK0	7902136	
		Complementary	PNP	DC 4-wire	Cable gland	IQ40-15BPP-KK1	6025814
20 mm	Non-flush	NC or NO	PNP	DC 3-wire	Terminal connection with M20 gland	IQ40-20NPP-KK0	7900221
					AC/DC 2-wire	Terminal connection with M20 gland	IQ40-20NUP-KK0
		Complementary	PNP	DC 4-wire	Terminal connection with M20 gland	IQ40-20NPP-KK1	6025815

## IQ80

- Dimensions (W x H x D) in mm: 80 mm x 40 mm x 105/111 mm

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
50 mm	Flush, non-flush, overflush	Complementary	PNP	DC 4-wire	Connector M12, 4-pin	IQ80-50BPP-KC0	6026473
60 mm	Non-flush	NC or NO	PNP	DC 3-wire	Terminal connection with M20 gland	IQ80-60NPP-KK0	7900227
					AC/DC 2-wire	Terminal connection with M20 gland	IQ80-60NUP-KK0

C



### At a glance

- Flat, compact design
- Long sensing distance up to 7mm
- Easily visible indication LEDs
- Available in a plastic (IQ04 and IQ06) and metal housing (IQ20 and IQ25)

### Your benefits

- Reduced mechanical damage due to space-saving flat housing, which does not protrude from sensor
- Time-saving simple installation with one or two screws
- No restrictions on machine design

→ [www.mysick.com/en/IQ\\_Flat](http://www.mysick.com/en/IQ_Flat)

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



## Ordering information

Other models available at [www.mysick.com/en/IQ\\_Flat](http://www.mysick.com/en/IQ_Flat)

### IQ04

Housing	Sensing range $S_n$	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
8 mm x 16 mm x 4 mm	1.5 mm	NO	PNP	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ04-1B5PSKW2S	6042017
			NPN	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ04-1B5NSKW2S	6042019
		NC	PNP	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ04-1B5P0KW2S	6042018
			NPN	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ04-1B5N0KW2S	6042020

### IQ06

Housing	Sensing range $S_n$	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
10 mm x 30 mm x 6 mm	3 mm	NO	PNP	DC 3-wire	Cable, 3-wire, 2 m, PUR	IQ06-03BPSKU2S	6042022
			NPN	DC 3-wire	Cable, 3-wire, 2 m, PUR	IQ06-03BNSKU2S	6042024
		NC	PNP	DC 3-wire	Cable, 3-wire, 2 m, PUR	IQ06-03BP0KU2S	6042023
			NPN	DC 3-wire	Cable, 3-wire, 2 m, PUR	IQ06-03BN0KU2S	6042025



## IQ20

Housing	Sensing range $S_n$	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
20 mm x 32 mm x 8 mm	7 mm	NO	PNP	DC 3-wire	Cable with plug, M8, 3-pin, 0.3 m, PUR	IQ20-07BPSDPOS	6042043
			NPN	DC 3-wire	Cable with plug, M8, 3-pin, 0.3 m, PUR	IQ20-07BNSDPOS	6042044
		Complementary	PNP	DC 4-wire	Cable with plug, M12, 4-pin, 0.3 m, PUR	IQ20-07BPPDQOS	6042045

## IQ25

Housing	Sensing range $S_n$	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
25 mm x 50 mm x 10 mm	5 mm	NO	PNP	DC 3-wire	Cable, 3-wire, 2 m, PUR	IQ25-05BPSDU2S	6042046
		Complementary	PNP	DC 4-wire	Cable, 4-wire, 2 m, PUR	IQ25-05BPPDU2S	6042047

C



### At a glance

- Small housing and light weight
- Housing diameters of 3 and 4 mm
- Integrated LED indicator
- Rugged IP 67- rated stainless steel housing
- Flexible connectivity via connecting cable or plug connection

### Your benefits

- Space-saving installation in space-critical applications provides a high degree of design freedom
- Reliable detection of high-speed processes increases machine throughput
- High-visibility indicator LED ensures simple monitoring of the operational state
- High positioning accuracy
- High resistance to shock and vibrations increases service life and reduces maintenance and replacement costs

→ [www.mysick.com/en/IH\\_Miniature](http://www.mysick.com/en/IH_Miniature)

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



### Ordering information

Other models available at [www.mysick.com/en/IH\\_Miniature](http://www.mysick.com/en/IH_Miniature)

#### IH03

Diameter	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
3 mm	≤ 0.6 mm	Flush	NO	PNP	Cable with plug, M8, 3-pin, with knurled screws, 0.2 m, PUR	IH03-0B6PS-VR1	6038602
					Cable, 3-wire, 2 m, PUR	IH03-0B6PS-VU1	6020141
			NC	PNP	Cable, 3-wire, 2 m, PUR	IH03-0B6NS-VU1	6020142
					Cable, 3-wire, 2 m, PUR	IH03-0B6PO-VU1	6020143

#### IH04

Diameter	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
4 mm	≤ 0.8 mm	Flush	NO	PNP	Connector M8, 3-pin	IH04-0B8PS-VT1	6020114
					Cable, 3-wire, 2 m, PVC	IH04-0B8PS-VW1	6020113
					Cable with plug, M8, 3-pin, 2 m, PVC	IH04-0B8PS-VR1	6045178
				NPN	Connector M8, 3-pin	IH04-0B8NS-VT1	6020152
					Cable, 3-wire, 2 m, PVC	IH04-0B8NS-VW1	6020149



### At a glance

- Operating distance up to 30 mm
- High switching frequencies up to 5 kHz
- DC and AC/DC versions available
- Plastic and stainless steel housing
- Available in short and standard housing lengths

### Your benefits

- Reliable detection of high-speed processes increases machine throughput
- High-visibility indicator LED ensures simple monitoring of the operational state
- High resistance to shock and vibrations increases service life and reduces maintenance and replacement costs

→ [www.mysick.com/en/IH\\_Standard](http://www.mysick.com/en/IH_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 available at [www.mysick.com/en/IH\\_Standard](http://www.mysick.com/en/IH_Standard)

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Housing	Connection	Model name	Part no.
1.5 mm	Flush	NO	PNP	Short-body housing	Cable, 3-wire, 2 m, PVC	IH06-1B5PS-VWK	6020165
					Connector M8, 3-pin	IH06-1B5PS-VTK	6020169
			NPN	Short-body housing	Cable, 3-wire, 2 m, PVC	IH06-1B5NS-VWK	6020166
		NC	PNP	Short-body housing	Cable, 3-wire, 2 m, PVC	IH06-1B5PO-VWK	6020167
					Connector M8, 3-pin	IH06-1B5PO-VTK	6020171
			2 mm	Flush	NO	PNP	Standard
Cable, 3-wire, 2 m, PVC	IH06-02BPS-VW1	7900177					
Short-body housing	Connector M8, 3-pin	IH06-02BPS-VTK					6025877
NPN	Standard	Cable, 3-wire, 2 m, PVC				IH06-02BNS-VW1	7900178
		Connector M8, 3-pin				IH06-02BNS-VT1	7900180
	Short-body housing	Connector M8, 3-pin				IH06-02BNS-VTK	6025878
NC	PNP	Standard	Cable, 3-wire, 2 m, PVC	IH06-02BNS-VWK	6025875		
			Connector M8, 3-pin	IH06-02BPO-VT1	1016857		
				Short-body housing	Connector M8, 3-pin	IH06-02BPO-VTK	6025879

Sensing range $S_n$	Installation type	Output function	Output type	Housing	Connection	Model name	Part no.
4 mm	Non-flush	NO	PNP	Standard	Connector M8, 3-pin	IH06-04NPS-VT1	7900183
					Cable, 3-wire, 2 m, PVC	IH06-04NPS-VW1	7900181
			Short-body housing	Connector M8, 3-pin	IH06-04NPS-VTK	6025882	
				Cable, 3-wire, 2 m, PVC	IH06-04NPS-VWK	6025880	
		NPN	Standard	Cable, 3-wire, 2 m, PVC	IH06-04NNS-VW1	7900182	
				Connector M8, 3-pin	IH06-04NNS-VTK	6025883	
		Short-body housing	Connector M8, 3-pin	IH06-04NNS-VTK	6025883		
			Cable, 3-wire, 2 m, PVC	IH06-04NNS-VWK	6025881		
NC	PNP	Short-body housing	Connector M8, 3-pin	IH06-04NPO-VTK	6025884		

C



### At a glance

- Cylindrical housing
- Detects powders, granulates, liquids and solids.
- Best-in-class electromagnetic compatibility
- 4-wire DC (CM18 and CM30) and 2-wire AC versions (CM30)
- Supply voltage: 10 ... 40 VDC (CM18 and CM30), 20 V... 250 VAC (CM30)
- Short-circuit reverse polarity and power-up pulse suppression protection
- LED status indicator
- IP 67 enclosure rating

### Your benefits

- Durable housing withstands harsh industrial applications, reducing maintenance costs and downtime
- Quick and easy adjustment of the switching point saves installation and setup time
- Application flexibility
- Solves applications where other sensing technologies cannot provide a solution
- High shock and vibration resistance increases sensor life and reduces maintenance costs
- Non-contact level measurement, even through container or tank walls, reduces installation and setup time



→ [www.mysick.com/en/CM](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 available at [www.mysick.com/en/CM](http://www.mysick.com/en/CM)

### CM18






Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
M18 x 1	3 mm ... 8 mm	Flush	Complementary	PNP	Connector M12, 4-pin	CM18-08BPP-KC1	6020388
					Cable, 4-wire, 2 m, PVC	CM18-08BPP-KW1	6020136
			NPN	Connector M12, 4-pin	CM18-08BNP-KC1	6021456	
				Cable, 4-wire, 2 m, PVC	CM18-08BNP-KW1	6021455	
	3 mm ... 12 mm	Non-flush	Complementary	PNP	Connector M12, 4-pin	CM18-12NPP-KC1	6020410
					Cable, 4-wire, 2 m, PVC	CM18-12NPP-KW1	6020389
			NPN	Connector M12, 4-pin	CM18-12NNP-KC1	6021458	
				Cable, 4-wire, 2 m, PVC	CM18-12NNP-KW1	6021457	

### CM30

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
M30 x 1.5	2 mm ... 16 mm	Flush	Complementary	PNP	Connector M12, 4-pin	CM30-16BPP-KC1	6020475
					Cable, 4-wire, 2 m, PVC	CM30-16BPP-KW1	6020473
			NPN	Connector M12, 4-pin	CM30-16BNP-KC1	6021460	
				Cable, 4-wire, 2 m, PVC	CM30-16BNP-KW1	6021459	
	4 mm ... 25 mm	Non-flush	Complementary	PNP	Connector M12, 4-pin	CM30-25NPP-KC1	6020477
					Cable, 4-wire, 2 m, PVC	CM30-25NPP-KW1	6020476
			NPN	Connector M12, 4-pin	CM30-25NNP-KC1	6021462	
				Cable, 4-wire, 2 m, PVC	CM30-25NNP-KW1	6021461	

Accessories

C

	Accessory category	Accessory type	Connector type	Enclosure rating	Flying leads	Sheath material	Material	Cable length	Model name	Part no.
	Mounting brackets/plates	Mounting brackets, M18	-	-	-	-	Steel, zinc coated	-	BEF-WN-M18	5308446
		Mounting brackets, M30	-	-	-	-	Steel, zinc coated	-	BEF-WN-M30	5308445
		Mounting plates, M18	-	-	-	-	Stainless steel	-	BEF-WN-M18N	5320947
	Terminal and alignment brackets	Terminal brackets	-	-	-	-	Plastic (PA12), glass-fiber reinforced	-	BEF-KH-M18	2051481
									BEF-KHF-M18	2051482
	Plug connectors and cables	Connector M12, 4-pin	Female connector	IP 67	Straight	PVC	-	2 m	DOL-1204-G02M	6009382
								5 m	DOL-1204-G05M	6009866
								2 m	DOL-1204-G02MC	6025900
								5 m	DOL-1204-G05MC	6025901



### At a glance

- Rectangular housing
- Detects powders, granulates, liquids and solids.
- Best-in-class high electromagnetic compatibility
- Electrical design: DC 4-wire
- Supply voltage: CQ35 10 ... 40 VDC and CQ28 10...30 VDC
- Short-circuit, reverse polarity and power-up pulse suppression protection

### Your benefits

- Non-contact level measurement, even through container or tank walls, which eliminates drilling holes and thus reduces installation time
- Durable housing withstands harsh industrial applications, reducing maintenance costs
- Quick and easy adjustment of the switching point - via pushbutton, remote teach for the CQ28 and via potentiometer for CQ35 - saves time
- Simple and save detection alternative to photoelectric and inductive sensors in applications such as detecting product in a sealed box, container or tank

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

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



### Ordering information

Other models available at [www.mysick.com/en/CQ](http://www.mysick.com/en/CQ)

#### CQ28

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
28 mm x 46 mm x 5.5 mm	1 mm ... 10 mm	Non-flush	NC or NO	PNP	Cable, 4-wire, 2 m, PVC	CQ28-10NPP-KW1	6030132
				NPN	Cable, 4-wire, 2 m, PVC	CQ28-10NPN-KW1	6030133

#### CQ35

Housing	Sensing range $S_n$	Installation type	Output function	Output type	Connection	Model name	Part no.
35 mm x 15 mm x 69.5 mm	4 mm ... 25 mm	Non-flush	Complementary	PNP	Connector M12, 4-pin	CQ35-25NPP-KC1	6020479
				NPN	Connector M12, 4-pin	CQ35-25NPN-KC1	6021464
35 mm x 15 mm x 57.5 mm	4 mm ... 25 mm	Non-flush	Complementary	PNP	Cable, 4-wire, 2 m, PVC	CQ35-25NPP-KW1	6020478
				NPN	Cable, 4-wire, 2 m, PVC	CQ35-25NPN-KW1	6021463

### Accessories

	Connection type	Connector type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Connector M12, 4-pin	Female connector	IP 67	Straight	PVC	2 m	DOL-1204-G02M	6009382
						5 m	DOL-1204-G05M	6009866
			IP 68	Straight	PUR halogen-free	2 m	DOL-1204-G02MC	6025900
						5 m	DOL-1204-G05MC	6025901

C



CE

### At a glance

- Reliable detection of permanent magnets through non-ferromagnetic materials such as stainless steel, aluminum, plastic or wood
- Precise switching point and exact hysteresis
- Reliable object detection in high temperature zones
- Small housing design with large operating distances
- Resistant to dust, dirt, and vibrations, increasing sensor life and reducing maintenance costs

### Your benefits

- Non-contact operation eliminates interference from dirt, dust and vibrations, increasing sensor life and reducing maintenance costs
- Space-saving installation due to small design
- Large operating distances with reliable switching increase throughput
- Non-contact, universal detection through several substances, including plastic containers and pipes protective PTFE walls and non-magnetic metal walls

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

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



## Ordering information

Other models available at [www.mysick.com/en/MM](http://www.mysick.com/en/MM)

### MM08

Housing	Sensing range $S_n$ <sup>1)</sup>	Output function	Output type	Connection	Model name	Part no.
M8 x 1	0 mm ... 60 mm	NO	PNP	Connector M8, 3-pin	MM08-60APS-ZTK	1040067
				Cable, 3-wire, 2 m, PUR/PVC	MM08-60APS-ZUK	1040027
			NPN	Connector M8, 3-pin	MM08-60ANS-ZTK	1040068
				Cable, 3-wire, 2 m, PUR/PVC	MM08-60ANS-ZUK	1040066

<sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)

### MM12

Housing	Sensing range $S_n$ <sup>1)</sup>	Output function	Output type	Connection	Model name	Part no.
M12 x 1	0 mm ... 60 mm	NO	PNP	Connector M12, 4-pin	MM12-60APS-ZCK	1040070
				Cable, 3-wire, 2 m, PUR/PVC	MM12-60APS-ZUK	1040069
			NPN	Connector M12, 4-pin	MM12-60ANS-ZCK	1040071
				Cable, 3-wire, 2 m, PUR/PVC	MM12-60ANS-ZUK	1040026

<sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)












## MM18

Housing	Sensing range $S_n$ <sup>1)</sup>	Output function	Output type	Connection	Model name	Part no.
M18 x 1	0 mm ... 70 mm	NO	PNP	Connector M12, 4-pin	MM18-70APS-ZCK	1040072
				Cable, 3-wire, 2 m, PUR/PVC	MM18-70APS-ZUK	1040029
			NPN	Connector M12, 4-pin	MM18-70ANS-ZCK	1040073
				Cable, 3-wire, 2 m, PUR/PVC	MM18-70ANS-ZUK	1040085
	5 mm ... 120 mm	NO	PNP	Connector M12, 4-pin	MM18-00APS-ZCO	1029861
				Cable, 3-wire, 2 m, PUR/PVC	MM18-00APS-ZUO	1029952

<sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)

## Accessories

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
	Mounting brackets/plates	Mounting brackets, straight	Steel, zinc coated	M8	BEF-WG-M08	5321722
				M12	BEF-WG-M12	5321869
				M18	BEF-WG-M18	5321870
		Mounting brackets, 90°		M8	BEF-WN-M08	5321721
				M12	BEF-WN-M12	5308447
				M18	BEF-WN-M18	5308446
	Terminal and alignment brackets	Terminal brackets	Plastic (PA12), glass-fiber reinforced	M8	BEF-KH-M08	2051477
				M12	BEF-KH-M12	2051479
				M18	BEF-KH-M18	2051481

C



### At a glance

- Detection of permanent magnets through non-ferromagnetic materials, such as stainless steel, aluminum, plastic or wood
- NAMUR design for usage in hazardous explosive areas
- Suitable for object detection in high temperature areas due to long sensing ranges
- Fits on to standard M12 and M18 installation

### Your benefits

- NAMUR design ensures safe operation in highly explosive areas
- Non-contact operation ensures resistance to dirt, dust and vibration, increasing sensor life and reducing maintenance costs
- Large operating distances ensure reliable switching, even with target position tolerances
- Non-contact, universal detection through several substances, including plastic containers and pipes and protective PTFE walls

→ [www.mysick.com/en/MM\\_Namur](http://www.mysick.com/en/MM_Namur)

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



### Ordering information

Other models available at [www.mysick.com/en/MM\\_Namur](http://www.mysick.com/en/MM_Namur)

#### MM12 NAMUR

Housing	Sensing range $S_n$ <sup>1)</sup>	Output type	Connection	Model name	Part no.
M12 x 1	5 mm ... 60 mm	NAMUR	Connector M12, 4-pin	MM12-60A-N-ZC0	7900287
			Cable, 2-wire, 2 m, PVC	MM12-60A-N-ZW0	7900286







<sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)

#### MM18 NAMUR

Housing	Sensing range $S_n$ <sup>1)</sup>	Output type	Connection	Model name	Part no.
M18 x 1	5 mm ... 70 mm	NAMUR	Connector M12, 4-pin	MM18-70A-N-ZC0	7900289
			Cable, 2-wire, 2 m, PVC	MM18-70A-N-ZW0	7900288

<sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)

## Accessories

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
	Mounting brackets/plates	Mounting brackets, straight	Steel, zinc coated	M12	BEF-WG-M12	5321869
				M18	BEF-WG-M18	5321870
		Mounting brackets, 90°		M12	BEF-WN-M12	5308447
				M18	BEF-WN-M18	5308446
	Terminal and alignment brackets	Terminal brackets	Plastic (PA12), glass-fiber reinforced	M12	BEF-KH-M12	2051479
				M18	BEF-KH-M18	2051481

C



### At a glance

- Long sensing distance in a small, compact rectangular plastic housing with an IP 67 enclosure rating
- Detection of permanent magnets through non-ferromagnetic materials such as stainless steel, aluminum, plastic, or wood
- Solves high-temperature applications by installing the temperature-resistant magnet in the high-temperature area and the sensor behind an insulated area
- Non-contact operation that is resistant to dust, dirt, shock and vibration
- Precise switching point and hysteresis
- Sensing distance up to 60 mm
- High switching frequency
- Short-circuit, reverse polarity protection and power-up pulse suppression

### Your benefits

- Non-contact operation eliminates interference from dirt, dust, shock and vibrations, reducing maintenance costs
- Long sensing distance with reliable switching reduces miscounts and increases machine throughput
- Easy to install, low-cost sensor solution saves installation time and costs
- Compact plastic housing saves machine space

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

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



### Ordering information

Other models available at [www.mysick.com/en/MQ](http://www.mysick.com/en/MQ)

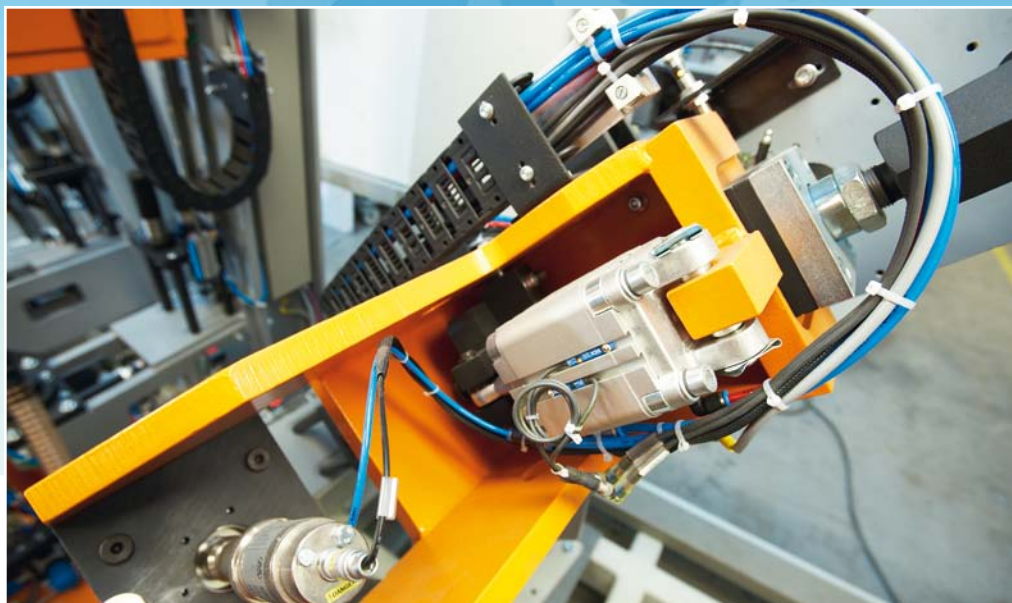
Sensing range $S_n$ <sup>1)</sup>	Output function	Output type	Connection	Model name	Part no.
5 mm ... 60 mm	NO	PNP	Connector M8, 3-pin	MQ10-60APS-KT0	7900280
			Cable, 3-wire, 2 m, PUR/PVC	MQ10-60APS-KU0	7900278
		NPN	Connector M8, 3-pin	MQ10-60ANS-KT0	7900281
			Cable, 3-wire, 2 m, PUR/PVC	MQ10-60ANS-KU0	7900279

<sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)



## With millimeter precision – cylinder sensors from SICK

D



### Magnetic cylinder sensors

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.





Magnetic cylinder sensors


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Precision and versatility up to 1007 millimeters


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Precise positioning with the fastest measurement rate


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Widest portfolio for versatile tasks

Selection guide magnetic cylinder sensors

D

	Magnetic cylinder sensors									
	MPA	MPS	MZ2Q-C	MZC1	RZC1	MZ2Q-T	MZT6	MZT6 ATEX	MZT8	RZT6
<b>For cylinder type</b>										
C-slot			■	■	■					
T-slot		■				■	■	■	■	■
<b>With adapter to fit</b>										
T-slot	■									
Round body cylinders	■	■				■	■	■	■	■
Tie-rod cylinders	■					■	■	■	■	■
Integrated profile cylinders						■	■	■	■	■
Dovetail groove cylinders		■				■	■	■	■	■
SMC rail cylinders CDQ2		■	■	■	■	■	■	■	■	■
SMC rail cylinders ECDQ2		■	■	■	■	■	■	■	■	■
<b>Output</b>										
PNP/NPN			■	■		■	■	■	■	
Reed					■					■
Analog output U, I	■	■								
<b>Special features</b>										
1 sensor, 2 switching points			■			■				
IO-Link			■			■				
<b>Special requirements</b>										
Potentially explosive atmospheres								■		
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### At a glance

- Measured lengths from 107 to 1007 mm in 36 mm steps
- Output signals 4 to 20 mA as well as 0 to 10 V in a single sensor
- Can be mounted on various cylinders thanks to its universal housing with adapters, e.g., cylinders with T-slot, round and tie rod cylinders
- Linearity of 0.5 mm at a sample rate of 1.15 ms
- Accuracy of 0.03 % as well as reproducibility of 0.06 %
- IP 67 enclosure rating

### Your benefits

- High flexibility through measuring ranges from 107 to 1007 mm
- Increased machine performance thanks to the sensor's minimal blind zone
- Saves time due to configurable start and end points via intelligent Teach Pad
- A rugged aluminum housing, the capacitive Teach Pad and the anti-kink cable guarantees a long operational lifetime of the sensor and reduces maintenance costs
- Time savings through simple commissioning and diagnostics thanks to a 4-color LED display
- Analog power, voltage signal and IO-Link in a single sensor reduces the range of variants and thereby lowers warehousing costs

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

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



### Ordering information

Other models available at [www.mysick.com/en/MPA](http://www.mysick.com/en/MPA)


- **Cylinder types with adapter:** T-slot , Roundbody cylinder, Tie rod cylinder
- **Output function:** analog, IO-Link

Measuring range $\pm 1$ mm	Connection	Model name	Part no.
107 mm	Cable, 2 m, PUR	MPA-107TSTU0	1059443
143 mm		MPA-143TSTU0	1059445
179 mm		MPA-179TSTU0	1059447
215 mm		MPA-215TSTU0	1059449
251 mm		MPA-251TSTU0	1059451
287 mm		MPA-287TSTU0	1059453
323 mm		MPA-323TSTU0	1059455

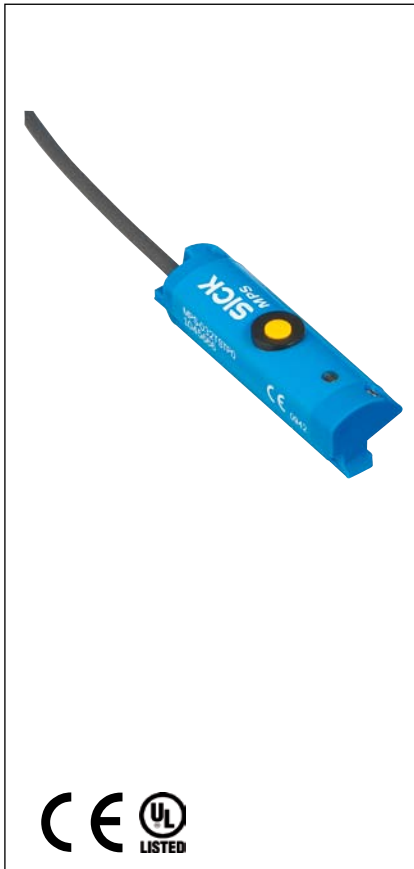
Measuring range $\pm 1$ mm	Connection	Model name	Part no.
107 mm	Cable with plug, M8, 4-pin, 300 mm, PUR	MPA-107TSTP0	1059442
143 mm		MPA-143TSTP0	1059444
179 mm		MPA-179TSTP0	1059446
215 mm		MPA-215TSTP0	1059448
251 mm		MPA-251TSTP0	1059450
287 mm		MPA-287TSTP0	1059452
323 mm		MPA-323TSTP0	1059454
359 mm		MPA-359TSTP0	1059456
395 mm		MPA-395TSTP0	1059458
431 mm		MPA-431TSTP0	1059460
467 mm		MPA-467TSTP0	1059462
539 mm		MPA-539TSTP0	1059466
575 mm		MPA-575TSTP0	1059467
503 mm		MPA-503TSTP0	1059464
611 mm		MPA-611TSTP0	1059468
647 mm		MPA-647TSTP0	1059469
683 mm		MPA-683TSTP0	1059470
719 mm		MPA-719TSTP0	1059471
791 mm		MPA-791TSTP0	1059473
755 mm		MPA-755TSTP0	1059472
827 mm		MPA-827TSTP0	1059474
863 mm		MPA-863TSTP0	1059475
899 mm		MPA-899TSTP0	1059476
935 mm		MPA-935TSTP0	1059477
971 mm		MPA-971TSTP0	1059478
1,007 mm		MPA-1007TSTP0	1059479

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## Accessories

	Accessory category	Accessory type	Dimensions (L x W x H)	Model name	Part no.
	Brackets for cylinder sensors	For profile cylinder/tie-rod cylinder	-	BEF-KHZPZ1MPA	2065578
		For T-slot cylinders	-	BEF-KHZT01MPA	2065575
	Magnets	-	6.5 mm	MAG-2006-B	7901784

D



## At a glance

- Magnetic position sensor for pneumatic and hydraulic cylinders with T-slot
- Output signal: analog, 4 – 20 mA current and 0 -10 V (in one sensor)
- Superior precision: 0.05 mm resolution, 0.1 mm repeatability, 0.3 mm linearity, 1 ms measurement rate
- Electric setting of zero point and end point via teach-in button (optional)
- Various lengths available from 32 - 256 mm

## Your benefits

- Maximum flexibility with several different measuring ranges from 32 to 256 mm
- Easy analog output setup: adjustable zero and end point can be taught via single button
- Drop-in T-slot mounting from above makes assembly easy
- Selectable installation direction to optimize cabling
- Efficient measurement of stroke due to minimal blind zones, increasing machine throughput
- Simple commissioning due to “in-range” indicator
- Output signal: analog, 4 – 20 mA current and 0 -10 V (in one sensor) reduces inventory cost by part number reduction

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

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



## Ordering information

Other models available at [www.mysick.com/en/MPS](http://www.mysick.com/en/MPS)

- Teach-in: ✓
- Cylinder types: T-slot
- Cylinder types with adapter: Roundbody cylinder, Dove-tail groove cylinder, SMC rail cylinder CDQ2 (C-Slot), SMC rail cylinder ECDQ2 (C-Slot)
- Output function: analog

Measuring range ± 1 mm	Connection	Model name	Part no.
32 mm	Cable, 2 m, PUR	MPS-032TSTU0	1045667
	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-032TSTP0	1045666
64 mm	Cable, 2 m, PUR	MPS-064TSTU0	1045669
	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-064TSTP0	1045668
96 mm	Cable, 2 m, PUR	MPS-096TSTU0	1045671
	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-096TSTP0	1045670
128 mm	Cable, 2 m, PUR	MPS-128TSTU0	1045673
	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-128TSTP0	1045672
160 mm	Cable, 2 m, PUR	MPS-160TSTU0	1050740
	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-160TSTP0	1050685
192 mm	Cable, 2 m, PUR	MPS-192TSTU0	1050738
	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-192TSTP0	1047728
224 mm	Cable, 2 m, PUR	MPS-224TSTU0	1050741
	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-224TSTP0	1050686
256 mm	Cable, 2 m, PUR	MPS-256TSTU0	1050739
	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-256TSTP0	1050551



### At a glance

- Magnetic cylinder sensor for pneumatic and hydraulic cylinders with C-slot
- Simple 2-point teach-in procedure
- Detection zone up to 50 mm stroke
- Drop-in mounting from above
- Sensor fully recessed in slot
- Two versions available for Festo and SMC C-slots

### Your benefits

- One sensor with two programmable switching points reduces installation time
- Fewer mounting and cabling requirements – saves installation time, mounting space, and money
- Maximum flexibility: programmable detection zone up to 50 mm stroke
- Suitable for precise pneumatic applications due to simple and precise definition of two switching points

→ [www.mysick.com/en/MZ2Q-C](http://www.mysick.com/en/MZ2Q-C)

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






### Ordering information

Other models available at [www.mysick.com/en/MZ2Q-C](http://www.mysick.com/en/MZ2Q-C)

- **Cylinder types:** C-slot
- **Cylinder types with adapter:** SMC rail cylinder CDQ2 (C-Slot), SMC rail cylinder ECDQ2 (C-Slot)
- **Output type:** PNP
- **Output function:** NO

For SMC cylinder	For Festo cylinder	IO-Link	Connection	Model name	Part no.
✓	-	-	Cable, 4-wire, 2 m, PUR	MZ2Q-CSSPSKU0	1042237
			Cable with plug, M8, 4-pin, 0.3 m, PUR	MZ2Q-CSSPSKP0	1042238
			Cable with plug, M8, 4-pin, with knurled screws, 0.5 m, PUR	MZ2Q-CSSPSKR0	1042239
			Cable with plug, M12, 4-pin, 0.3 m, PUR	MZ2Q-CSSPSKQ0	1042240
-	✓	-	Cable with plug, M12, 4-pin, 0.3 m, PUR	MZ2Q-CSLPSKQ0	1043696
			Cable, 4-wire, 2 m, PUR	MZ2Q-CFSPSKU0	1042241
			Cable with plug, M8, 4-pin, 0.3 m, PUR	MZ2Q-CFSPSKP0	1042242
			Cable with plug, M8, 4-pin, with knurled screws, 0.5 m, PUR	MZ2Q-CFSPSKR0	1042243
-	✓	✓	Cable with plug, M12, 4-pin, 0.3 m, PUR	MZ2Q-CFSPSKQ0	1042244
			Cable with plug, M12, 4-pin, 0.3 m, PUR	MZ2Q-CFLPSKQ0	1043697

Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Brackets for cylinder sensors	For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
		For round body cylinders	Plastic, nickel silver	BEF-KHZ-RT1-130	5311506
				BEF-KHZ-RT1-25	5311171
				BEF-KHZ-RT1-63	5311172
		For cylinders with dovetail-slot	Aluminum	BEF-KHZ-ST1	2022703

D



## At a glance

- Fits into all commonly used cylinders, linear slides and grippers with C-slots, such as, Festo or SMC
- Complete range with PNP/ NPN, PUR and PVC cable, M8 and M12 connector
- Combined Allen and flathead installation screw
- Very short sensor housing, making it easier to install on short stroke cylinders
- Operating display LED
- IP 67 / IP 68 / IP 69K enclosure rating (depending on type)

## Your benefits

- Reduced maintenance cost as the sensor keeps its position under shock and vibration and does not move out
- Increased machine throughput via SICK's proprietary GMR (giant magneto resistive) and ASIC (application specific integrated circuit) technology that ensures 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.

→ [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 available at [www.mysick.com/en/MZC1](http://www.mysick.com/en/MZC1)

- **Cylinder types:** C-slot
- **Cylinder types with adapter:** SMC rail cylinder CDQ2 (C-Slot), SMC rail cylinder ECDQ2 (C-Slot)
- **Output function:** NO

Overrun distance typ.	Output type	Enclosure rating	Connection	Model name	Part no.
4 mm	PNP	IP 67, IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZC1-2V2PS-KPO	1059735
			Cable with plug, M8, 3-pin, with knurled screws, 0.3 m, PUR	MZC1-2V2PS-KRO	1059737
		IP 67, IP 68, IP 69K	Cable, 3-wire, 2 m, PUR	MZC1-2V2PS-KUO	1059738
			Cable, 3-wire, 5 m, PUR	MZC1-2V2PS-KUB	1059739
	NPN	IP 67, IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZC1-2V2NS-KPO	1059744
			Cable with plug, M8, 3-pin, with knurled screws, 0.3 m, PUR	MZC1-2V2NS-KRO	1059742
		IP 67, IP 68, IP 69K	Cable, 3-wire, 2 m, PUR	MZC1-2V2NS-KUO	1059743
7 mm	PNP	IP 67, IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZC1-4V3PS-KPO	1059752
			Cable with plug, M8, 3-pin, with knurled screws, 0.3 m, PUR	MZC1-4V3PS-KRO	1059753
		IP 67, IP 68, IP 69K	Cable, 3-wire, 2 m, PUR	MZC1-4V3PS-KUO	1059755
	NPN	IP 67, IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZC1-4V3NS-KPO	1059757
			IP 67, IP 68, IP 69K	Cable, 3-wire, 2 m, PUR	MZC1-4V3NS-KUO



## At a glance

- Fits into all commonly used cylinders, linear slides and grippers with C-slots, such as, Festo or SMC
- Complete range with Reed 3-wire, Reed 2-wire, and Reed 120V version
- Combined Allen and flathead installation screw
- Very short sensor housing, making it easier to install on short stroke cylinders
- Operating display LED
- IP 67 / IP 68 / IP 69K enclosure rating (depending on type)

## Your benefits

- Reduced maintenance cost as the sensor keeps its position under shock and vibration and does not move out
- Flexible installation via Allen wrench or flathead screwdriver
- Time saving single-hand mounting with ¼-turn installation
- Convenient installation and sensor replacement due to drop-in installation – installer does not need to disassemble the cylinder from the machine for sensor replacement

→ [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 available at [www.mysick.com/en/RZC1](http://www.mysick.com/en/RZC1)

- **Cylinder types:** C-slot
- **Cylinder types with adapter:** SMC rail cylinder CDQ2 (C-Slot), SMC rail cylinder ECDQ2 (C-Slot)
- **Switching output:** Reed
- **Output function:** NO

Electrical wiring	Supply voltage	Enclosure rating	Connection	Model name	Part no.
AC/DC 3-wire	5 V AC/DC 30 V AC/DC	IP 67 <sup>1)</sup>	Cable with plug, M8, 3-pin, 0.3 m, PUR	RZC1-04ZRS-KP0	1059747
		IP 67, IP 68, IP 69K <sup>1) 2)</sup>	Cable, 3-wire, 2 m, PUR	RZC1-04ZRS-KU0	1059746
AC/DC 2-wire	5 V AC/DC 30 V AC/DC	IP 67 <sup>1)</sup>	0.3 m, PUR	RZC1-04ZUS-KP0	1059751
	5 V AC/DC 120 V AC/DC	IP 67 <sup>1)</sup>	Cable, 2-wire, 2 m, PUR	RZC1-04ZUS-KU0	1059750

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

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





### At a glance

- Magnetic cylinder sensor for pneumatic and hydraulic cylinders with T-slot
- Simple 2-point teach-in procedure
- Detection zone up to 50 mm stroke
- Drop-in T-slot mounting from above makes assembly easy
- Sensor fully recessed in slot
- 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

- One sensor with two adjustable switching points reduces installation time and cost
- Detection zone up to 50 mm stroke provides maximum application flexibility
- Ideal for precise pneumatic applications due to the definition of two switching points
- Drop-in T-slot mounting from above makes assembly easy

→ [www.mysick.com/en/MZ2Q-T](http://www.mysick.com/en/MZ2Q-T)

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



### Ordering information

Other models available at [www.mysick.com/en/MZ2Q-T](http://www.mysick.com/en/MZ2Q-T)

- **Cylinder types:** T-slot
- **Cylinder types with adapter:** Profile cylinder, Roundbody cylinder, SMC rail cylinder CDQ2 (T-Slot), SMC rail cylinder ECDQ2 (T-Slot), Tie rod cylinder, Dove-tail groove cylinder
- **For Festo cylinder:** ✓
- **Switching output:** PNP
- **Output function:** NO

Connection	Model name	Part no.
Cable, 4-wire, 2 m, PUR	MZ2Q-FTZPS-KU0	1029845
Cable with plug, M8, 4-pin, with knurled screws, 0.5 m, PUR	MZ2Q-FTZPS-KRO	1041322
Cable with plug, M12, 4-pin, with knurled screws, 0.3 m, PUR	MZ2Q-FTZPS-KQ0	1041323

### Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Brackets for cylinder sensors	For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
				For round body cylinders	Plastic, nickel silver
		BEF-KHZ-RT1-25	5311171		
		BEF-KHZ-RT1-63	5311172		
		For cylinders with dovetail-slot	Aluminum	BEF-KHZ-ST1	2022703

D



### At a glance

- Compact housing design
- Proprietary GMR-ASIC technology ensures precise switching and low hysteresis
- Enclosure rating: IP 68 / IP 69K
- Combined 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

- Best-in-class switching performance for precise piston position
- Highly resistant to shock and vibration enlarging sensor life time
- Drop-in T-slot mounting from above makes assembly easy
- Easy installation with Allen wrench or flat head screwdriver
- Resistant to leaks, ensuring reliability

→ [www.mysick.com/en/MZT6](http://www.mysick.com/en/MZT6)

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



### Ordering information




Other models available at [www.mysick.com/en/MZT6](http://www.mysick.com/en/MZT6)

- **Cylinder types:** T-slot
- **Cylinder types with adapter:** Profile cylinder, Roundbody cylinder, SMC rail cylinder CDQ2 (T-Slot), SMC rail cylinder ECDQ2 (T-Slot), Tie rod cylinder, Dove-tail groove cylinder
- **Overrun distance typ.:** 3 mm
- **Magnetic field sensitivity, min.:** 2.6 mT

Output function	Switching output	Enclosure rating	Connection	Model name	Part no.
NO	PNP	IP 68, IP 69K <sup>1)</sup>	Cable, 3-wire, 2 m, PUR	MZT6-03VPS-KU0	1043369
			Cable, 3-wire, 5 m, PVC	MZT6-03VPS-KWB	1025809
		IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT6-03VPS-KP0	1023971
			Cable with plug, M8, 3-pin, with knurled screws, 0.5 m, PUR	MZT6-03VPS-KR0	1023972
			Cable with plug, M12, 3-pin, 0.3 m, PUR	MZT6-03VPS-KQ0	1025550
NPN	IP 68, IP 69K <sup>1)</sup>	Cable, 3-wire, 2 m, PVC	MZT6-03VNS-KW0	1029401	
		IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT6-03VNS-KP0	1029402
NC	PNP	IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT6-03VP0-KP0	1028741

<sup>1)</sup> According to EN40050.

## Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Brackets for cylinder sensors	For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
		For round body cylinders	Plastic, nickel silver	BEF-KHZ-RT1-130	5311506
				BEF-KHZ-RT1-25	5311171
				BEF-KHZ-RT1-63	5311172
		For cylinders with dovetail-slot	Aluminum	BEF-KHZ-ST1	2022703

D

D



### At a glance

- ATEX 3D/ 3G and ATEX 3G
- Compact housing design
- Proprietary GMR-ASIC technology ensures precise switching and low hysteresis
- Enclosure rating: IP 68 / IP 69K
- Combined 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

- Best-in-class switching performance for precise piston position
- Highly resistant to shock and vibration enlarging sensor life time
- Drop-in T-slot mounting from above makes assembly easy
- Easy installation with Allen wrench or flat head screwdriver
- Resistant to leaks, ensuring reliability

→ [www.mysick.com/en/MZT6\\_ATEX](http://www.mysick.com/en/MZT6_ATEX)

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



### Ordering information

Other models available at [www.mysick.com/en/MZT6\\_ATEX](http://www.mysick.com/en/MZT6_ATEX)

- **Cylinder types:** T-slot
- **Cylinder types with adapter:** Profile cylinder, Roundbody cylinder, SMC rail cylinder CDQ2 (T-Slot), SMC rail cylinder ECDQ2 (T-Slot), Tie rod cylinder, Dove-tail groove cylinder
- **Output function:** NO
- **Overrun distance typ.:** 3 mm
- **Switching output:** PNP

Hazardous area category	Enclosure rating	Connection	Model name	Part no.
3G, 3D	IP 68, IP 69K <sup>1)</sup>	Cable, 3-wire, 2 m, PVC	MZT6-03VPS-KWX	1025827
	IP 68	Cable with plug, M12, 3-pin, 0.3 m, PVC	MZT6-03VPS-KQX	1029161
3G	IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT6-03VPS-KPX	1028629

<sup>1)</sup> According to EN40050.

### Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Brackets for cylinder sensors	For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
		For round body cylinders	Plastic, nickel silver	BEF-KHZ-RT1-130	5311506
				BEF-KHZ-RT1-25	5311171
				BEF-KHZ-RT1-63	5311172
	For cylinders with dovetail-slot	Aluminum	BEF-KHZ-ST1	2022703	



## At a glance

- Magnetic piston detection for all conventional pneumatic cylinders with T-slots
- Short sensor housing length – only 24 mm
- Sensor element at the tip of the housing
- Proprietary GMR-ASIC technology ensures precise switching and low hysteresis
- Enclosure rating: IP 68 / IP 69K (PUR) respectively IP 67 / IP 69K (PVC)
- Captive 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

- Shortest sensor on the market, making it ideal for short stroke cylinders
- Sensor element at the tip of the sensor – piston detection possible without stroke loss
- Captive installation screw enables reliable and optimized installation
- Time saving “single-handed mounting” with 1/4 turn
- Flexible installation via Allen wrench or flathead screwdriver
- 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 available at [www.mysick.com/en/MZT8](http://www.mysick.com/en/MZT8)

- **Cylinder types:** T-slot
- **Cylinder types with adapter:** Profile cylinder, Roundbody cylinder, SMC rail cylinder CDQ2 (T-Slot), SMC rail cylinder ECDQ2 (T-Slot), Tie rod cylinder, Dove-tail groove cylinder
- **Output function:** NO

Overrun distance typ.	Magnetic field sensitivity, min.	Switching output	Connection	Model name	Part no.
3 mm	2.6 mT	PNP	Cable, 3-wire, 2 m, PUR	MZT8-03VPS-KUO	1044469
			Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT8-03VPS-KPO	1044458
			Cable with plug, M8, 3-pin, with knurled screws, 0.5 m, PUR	MZT8-03VPS-KRO	1044459
			Cable with plug, M12, 3-pin, 0.3 m, PUR	MZT8-03VPS-KQO	1044460
		NPN	Cable, 3-wire, 2 m, PUR	MZT8-03VNS-KUO	1044934
			Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT8-03VNS-KPO	1044932
9 mm	2.8 mT	PNP	Cable, 3-wire, 2 m, PUR	MZT8-28VPS-KUO	1048049
			Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT8-28VPS-KPO	1048048
			Cable with plug, M8, 3-pin, with knurled screws, 0.5 m, PUR	MZT8-28VPS-KRO	1048050
			Cable with plug, M12, 3-pin, 0.3 m, PUR	MZT8-28VPS-KQO	1048051

## Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Brackets for cylinder sensors	For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
		For round body cylinders	Plastic, nickel silver	BEF-KHZ-RT1-130	5311506
				BEF-KHZ-RT1-25	5311171
				BEF-KHZ-RT1-63	5311172
		For cylinders with dovetail-slot	Aluminum	BEF-KHZ-ST1	2022703

D



### At a glance

- Compact housing design
- Enclosure rating: IP 68 / IP 69K
- 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 cylinder 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 available at [www.mysick.com/en/RZT6](http://www.mysick.com/en/RZT6)

- **Cylinder types:** T-slot
- **Cylinder types with adapter:** Profile cylinder, Roundbody cylinder, SMC rail cylinder CDQ2 (T-Slot), SMC rail cylinder ECDQ2 (T-Slot), Tie rod cylinder, Dove-tail groove cylinder
- **Switching output:** Reed

Electrical wiring	Connection	Model name	Part no.
AC/DC 2-wire	Cable, 2-wire, 2 m, PVC	RZT6-03ZUS-KW0	1025522
AC/DC 3-wire	Cable, 3-wire, 2 m, PVC	RZT6-03ZRS-KW0	1023974
	Cable with plug, M8, 3-pin, 0.3 m, PUR	RZT6-03ZRS-KP0	1023973
	Cable with plug, M8, 3-pin, with knurled screws, 0.5 m, PUR	RZT6-03ZRS-KR0	1023975
	Cable with plug, M12, 3-pin, 0.3 m, PUR	RZT6-03ZRS-KQ0	1025549

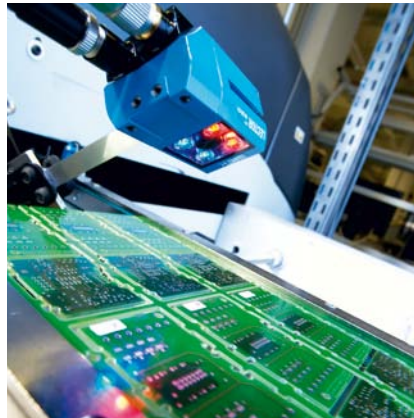
### Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Brackets for cylinder sensors	For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
		For round body cylinders	Plastic, nickel silver	BEF-KHZ-RT1-25	5311171
				BEF-KHZ-RT1-63	5311172
		For cylinders with dovetail-slot	Aluminum	BEF-KHZ-ST1	2022703

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



E



### Identification solutions

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.





Identification solutions

<p>Selection guide identification solutions. . . . . 176</p>	
 <p><b>CLP510 . . . . . 178</b> Fast, small CCD scanner – optimized for OEM applications</p>	 <p><b>LECTOR®62x. . . . . 190</b> Clever. Simple. Industrial.</p>
 <p><b>CLV50x. . . . . 179</b> The mini line – small, simple, reliable</p>	 <p><b>ICR80x. . . . . 192</b> Easy, small and light</p>
 <p><b>CLV62x. . . . . 180</b> Powerful scanner – flexible use</p>	 <p><b>ICR84x-2 FlexLens . . . . . 194</b> By far the best solution</p>
 <p><b>CLV63x. . . . . 182</b> Intelligent scanning solution for logistics and automation</p>	 <p><b>IDM140 . . . . . 196</b> Versatility made easy – from high density to standard range codes</p>
 <p><b>CLV64x. . . . . 184</b> Dynamic, multi-functional</p>	 <p><b>IDM160 . . . . . 198</b> Industrial mobile reliability</p>
 <p><b>CLV65x. . . . . 186</b> Always in auto focus</p>	 <p><b>RFH6xx . . . . . 200</b> Intelligent RFID communication</p>
 <p><b>CLV69x. . . . . 188</b> The highest level of flexibility and power</p>	 <p><b>RFU63x . . . . . 201</b> Intelligent technology ensures easy integration</p>

Selection guide identification solutions

E

Product family	Reading distance / scanning range (at code resolution)															
	100	200	300	400	500	600	700	800	900	1,000	1,250	1,500	2,000	3,000	5,000	
CLP510	15 mm - 60 mm (1 mm)															
CLV50x																
CLV503 Standard Range	50 mm - 630 mm (1 mm)															
CLV505 Standard Range	60 mm - 330 mm (1 mm)															
CLV62x																
Short Range	55 mm - 200 mm (0.5 mm)															
Mid Range	60 mm - 365 mm (1 mm)															
Long Range	60 mm - 730 mm (1 mm)															
CLV63x																
Short Range	44 mm - 285 mm (0.5 mm)															
Mid Range	74 mm - 450 mm (0.5 mm)															
Long Range	44 mm - 735 mm (1 mm)															
CLV64x																
Standard Density	44 mm - 840 mm (1 mm)															
High Density	30 mm - 345 mm (0.25 mm)															
CLV65x																
Standard Density	125 mm - 1625 mm (1 mm)															
Low Density	155 mm - 930 mm (0.5 mm)															
CLV69x																
Standard Density	500 mm / 2,100 mm / 0.5 mm															
Low Density	500 mm - 2200 mm (0.5 mm)															
High Density	400 mm - 1600 mm (0.3 mm)															
LECTOR®62x	25 mm - 1500 mm (2.6 mm)															
ICR80x																
ICR803-A Smart Focus	60 mm - 160 mm (0.19 mm)															
ICR803-B Standard Range	50 mm - 330 mm (0.33 mm)															
ICR84x-2 FlexLens	100 mm - 3000 mm (dependent on lens and illumination)															
IDM140	50 mm - 600 mm (0.5 mm)															
IDM160	50 mm - 800 mm (0.5 mm)															
RFH6xx	0 mm - 240 mm															
RFU63x	0 mm - 5000 mm															

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	Product family group				IDpro	Focus			Supported code type				Page
	Bar code scanners	Image-based code readers	Hand-held scanner	RFID	IDpro-compliance	Fixed focus	Dynamic focus	Auto focus	1D code	Stacked Code	2D code	OCR	
	■					■			■				178
	■					■			■				179
	■					■			■				179
													181
	■				■	■			■				180
	■				■	■			■				180
	■				■	■			■				183
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	■				■			■	■				188
		■			■			■ <sup>1)</sup>	■	■	■		188
		■				■			■	■	■	■	192
		■				■			■	■	■	■	192
		■					■ <sup>2)</sup>		■	■	■		194
			■			■			■	■			196
			■			■			■	■			198
				■	■								200
				■	■								201

<sup>1)</sup> During teach-in. <sup>2)</sup> With interchangeable lens.



### At a glance

- Up to 700 scans/decodings per second
- Compact design
- Optimized focus distance 36 mm
- RS-232 interface
- 1 x digital trigger input, 2 x digital outputs for “Good Read” and “No Read”
- Available with front and side reading window

### Your benefits

- Easy integration even in systems with limited space thanks to its compact design
- Fast capture of bar codes due to the high scanning frequency and decoding rate
- Easy to configure by using profile configuration codes or by sending serial commands

→ [www.mysick.com/en/CLP510](http://www.mysick.com/en/CLP510)

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



### Ordering information

Other models available at [www.mysick.com/en/CLP510](http://www.mysick.com/en/CLP510)

- **Focus:** Fixed focus
- **Connection type:** Standard
- **Scanner design:** CCD scanner

Reading field	Model name	Part no.
Front	CLP510-0000	1051741
Side (90°)	CLP510-2000	1051742



### At a glance

- Extremely compact
- Lightweight
- Easy commissioning
- Fast and reliable decoding even on poorly printed or partly damaged codes
- Available in RS-232 version with flying leads and USB version
- Pushbutton trigger
- Discrete trigger input and good read/no read outputs (flying lead variant only)
- CLV505 available in raster version

### Your benefits

- Small size and simple setup enables fast installation, even in compact machines
- Fast and easy commissioning using configuration bar codes (shipped with each scanner) and the online tool
- Excellent reading performance – even with poorly printed codes – ensures high throughput
- Pushbutton trigger, onboard LED, and audible beep simplify setup and troubleshooting



→ [www.mysick.com/en/CLV50x](http://www.mysick.com/en/CLV50x)

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



### Ordering information

Other models available at [www.mysick.com/en/CLV50x](http://www.mysick.com/en/CLV50x)

- **Focus:** Fixed focus
- **Reading field:** front

Version	Connection type	Scanner design	Model name	Part no.
CLV503 Standard Range	Standard	Line scanner	CLV503-0000	1046315
	USB	Line scanner	CLV503-0110	1046316
CLV505 Standard Range	Standard	Line scanner	CLV505-0000	1046317
	USB	Line scanner	CLV505-0110	1046318
	Standard	Raster scanner	CLV505-1000	1046319
	USB	Raster scanner	CLV505-1110	1046320

### Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/plates	Bracket with adapter board for CLV503	Mounting bracket	2050021
		Bracket with adapter board for CLV505	Mounting bracket	2050022

E



### 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 rated

### 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 available at [www.mysick.com/en/CLV62x](http://www.mysick.com/en/CLV62x)








- **Focus:** Fixed focus

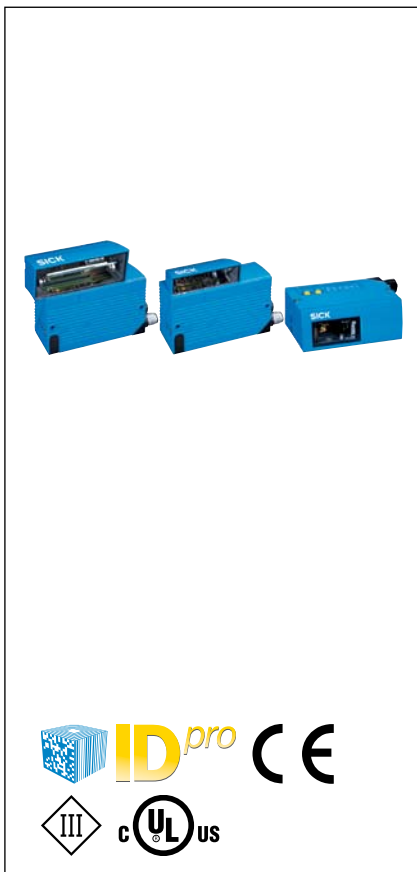
Version	Connection type	Reading field	Scanner design	Model name	Part no.
CLV620 Mid Range	Standard	Front	Line scanner	CLV620-0000	1040288
			Raster scanner	CLV620-1000	1041548
		Side (105°)	Line scanner	CLV620-2000	1041550
			Raster scanner	CLV620-3000	1041552
	Ethernet	Front	Line scanner	CLV620-0120	1041547
			Raster scanner	CLV620-1120	1041549
Side (105°)		Line scanner	CLV620-2120	1041551	
		Raster scanner	CLV620-3120	1041553	
CLV621 Long Range	Standard	Front	Line scanner	CLV621-0000	1041784
			Raster scanner	CLV621-1000	1041786
		Side (105°)	Line scanner	CLV621-2000	1041788
			Raster scanner	CLV621-3000	1041790
	Ethernet	Front	Line scanner	CLV621-0120	1041785
			Raster scanner	CLV621-1120	1041787
		Side (105°)	Line scanner	CLV621-2120	1041789
			Raster scanner	CLV621-3120	1041791

Version	Connection type	Reading field	Scanner design	Model name	Part no.
CLV622 Short Range	Standard	Front	Line scanner	CLV622-0000	1041792
			Raster scanner	CLV622-1000	1041794
		Side (105°)	Line scanner	CLV622-2000	1041796
			Raster scanner	CLV622-3000	1041798
	Ethernet	Front	Line scanner	CLV622-0120	1041793
			Raster scanner	CLV622-1120	1041795
		Side (105°)	Line scanner	CLV622-2120	1041797
			Raster scanner	CLV622-3120	1041799

Accessories



	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Modules	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256
		Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks ( PROFIBUS interface 2 x M12, plug/socket, 5-pin)	CDF600-2100	1058965
		Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface 1 x D-Sub, socket, 9-pin)	CDF600-2103	1058966
		Modular connection module for one sensor	CDM420-0001	1025362
	Mounting brackets/plates	Bracket with adapter board	Mounting bracket	2042902
	Plug connectors and cables	Cable, M12, 12-pin, to connection module CDx 15-pin D-sub, 2 m (socket/plug)	Connecting cable (plug-socket)	2041834
		Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 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
- No supplementary Ethernet gateway required with Ethernet models – lowers costs
- Enhanced SMART technology reads damaged and partially obscured codes, increasing read rates
- Increased scanner intelligence enables sophisticated configuration of logical operations, reducing the control system programming effort. Data is then delivered in the desired format
- Real-time decoding at very high speeds
- 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 available at [www.mysick.com/en/CLV63x](http://www.mysick.com/en/CLV63x)

- **Focus:** Fixed focus
- **Heating:** optional


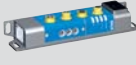




Version	Connection type	Reading field	Scanner design	Model name	Part no.
CLV630 Long Range	Standard	Front	Line scanner	CLV630-0000	1040706
			Raster scanner	CLV630-1000	1041970
		Side (105°)	Line scanner	CLV630-2000	1041972
			Raster scanner	CLV630-3000	1041974
		Oscillating mirror	Line scanner	CLV630-6000	1041976
		Ethernet	Front	Line scanner	CLV630-0120
	Raster scanner			CLV630-1120	1041971
	Side (105°)		Line scanner	CLV630-2120	1041973
			Raster scanner	CLV630-3120	1041975
	Oscillating mirror		Line scanner	CLV630-6120	1041977

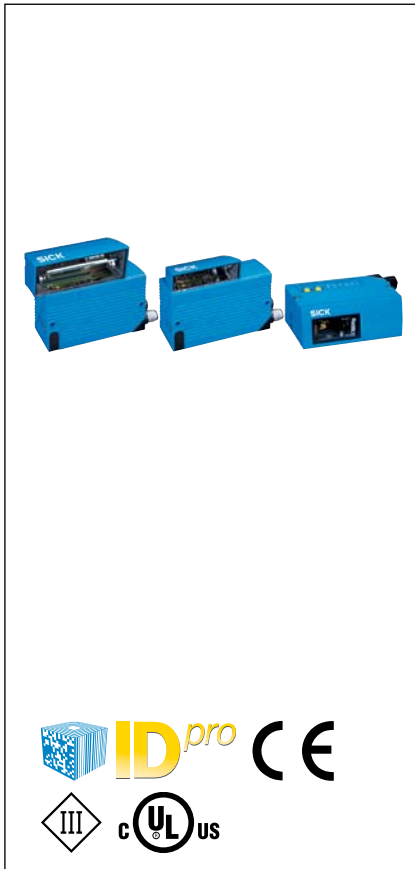


Version	Connection type	Reading field	Scanner design	Model name	Part no.
CLV631 Mid Range	Standard	Front	Line scanner	CLV631-0000	1041978
			Raster scanner	CLV631-1000	1041980
		Side (105°)	Line scanner	CLV631-2000	1041982
			Raster scanner	CLV631-3000	1041984
		Oscillating mirror	Line scanner	CLV631-6000	1041986
		Ethernet	Front	Line scanner	CLV631-0120
	Raster scanner			CLV631-1120	1041981
	Side (105°)		Line scanner	CLV631-2120	1041983
			Raster scanner	CLV631-3120	1041985
	Oscillating mirror	Line scanner	CLV631-6120	1041987	
CLV632 Short Range	Standard	Front	Line scanner	CLV632-0000	1041988
			Raster scanner	CLV632-1000	1041990
		Side (105°)	Line scanner	CLV632-2000	1041992
			Raster scanner	CLV632-3000	1041994
		Oscillating mirror	Line scanner	CLV632-6000	1041996
		Ethernet	Front	Line scanner	CLV632-0120
	Raster scanner			CLV632-1120	1041991
	Side (105°)		Line scanner	CLV632-2120	1041993
			Raster scanner	CLV632-3120	1041995
	Oscillating mirror		Line scanner	CLV632-6120	1041997



Accessories

	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Modules	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256
		Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface 2 x M12, plug/socket, 5-pin)	CDF600-2100	1058965
		Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface 1 x D-Sub, socket, 9-pin)	CDF600-2103	1058966
		Modular connection module for one sensor	CDM420-0001	1025362
	Mounting brackets/plates	Hanger-shaped mounting bracket	Mounting bracket	2042800
	Plug connectors and cables	Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 2 m	SSL-2J04-G02ME	6034414



### At a glance

- Dynamic focus adjustment enables extended depth of field
- Integrated pushbuttons for auto setup and reading diagnostics
- CAN, Ethernet TCP/IP, PROFINET, and EtherNet/IP available on board, no additional gateway needed (depending on variant)
- Enhanced SMART code reconstruction technology
- Flexible sorting, filtering, and logical functions
- Advanced, easy-to-use SOPAS configuration software
- Integrated LED bar graph
- Advanced remote diagnostics and network monitoring capabilities available over Ethernet

### Your benefits

- Economical, as only one CLV64x is required for all focus positions
- Intelligent auto setup and multi-function pushbuttons save time during commissioning
- No supplementary Ethernet gateway required with Ethernet models – lowers costs
- Enhanced SMART technology reads damaged and partially obscured codes, increasing read rates
- Increased scanner intelligence enables sophisticated configuration of logical operations, reducing the control system programming effort. Data is then delivered in the desired format
- Real-time decoding at very high speeds

→ [www.mysick.com/en/CLV64x](http://www.mysick.com/en/CLV64x)

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









### Ordering information

Other models available at [www.mysick.com/en/CLV64x](http://www.mysick.com/en/CLV64x)

- **Focus:** Dynamic focus control
- **Heating:** optional

Version	Connection type	Reading field	Scanner design	Model name	Part no.
CLV640 Standard Density	Standard	Front	Line scanner	CLV640-0000	1042014
			Raster scanner	CLV640-1000	1042016
		Side (105°)	Line scanner	CLV640-2000	1042018
		Oscillating mirror	Line scanner	CLV640-6000	1042022
		Side (105°)	Raster scanner	CLV640-3000	1042020
	Ethernet	Front	Line scanner	CLV640-0120	1042015
			Raster scanner	CLV640-1120	1042017
		Side (105°)	Line scanner	CLV640-2120	1042019
			Raster scanner	CLV640-3120	1042021
Oscillating mirror	Line scanner	CLV640-6120	1042023		
CLV642 High Density	Standard	Front	Line scanner	CLV642-0000	1044873
	Ethernet	Front	Line scanner	CLV642-0120	1044874

## Accessories

	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Modules	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256
		Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface 2 x M12, plug/socket, 5-pin)	CDF600-2100	1058965
		Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface 1 x D-Sub, socket, 9-pin)	CDF600-2103	1058966
		Modular connection module for one sensor	CDM420-0001	1025362
	Mounting brackets/plates	Hanger-shaped mounting bracket	Mounting bracket	2042800
	Plug connectors and cables	Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 2 m	SSL-2J04-G02ME	6034414

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### 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
- No supplementary Ethernet gateway required with Ethernet models – lowers costs
- Enhanced SMART technology reads damaged and partially obscured codes, increasing read rates
- Increased scanner intelligence enables sophisticated configuration of logical operations, reducing the control system programming effort. Data is then delivered in the desired format
- 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 available at [www.mysick.com/en/CLV65x](http://www.mysick.com/en/CLV65x)

- **Focus:** Auto focus
- **Scanner design:** Line scanner
- **Heating:** optional

Version	Connection type	Reading field	Model name	Part no.
CLV650 Standard Density	Standard	Front	CLV650-0000	1041290
		Oscillating mirror	CLV650-6000	1042124
	Ethernet	Front	CLV650-0120	1042121
		Oscillating mirror	CLV650-6120	1042125
CLV651 Low Density	Standard	Front	CLV651-0000	1046557
		Oscillating mirror	CLV651-6000	1046559
	Ethernet	Front	CLV651-0120	1046558
		Oscillating mirror	CLV651-6120	1046560

## Accessories

	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Modules	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256
		Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface 2 x M12, plug/socket, 5-pin)	CDF600-2100	1058965
		Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface 1 x D-Sub, socket, 9-pin)	CDF600-2103	1058966
		Modular connection module for one sensor	CDM420-0001	1025362
	Mounting brackets/plates	Hanger-shaped mounting bracket	Mounting bracket	2042800
	Plug connectors and cables	Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 2 m	SSL-2J04-G02ME	6034414

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### At a glance

- Enhanced SMART decoder technology
- New and flexible cloning plug technology
- CAN, Ethernet and serial communications available on board (dependent on cloning plug variant)
- Large depth of field due to real-time auto focus
- Advanced, easy-to-use SOPAS configuration software
- Integrated encoder tracking for up to 7 devices without an external controller
- Flexible sorting, filtering, and logical functions
- Integrated LED bar graph with push-buttons

### Your benefits

- Enhanced SMART technology reads damaged and partially obscured codes – increases read rates
- Increased processing allows for faster and more accurate performance on demanding applications
- No supplementary Ethernet gateway required when using Ethernet cloning plug – reducing costs
- Time savings during commissioning thanks to integrated buttons and bar graph
- Increased scanner intelligence enables sophisticated configuration of logical operations, reducing the control system programming effort. Data is delivered in the desired format
- Economical, multi-sided scanning can be performed without an additional system controller

→ [www.mysick.com/en/CLV69x](http://www.mysick.com/en/CLV69x)

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










### Ordering information

Other models available at [www.mysick.com/en/CLV69x](http://www.mysick.com/en/CLV69x)

- **Focus:** Auto focus
- **Connection type:** depending on the cloning plug used
- **Scanner design:** Line scanner

Version	Reading field	Model name	Part no.
CLV690-0/1 Standard Density	Front	CLV690-0000	1056600
	Oscillating mirror	CLV690-1000	1056601
CLV691-0/1 Low Density	Front	CLV691-0000	1056604
	Oscillating mirror	CLV691-1000	1056605
CLV692-0/1 High Density	Front	CLV692-0000	1056608
	Oscillating mirror	CLV692-1000	1056609

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Modules	Modular connection module for one sensor, 2 A fuse	CDM420-0006	1058634
	Mounting brackets/plates	Simple mounting bracket	Mounting bracket	2013824
	Plug connectors and cables	Cloning plug D-sub with 15-pin D-Sub HD device plug and 15-pin D-Sub HD device socket	Cloning plug	2062450
		Cloning plug I/O, Ethernet with three M12 cylindrical connectors (17-pin plug, 4-pin Ethernet socket, 5-pin CAN socket)	Cloning plug	2062452
		Cable, M12, 17-pin, to connection module CDx 15-pin D-sub, 2 m (socket/plug)	Connection cable (plug-socket)	2055419
		Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 2 m	SSL-2J04-G02ME	6034414
	Terminal and alignment brackets	Quick-action lock system	Quick clamp	2016110



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## At a glance

- Decoding of most popular code types: 1D, 2D, direct part marking
- Easy integration with industrial networks: serial, USB, several fieldbus technologies
- Auto setup with function buttons, aiming laser, focus adjustment and green feedback LED – for quick setup without PC
- Compact design and industrial housing
- Analysis tools include live image capturing, code verification and read rate view

## Your benefits

- Intelligent decoding algorithms provide reliable reading performance for improved read rates and throughput
- IDpro facilitates integration with most popular industrial networks
- Intuitive setup with function buttons, auto setup, aiming laser, focus adjustment and green feedback LED reduces training and installation time and costs
- Compact design and flexible interface connections make it easy to install in reduced spaces
- Quick analysis of read rate performance and code quality allows for efficient control
- Cloning back-up systems ensure low machine downtime in the event of unexpected incidents
- SICK LifeTime Services give you peace of mind

→ [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 available at [www.mysick.com/en/LECTOR62x](http://www.mysick.com/en/LECTOR62x)

- **Version:** LECTOR®620
- **Reading field:** side

Variant	Internal lighting	Enclosure rating	Model name	Part no.
Professional	Red, blue	IP 65	ICR620S-T11503 Professional	1050589
		IP 67	ICR620S-T11504 Professional	1054375
ECO	Red	IP 65	ICR620E-H12013 ECO	1054507
High Speed	Red, blue	IP 65	ICR620H-T11503 High Speed	1055890
DPM Plus	Red, blue	IP 65	ICR620D-T11503 DPM Plus	1055891



## Accessories

	Accessory category	Brief description	Model name	Part no.
	Lens and accessories	Dome accessories for glossy and curved surfaces inclusive bracket and mounting material	Dome accessories	2063093
 Illustration may differ	Modules	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256
	Mounting brackets/plates	Mounting bracket (simple bracket)	Mounting bracket	2020410
	Plug connectors and cables	Cable, M12, 17-pin, to connection module CDx 15-pin D-sub, 2 m (socket/plug)	Connection cable (plug-socket)	2055419
		Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 2 m	SSL-2J04-G02ME	6034414
		USB cable, 2 m	USB cable	6036106

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### At a glance

- Omni-directional code reading
- Optical alignment
- Extremely compact
- Lightweight
- USB and RS-232 versions
- RoHS and WEEE compliant
- Triggering via button, presentation mode, serial commands or hardware trigger via SICK connection technology

### Your benefits

- Fast and reliable 1D and 2D code identification
- Read multiple code types with one device, accommodating future code changes
- Easy and fast installation and configuration
- No moving parts and a large reading field reduce adjustments
- Small size makes it easy to integrate in limited spaces

→ [www.mysick.com/en/ICR80x](http://www.mysick.com/en/ICR80x)

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











### Ordering information

Other models available at [www.mysick.com/en/ICR80x](http://www.mysick.com/en/ICR80x)

- Reading field: front

Version	Connection type	Model name	Part no.
ICR803-A Smart Focus	Serial	ICR803-A0201	6034210
	USB	ICR803-A0271	6034212
ICR803-B Standard Range	Serial	ICR803-B0201	6034211
	USB	ICR803-B0271	6034213

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Modules	Small connection module for 5-V hand-held scanners, CLV50x and ICR80x	CDB405-001	1027093
	Mounting brackets/plates	Bracket with adapter board	Mounting bracket	2050023
	Plug connectors and cables	Straight RS-232 TTL cable, 2.4 m length, external power supply necessary	Connecting cable (plug-plug)	6033047
		Straight cord RS-232, 2 m, for connection on CDB405-001	RS232 cable	6034935
		Straightened USB cable, 2.3 m, connector type A (42206161-01)	USB cable	6028232
	Power supply units/ power cord connectors	Universal AC adapter, input 100 ... 240 V AC, output 5 V DC, including the power cable with European plug (does not fulfill medical standard EN 60601/IEC 60601)	PS-050-2400D1-EU	6034941
		Universal AC adapter, input 100 ... 240 V AC, output 5 V DC, including AC line with North American plug (does not fulfill medical standard EN 60601/IEC 60601)	PS-050-2400D1-NA	6034790
		Universal AC adapter, input 100 ... 240 V AC, output 5 V DC, including the power cable with plug-United-Kingdom (does not fulfill medical standard EN 60601/IEC 60601)	PS-050-2400D1-UK	6034942

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### At a glance

- Configure with live image and auto setup
- Fast, omni-directional reading of printed and direct marked 1D and 2D codes
- Rapid image and data transfer via Ethernet
- Adjustable reading distances with c-mount lens and illumination
- Industrial IP 65 housing (with optional hood and cap) for rough environmental conditions

### Your benefits

- Fast, cost-effective commissioning via easy user interface with live image and auto setup configuration
- Omni-directional identification of 1D and 2D codes makes it possible to identify objects that are not aligned
- High-speed, reliable decoding of low contrast and direct part marked codes guarantees secure identification and flexible use
- Different imager resolutions, c-mount lens options and illumination types and colors make it ideal for a wide range of solutions
- Dynamic parameter switching makes decoding different code qualities possible with just one setting

→ [www.mysick.com/en/ICR84x-2\\_FlexLens](http://www.mysick.com/en/ICR84x-2_FlexLens)

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







### Ordering information

Other models available at [www.mysick.com/en/ICR84x-2\\_FlexLens](http://www.mysick.com/en/ICR84x-2_FlexLens)

- Enclosure rating: IP 65, IP 30

Version	Reading field	Items supplied	Model name	Part no.
ICR845-2L FlexLens	Front	Code reader, operating instructions, software CD	ICR845-2L0020 FlexLens	1046574
		Pre-mounted kit incl. ICR845-2L0020, ICL300-F222 (red), 25 mm lens, IP 65 hood, c-mount filter (red), mounting bracket, screws and connection cable (2 m) for ring illumination, Ethernet crossover cable, ICR mounting bracket, operating instructions, software CD	ICR845-2L0020P01 FlexLens Kit	1047431
		Pre-mounted kit incl. ICR845-2L0020, ICL300-F222 (red), 75 mm lens, IP 65 hood, c-mount filter (red), mounting bracket, screws and connection cable (2 m) for ring illumination, Ethernet crossover cable, ICR mounting bracket, operating instructions, software CD	ICR845-2L0020P02 FlexLens Kit	1047432
		Code reader for infrared illumination, operating instructions, software CD	ICR845-2L0020S01 FlexLens	1047956
ICR847-2L FlexLens	Front	Code reader, operating instructions, software CD	ICR847-2L0030 FlexLens	1051095
	Side	Code reader, operating instructions, software CD	ICR847-2L1030 FlexLens	1056546
ICR849-2L FlexLens	Side	Code reader, operating instructions, software CD	ICR849-2L1030 FlexLens	1051931

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Illuminations	Ring lighting, bright field lighting for ICR84x-2L, red lighting color, lighting distance 0.2 m ... 2 m, incl. mounting bracket, screws and connection cable (2 m)	ICL300-F222-Set01-(red)	1047879
	Lens and accessories	C-mount lens, 1:1.4, f = 12 mm (max. camera resolution: 5 megapixel)	C-mount lens	5325403
		C-mount lens, 1:1.4, f = 16 mm (max. camera resolution: 5 megapixel)	C-mount lens	5325404
		C-mount lens, 1:1.4, f = 25 mm (max. camera resolution: 5 megapixel)	C-mount lens	5325405
		C-mount lens, 1:2.0, f = 35 mm (max. camera resolution: 5 megapixel)	C-mount lens	5325406
		C-mount lens, 1:2.8, f = 50 mm (max. camera resolution: 5 megapixel)	C-mount lens	5325407
 Illustration may differ	Modules	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256
	Mounting brackets/plates	Mounting bracket, adjustable skew angle	Mounting bracket	2039465
	Plug connectors and cables	Ethernet crossover cable 2 x RJ45	Ethernet crossover cable	6026084
		Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 2 m	SSL-2J04-G02ME	6034414

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### At a glance

- Reading distance up to 320 mm
- Identifies all popular linear bar codes
- Scan rate up to 500 scans/second
- Withstands 25 drops from 1.6 m height
- Highly visible scan line
- IP 41 enclosure rating

### Your benefits

- Increased productivity thanks to high scan rate
- Reliable identification reduces the need to manually input data
- Lightweight, ergonomic design ensures user comfort
- Highly dependable thanks to rugged housing and non-moving parts
- Easy targeting with highly visible scan line for correct aiming

→ [www.mysick.com/en/IDM140](http://www.mysick.com/en/IDM140)

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













### Ordering information

Other models available at [www.mysick.com/en/IDM140](http://www.mysick.com/en/IDM140)

- Version: Mid Range

Sub product family	Field of application	Items supplied	Model name	Part no.	
IDM140 Standard	General purpose	Single scanner	IDM140-201D	6040985	
			IDM140-2PDF01D	6040989	
		Kit	Kit contains hand-held scanner, interface cable and quick start guide	IDM140 PS/2 Kit	6040982
			Kit contains hand-held scanner, interface cable, power supply and quick start guide	IDM140 RS-232 Kit	6041017
			Kit contains hand-held scanner, interface cable and quick start guide	IDM140 USB Kit	6040983
				IDM140PDF PS/2 Kit	6040986
			Kit contains hand-held scanner, interface cable, power supply and quick start guide	IDM140PDF RS-232 Kit	6041018
Kit contains hand-held scanner, interface cable and quick start guide	IDM140PDF USB Kit	6040987			
IDM140 Bluetooth	General purpose, cordless	Kit	IDM140BT PS/2 Kit	6040990	
			IDM140BT RS-232 Kit	6040992	
			IDM140BT USB Kit	6040991	
			IDM140PDF BT PS/2 Kit	6040994	
			IDM140PDF BT RS-232 Kit	6040996	
			IDM140PDF BT USB Kit	6040995	
IDM140 WLAN	General purpose, cordless	Kit	IDM140 WLAN Kit	6043431	
			IDM140PDF WLAN Kit	6043432	

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Other mounting accessories	Desk holder	Table mount	6036723
		Countertop	Tripod mount	6036724
	Plug connectors and cables	Straightened PS/2 cable, 2 m	Connection cable (plug-plug)	6036726
		Straightened USB cable, 1.8 m	Connection cable (plug-plug)	6036728
		Spiral cord PS/2 3.8 m (fully extracted)	Connection cable (plug-plug)	6039155
		Spiral cord RS-232 3.8 m (fully extracted), voltage via pin 9 or power supply	Connection cable (plug-plug)	6039156
		Spiral cord USB 3.8 m (fully extracted) - This cable is used to connect IDM handheld scanners in IDM USB HID keyboard mode. It is not suitable for connection in USB Com Port Emulation mode.	Connection cable (plug-plug)	6039158
		Straightened RS-232 TTL cable, 1.8 m, voltage via pin 9 or power supply	Connection cable (plug-socket)	6041540
		Power supply units/ power cord connectors	Power supply, input AC 100 ... 240 V, output DC 5 V/2 A (necessary when using RS-232 TTL cable, does not fulfill medical standard EN 60601/ IEC 60601))	Power supply unit
	Rechargeable batteries and battery chargers	Charging station without Bluetooth functionality; operating voltage 5 V DC, operating power max. 650 mA	Charging station	6041266
		Lithium-ion replacement battery for radio scanners	Replacement battery	6041193

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### At a glance

- Identification of all popular 1D codes, with PDF version also stacked codes
- Reading distance up to 800 mm (at 0.5 mm)
- Identification of standard and high-density codes (0.076 mm)
- High throughput with up to 500 scans/sec.
- Compact housing with up to IP 65 withstanding 50 drops from 2 m on concrete
- Good read feedback via LED, beeper and vibrator
- Supports all popular corded and cordless interfaces as well as industrial fieldbuses via SICK connectivity
- Tool-free exchange of cable and battery
- Corded and cordless versions available

### Your benefits

- Increased productivity and throughput thanks to fast and reliable identification
- Reduced costs thanks to 2-in-1 scan engine: covering standard and high-density codes with a single device
- High reliability thanks to industrial grade and rugged housing
- Intuitive good read feedback for noisy industrial environment via vibration, beeper and LED
- Higher user comfort through ergonomic housing design, well balanced and light weight
- High flexibility and operator mobility with corded and cordless versions
- Easy to use through long range and immediate reading

→ [www.mysick.com/en/IDM160](http://www.mysick.com/en/IDM160)

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



### Ordering information

Other models available at [www.mysick.com/en/IDM160](http://www.mysick.com/en/IDM160)









- Version: Long Range

Sub product family	Field of application	Items supplied		Model name	Part no.
IDM160 Standard	Industrial	Kit	Kit contains hand-held scanner, interface cable, CDF600 and power conversion cable	IDM160 CDF600 PROFIBUS Kit	1056248
			Kit contains hand-held scanner, interface cable, power supply and quick start guide	IDM160PDF RS-232 Power Supply Kit	1056246
			Kit contains hand-held scanner, interface cable and quick start guide	IDM160 RS-232 Power Supply Kit	1056245
		Single scanner	Hand-held scanner, quick start guide	IDM160PDF USB Kit	6045059
		Single scanner	Hand-held scanner, quick start guide	IDM160-PDF01E	6045081
		Kit	Kit contains hand-held scanner, interface cable and quick start guide	IDM160PDF PS/2 Kit	6045079
		Single scanner	Hand-held scanner, quick start guide	IDM160-01E	6045078
		Kit	Kit contains hand-held scanner, interface cable and quick start guide	IDM160 PS/2 Kit	6045076
IDM160 Bluetooth	Cordless, industrial	Kit	Kit contains cordless scanner, battery, base station, interface cable, power supply and quick start guide	IDM160 USB Kit	6045058
				IDM160BT PS/2 Kit	6045082
				IDM160BT RS-232 Kit	6045083
				IDM160BT USB Kit	6045060
				IDM160PDF BT PS/2 Kit	6045086
				IDM160PDF BT RS-232 Kit	6045087
IDM160PDF BT USB Kit	6045061				



Sub product family	Field of application	Items supplied		Model name	Part no.
IDM160 Bluetooth	Cordless, industrial	Single scanner	Cordless scanner and battery is included in delivery	IDM160-BT11E	6045085
				IDM160-PDFBT11E	6045088
IDM160 WLAN	Cordless, industrial	Kit	Kit contains cordless scanner, battery, end cap, charging station, power supply, USB cable and quick start guide	IDM160 WLAN Kit	6045062
				IDM160PDF WLAN Kit	6045063

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Other mounting accessories	Desk holder	Table mount	6045192
		Countertop	Tripod mount	6045193
	Plug connectors and cables	Straightened PS/2 cable, 2 m	Connection cable (plug-plug)	6045194
		Straightened USB cable, 1.8 m	Connection cable (plug-plug)	6045195
		Straightened RS-232 TTL cable, 1.8 m, additional power supply needed	Connection cable (plug-socket)	6045196
	Power supply units/ power cord connectors	Power supply, input AC 100 ... 240 V, output DC 5 V/2 A (necessary when using RS-232 TTL cable, does not fulfill medical standard EN 60601/ IEC 60601))	Power supply unit	6036722
	Rechargeable batteries and battery chargers	Charging station without Bluetooth functionality; operating voltage 5 V DC, operating power max. 650 mA	Charging station	6045198
		Lithium-ion replacement battery for radio scanners	Replacement battery	6041193

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## At a glance

- 13.56 MHz RFID interrogator for ranges up to 240 mm
- Transponder communication according to ISO/IEC 15693 standard
- Compact, industrial design with integrated antenna
- Embedded protocols allow interfacing with standard industrial fieldbus technologies
- Powerful micro-processor executes internally configurable logic
- Flexible trigger control
- Supports parameter cloning via micro SD flash card
- Built-in diagnostics

## Your benefits

- Reliable identification ensures maximum throughput
- Adapts to changing needs, ensures investment over the long term
- Simple integration saves installation time
- A wide range of functionality ensures flexible solutions
- Maintenance-free
- Uses same connectivity and configuration software as SICK's bar code scanners and image-based code readers – compatible through standardized IDpro platform

→ [www.mysick.com/en/RFH6xx](http://www.mysick.com/en/RFH6xx)

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




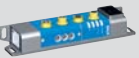



## Ordering information

Other models available at [www.mysick.com/en/RFH6xx](http://www.mysick.com/en/RFH6xx)

- **Frequency band:** HF (13.56 MHz)
- **Radio equipment type approval:** Europe, North America

Version	Connection type	Model name	Part no.
RFH620 Short Range	Standard	RFH620-1000001	1044838
	Ethernet	RFH620-1001201	1044839
RFH630 Mid Range	Standard	RFH630-1000001	1054747
	Ethernet	RFH630-1102101	1054746

## Accessories

	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Modules	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256
		Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface 2 x M12, plug/socket, 5-pin)	CDF600-2100	1058965
		Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface 1 x D-Sub, socket, 9-pin)	CDF600-2103	1058966
	Plug connectors and cables	Cable, M12, 12-pin, to connection module CDx 15-pin D-sub, 2 m (socket/plug)	Connecting cable (plug-socket)	2041834
		Cable, M12, 17-pin, to connection module CDx 15-pin D-sub, 2 m (socket/plug)	Connection cable (plug-socket)	2055419



### At a glance

- UHF RFID read/write unit for industrial applications
- Compact device with integrated antenna (additional external antennas can be connected)
- Standard-compliant transponder interface (ISO/IEC 18000-6C/EPC G2C1)
- Supports common industrial data interfaces and fieldbuses
- MicroSD memory card for device parameter cloning
- Several diagnostic and service options available

### Your benefits

- Intelligent technology allows stand-alone usage
- Highest reading/writing performance
- Flexible integration in common industrial fieldbuses via IDpro compatibility
- Less maintenance time due to an integrated cloning back-up system using microSD memory card
- Easily adapts to application requirements via SOPAS parameter setting tool
- Free usable feedback LED quickly provides read results and diagnostic information directly to the user

→ [www.mysick.com/en/RFU63x](http://www.mysick.com/en/RFU63x)

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



### Ordering information







Other models available at [www.mysick.com/en/RFU63x](http://www.mysick.com/en/RFU63x)

- **Frequency band:** UHF (860 ... 960 MHz)
- **Version:** Long Range

Radio equipment type approval	Model name	Part no.
Europe	RFU630-13100	1054396
North America	RFU630-13101	1054397
China	RFU630-13105	1057943



## Accessories

	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Modules	Small connection module for one sensor, 4 cable glands, base for CMC600, 1.2 A fuse	CDB620-001S02	1056432
	Mounting brackets/plates	Mounting bracket for wall mounting, incl. assembly material	Mounting bracket	2060912
	Plug connectors and cables	Cable, M12, 17-pin, to connection module CDx 15-pin D-sub, 0.9 m (socket/plug)	Connection cable (plug-socket)	2049764
		Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 2 m	SSL-2J04-G02ME	6034414
		USB cable, 2 m	USB cable	6036106
	Power supply units/ power cord connectors	Power supply unit with pre-assembled M12 socket, 17-pin	Power supply	2062249
	RFID transponder	UHF Transponder on metal, ETSI, 52 mm x 64 mm x 10 mm	RFT661-4654	6034437
		UHF Transponder 223 mm x 23 mm x 8 mm	RFT661-5653	6034277

E



## Compact, reliable detection and distance measurement at all times

F



### Detection and ranging solutions






Laser measurement technology devices can be used for a wide range of applications. These devices detect both 2D and multi-dimensional contour data and can process information either externally or in the sensor itself. They are ideal for in-

door and outdoor applications, including anti-collision in harbors, classification in traffic, detection in building automation, or position evaluation in navigation.



F

**Detection and ranging solutions**

	<b>Selection guide detection and ranging solutions . . . . .</b>	<b>206</b>
	<b>TiM3xx . . . . .</b> Perfect in detail, brilliant overall	<b>208</b>
	<b>LMS1xx . . . . .</b> Works in all weather conditions – compact and economical	<b>209</b>
	<b>LMS4xx . . . . .</b> Fast and exact level and shape measurement	<b>211</b>
	<b>LMS5xx . . . . .</b> More than meets the eye. Powerful unit for big solutions.	<b>212</b>
	<b>LMC1xx . . . . .</b> Laser Measurement Certified (LMC) - intelligent and flexible security	<b>214</b>

Selection guide detection and ranging

Product family	Working ranges (with 10% reflectivity)																
	0.05	0.1	0.5	1	2	3	4	5	10	20	30	40	50	60	70	80	
TIM3xx	0.05 m - 4 m (2 m)																
LMS1xx				0.5 m - 50 m (18 m)													
LMS4xx				0.7 m - 3 m (3 m)													
LMS5xx	0 m - 80 m (26 m/40 m)																
LMC1xx				0.5 m - 20 m (18 m)													

F



	Principle of operation			Applications										Page
	Detection	Measurement	Multi-echo technology	Level measurement	Checking height	Area monitoring	Checking presence	Collision prevention	Position detection	Electronic routing	Range finding	Shape recognition	Classification	
	■				■	■	■	■						208
	■	■	■	■	■	■	■	■	■	■	■	■	■	209
	■	■		■	■		■					■		211
	■	■	■	■	■	■		■	■	■	■	■	■	212
	■		■			■								214

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### At a glance

- Configure without a PC using “touch and teach”
- Small, lightweight and economical measurement sensor
- Field evaluation using intelligent algorithms
- Set parameter interface is accessible while device is mounted
- One of the smallest laser scanners on the market
- Proven industrial design
- Low power consumption (typ. 3 W)

### Your benefits

- Low cost of ownership
- Easily hidden from view due to small dimensions
- Low installation costs and exchange time due to D-Sub connector
- Long operation for battery-driven vehicles
- Intuitive and preconfigured fields ensure short installation time
- Reduced hardware costs since one sensor can be used for large anti-collision fields
- No wiring necessary between sender and receiver

→ [www.mysick.com/en/TiM3xx](http://www.mysick.com/en/TiM3xx)

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






### Ordering information

Other models available at [www.mysick.com/en/TiM3xx](http://www.mysick.com/en/TiM3xx)

Sub product family	Version	Field of application	Electrical connection	Switching outputs	Object remission	Housing color	Model name	Part no.
TiM31x	Short Range	Indoor	1 15-pin D-sub HD plug (0.9 m)	3 (plus 1 x “device ready”)	4 % ... > 1,000 %, reflectors	Light blue (RAL 5012)	TiM310-1030000	1052627

### Accessories

	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Modules	Small connection module for one sensor, 4 cable glands (only for TiM310-1030000)	CDB730-001	1055981
	Plug connectors and cables	Extension cable, 2 m, 15-wired, shielded, with 15-pin D-sub HD (socket/open end) AWG26	Extension cable 2 m (socket-open end)	2043413
		USB cable, 2 m	USB cable	6036106



### At a glance

- Economical measurement sensor
- Real-time output of measurement data via Ethernet interface
- Field evaluation using intelligent algorithms and programmable applications
- Number of switching outputs can be expanded via external CAN modules
- Parameter setting interface is accessible from the front while the device is mounted
- Rugged housing

### Your benefits

- Lightweight housing makes it easy to mount
- No wiring between sender and receiver
- Advanced filtering technology rigorously reduces false trips caused by outdoor environmental factors like fog, rain and snow
- Optional external CAN I/O module increases number of switching outputs for greater application flexibility
- Fast, easy commissioning due to SOPAS software



→ [www.mysick.com/en/LMS1xx](http://www.mysick.com/en/LMS1xx)

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













### Ordering information

Other models available at [www.mysick.com/en/LMS1xx](http://www.mysick.com/en/LMS1xx)

- **Version:** Short Range
- **Object remission:** 2 % ... > 1,000 %, reflectors

Sub product family	Field of application	Heating	Electrical connection	Switching outputs	Housing color	Model name	Part no.
LMS100	Indoor	-	1 system plug with screw terminal block	3	Light blue (RAL 5012)	LMS100-10000	1041113
LMS111	Outdoor	Yes	M12 circular plug-in connector	3	Gray (RAL 7032)	LMS111-10100	1041114
LMS12x	Security, Indoor	-	1 system plug with screw terminal block	3 (2 relay, 1 digital)	Gray (RAL 7032)	LMS121-10000 Security	1051384
					Black (RAL 9005)	LMS122-10000 Security	1044322
					Signal white (RAL 9003)	LMS123-10000 Security	1044321
LMS13x	Security, Semi-Out-door	Yes	1 M12 circular plug-in connector	3 (2 relay, 1 digital)	Gray (RAL 7032)	LMS131-10100 Security	1051379
					Black (RAL 9005)	LMS132-10100 Security	1051402
					Signal white (RAL 9003)	LMS133-10100 Security	1051403
LMS151	Outdoor	Yes	M12 circular plug-in connector	3	Gray (RAL 7032)	LMS151-10100	1047607

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Device protection (mechanical)	Weather hood, 190°	Weather hood	2046459
	Modules	External CAN extension module for up to 8 additional outputs	Fieldbus module	6038825
	Mounting brackets/plates	Standard mounting set for 190°/270° weather hood	Mounting bracket	2046025
		Mounting bracket for rear mounting on wall or machine	Mounting kit 1a	2034324
		Mounting bracket for rear mounting on wall or machine with protection of optics hood	Mounting kit 1b	2034325
	Plug connectors and cables	I/O connection cable, 8-pole, shielded, M12 plug, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (plug-open)	6036155
		Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 5 m	Connecting cable (plug-plug)	6034415
		Data (RS-232/422) and synchronization input cable, 8-pole, shielded, M12 socket, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036153
		Power supply cable, 4 x 0,50 mm <sup>2</sup> , shielded, M12 socket, 5-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036159
	Terminal and alignment brackets	Quick-action lock system for weather hood 190°/270°	Quick clamp	2046989

F



### At a glance

- The Level Control feature, which is integrated into the sensor, features a gap-free scanning surface that can detect objects in containers, without any impairment from a shadow. Smaller objects, regardless of color, are detected at any place in the container.
- Large dynamic measurement range of 0.7 m to 3 m
- High ambient light immunity
- Rugged design
- High angular resolution
- Ideal for vision applications on pallets

### Your benefits

- The integrated Level Control feature replaces a number of sensors and drastically reduces the effort required for wiring and programming
- Reliable detection at high conveyor speeds
- Neither shading nor artificial lighting is necessary
- Simple, flexible installation at positions beyond the robot collision area
- High accuracy detection and positioning measurements in real-time provide rapid data capture

→ [www.mysick.com/en/LMS4xx](http://www.mysick.com/en/LMS4xx)

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





### Ordering information

Other models available at [www.mysick.com/en/LMS4xx](http://www.mysick.com/en/LMS4xx)

- **Sub product family:** LMS400
- **Version:** Short Range
- **Field of application:** Indoor
- **Reading field:** front
- **Switching outputs:** 5 (4 x PNP / analog 1 x 4 mA ... 20 mA)
- **Housing color:** light blue (RAL 5012)

Object remission	Model name	Part no.
4.5 % ... 100 %	LMS400-2000	1041725
6.5 % ... 200 %	LMS400-1000	1027897

### Accessories

Accessory category	Brief description	Model name	Part no.
 Modules	Modular connection module for one sensor	CDM490-0001	1025363
	Connection cable (3 m), Ø 8 mm, shielded, with 15-pin D-sub HD receptacle and 15-pin D-sub HD plug	Connecting cable for CLV/X490 to CDM 490	2020302
	Communication cable for connection to the terminal interface of the connector hood set 2031364, 3 m	Connection cable (plug-plug)	2031372
	Ethernet-cable, for plug hood, Crossover, RJ45/RJ45, 10 m	Connection cable (plug-plug)	2032821
	Connection hood, with connection cable 15-pin D-sub, 3 m	Connection hood	2030535



### At a glance

- Powerful and efficient laser measurement sensor for ranges of up to 80 m
- Outstanding performance in adverse environmental conditions due to multi-echo technology
- IP 67 enclosure rating, built-in heater, highly compact design
- Low power consumption
- Fast signal processing
- Multiple I/Os
- Synchronization of multiple sensors possible

### Your benefits

- Superior performance in a vast range of applications
- Smallest sensor with highest accuracy in its class
- Comprehensive range of lines and models to suit all performance and price requirements
- Fast, reliable object detection in nearly any weather conditions
- Low power consumption reduces total cost of ownership
- Best price/performance ratio in this sensor class on the market
- Fast, easy commissioning due to SOPAS software
- Self-monitoring functions increase system availability

→ [www.mysick.com/en/LMS5xx](http://www.mysick.com/en/LMS5xx)

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





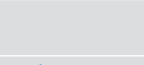

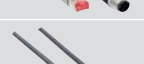


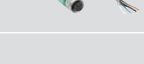
### Ordering information

Other models available at [www.mysick.com/en/LMS5xx](http://www.mysick.com/en/LMS5xx)

- **Version:** Mid Range
- **Object remission:** 2 % ... > 1,000 %, reflectors

Sub product family	Field of application	Variant	Resolution power	Model name	Part no.
LMS500	Indoor	Lite	High Resolution	LMS500-21000 Lite	1054153
		PRO	High Resolution	LMS500-20000 PRO	1047468
LMS511	Outdoor	Lite	Standard Resolution	LMS511-11100 Lite	1054155
			High Resolution	LMS511-21100 Lite	1054154
		PRO	Standard Resolution	LMS511-10100 PRO	1046135
			High Resolution	LMS511-20100 PRO	1047782
LMS531	Outdoor, Security	Lite	Standard Resolution	LMS531-11100	1055376

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Device protection (mechanical)	Protection hood	Protective hood	2056850
	Mounting brackets/plates	Mounting bracket for direct mounting, from the rear, on wall or machine, not adjustable	Mounting kit 1	2015623
	Plug connectors and cables	I/O connection cable, 8-pole, shielded, M12 plug, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (plug-open)	6036155
		I/O connection cable, 12-pole, shielded, M12 plug, 12-pin (A-type encoded) / open end, 5 m	Connecting cable (plug-open)	6042732
		Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 5 m	Connecting cable (plug-plug)	6034415
		Data (RS-232/422) and synchronization input cable, 8-pole, shielded, M12 socket, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036153
		Power supply cable, 4 x 0,50 mm <sup>2</sup> , shielded, M12 socket, 5-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036159
		Power supply cable, 4 x 0,75 mm <sup>2</sup> , shielded, M12 socket, 5-pin (A-type encoded) / open end, 10 m	Connecting cable (socket-open)	6042565
		Data (RS-232/-422) and I/O connection cable, 12-pole, shielded, M12 socket, 12-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6042735

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### At a glance

- The only VdS-certified laser scanner on the market (German certificate standard)
- Highest class “C” with environmental class II or IVa
- Flexible connection to DC 9 V to 30 V
- Two isolated relays (alarms) and one obstruction output
- Long detection range of 20 m, horizontal and vertical
- Up to 10 freely definable monitoring fields with intelligent evaluation algorithms
- Certified QuickStart menu
- 200 RAL colors available

### Your benefits

- VdS certification for proven and reliable system acceptance by insurance companies (German certificate standard)
- High angular resolution provides a secure solution that improves reliability
- Secure, reliable detection with few false alarms due to precise field configuration of the detection area
- Small size provides unobtrusive solution
- Intelligent evaluation provides maximum application flexibility
- Easy integration into existing alarm management systems
- Low maintenance due to high immunity against environmental influences
- Cost-effective retrofitting due to low installation and wiring costs

→ [www.mysick.com/en/LMC1xx](http://www.mysick.com/en/LMC1xx)

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



### Ordering information

Other models available at [www.mysick.com/en/LMC1xx](http://www.mysick.com/en/LMC1xx)





- **Version:** Short Range
- **Switching outputs:** 3 (2 relay, 1 digital)
- **Angular resolution:** 0.25°, 0.5°
- **Object remission:** 2 % ... > 1,000 %, reflectors

Sub product family	Field of application	Heating	Housing color	Items supplied	Model name	Part no.
LMC12x	Security, Indoor	-	Signal white (RAL 9003)	LMS12x VdS (Indoor), Mounting protection bracket VdS 1 (long)	LMC123-11000 VdS	1051301
				LMS12x VdS (Indoor), Mounting protection bracket VdS 2 (short)	LMC123-11001 VdS	1051316
			Black (RAL 9005)	LMS12x VdS (Indoor), Mounting protection bracket VdS 1 (long, uncoated aluminium)	LMC124-11000 VdS	1051303
				Gray (RAL 7032)	LMS12x VdS (Indoor), Mounting protection bracket VdS 2 (short)	LMC121-11001 VdS
LMC13x	Security, Semi-Outdoor	Yes	Gray (RAL 7032)	LMS13x VdS (Outdoor), Mounting protection bracket VdS 2 (short)	LMC131-11101 VdS	1051487



Sub product family	Field of application	Heating	Housing color	Items supplied	Model name	Part no.
LMC12x	Security, Indoor	-	Gray (RAL 7032)	LMS12x VdS (Indoor), Mounting protection bracket VdS 1 (long)	LMC121-11000 VdS	1051287
			Black (RAL 9005)		LMC122-11000 VdS	1051300
			Black (RAL 9005)	LMS12x VdS (Indoor), Mounting protection bracket VdS 2 (short)	LMC122-11001 VdS	1051315
			Signal white (RAL 9003)		LMC122-11001 VdS	1051315
LMC13x	Security, Semi-Outdoor	Yes	Black (RAL 9005)	LMS13x VdS (Outdoor), Mounting protection bracket VdS 2 (short)	LMC132-11101 VdS	1051488
			Signal white (RAL 9003)		LMC133-11101 VdS	1051489

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Plug connectors and cables	I/O connection cable, 8-pole, shielded, M12 plug, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (plug-open)	6036155
		Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 5 m	Connecting cable (plug-plug)	6034415
		Data (RS-232/422) and synchronization input cable, 8-pole, shielded, M12 socket, 8-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036153
		Power supply cable, 4 x 0,50 mm <sup>2</sup> , shielded, M12 socket, 5-pin (A-type encoded) / open end, 5 m	Connecting cable (socket-open)	6036159

F

## Efficient instrumentation solutions for factory automation



G



### Fluid sensors









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 overflow and dry run. SICK devices

are rugged and easy to use. Innovative sensor technology enables accurate, universal measurement independent of material type.



**Fluid sensors**

	<b>LFP Inox . . . . .</b> <b>218</b> The clean solution
	<b>LFP Cubic . . . . .</b> <b>220</b> Flexible up to the probe tip
	<b>LFBV200 . . . . .</b> <b>222</b> The Point Level Sensor for all kinds of liquids
	<b>LFBV300 . . . . .</b> <b>225</b> Tuning forks – tough and flexible in bulk solids
	<b>UP56. . . . .</b> <b>227</b> Ultrasonic level sensor: tough, non-contact, pressure-resistant
	<b>MHF15. . . . .</b> <b>229</b> Simple, compact and robust
	<b>PBS . . . . .</b> <b>230</b> Universal pressure switch
	<b>PBT. . . . .</b> <b>232</b> All-around pressure transmitter

	<b>PFT. . . . .</b> <b>234</b> The flexible solution
	<b>PHT. . . . .</b> <b>236</b> A clean solution
	<b>LFH. . . . .</b> <b>238</b> At a high level
	<b>FFU. . . . .</b> <b>240</b> Non-contact flow measurement
	<b>TBT. . . . .</b> <b>241</b> Well-proven temperature measurement
	<b>TBS. . . . .</b> <b>243</b> Temperature monitoring made easy
	<b>THTS . . . . .</b> <b>345</b> Simple hygienic temperature measurement



## At a glance

- Level monitoring in hygienic applications
- Manually cuttable monoprobe made from stainless steel 1.4404 up to 2,000 mm long with  $R_a \leq 0.8 \mu\text{m}$
- 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



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










### Process connection G 3/4 A

- **Output signal:** 1x PNP + 1x PNP/NPN + 4 ... 20 mA / 0 ... 10 V
- **Process temperature:** -20 °C ... +150 °C
- **Process pressure:** -1 bar ... 16 bar
- **Housing material:** 303
- **Electrical connection:** M12x1, 5-pin
- **Enclosure rating:** IP 67: EN 60529, IP 69K: EN 40050

Probe length	Housing design	Model name	Part no.
300 mm	Cover with PMMA window	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

Probe length	Housing design	Model name	Part no.
1,600 mm	Cover with PMMA window	LFP1600-G1NMB	1052081
1,700 mm		LFP1700-G1NMB	1052082
1,800 mm		LFP1800-G1NMB	1052083
1,900 mm		LFP1900-G1NMB	1052084
2,000 mm		LFP2000-G1NMB	1052085
300 mm	Cover closed	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

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Flanges	Hygienic process connection adapter for LFP, coupling (DIN 11864-1) DN 25 form A with union nut, stainless steel 316L (Ra<=0,8 µm)	BEF-HA-641D25-LFP1	2058795
		Hygienic process connection adapter for LFP, coupling (DIN 11864-2) DN 25 form A, stainless steel 316L (Ra<=0,8 µm)	BEF-HA-642D25-LFP1	2058823
		Hygienic process connection adapter for LFP, clamp (DIN 11864-3) BKS DN 25 form A, stainless steel 316L (Ra<=0,8 µm)	BEF-HA-643D25-LFP1	2058821
		Hygienic process connection adapter for LFP, conical coupling (DIN 11851) DN 25 with union nut, stainless steel 316L (Ra<=0,8 µm)	BEF-HA-851D25-LFP1	2058138
		Hygienic process connection adapter for LFP, conical coupling (DIN 11851) DN 40 with union nut, stainless steel 316L (Ra<=0,8 µm)	BEF-HA-851D40-LFP1	2058139
		Hygienic process connection adapter for LFP, conical coupling (DIN 11851) DN 50 with union nut, stainless steel 316L (Ra<=0,8 µm)	BEF-HA-851D50-LFP1	2058141
		Hygienic process connection adapter for LFP, conical coupling (DIN 11851) DN 50 with union nut, stainless steel 316L (Ra<=0,8 µm)	BEF-HA-851D65-LFP1	2063328
		Hygienic process connection adapter for LFP, Tri-Clamp 1" - 1 1/2", stainless steel 316L (Ra<=0,8 µm)	BEF-HA-TCLI10-LFP1	2058808
		Hygienic process connection adapter for LFP, Tri-Clamp 2", stainless steel 316L (Ra<=0,8 µm)	BEF-HA-TCLI20-LFP1	2058824
		Hygienic process connection adapter for LFP, conical coupling (DIN 11851) DN 50 with union nut, stainless steel 316L (Ra<=0,8 µm)	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 available at [www.mysick.com/en/LFP\\_Cubic](http://www.mysick.com/en/LFP_Cubic)

### Process connection G 3/4 A

- **Output signal:** 1x PNP + 1x PNP/NPN + 4 ... 20 mA / 0 ... 10 V
- **Process temperature:** -20 °C ... +100 °C
- **Process pressure:** -1 bar ... 10 bar
- **Housing material:** Plastic PBT
- **Electrical connection:** M12x1, 5-pin
- **Enclosure rating:** IP 67: EN 60529

Probe length	Model name	Part no.
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




Probe length	Model name	Part no.
1,600 mm	LFP1600-A4NMB	1057087
1,700 mm	LFP1700-A4NMB	1057088
1,800 mm	LFP1800-A4NMB	1057089
1,900 mm	LFP1900-A4NMB	1057090
2,000 mm	LFP2000-A4NMB	1057091

### Process connection 3/4" NPT

- **Output signal:** 1x PNP + 1x PNP/NPN + 4 ... 20 mA / 0 ... 10 V
- **Process temperature:** -20 °C ... +100 °C
- **Process pressure:** -1 bar ... 10 bar
- **Housing material:** Plastic PBT
- **Electrical connection:** M12x1, 5-pin
- **Enclosure rating:** IP 67: EN 60529

Probe length	Model name	Part no.
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

### Accessories

	Accessory category	Brief description	Model name	Part no.
	IO-Link field module	IO-Link module for Profibus with four ports	IOLSHPB-P3104R01	6039728
	Nuts and screws	Counter nut, G 3/4 A process connection	BEF-MU-OPAG34-LFT1	5321681
		Counter nut, process connection 3/4" NPT	BEF-MU-OPAN34-LFT1	5321680
	Other mounting accessories	Spare coax probe for LFP Cubic, probe length 1,000 mm, material 1.4404/316L, diameter 7 mm, process connection G 3/4	BEF-ER-KR1000-LFPC	2065702
		Spare coax probe for LFP Cubic, probe length 2,000 mm, material 1.4404/316L, diameter 7 mm, process connection G 3/4	BEF-ER-KR2000-LFPC	2065703
		Spare probe for LFP Cubic, probe length 1,000 mm, material 1.4404/316L, diameter 7 mm	BEF-ER-SN1000-LFPC	2065700
		Spare probe for LFP Cubic, probe length 2,000 mm, material 1.4404/316L, diameter 7 mm	BEF-ER-SN2000-LFPC	2065701
	Terminal and alignment brackets	Centering for bypass- and immersion tube installation with diameter 40 mm ... 100 mm	BEF-FL-BYRD40-LFP1	2059612



### 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 available at [www.mysick.com/en/LFV200](http://www.mysick.com/en/LFV200)

#### LFV200

- **Process connection:** G 1/2 A PN 64
- **Process temperature:** -40 °C ... +100 °C
- **Process pressure:** -1 bar ... 64 bar
- **Wetted parts:** 316L (optional Ra < 0.8 µm)
- **Housing material:** Stainless steel 1.4404, PEI
- **Probe length:** 40 mm

Output signal	Electrical connection	Enclosure rating	Model name	Part no.
1x PNP	M12x1 plug connector, 4-pin	IP 67	LFV200-XXSGHTPM	6048704
	Valve plug DIN 43650	IP 65	LFV200-XXSGHTPV	6049356
Contactless electronic switch	Valve plug DIN 43650	IP 65	LFV200-XXSGHCPV	6048866

#### LFV200

Process connection	Output signal	Process temperature	Process pressure	Wetted parts	Housing material	Electrical connection	Enclosure rating	Probe length	Model name	Part no.
1/2" NPT PN 64	1x PNP	-40 °C ... +100 °C	-1 bar ... 64 bar	316L (optional Ra < 0.8 µm)	Stainless steel 1.4404, PEI	M12x1 plug connector, 4-pin	IP 67	40 mm	LFV200-XXSNHTPM	6048864



## LFV200

- **Process connection:** G 3/4 A PN 64
- **Wetted parts:** 316L (optional Ra < 0.8 µm)
- **Housing material:** Stainless steel 1.4404, PEI
- **Probe length:** 40 mm
- **Process pressure:** -1 bar ... 64 bar

Output signal	Process temperature	Electrical connection	Enclosure rating	Model name	Part no.
1x PNP	-40 °C ... +150 °C	M12x1 plug connector, 4-pin	IP 67	LFV200-XXTGBTPM	6036355
	-40 °C ... +100 °C	M12x1 plug connector, 4-pin	IP 67	LFV200-XXSGBTPM	6036351
		M12x1 plug connector, 4-pin	IP 67	LFV200-XASGBTPM	6036359
	-40 °C ... +150 °C	M12x1 plug connector, 4-pin	IP 67	LFV200-XATGBTPM	6036363
		Valve plug DIN 43650	IP 65	LFV200-XATGBTPV	6041094
Contactless electronic switch	-40 °C ... +100 °C	Valve plug DIN 43650	IP 65	LFV200-XXSGBCPV	6036367
	-40 °C ... +150 °C	Valve plug DIN 43650	IP 65	LFV200-XXTGBCPV	6036371

## LFV200

Process connection	Output signal	Process temperature	Process pressure	Wetted parts	Housing material	Electrical connection	Enclosure rating	Probe length	Model name	Part no.
3/4" NPT PN 64	1x PNP	-40 °C ... +100 °C	-1 bar ... 64 bar	316L (optional Ra < 0.8 µm)	Stainless steel 1.4404, PEI	M12x1 plug connector, 4-pin	IP 67	40 mm	LFV200-XXSNBTPM	6036352

## LFV200

- **Process connection:** G 1 A PN 64
- **Wetted parts:** 316L (optional Ra < 0.8 µm)
- **Housing material:** Stainless steel 1.4404, PEI
- **Probe length:** 40 mm
- **Process pressure:** -1 bar ... 64 bar

Output signal	Process temperature	Electrical connection	Enclosure rating	Model name	Part no.
1x PNP	-40 °C ... +100 °C	M12x1 plug connector, 4-pin	IP 67	LFV200-XXSGATPM	6036353
	-40 °C ... +150 °C	M12x1 plug connector, 4-pin	IP 67	LFV200-XXTGATPM	6036357
Contactless electronic switch	-40 °C ... +100 °C	Valve plug DIN 43650	IP 65	LFV200-XXSGACPV	6036369

## LFV200

Process connection	Output signal	Process temperature	Process pressure	Wetted parts	Housing material	Electrical connection	Enclosure rating	Probe length	Model name	Part no.
Triclamp 1" (PN 16, 316L, Ra<0.8µm)	1x PNP	-40 °C ... +150 °C	-1 bar ... 64 bar	316L (optional Ra < 0.8 µm)	Stainless steel 1.4404, PEI	M12x1 plug connector, 4-pin	IP 67	40 mm	LFV200-XXHCLTPM	6036533

LFV230

- **Process connection:** G 3/4 A PN 64
- **Process pressure:** -1 bar ... 64 bar
- **Wetted parts:** 316L (optional Ra < 0.8 µm)
- **Housing material:** Stainless steel 1.4404, PEI

Output signal	Process temperature	Electrical connection	Enclosure rating	Probe length	Model name	Part no.
1x PNP	-40 °C ... +100 °C	M12x1 plug connector, 4-pin	IP 67	200 mm	LFV230-XXSGBTPM0200	6041848
				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
	-40 °C ... +150 °C	M12x1 plug connector, 4-pin	IP 67	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
Contactless electronic switch	-40 °C ... +100 °C	Valve plug DIN 43650	IP 65	300 mm	LFV230-XXSGBCPV0300	6044007



Accessories

	Accessory category	Model name	Part no.
	Flanges	BEF-FL-851D25-LFV2	5321527
		BEF-FL-851D40-LFV2	5321459
		BEF-FL-851D50-LFV2	5321528
		BEF-FL-GEWG10-LFV2	4054605
		BEF-FL-GEWG34-LFV2	4054604
		BEF-FL-TCLI10-LFV2	5321678
		BEF-FL-TCLI20-LFV2	5321679



### At a glance

- Tough device design
- Several housing materials and electrical outputs available
- Immune to deposit formation
- Commissioning without filling
- Process temperature up to 250 °C
- Very high repeatability
- ATEX versions (1D/2D/1G/2G) available
- Tube-extended version (LBV330) up to 6 m and rope extensions version (LBV320) up to 80 m available for vertical mounting

### Your benefits

- Easy installation and commissioning, no calibration necessary
- Easy operation and integration, saves time
- Maintenance-free sensor, reduces downtime
- Testing in place possible – no mounting required, which reduces installation time
- Flexible and tough system for a multitude of applications
- Solutions for vertically mounted switches in difficult installation conditions and surroundings

→ [www.mysick.com/en/LBV300](http://www.mysick.com/en/LBV300)

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



### Ordering information

Other models available at [www.mysick.com/en/LBV300](http://www.mysick.com/en/LBV300)

#### LBV310

- **Process connection:** G 1½ A PN 25
- **Process pressure:** -1 bar ... 25 bar
- **Enclosure rating:** IP 66
- **Probe length:** 220 mm

Output signal	Process temperature	Housing material	Electrical connection	Model name	Part no.	
1 x PNP/ NPN	-50 °C ... +150 °C	Plastic	M20 x 1.5	LBV310-XXAGDTKCX	6039060	
				LBV310-XXAGDTKMX	6038016	
		Aluminum	M20 x 1.5	LBV310-XXAGDTAMX	6038017	
	-50 °C ... +250 °C	Plastic	½" NPT	LBV310-XXAGDTKNX	6038019	
				M20 x 1.5	LBV310-XXBGDTKMX	6038064
		½" NPT	LBV310-XXBGDTKNX	6038067		
Contactless electronic switch	-50 °C ... +150 °C	Plastic	M20 x 1.5	LBV310-XXAGDCKMX	6038006	
				½" NPT	LBV310-XXAGDCKNX	6038008
				M20 x 1.5	LBV310-XXBGDCKMX	6038052
	-50 °C ... +250 °C		½" NPT	LBV310-XXBGDCKNX	6038055	
				M20 x 1.5	LBV310-XXAGDRKMX	6038011
				½" NPT	LBV310-XXAGDRKNX	6038013
-50 °C ... +250 °C	Plastic	M20 x 1.5	LBV310-XXBGDRKMX	6038058		
			½" NPT	LBV310-XXBGDRKNX	6038061	

## LBV320

- **Process connection:** G 1½ A PN 25
- **Output signal:** Double relay (DPDT)
- **Process temperature:** -20 °C ... +80 °C
- **Process pressure:** -1 bar ... 6 bar
- **Housing material:** Aluminum
- **Electrical connection:** M20 x 1.5
- **Enclosure rating:** IP 66

Probe length	Model name	Part no.
2,000 mm	LBV320-XXTGDRAMX02000	6038410
2,500 mm	LBV320-XXTGDRAMX02500	6038415
3,000 mm	LBV320-XXTGDRAMX03000	6038420

## LBV330

- **Process connection:** G 1½ A PN 25
- **Output signal:** Double relay (DPDT)
- **Process temperature:** -50 °C ... +150 °C
- **Process pressure:** -1 ... 25 bar
- **Housing material:** Aluminum
- **Electrical connection:** ½" NPT
- **Enclosure rating:** IP 66

Probe length	Model name	Part no.
300 mm	LBV330-XXAGDRANX0300	6038149
400 mm	LBV330-XXAGDRANX0400	6038150
500 mm	LBV330-XXAGDRANX0500	6038151
600 mm	LBV330-XXAGDRANX0600	6038152
700 mm	LBV330-XXAGDRANX0700	6038153
800 mm	LBV330-XXAGDRANX0800	6038154
900 mm	LBV330-XXAGDRANX0900	6038155
1,000 mm	LBV330-XXAGDRANX1000	6038156
1,100 mm	LBV330-XXAGDRANX1100	6038157
1,200 mm	LBV330-XXAGDRANX1200	6038158
1,300 mm	LBV330-XXAGDRANX1300	6038159
1,500 mm	LBV330-XXAGDRANX1500	6038161
1,800 mm	LBV330-XXAGDRANX1800	6038164
2,000 mm	LBV330-XXAGDRANX2000	6038166
2,400 mm	LBV330-XXAGDRANX2400	6038170
2,500 mm	LBV330-XXAGDRANX2500	6038171

## Accessories

Accessory category	Brief description	Model name	Part no.
Mounting brackets/plates	Locking screw connection, process pressure -1 bar to 16 bar, process connection G 2 A, inner thread G 1 1/2 A	BEF-MU-316G20-ALBV	5322462



## 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 available at [www.mysick.com/en/UP56-2](http://www.mysick.com/en/UP56-2)

### UP56-211

- **Process connection:** G 1 A PN 6
- **Process temperature:** –25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar
- **Electrical connection:** M12x1, 5-pin
- **Operating distance:** 30 mm ... 250 mm
- **Limiting scanning distance:** 30 mm ... 990 mm (At 6 bar gauge.)

Output signal	Housing material	Enclosure rating	Model name	Part no.
1x PNP + 4 ... 20 mA / 0 ... 10 V	Stainless steel 1.4571, PBT, TPU	IP 67	UP56-211118	6041658
2x PNP			UP56-211112	6041661
2x NPN			UP56-211114	6041664

### UP56-212

- **Process connection:** G 1 A PN 6
- **Process temperature:** –25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar
- **Electrical connection:** M12x1, 5-pin
- **Operating distance:** 85 mm ... 350 mm
- **Limiting scanning distance:** 85 mm ... 1,500 mm (At 6 bar gauge.)

Output signal	Housing material	Enclosure rating	Model name	Part no.
1x PNP + 4 ... 20 mA / 0 ... 10 V	Stainless steel 1.4571, PBT, TPU	IP 67	UP56-212118	6041659
2x PNP			UP56-212112	6041662
2x NPN			UP56-212114	6041665

## UP56-213

- **Process connection:** G 1 A PN 6
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar
- **Electrical connection:** M12x1, 5-pin
- **Operating distance:** 200 mm ... 1,300 mm
- **Limiting scanning distance:** 200 mm ... 5,000 mm (At 6 bar gauge.)




Output signal	Housing material	Enclosure rating	Model name	Part no.
1x PNP + 4 ... 20 mA / 0 ... 10 V	Stainless steel 1.4571, PBT, TPU	IP 67	UP56-213118	6041660
2x PNP			UP56-213112	6041663
2x NPN			UP56-213114	6041666

## UP56-214

- **Process connection:** G 2 A PN 6
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar
- **Electrical connection:** M12x1, 5-pin
- **Operating distance:** 350 mm ... 3,400 mm
- **Limiting scanning distance:** 350 mm ... 8,000 mm (At 6 bar gauge.)

Output signal	Housing material	Enclosure rating	Model name	Part no.
1x PNP + 4 ... 20 mA / 0 ... 10 V	Stainless steel 1.4571, PBT, TPU	IP 67	UP56-214118	6041693
2x PNP			UP56-214112	6041695
2x NPN			UP56-214114	6041694
1x PNP + 4 ... 20 mA / 0 ... 10 V	PVDF, PBT, TPU		UP56-214178	6039866
2x PNP			UP56-214172	6039864
2x NPN			UP56-214174	6039865

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Configuration software	-	CPA connect Plus	6037782
	Flanges	Welded flange, process connection G 1	BEF-FL-316G10-UP56	4064295
		Welded flange/welded connector, process connection G 2	BEF-FL-316G20-UP56	4063263



### 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.



### Ordering information

Other models available at [www.mysick.com/en/MHF15](http://www.mysick.com/en/MHF15)

- **Process connection:** G 1/2
- **Process temperature:** -25 °C ... +55 °C
- **Process pressure:** -0.5 bar ... 16 bar
- **Housing material:** Stainless steel 1.4404
- **Electrical connection:** M12x1, 4-pin
- **Enclosure rating:** IP 67: EN 60529, IP 69K: EN 40050

Output signal	Model name	Part no.
1x PNP	MHF15-21NG1HSM	1052273
1x NPN	MHF15-21NG1NSM	1052272
1x PNP	MHF15-21NG1PSM	1052237
1x NPN	MHF15-21NG1TSM	1052274

### Accessories

Accessory category	Brief description	Model name	Part no.
Flanges	Weld-in flange G 1/2 in 316L for MHF15	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 available at [www.mysick.com/en/PBS](http://www.mysick.com/en/PBS)



- **Pressure type:** Gauge Pressure
- **Accuracy of sensor element:**  $\leq \pm 1\%$  of span Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement according to IEC 61298-2)
- **Process temperature:**  $-20\text{ °C} \dots +85\text{ °C}$
- **Pressure port:** Standard

Output signal	Electrical connection	Process connection	Seal	Measuring range	Model name	Part no.
2x PNP	Plug M12 x 1, 4-pin, IP 67	G 1/4 female	Without sealing	0 bar ... 1 bar	PBS-RB1X0SG2SS0AMA0Z	6041777
				0 bar ... 10 bar	PBS-RB010SG2SS0AMA0Z	6039110
				0 bar ... 100 bar	PBS-RB100SG2SS0AMA0Z	6039614
				0 bar ... 250 bar	PBS-RB250SG2SS0AMA0Z	6039615
				0 bar ... 400 bar	PBS-RB400SG2SS0AMA0Z	6039495
				0 bar ... 600 bar	PBS-RB600SG2SS0AMA0Z	6041551
1x PNP + 4 ... 20 mA	Plug M12 x 1, 4-pin, IP 67	G 1/4 female	Without sealing	0 bar ... 1 bar	PBS-RB1X0SG2SS0BMA0Z	6041279
				0 bar ... 10 bar	PBS-RB010SG2SS0BMA0Z	6039121
				0 bar ... 100 bar	PBS-RB100SG2SS0BMA0Z	6041615
				0 bar ... 250 bar	PBS-RB250SG2SS0BMA0Z	6041053
				0 bar ... 400 bar	PBS-RB400SG2SS0BMA0Z	6041019
				0 bar ... 600 bar	PBS-RB600SG2SS0BMA0Z	6044103



Output signal	Electrical connection	Process connection	Seal	Measuring range	Model name	Part no.
2x PNP	Plug M12 x 1, 4-pin, IP 67	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 1 bar	PBS-RB1X0SG1SSNAMA0Z	6038847
				0 bar ... 10 bar	PBS-RB010SG1SSNAMA0Z	6038862
				0 bar ... 100 bar	PBS-RB100SG1SSNAMA0Z	6038865
				0 bar ... 250 bar	PBS-RB250SG1SSNAMA0Z	6038866
				0 bar ... 400 bar	PBS-RB400SG1SSNAMA0Z	6041099
				0 bar ... 600 bar	PBS-RB600SG1SSNAMA0Z	6038867
1x PNP + 4 ... 20 mA	Plug M12 x 1, 4-pin, IP 67	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 1 bar	PBS-RB1X0SG1SSNBMA0Z	6038885
				0 bar ... 10 bar	PBS-RB010SG1SSNBMA0Z	6038888
				0 bar ... 100 bar	PBS-RB100SG1SSNBMA0Z	6038891
				0 bar ... 250 bar	PBS-RB250SG1SSNBMA0Z	6038892
				0 bar ... 400 bar	PBS-RB400SG1SSNBMA0Z	6041724
				0 bar ... 600 bar	PBS-RB600SG1SSNBMA0Z	6038893
2x PNP + 4 ... 20 mA	Plug M12 x 1, 5-pin, IP 67	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 1 bar	PBS-RB1X0SG1SSND5A0Z	6038912
				0 bar ... 10 bar	PBS-RB010SG1SSND5A0Z	6038678
				0 bar ... 100 bar	PBS-RB100SG1SSND5A0Z	6038917
				0 bar ... 250 bar	PBS-RB250SG1SSND5A0Z	6038918
				0 bar ... 400 bar	PBS-RB400SG1SSND5A0Z	6042402
				0 bar ... 600 bar	PBS-RB600SG1SSND5A0Z	6038920

## Accessories

	Accessory category	Brief description	Model name	Part no.
	IO-Link field module	IO-Link module for Profibus with four ports	IOLSHPB-P3104R01	6039728
	Mounting brackets/plates	Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon	BEF-FL-ALUPBS-HLDR	5322501



### At a glance

- Pressure measurement ranges from 0 bar ... 1 bar up to 0 bar ... 600 bar
- Gauge, absolute, and compound measurement ranges
- A large variety of available process connections
- No moving parts: No mechanical wear, fatigue-proof, maintenance-free
- Circularly welded, hermetically sealed stainless steel membrane
- Output signal 4 mA ... 20 mA, 0 V ... 5 V or 0 V ... 10 V
- Electrical connection M12 x 1, L-connector acc. to DIN 175301-803 A or flying leads

### Your benefits

- Compact size takes up less space
- Simple and cost-saving installation
- Available in a wide selection of configurations, enabling a perfect match to individual customer requirements
- Robust design enables higher reliability
- Excellent price/performance ratio

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

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### Ordering information

Other models available at [www.mysick.com/en/PBT](http://www.mysick.com/en/PBT)

- **Electrical connection:** M12 x 1, 4-pin, IP 67
- **Process connection:** G 1/4 A according to DIN 3852-E
- **Seal:** NBR
- **Measuring range:** -1 bar ... 0 bar
- **Pressure type:** Compound pressure
- **Accuracy of sensor element:**  $\leq \pm 1\%$
- **Process temperature:** 0 °C ... +80 °C
- **Pressure port:** Standard

Output signal	Model name	Part no.
4...20 mA	PBT-CB1X0SG1SSNAMA0Z	6040917
0...10 V, 3-wire	PBT-CB1X0SG1SSNVMCOZ	6043710

- **Pressure type:** Gauge Pressure
- **Accuracy of sensor element:**  $\leq \pm 1\%$  of span
- **Process temperature:** 0 °C ... +80 °C
- **Pressure port:** Standard

Output signal	Electrical connection	Process connection	Seal	Measuring range	Model name	Part no.
4...20 mA	M12 x 1, 4-pin, IP 67	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 1 bar	PBT-RB1X0SG1SSNAMA0Z	6038716
				0 bar ... 10 bar	PBT-RB010SG1SSNAMA0Z	6038615
				0 bar ... 100 bar	PBT-RB100SG1SSNAMA0Z	6038648
				0 bar ... 250 bar	PBT-RB250SG1SSNAMA0Z	6038652
				0 bar ... 400 bar	PBT-RB400SG1SSNAMA0Z	6038656
				0 bar ... 600 bar	PBT-RB600SG1SSNAMA0Z	6038660

Output signal	Electrical connection	Process connection	Seal	Measuring range	Model name	Part no.
0...10 V, 3-wire	M12 x 1, 4-pin, IP 67	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 1 bar	PBT-RB1X0SG1SSNVMC0Z	6038627
				0 bar ... 10 bar	PBT-RB010SG1SSNVMC0Z	6038638
				0 bar ... 100 bar	PBT-RB100SG1SSNVMC0Z	6038650
				0 bar ... 250 bar	PBT-RB250SG1SSNVMC0Z	6038654
				0 bar ... 400 bar	PBT-RB400SG1SSNVMC0Z	6038658
				0 bar ... 600 bar	PBT-RB600SG1SSNVMC0Z	6038662
4...20 mA	L-connector (DIN EN 175301-803 A), IP 65	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 1 bar	PBT-RB1X0SG1SSNALAOZ	6041998
				0 bar ... 10 bar	PBT-RB010SG1SSNALAOZ	6040974
				0 bar ... 100 bar	PBT-RB100SG1SSNALAOZ	6041999
				0 bar ... 250 bar	PBT-RB250SG1SSNALAOZ	6041438
				0 bar ... 400 bar	PBT-RB400SG1SSNALAOZ	6041553
				0 bar ... 600 bar	PBT-RB600SG1SSNALAOZ	6043580
0...10 V, 3-wire	L-connector (DIN EN 175301-803 A), IP 65	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 1 bar	PBT-RB1X0SG1SSNVLC0Z	6043989
				0 bar ... 10 bar	PBT-RB010SG1SSNVLC0Z	6042101
0...10 V, 3-wire (RA > 10 kOhm)	-	G 1/4 A (DIN 3852-E)	NBR (Only with process connection G 1/4 A acc. to DIN3852 E)	0 bar ... 100 bar	PBT-RB100SG1SSNVLC0Z	6047878
				0 bar ... 250 bar	PBT-RB250SG1SSNVLC0Z	6047659
0...10 V, 3-wire	L-connector (DIN EN 175301-803 A), IP 65	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 400 bar	PBT-RB400SG1SSNVLC0Z	6039721
0...10 V, 3-wire (RA > 10 kOhm)	-	G 1/4 A (DIN 3852-E)	NBR (Only with process connection G 1/4 A acc. to DIN3852 E)	0 bar ... 600 bar	PBT-RB600SG1SSNVLC0Z	6049654
4...20 mA	M12 x 1, 4-pin, IP 67	1/4" NPT	Without sealing	0 bar ... 1 bar	PBT-RB1X0SN1SSOAMA0Z	6043720
				0 bar ... 10 bar	PBT-RB010SN1SSOAMA0Z	6039256
				0 bar ... 100 bar	PBT-RB100SN1SSOAMA0Z	6042006
				0 bar ... 250 bar	PBT-RB250SN1SSOAMA0Z	6042527
				0 bar ... 400 bar	PBT-RB400SN1SSOAMA0Z	6042070
				0 bar ... 600 bar	PBT-RB600SN1SSOAMA0Z	6044002



## At a glance

- Measurement ranges from 0 mbar ... 100 mbar up to 0 bar ... 600 bar
- Gauge, absolute, and compound measurement ranges
- Variant with flush-mounted membrane available
- Process temperature up to 150 °C (optional)
- Large variety of commonly used process connections
- High shock and vibration resistance
- Accuracy 0.5 % or 0.25 %
- Output signal 4 mA ... 20 mA, 0 V ... 5 V, or 0 V ... 10 V
- Zero and span adjustable
- Electrical connection M12 x 1, L-connector according to DIN 175301-803 A or flying leads

## Your benefits

- Reliable and highly accurate measurement technology
- Wide application range
- No mechanical wear, fatigue-proof, maintenance-free as no moving parts
- Simple and cost-saving installation
- Optimal solution for individual requirements due to very versatile configurability

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

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



## Ordering information

Other models available at [www.mysick.com/en/PFT](http://www.mysick.com/en/PFT)

- **Electrical connection:** M12 x 1, 4-pin, IP 67
- **Process connection:** G 1/4 A according to DIN 3852-E
- **Seal:** Without sealing
- **Measuring range:** -1 bar ... 0 bar
- **Pressure type:** Compound pressure
- **Accuracy of sensor element:**  $\leq \pm 0.5\%$  of span  $\leq 0.25\%$  of span (Optionally available for pressure ranges  $\geq 0.25$  bar). Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement per IEC 61298-2) Calibrated vertically with pressure connector facing downwards
- **Process temperature:** -30 °C ... +100 °C
- **Pressure port:** Standard



Output signal	Model name	Part no.
4...20 mA	PFT-SCB1X0SG1SSAAMSSZ	6038782
0...10 V, 3-wire	PFT-SCB1X0SG1SSAVMSSZ	6038784

- **Electrical connection:** M12 x 1, 4-pin, IP 67
- **Pressure type:** Gauge Pressure
- **Accuracy of sensor element:**  $\leq \pm 0.5\%$  of span  $\leq 0.25\%$  of span (Optionally available for pressure ranges  $\geq 0.25$  bar). Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement per IEC 61298-2)  
Calibrated vertically with pressure connector facing downwards
- **Process temperature:**  $-30\text{ }^{\circ}\text{C} \dots +100\text{ }^{\circ}\text{C}$

Output signal	Process connection	Seal	Measuring range	Pressure port	Model name	Part no.
4...20 mA	G 1/4 A according to DIN 3852-E	NBR	0 bar ... 0.1 bar	Standard	PFT-SRBX10SG1SSAAMSSZ	6038719
			0 bar ... 1 bar	Standard	PFT-SRB1X0SG1SSAAMSSZ	6038723
			0 bar ... 10 bar	Standard	PFT-SRB010SG1SSAAMSSZ	6038735
			0 bar ... 100 bar	Standard	PFT-SRB100SG1SSAAMSSZ	6038746
			0 bar ... 250 bar	Standard	PFT-SRB250SG1SSAAMSSZ	6038750
			0 bar ... 400 bar	Standard	PFT-SRB400SG1SSAAMSSZ	6038594
			0 bar ... 600 bar	Standard	PFT-SRB600SG1SSAAMSSZ	6038754
0...10 V, 3-wire	G 1/4 A according to DIN 3852-E	Without sealing	0 bar ... 1 bar	Standard	PFT-SRB1X0SG1SSAVMSSZ	6038724
			0 bar ... 0.1 bar	Standard	PFT-SRBX10SG1SSAVMSSZ	6038721
			0 bar ... 10 bar	Standard	PFT-SRB010SG1SSAVMSSZ	6038679
			0 bar ... 100 bar	Standard	PFT-SRB100SG1SSAVMSSZ	6038748
			0 bar ... 250 bar	Standard	PFT-SRB250SG1SSAVMSSZ	6038752
			0 bar ... 400 bar	Standard	PFT-SRB400SG1SSAVMSSZ	6043562
			0 bar ... 600 bar	Standard	PFT-SRB600SG1SSAVMSSZ	6038756
4...20 mA	G 1 B flush-mounted with O-ring	With flush-mounted membrane: wetted parts: CrNi-steel + NBR O-Ring	0 bar ... 0.1 bar	-	PFT-FRBX10SF1OSSAMSSZ	6038817
	G 1/2 B flush-mounted with O-ring		0 bar ... 0.25 bar		PFT-FRBX25SF1OSSAMSSZ	6038818
			0 bar ... 2.5 bar		PFT-FRB2X5SF2OSSAMSSZ	6038810
			0 bar ... 10 bar		PFT-FRB010SF2OSSAMSSZ	6038812
			0 bar ... 100 bar		PFT-FRB100SF2OSSAMSSZ	6038815
			0 bar ... 250 bar		PFT-FRB250SF2OSSAMSSZ	6038816
			0 bar ... 400 bar		PFT-FRB400SF2OSSAMSSZ	6039115



Accessories

	Accessory category	Brief description	Model name	Part no.
	Flanges	Welded flange/welded connector, front-flush variant, process connection G 1 B	BEF-FL-316G10-B0PH	5322450
		Welded flange/welded connector, front-flush variant, process connection G 1/2 B	BEF-FL-316G12-B0PH	5322449



### At a glance

- Robust and precise pressure measurement technology
- Flush-mounted, hermetically sealed stainless steel membrane with roughness Ra < 0.4 µm
- Wetted parts stainless steel 1.4435, housing stainless steel 1.4571
- CIP/SIP resistant
- Large range of hygienic process connectors
- Stainless steel housing with enclosure rating of up to IP 68
- Field housing available (IP 67)

### Your benefits

- Perfectly suited for demanding hygienic applications in the food and beverage, pharmaceutical and cosmetics industries
- Safe hygienic operation through EHEDG and 3-A certifications
- High reliability due to robust design and use of high-grade materials
- Withstands CIP/SIP, ensuring high system availability and reliability
- Transmitter housing is easily cleaned
- Versatile configurability optimizes solutions

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



### Ordering information

Other models available at [www.mysick.com/en/PHT](http://www.mysick.com/en/PHT)

- **Output signal:** 4...20 mA
- **Pressure type:** Gauge Pressure
- **Accuracy of sensor element:** ± 0.5 % of span optional 0.25 % of span (adjusted in vertical mounting position with lower pressure connection)
- **Process temperature:** -20 °C ... +150 °C

Electrical connection	Process connection	Measuring range	Model name	Part no.
M12 x 1, 4-pin, IP 67	Tri-Clamp 1 ½"	0 bar ... 0.25 bar	PHT-RBX25ST10S0AMS0Z	6039291
		0 bar ... 1 bar	PHT-RB1X0ST10S0AMS0Z	6039293
		0 bar ... 2.5 bar	PHT-RB2X5ST10S0AMS0Z	6039294
		0 bar ... 6 bar	PHT-RB6X0ST10S0AMS0Z	6039295
		0 bar ... 10 bar	PHT-RB010ST10S0AMS0Z	6039296
		0 bar ... 25 bar	PHT-RB025ST10S0AMS0Z	6039297
	Conical coupling (DIN 11851) DN 40 with union nut	0 bar ... 0.25 bar	PHT-RBX25S540S0AMS0Z	6039312
		0 bar ... 1 bar	PHT-RB1X0S540S0AMS0Z	6039314
		0 bar ... 2.5 bar	PHT-RB2X5S540S0AMS0Z	6039315
		0 bar ... 6 bar	PHT-RB6X0S540S0AMS0Z	6039316
		0 bar ... 10 bar	PHT-RB010S540S0AMS0Z	6039317
		0 bar ... 25 bar	PHT-RB025S540S0AMS0Z	6039318
	Varivent Connector Type F	0 bar ... 0.25 bar	PHT-RBX25SVF0S0AMS0Z	6039340
		0 bar ... 1 bar	PHT-RB1X0SVF0S0AMS0Z	6039342
		0 bar ... 2.5 bar	PHT-RB2X5SVF0S0AMS0Z	6039343
		0 bar ... 6 bar	PHT-RB6X0SVF0S0AMS0Z	6039344
		0 bar ... 10 bar	PHT-RB010SVF0S0AMS0Z	6039345
		0 bar ... 25 bar	PHT-RB025SVF0S0AMS0Z	6039346

Electrical connection	Process connection	Measuring range	Model name	Part no.
Field housing IP 67	Tri-Clamp 1 1/2"	0 bar ... 0.25 bar	PHT-RBX25ST10S0AFT0Z	6039403
		0 bar ... 1 bar	PHT-RB1X0ST10S0AFT0Z	6039405
		0 bar ... 2.5 bar	PHT-RB2X5ST10S0AFT0Z	6039406
		0 bar ... 6 bar	PHT-RB6X0ST10S0AFT0Z	6039407
		0 bar ... 10 bar	PHT-RB010ST10S0AFT0Z	6039408
		0 bar ... 25 bar	PHT-RB025ST10S0AFT0Z	6039409
	Conical coupling (DIN 11851) DN 40 with union nut	0 bar ... 0.25 bar	PHT-RBX25S540S0AFT0Z	6039424
		0 bar ... 1 bar	PHT-RB1X0S540S0AFT0Z	6039426
		0 bar ... 2.5 bar	PHT-RB2X5S540S0AFT0Z	6039427
		0 bar ... 6 bar	PHT-RB6X0S540S0AFT0Z	6039428
		0 bar ... 10 bar	PHT-RB010S540S0AFT0Z	6039429
		0 bar ... 25 bar	PHT-RB025S540S0AFT0Z	6039430



### At a glance

- Immersion depth up to 100 m
- Available with various cable lengths
- Measuring ranges from 0...0.1 bar up to 0...25 bar
- Stainless steel membrane
- Hermetically sealed stainless steel housing with PA protection cap
- Cable made from PUR, FEP-cable for aggressive media optionally available
- Optional temperature measurement with integrated Pt 100-element
- Optional surge protection

### Your benefits

- Enables level measurement under difficult conditions where other measurement technologies fail
- Rugged and reliable through robust mechanical design and high-grade materials
- For cleaning purposes the probe can easily be taken out of the liquid
- No openings required in the wall of the vessel



→ [www.mysick.com/en/LFH](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 available at [www.mysick.com/en/LFH](http://www.mysick.com/en/LFH)

#### LFH-SB





- **Output signal:** 4 mA ... 20 mA
- **Process temperature:** -10 °C ... +50 °C
- **Wetted parts:** Housing: Stainless steel, Pressure connection/ diaphragm: Stainless steel, Protection cap: PA
- **Electrical connection:** Cable PUR
- **Enclosure rating:** IP 68

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



Measuring range	Cable length	Model name	Part no.
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
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

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Adapters/distributors	For electrical connection of level probe LFH. With integrated pressure compensation and terminal block	ASK-CB-LFHPC0-0001	5324310
	Other mounting accessories	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	BEF-AW-LFHST-0001	5324308
	Protection filter	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
	Terminal and alignment brackets	Cable tension clamp for mounting the connection cable of the level sensor, tensile load = 2.5 kN	BEF-CC-LFH001-0001	5324307

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### At a glance

- Flow sensor for conductive and non-conductive liquids
- Compact design with no moving parts
- Process temperature up to 80 °C, process pressure up to 16 bar
- High chemical resistance due to seal-free sensor design
- Large display with membrane keyboard
- Integrated teaching tube detection

### Your benefits

- Reduced maintenance costs
- Adjustable measuring ranges reduces the number of variants
- Ability to be used with conductive and non-conductive liquids reduces variants and lowers storage costs
- Straight measuring tube reduces pressure loss, thus reducing energy costs
- Sensor without seals increases process reliability and availability
- Flexible measurement system for all industries

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

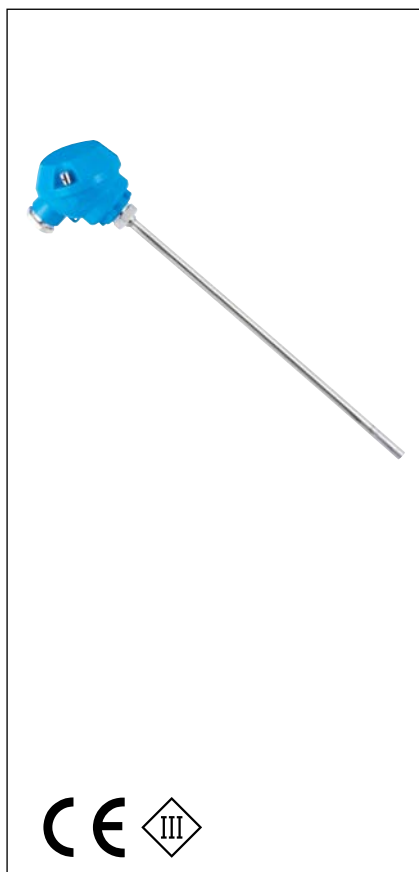
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### Ordering information

Other models available at [www.mysick.com/en/FFU](http://www.mysick.com/en/FFU)

Process pressure	Process connection	Nominal width measuring tube	Maximum flow	Model name	Part no.
Max. 10 bar	G 1	NW 20	0 l/min ... 60 l/min	FFUS20-1G1I0	6041738
				FFUS20-1G1SR	6043745
	G 1 1/4	NW 25	0 l/min ... 240 l/min	FFUS25-1G1I0	6041739
				FFUS25-1G1SR	6043746
	1" NPT	NW 20	0 l/min ... 60 l/min	FFUS20-1N1I0	6047870
				1 1/4" NPT	NW 25
	NW 25, 1 1/4" NPT	NW 25	0 l/min ... 240 l/min	FFUS25-1N1SR	6049566
Clamp (DIN 11864-3) DN 20 form A	NW 20	0 l/min ... 60 l/min	FFUS20-1C1I0	6049061	
Clamp (DIN 11864-3) DN 25 form A	NW 25	0 l/min ... 240 l/min	FFUS25-1C1I0	6044523	
Max. 16 bar	G 1/2	NW 10	0 l/min ... 21 l/min	FFUS10-1G1I0	6041737
	G 3/4	NW 15	0 l/min ... 36 l/min	FFUS15-1G1I0	6041249
	G 1/2	NW 10	0 l/min ... 21 l/min	FFUS10-1G1SR	6043743
				FFUS15-1G1SR	6043744
	1/2" NPT	NW 10	0 l/min ... 21 l/min	FFUS10-1G1I0	6047868
				3/4" NPT	NW 15
	Clamp (DIN 11864-3) DN 10 form A	NW 10	0 l/min ... 21 l/min	FFUS10-1C1I0	6049101
	Clamp (DIN 11864-3) DN 15 form A	NW 15	0 l/min ... 36 l/min	FFUS15-1C1I0	6045162



### At a glance

- Pt100 element, accuracy class A according to IEC 60751
- Measuring ranges -50 °C ... +150 °C and -50 °C ... +250 °C
- Wetted parts made from corrosion resistant stainless steel 1.4571
- Various mechanical adaptations and insertion lengths
- Pt100 (4-wire) or 4 mA ... 20 mA (2-wire)
- Cable gland M16 x 1.5

### Your benefits

- Reliable operation through rugged design and high-quality materials
- Good long-term stability, accuracy and linearity
- Quick and safe installation
- Convenient system integration even in narrow installation spaces
- Optimal solutions for individual requirements

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

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### Ordering information

Other models available at [www.mysick.com/en/TBT](http://www.mysick.com/en/TBT)

- **Measuring range:** -50 °C ... +150 °C
- **Electrical connection/enclosure rating:** cable gland M16 x 1.5, IP 65

Output signal	Process connection	Insertion length/diameter of probe	Model name	Part no.
Pt100, 4-wire	Without process connection	50 mm / 3 mm, 50 mm	TBT-1PAZZ0503GZ	6043008
		100 mm / 6 mm, 100 mm	TBT-1PAZZ1006GZ	6043009
		150 mm / 6 mm, 150 mm	TBT-1PAZZ1506GZ	6043010
		250 mm / 6 mm, 250 mm	TBT-1PAZZ2506GZ	6043011
	Thread G 1/4 B	50 mm / 3 mm, 50 mm	TBT-1PAG10503GZ	6043015
		100 mm / 6 mm, 100 mm	TBT-1PAG11006GZ	6043016
		150 mm / 6 mm, 150 mm	TBT-1PAG11506GZ	6043017
		250 mm / 6 mm, 250 mm	TBT-1PAG12506GZ	6043018
	Thread G 1/2 B	50 mm / 3 mm, 50 mm	TBT-1PAGE0503GZ	6043021
		100 mm / 6 mm, 100 mm	TBT-1PAGE1006GZ	6043022
		150 mm / 6 mm, 150 mm	TBT-1PAGE1506GZ	6043023
		250 mm / 6 mm, 250 mm	TBT-1PAGE2506GZ	6043024
	Compression fitting G 1/2 B, CrNi stainless steel ferrule	50 mm / 3 mm, 50 mm	TBT-1PASE0503GZ	6043033
		100 mm / 6 mm, 100 mm	TBT-1PASE1006GZ	6043034
		150 mm / 6 mm, 150 mm	TBT-1PASE1506GZ	6043035
		250 mm / 6 mm, 250 mm	TBT-1PASE2506GZ	6043036

Output signal	Process connection	Insertion length/diameter of probe	Model name	Part no.
4 mA ... 20 mA, 2-wire ( $R_A \leq (L^+ - 10 \text{ V}) / 0.028 \text{ A [Ohm]}$ )	Without process connection	50 mm / 3 mm, 50 mm	TBT-1AAZZ0503GZ	6043039
		100 mm / 6 mm, 100 mm	TBT-1AAZZ1006GZ	6043040
		150 mm / 6 mm, 150 mm	TBT-1AAZZ1506GZ	6043041
		250 mm / 6 mm, 250 mm	TBT-1AAZZ2506GZ	6043042
	Thread G 1/4 B	50 mm / 3 mm, 50 mm	TBT-1AAG10503GZ	6043045
		100 mm / 6 mm, 100 mm	TBT-1AAG11006GZ	6043046
		150 mm / 6 mm, 150 mm	TBT-1AAG11506GZ	6043047
		250 mm / 6 mm, 250 mm	TBT-1AAG12506GZ	6043048
	Thread G 1/2 B	50 mm / 3 mm, 50 mm	TBT-1AAGE0503GZ	6043051
		100 mm / 6 mm, 100 mm	TBT-1AAGE1006GZ	6043052
		150 mm / 6 mm, 150 mm	TBT-1AAGE1506GZ	6043053
		250 mm / 6 mm, 250 mm	TBT-1AAGE2506GZ	6043054
	Compression fitting G 1/2 B, CrNi stainless steel ferrule	50 mm / 3 mm, 50 mm	TBT-1AASE0503GZ	6043066
		100 mm / 6 mm, 100 mm	TBT-1AASE1006GZ	6043067
		150 mm / 6 mm, 150 mm	TBT-1AASE1506GZ	6043068
		250 mm / 6 mm, 250 mm	TBT-1AASE2506GZ	6043069



### At a glance

- Large display
- Individually programmable transistor outputs PNP or NPN, optional analog output 4 mA ... 20 mA or 0 V ... 10 V
- Round connector M12 x 1
- Measuring ranges -20 °C ... +80 °C
- Pt1000 element, accuracy class A (IEC 60751)
- Various insertion lengths and connection threads
- Wetted parts made from corrosion-resistant stainless steel 1.4571
- Enclosure rating IP 65 and IP 67

### Your benefits

- Quick and safe set-up through superior ease of use
- Compact dimensions and rotatable housing facilitate integration
- Very reliable: splash-proof housing, high-grade materials, rugged design, and field-proven technology
- Very good long-term stability, accuracy and linearity
- Quick response time
- Versatile configuration allows for optimal solutions for specific requirements

→ [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 available at [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.
2 x PNP	Thread G 1/4 A, thread G 1/4 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 1/2 A, thread G 1/2 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
1 x PNP 1 x 4 mA ... 20 mA	Thread G 1/4 A, thread G 1/4 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 1/2 A, thread G 1/2 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

- **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 1/4 A, thread G 1/4 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 1/2 A, thread G 1/2 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





### At a glance

- Pt100 element, accuracy class A (IEC 60751)
- Measuring ranges -50 °C ... +150 °C and -50 °C ... +250 °C
- Wetted parts: Corrosion-resistant stainless steel 316L/1.4435,  $R_a \leq 0.8 \mu\text{m}$
- Various hygienic process connections and insertion lengths
- Pt100 (4-wire) or 4 mA ... 20 mA (2-wire)
- Round connector M12 x 1

### Your benefits

- Convenient system integration – installation in narrow installation space possible through compact dimensions
- Safe, hygienic operation due to wetted parts made from high-grade stainless steel, hygienically-graded surface finish and a gap- and crevice-free design
- Rugged: Connection housing is easily cleaned and splash proof
- Quick and safe installation
- Very good long-term stability, accuracy and linearity
- Quick response time
- Optimal solutions for individual requirements due to versatile configurability

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

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



### Ordering information

Other models available at [www.mysick.com/en/THTS](http://www.mysick.com/en/THTS)

- **Measuring range:** -50 °C ... +150 °C
- **Electrical connection/enclosure rating:** round connector M12 x 1, 4-pin / IP 68 and IP 69K

Output signal	Process connection	Insertion length/diameter of probe	Model name	Part no.	
Pt100, 4-wire	Tri-clamp 1", 1 1/2"	25 mm / 6 mm, 25 mm	THTS-1PAT10256MZ	6047587	
		50 mm / 6 mm, 50 mm	THTS-1PAT10506MZ	6047588	
		75 mm / 6 mm, 75 mm	THTS-1PAT10756MZ	6047562	
		100 mm / 6 mm, 100 mm	THTS-1PAT11006MZ	6047589	
		150 mm / 6 mm, 150 mm	THTS-1PAT11506MZ	6047591	
		200 mm / 6 mm, 200 mm	THTS-1PAT12006MZ	6047592	
	Conical coupling (DIN 11851) DN 40 with union nut		25 mm / 6 mm, 25 mm	THTS-1PA540256MZ	6047594
			50 mm / 6 mm, 50 mm	THTS-1PA540506MZ	6047596
			75 mm / 6 mm, 75 mm	THTS-1PA540756MZ	6047597
			100 mm / 6 mm, 100 mm	THTS-1PA541006MZ	6047599
			150 mm / 6 mm, 150 mm	THTS-1PA541506MZ	6047600
			200 mm / 6 mm, 200 mm	THTS-1PA542006MZ	6047602

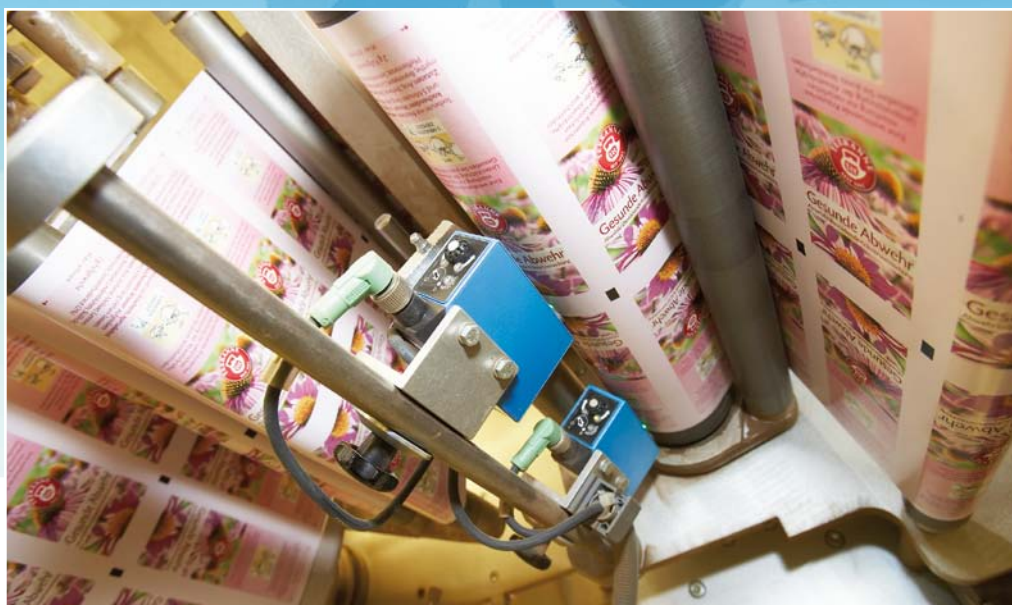
Output signal	Process connection	Insertion length/diameter of probe	Model name	Part no.
4 mA ... 20 mA, 2-wire ( $R_A \leq (L^+ - 10 \text{ V}) / 0.023 \text{ A [}\Omega\text{]}$ )	Tri-clamp 1", 1 1/2"	25 mm / 6 mm, 25 mm	THTS-1AAT10256MZ	6047603
		50 mm / 6 mm, 50 mm	THTS-1AAT10506MZ	6047604
		75 mm / 6 mm, 75 mm	THTS-1AAT10756MZ	6047605
		100 mm / 6 mm, 100 mm	THTS-1AAT11006MZ	6047606
		150 mm / 6 mm, 150 mm	THTS-1AAT11506MZ	6047607
		200 mm / 6 mm, 200 mm	THTS-1AAT12006MZ	6047608
	Conical coupling (DIN 11851) DN 40 with union nut	25 mm / 6 mm, 25 mm	THTS-1AA540256MZ	6047609
		50 mm / 6 mm, 50 mm	THTS-1AA540506MZ	6047610
		75 mm / 6 mm, 75 mm	THTS-1AA540756MZ	6047611
		100 mm / 6 mm, 100 mm	THTS-1AA541006MZ	6047612
		150 mm / 6 mm, 150 mm	THTS-1AA541506MZ	6047613
		200 mm / 6 mm, 200 mm	THTS-1AA542006MZ	6047614



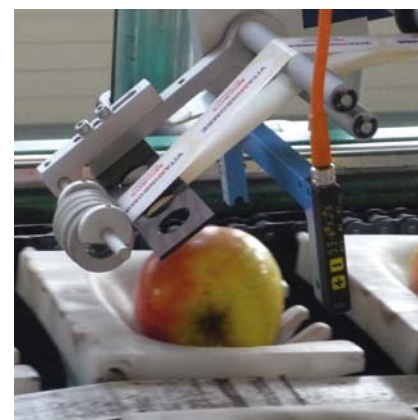




## SICK registration sensors – enhancing performance through precision and speed



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### Registration sensors















The variety of tasks in automated production processes today, such as in packaging and printing machines, require sensors with the highest performance standards. Typical applica-

tions 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.



**Registration sensors**

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	<b>KT3 . . . . . 254</b> High-performance contrast sensors in a compact housing
	<b>KT5 . . . . . 256</b> Contrast sensor in standard metal housing
	<b>KT10 . . . . . 258</b> The industry choice for high-speed and precision mark detection
	<b>ML20 . . . . . 259</b> Running markless for stability and design freedom
	<b>CS8 . . . . . 260</b> High-performance color sensing
	<b>LUT1 . . . . . 261</b> Compact sensor for long sensing distances
	<b>LUT8 . . . . . 263</b> For universal use with easy adjustment
	<b>LUT9 . . . . . 265</b> The new standard for high-performance luminescence sensors
	<b>UF . . . . . 267</b> The clear choice for detecting transparent labels
	<b>WF . . . . . 268</b> WFnext - it's next for high-speed applications
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	<b>WFM . . . . . 272</b> WFM fork sensors – connect and get started
	<b>WFS . . . . . 274</b> Agile and flexible – ideal mounting for labeling applications
	<b>Ax20 . . . . . 275</b> Ax20 array sensors for edge and diameter detection solutions

## Selection guide registration sensors

Contrast sensors, markless sensors, color sensors, luminescence sensors

	Contrast sensors			Markless sensors	Color sensors	Luminescence sensors		
	KT3	KT5	KT10	ML20	CS8	LUT1	LUT8	LUT9
<b>Task</b>								
Detection of contrast marks/contrast differences	■	■	■					
Detection of recurrent design				■				
Color detection					■			
Detection of fluorescent marks/objects						■	■	■
<b>Light source</b>								
LED white	■			■				
LED green	■	■						
LED red, green		■						
LED red, green, blue	■	■	■		■			
UV-LED						■	■	■
LED blue						■		■
<b>Sensing distance (mm)<sup>1)</sup></b>								
10		■	■				■	■
12.5	■				■			
20		■		■			■	■
40		■						
50						■	■	■
60					■			
80						■		
90							■	■
150						■		■
<b>Response time (µs)</b>								
20			■					
50	■	■						
75								■
85						■		
145					■			
200							■	
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<sup>1)</sup> For advanced operating range see product information.



## Selection guide registration sensors

Contrast sensors, markless sensors, color sensors, luminescence sensors

	Contrast sensors			Markless sensors	Color sensors	Luminescence sensors		
	KT3	KT5	KT10	ML20	CS8	LUT1	LUT8	LUT9
<b>Light spot size (mm)<sup>2)</sup></b>								
<b>Small</b> (0.8 x 4.0 ... 1.5 x 6.5)	■	■	■					
<b>Medium</b> (2 x 4 ... 13 x 13)					■	■	■	■
<b>Large</b> (20 x 50 ... 60 x 3)				■		■		
<b>Special features</b>								
Ethernet TCP/IP				■				
IO-Link								■
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<sup>2)</sup> Specific data see product information.



## Selection guide registration sensors

### Fork sensors

	Fork sensors				
	UF	WF	WFL	WFM	WFS
<b>Task</b>					
Detection of transparent labels	■				
Detection of opaque labels	■	■			■
Object detection		■	■	■	
<b>Fork width (mm)</b>					
2		■	■		
3	■				■
5 / 15		■	■		
30 / 50 / 80 / 120		■	■	■	
<b>Fork depth (mm)</b>					
42		■	■	■	■
59 / 60		■	■	■	
69	■				
95		■	■		
124				■	
<b>Response time (µs)</b>					
50					■
100		■	■		
125				■	
250	■				
300	■				
<b>Minimum detectable object (MDO) (mm)</b>					
0.05			■		
0.2		■			
0.8				■	
2	■				■
<b>Adjustment</b>					
Teach-in		■	■		
Teach-in dynamic/static	■				■
Manual ("+" / "-" button)	■	■			■
Without				■	
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## Selection guide registration sensors

## Array sensors

	Array sensors		
	AT20E	AL20E	AT20D
<b>Task</b>			
Edge detection	■	■	
Diameter detection			■
<b>Usage (proximity/reflector)</b>			
Contrast difference > 10 % (with reflector)	■		■
Contrast difference > 17 % (with reflector)	■	■	■
Contrast difference > 20 % (with reflector)	■		■
<b>Sensing distance (mm)</b>			
25	■	■	■
100	■	■	■
<b>Fields of application</b>			
Measurement web edge guidance control	■	■	
Object positioning (end of travel indication)	■	■	
Line tracking	■	■	
Gap detection			■
Width measurement			■
Line diameter detection			■
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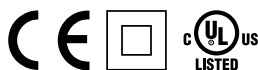


### At a glance

- Very small housing
- RGB 3-color technology
- Laser version with long sensing distance
- Simple teach-in (when machine is stopped or during operation)
- Integrated switching threshold adjustment for high-gloss objects
- Reliable operation for jittering materials
- Switching frequency of 10 kHz

### Your benefits

- Compact design fits in limited space applications
- Very good contrast resolution for detecting print marks, even where the variation between the mark and the background is minimal
- Laser version for the smallest marks and long sensing distances
- Automatic adaptation for high-gloss objects ensures high throughput
- Reliable operation for jittering materials
- Accurate positioning in rapid production processes
- Red/green/blue LEDs detect all registration marks in all applications



→ [www.mysick.com/en/KT3](http://www.mysick.com/en/KT3)

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



### Ordering information

Other models available at [www.mysick.com/en/KT3](http://www.mysick.com/en/KT3)

- **Sensing distance:** 12.5 mm
- **Response time:** 50 µs (Signal transit time with resistive load.)
- **Light spot direction:** vertical (In relation to long side of housing.)
- **Adjustment:** Static 2-point teach-in

Light source	Light spot size	Switching output	Model name	Part no.
LED, white <sup>1)2)</sup>	1.5 mm x 3.5 mm	PNP	KT3M-P1116	1044235
		NPN	KT3M-N1116	1044593
LED red, green, blue <sup>1)3)</sup>	1.5 mm x 6.5 mm	PNP	KT3W-P1116	1019338
		NPN	KT3W-N1116	1019337
LED green <sup>1)4)</sup>	1.5 mm x 3.5 mm	PNP	KT3G-P1116	1019446
		NPN	KT3G-N1116	1019445

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




<sup>2)</sup> Wave length: 400 nm ... 700 nm.

<sup>3)</sup> Wave length: 470 nm, 525 nm, 640 nm.

<sup>4)</sup> Wave length: 520 nm.



Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	-	-	-	-	BEF-WN-W9-2	2022855
	Plug connectors and cables	Female connector	Connector M12, 4-pin	IP 67	Straight	PVC	2 m	DOL-1204-G02M	6009382
					Angled	PVC	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

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→ [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 available at [www.mysick.com/en/KT5](http://www.mysick.com/en/KT5)

- Response time: 50 µs (Signal transit time with resistive load.)

Light source	Sensing distance	Adjustment	Light spot size	Light spot direction	Switching output	Model name	Part no.
LED green <sup>1)2)</sup>	10 mm <sup>3)</sup>	Manual adjustment, potentiometer	1.2 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	KT5G-2P1111	1015993
					NPN	KT5G-2N1111	1015981
				Horizontal <sup>4)</sup>	PNP	KT5G-2P2111	1016008
					NPN	KT5G-2N2111	1015990
	20 mm <sup>3)</sup>		Vertical <sup>4)</sup>	PNP	KT5G-2P1211	1015999	
				NPN	KT5G-2N1211	1015985	
			40 mm <sup>3)</sup>	Vertical <sup>4)</sup>	PNP	KT5G-2P1311	1016003
	NPN				KT5G-2N1311	1015988	

<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: 470 nm, 525 nm, 640 nm.

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

Light source	Sensing distance	Adjustment	Light spot size	Light spot direction	Switching output	Model name	Part no.		
LED red, green, blue <sup>1)5)</sup>	10 mm <sup>3)</sup>	Dynamic teach-in	1.2 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	KT5W-2P1113	1016629		
					NPN	KT5W-2N1113	1016630		
		Static 2-point teach-in	1.2 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	KT5W-2P1116	1018044		
					NPN	KT5W-2N1116	1018045		
					PNP	KT5W-2P1126	1018587		
					PNP	KT5W-2P2116	1022312		
	1.5 mm x 5.5 mm	Horizontal <sup>4)</sup>	PNP	KT5W-2P2116	1022312				
			PNP/NPN	KT5W-2B1116	1043006				
	20 mm <sup>3)</sup>	Dynamic teach-in	1.5 mm x 5.5 mm	Vertical <sup>4)</sup>	PNP	KT5W-2P1213	1016715		
					PNP	KT5W-2P1216	1018586		
		Static 2-point teach-in	1.5 mm x 5.5 mm	Vertical <sup>4)</sup>	NPN	KT5W-2N1216	1019022		
	40 mm <sup>3)</sup>	Static 2-point teach-in	1.1 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	KT5W-2P1316	1018961		
	10 mm <sup>3)</sup>	Static 2-point teach-in with manual fine adjustment	1.2 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	KT5W-2P1116D	1026538		
					NPN	KT5W-2N1116D	1026540		
				Horizontal <sup>4)</sup>	PNP	KT5W-2P2116D	1026584		
					NPN	KT5W-2N2116D	1026583		
				Vertical <sup>4)</sup>	PNP	KT5W-2P1126D	1026579		
					PNP	KT5W-2P1216D	1026577		
				20 mm <sup>3)</sup>	1.5 mm x 5.5 mm	Vertical <sup>4)</sup>	NPN	KT5W-2N1216D	1026580
							PNP	KT5W-2P1316D	1026578
40 mm <sup>3)</sup>				1.1 mm x 4.2 mm	Vertical <sup>4)</sup>	NPN	KT5W-2N1316D	1026581	
						PNP	KT5W-2P1316D	1026578	
LED red, green <sup>6)</sup>	10 mm <sup>3)</sup>	Static 2-point teach-in	1.2 mm x 4.2 mm	Vertical <sup>4)</sup>	PNP	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: 470 nm, 525 nm, 640 nm.

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

## Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Plug connectors and cables	Female connector	Connector M12, 4-pin	IP 67	Straight	PVC	2 m	DOL-1204-G02M	6009382
					Angled	PVC	2 m	DOL-1204-W02M	6009383
		Female connector	Connector M12, 5-pin	IP 67	Straight	PVC	2 m	DOL-1205-G02M	6008899
					Angled	PVC	2 m	DOL-1205-W02M	6008900





### At a glance

- Very low jitter (< 10 μs)
- Precise light spot
- Best contrast resolution thanks to RGB LED technology
- Two interchangeable light exits
- Five storage banks for settings
- Automatic drift correction
- Fast switching frequency of 25 kHz
- Easy-to-read bar graph display

### Your benefits

- Very precise detection of print marks enables optimal results for packaging and printing applications
- All contrast marks, even pale yellow on white paper, can be reliably detected thanks to RGB LED technology
- Automatic drift correction helps detect difficult to see marks, such as faded print marks, enabling higher production reliability
- Reliable operation, even with high-gloss reflective surfaces, increasing throughput
- Simple teach-in via an external signal can be performed while the material is moving, enabling shorter setup time
- Long-lasting, tough metal housing

→ [www.mysick.com/en/KT10](http://www.mysick.com/en/KT10)

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



### Ordering information

Other models available at [www.mysick.com/en/KT10](http://www.mysick.com/en/KT10)

- **Light source:** LED red, green, blue (Average service life of 100,000 h at TA = +25 °C. Wave length: 470 nm, 525 nm, 640 nm.)
- **Sensing distance:** 10 mm (From front edge of lens.)
- **Sensing distance tolerance:** ± 3 mm
- **Response time:** 20 μs (Signal transit time with resistive load.)
- **Light spot size:** 0.8 mm x 4 mm

Light spot direction	Switching output	Model name	Part no.
Vertical <sup>1)</sup>	PNP	KT10W-2P1115	1028232
	NPN	KT10W-2N1115	1028233
Horizontal <sup>1)</sup>	PNP	KT10W-2P2115	1029070
	NPN	KT10W-2N2115	1029071

<sup>1)</sup> In relation to long side of housing.

### Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	ArtikelNr.
	Plug connectors and cables	Female connector	Connector M12, 5-pin	IP 67	Straight	PVC	2 m	DOL-1205-G02M	6008899
					Angled	PVC	2 m	DOL-1205-W02M	6008900
					Straight	-	-	DOS-1205-G	6009719
					Angled	-	-	DOS-1205-W	6009720



### At a glance

- Tough metal housing
- Scanning speed of 7 m/s
- Monitor process quality via a control panel or SOPAS, via Ethernet
- Easy sensor teach-in and alignment
- Reproducibility of 0.6 mm (2 Sigma)
- Plug can be rotated 90°

### Your benefits

- Reliable detection, even with complex images reduces system downtime and waste
- Fewer machine builder restrictions mean more freedom when designing packaging
- Allows for more efficient utilization of space on the product instead of using unnecessary print marks and place markers
- Faster and easier format change by teaching of saved formats via Ethernet
- Monitor process and teach quality via a display or SOPAS, increasing reliability
- Fast and simple sensor alignment via a visible light spot and notches on the housing
- Easy sensor teach-in, directly via the control panel, external teach-in signal or using SOPAS via Ethernet

→ [www.mysick.com/en/ML20](http://www.mysick.com/en/ML20)

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



### Ordering information

Other models available at [www.mysick.com/en/ML20](http://www.mysick.com/en/ML20)

- **Light spot size:** 60 mm x 3 mm
- **Data interface:** Ethernet TCP/IP

Light source	Max. movement speed	Sensing distance	Repeatability	Switching output	Model name	Part no.
LED green <sup>1)</sup>	7 m/s	20 mm	0.6 mm <sup>2)</sup>	PNP	ML20M-P1211	1044675

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

<sup>2)</sup> Statistical error 2 σ.

### Accessories

	Accessory category	Accessory type	Material	Model name	Part no.
	Plug connectors and cables	Connection cable (male connector-male connector)	-	Connecting cable (plug-plug)	6034415
				Connecting cable (plug-plug)	6039488
		Connecting cable (female connector-open)	-	DOL-1212-W05MAS02	6044109
				DOL1212-G05MAS02	6042754
		Connection cable (male-female connector)	-	DSL-1212-G05MAS02	6045234
	Terminal and alignment brackets	Universal terminal systems	Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N04	2051610
			Steel, zinc coated	BEF-MS12G-A	4056054
				BEF-MS12L-B	4056053



### At a glance

- One (CS8-1) or four (CS8-4) colors can be saved
- 12.5 mm or 60 mm sensing distance
- Fast response time up to 85 µs
- High resolution color
- Bar graph display shows the correlation of the colors
- Extremely precise light spot and high resolution
- Metal housing with two light exits (interchangeable)

### Your benefits

- Identify and store up to four colors. No need to reprogram the sensor for changeovers, reducing downtime
- High resolution colors can be matched exactly for better process reliability
- Maintains the extreme precision of the light spot, enabling a consistent object detection
- A bar graph display provides information about the color quality and detection reliability, ensuring simple process monitoring
- Broad spectrum of color tolerances enables more flexible use
- Fast response times at high speeds for reliable detection
- Detection reliability is not affected by varying temperatures

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→ [www.mysick.com/en/CS8](http://www.mysick.com/en/CS8)

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



### Ordering information

Other models available at [www.mysick.com/en/CS8](http://www.mysick.com/en/CS8)

- **Light source:** LED red, green, blue (Average service life of 100,000 h at TA = +25 °C. Wave length: 470 nm, 525 nm, 640 nm.)
- **Output (channel):** 4 colors
- **Switching frequency:** 0.5 kHz / 1 kHz / 3.5 kHz, adjustable (With light/dark ratio 1:1.)
- **Response time:** 1,000 µs, 500 µs, 145 µs (Signal transit time with resistive load.)
- **Connection type:** Connector M12, 8-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	2 mm x 4 mm	Vertical	PNP	CS84-P1112	1028226
				NPN	CS84-N1112	1028230
60 mm <sup>1)</sup>	± 9 mm	13 mm x 13 mm	-	PNP	CS84-P3612	1028227
				NPN	CS84-N3612	1028231

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

### Accessories

	Accessory category	Connection type	Connector type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Plug connectors and cables	Connector M12, 8-pin	Female connector	IP 67	Straight	PVC	2 m	DOL-1208-G02MA	6020633
					Angled	PVC	2 m	DOL-1208-W02MA	6020992



## At a glance

- Infinite switching threshold adjustment using touch-sensitive keypad
- Long sensing distances up to 150 mm
- Transmitter LED UV (375 nm) or blue (470 nm)
- Fast switching speed 600 Hz or 6 kHz

## Your benefits

- Robust metal housing is reliable and ideal for tough environment conditions
- High detection reliability ensures the process: Blue transmitter LED excites red luminophores especially well. The UV LED is well-suited for blue, green or yellow marks.
- Visible light spot of the LUT1B version makes accurate alignment easy

→ [www.mysick.com/en/LUT1](http://www.mysick.com/en/LUT1)

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



## Ordering information

Other models available at [www.mysick.com/en/LUT1](http://www.mysick.com/en/LUT1)

Light source	Scanning range	Operating range	Light spot size	Response time	Switching output	Model name	Part no.
LED blue <sup>1)2)</sup>	50 mm <sup>4)</sup>	15 mm ... 60 mm	5 mm x 5 mm	85 µs <sup>5)</sup>	PNP	LUT1B-11325	1024127
					PNP/NPN	LUT1B-31325	1027593
	80 mm <sup>4)</sup>	60 mm ... 100 mm	20 mm x 50 mm	850 µs <sup>5)</sup>	PNP/control output	LUT1B-41225	1024125
					PNP	LUT1B-12205	1027497
UV-LED <sup>3)</sup>	150 mm <sup>4)</sup>	60 mm ... 160 mm	6 mm x 14 mm	850 µs <sup>5)</sup>	PNP/control output	LUT1B-41235	1024126
			12 mm x 12 mm	85 µs <sup>5)</sup>	PNP	LUT1U-11331	1024128

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




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

<sup>2)</sup> Wave length: 375 nm.

<sup>4)</sup> From front edge of lens.

<sup>5)</sup> Signal transit time with resistive load.

## Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Material	Cable length	Model name	Part no.
	Plug connectors and cables	Female connector	Connector M12, 5-pin	IP 67	Straight	PVC	-	2 m	DOL-1205-G02M	6008899
					Angled	PVC	-	2 m	DOL-1205-W02M	6008900
	Reference materials	Chalk	-	-	-	-	Crayon	-	LUM-FT	1004460
							Writing chalk	-	LUM-KLK	1002959
	Terminal and alignment brackets	Universal terminal systems	-	-	-	-	Steel, zinc coated	-	BEF-KHS-KH1	2022726





### At a glance

- Tough metal housing
- Simple sensitivity adjustment in 8 stages
- Bar graph display provides information about the luminescence intensity
- Sensing distances selectable through interchangeable lenses
- Additional optical filters suppress background luminescence
- Fiber-optic cable connection (with 20 mm lens)
- Switching and analog output

### Your benefits

- An 8-step rotary switch easily adjusts to accurately determine the switching output position for different materials
- Bar graph display provides continual process control through easy visualization of the luminescence intensity
- Filters ensure that background luminescence is reliably suppressed, ensuring greater process reliability
- Interchangeable lenses for different sensing distances provide flexibility

→ [www.mysick.com/en/LUT8](http://www.mysick.com/en/LUT8)

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



### Ordering information


Other models available at [www.mysick.com/en/LUT8](http://www.mysick.com/en/LUT8)

- **Light source:** UV-LED (Average service life of 100,000 h at TA = +25 °C. Wave length: 375 nm.)
- **Response time:** 200 µs (Signal transit time with resistive load.)

Scanning range	Operating range	Light spot size	Receiving filters	Receiving range	Model name	Part no.
10 mm <sup>1)</sup>	0 mm ... 20 mm	2 mm x 6 mm	KV 418 (standard)	450 nm ... 750 nm	LUT8U-11101	1046711
20 mm <sup>1)</sup>	10 mm ... 40 mm	3 mm x 9 mm	KV 418 (standard)	450 nm ... 750 nm	LUT8U-11201	1047042
50 mm <sup>1)</sup>	20 mm ... 70 mm	5 mm x 15 mm	KV 418 (standard)	450 nm ... 750 nm	LUT8U-11301	1047043
			OG 570	570 nm ... 750 nm	LUT8U-11311	1047045
			RG 610	610 nm ... 750 nm	LUT8U-11321	1047046
			RG 665	670 nm ... 750 nm	LUT8U-11331	1047047
90 mm <sup>1)</sup>	30 mm ... 110 mm	Ø 6 mm	KV 418 (standard)	450 nm ... 750 nm	LUT8U-11701	1047048
			KV 418 (standard)	450 nm ... 750 nm	LUT8U-11401	1047044

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

## Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Fiber length	Model name	Part no.			
	Fibre-optic cables	Fibre-optic cables	-	-	-	-	-	1,000 mm	LLUV8-1000	2017099			
								500 mm	LLUV8-500	2017098			
	Lens and accessories	Lens, sensing distance 10 mm	-	-	-	-	-	-	OBJ-LUT3-10	2016348			
		Lens, sensing distance 10 mm							OBJ-LUT3-20	2016349			
		Lens, sensing distance 10 mm							OBJ-LUT3-50	2016350			
 Illustration may differ	Plug connectors and cables	Female connector	Connector M12, 5-pin	IP 67	Straight	PVC	2 m	-	DOL-1205-G02M	6008899			
									-	-	-	DOS-1205-G	6009719
									-	-	-	DOS-1205-W	6009720
	Reference materials	Crayon	-	-	-	-	-	-	LUM-FT	1004460			
		Writing chalk							LUM-KLK	1002959			



### At a glance

- Simple teach-in
- Operating range up to 250 mm
- Version with IO-Link for remote monitoring
- Bar graph display provides information about the luminescence intensity
- High speed (6.5 kHz), standard (2.5 kHz), high resolution (500 Hz) models
- Additional optical filters suppress background luminescence
- Fiber-optic cable connection (with 20 mm lens)
- Switching and analog output

### Your benefits

- Simple sensitivity adjustment via teach-in for optimum adaptation to the application
- Long sensing distance tolerance leads to less mechanical height adjustments of the sensor on the machine
- Using IO-Link, the sensor can be configured and monitored by the central control system, enabling simple, cost-effective diagnostics and data collection
- Bar graph display provides continual process control through easy visualization of the luminescence intensity
- Filters ensure that background luminescence is reliably suppressed, ensuring greater process reliability
- Interchangeable lenses for different sensing distances and the second light exit provide flexibility
- High detection reliability ensures the process and reduces downtime
- Select speed or high resolution, making it ideal for any application.

→ [www.mysick.com/en/LUT9](http://www.mysick.com/en/LUT9)

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



### Ordering information

Other models available at [www.mysick.com/en/LUT9](http://www.mysick.com/en/LUT9)

- **Response time:** 1 ms, 200 μs, 75 μs (Signal transit time with resistive load.)

Sensing distance	Light spot size	Light source	Light emission	Receiving range	Switching output	Model name	Part no.
10 mm <sup>1)</sup>	2 mm x 6 mm	UV-LED <sup>2)3)</sup>	Long side	450 nm ... 750 nm	PNP/NPN	LUT9U-11106	1047049
20 mm <sup>1)</sup>	3 mm x 9 mm	UV-LED <sup>2)3)</sup>	Long side	450 nm ... 750 nm	PNP/NPN	LUT9U-11206	1047050
					PNP, IO-Link	LUT9U-P120L	1046188
					NPN, IO-Link	LUT9U-N120L	1046189
50 mm <sup>1)</sup>	5 mm x 15 mm	UV-LED <sup>2)3)</sup>	Long side	450 nm ... 750 nm	PNP/NPN	LUT9U-11306	1046712
					PNP/NPN	LUT9U-11316	1047052
					PNP/NPN	LUT9U-11326	1047053
					PNP/NPN	LUT9U-11336	1047054
					PNP, IO-Link	LUT9U-P130L	1045606
					NPN, IO-Link	LUT9U-N130L	1046190
					Long and short side, exchangeable	450 nm ... 750 nm	PNP/NPN
90 mm <sup>1)</sup>	12 mm x 12 mm	UV-LED <sup>2)3)</sup>	Long side	450 nm ... 750 nm	PNP/NPN	LUT9U-11406	1047051
150 mm <sup>1)</sup>	5 mm x 12 mm	UV-LED <sup>2)3)</sup>	Long side	610 nm ... 750 nm	PNP/NPN	LUT9U-11606	1047414
		LED blue <sup>2)4)</sup>	Long side	610 nm ... 750 nm	PNP/NPN	LUT9B-11626	1047056


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

<sup>2)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C.

<sup>3)</sup> Wave length: 375 nm.

<sup>4)</sup> Wave length: 470 nm.

## Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Fiber length	Model name	Part no.
	Fibre-optic cables	Fibre-optic cables	-	-	-	-	-	1,000 mm	LLUV8-1000	2017099
								500 mm	LLUV8-500	2017098
	Lens and accessories	Lens, sensing distance 10 mm	-	-	-	-	-	-	OBJ-LUT3-10	2016348
		Lens, sensing distance 10 mm							OBJ-LUT3-20	2016349
		Lens, sensing distance 10 mm							OBJ-LUT3-50	2016350
	 Illustration may differ	Plug connectors and cables	Female connector	Connector M12, 5-pin	IP 67	Straight	PVC	2 m	-	DOL-1205-G02M
-							-	-	DOS-1205-G	6009719
-							-	-	DOS-1205-W	6009720
	Reference materials	Crayon	-	-	-	-	-	-	LUM-FT	1004460
		Writing chalk					-	-	LUM-KLK	1002959

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## At a glance

- Detection of transparent, opaque or printed labels
- Unaffected by metallic foils and labels
- Fast response time of 250 µs
- Simple and accurate adjustment via “+”/”-”-buttons or teach-in
- Rugged, IP 65 aluminum housing

## Your benefits

- Reliable label detection, regardless if labels are transparent, opaque or have a printed design, ensuring greater flexibility with one sensor
- Fast response times enable precise detection – even at high web speeds
- The aluminum housing meets all requirements for use in harsh industrial conditions
- Setting the switching threshold using the +/- push buttons or teach-in
- Ultrasonic technology prevents false detection, which may be caused by ambient light or shiny surfaces

→ [www.mysick.com/en/UF](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.



## Ordering information

Other models available at [www.mysick.com/en/UF](http://www.mysick.com/en/UF)

- **Fork width:** 3 mm
- **Fork depth:** 69 mm
- **MDO:** 2 mm (Minimum detectable object.)
- **Connection type:** Connector M8, 4-pin

Response time	Adjustment	Switching output	Model name	Part no.
250 µs	Dynamic teach-in Static teach-in	PNP	UFN3-70P415	6049679
		NPN	UFN3-70N415	6049680
300 µs	Manual (“+”/”-” button)	PNP/NPN	UF3-70B413	6049678

## Accessories

	Accessory category	Connection type	Connector type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Plug connectors and cables	Connector M8, 4-pin	Female connector	IP 67	Straight	PVC	2 m	DOL-0804-G02M	6009870
					Angled	PVC	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 available at [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

Adjustment	Fork width	Fork depth	Model name	Part no.
Manual (“+”/”-” button)	2 mm	42 mm	WF2-40B410	6028428
		59 mm	WF2-60B410	6028436
		95 mm	WF2-95B410	6028443
	5 mm	42 mm	WF5-40B410	6028429
		42 mm	WF15-40B410	6028430
	15 mm	59 mm	WF15-60B410	6028438
		42 mm	WF30-40B410	6028431
	30 mm	59 mm	WF30-60B410	6028439
		42 mm	WF50-40B410	6028432
	50 mm	59 mm	WF50-60B410	6028440
		42 mm	WF80-40B410	6028433
	80 mm	42 mm	WF120-40B410	6028435
		59 mm	WF120-60B410	6028442
	120 mm	42 mm	WF120-40B410	6028435
59 mm		WF120-60B410	6028442	

Adjustment	Fork width	Fork depth	Model name	Part no.
Teach-in	2 mm	42 mm	WF2-40B416	6028450
		59 mm	WF2-60B416	6028457
		95 mm	WF2-95B416	6028464
	5 mm	42 mm	WF5-40B416	6028451
		59 mm	WF5-60B416	6028458
	15 mm	42 mm	WF15-40B416	6028452
		59 mm	WF15-60B416	6028459
	30 mm	42 mm	WF30-40B416	6028453
		59 mm	WF30-60B416	6028460
	50 mm	42 mm	WF50-40B416	6028454
		59 mm	WF50-60B416	6028461
	80 mm	42 mm	WF80-40B416	6028455
		59 mm	WF80-60B416	6028462
	120 mm	42 mm	WF120-40B416	6028456

## Accessories

	Accessory category	Connection type	Connector type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Plug connectors and cables	Connector M8, 4-pin	Female connector	IP 67	Straight	PVC	2 m	DOL-0804-G02M	6009870
					Angled	PVC	2 m	DOL-0804-W02M	6009871
							5 m	DOL-0804-W05M	6009873



## At a glance

- Very precise laser beam (Class 1 laser)
- Simple and accurate adjustment via teach-in
- Fast response time (max. 100  $\mu$ s)
- Minimum detectable object size of 0.05 mm
- 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

- A highly precise laser beam ensures consistent measurement accuracy along the entire measuring range and reliable detection of the smallest objects
- A visible laser light spot enables easy alignment and fast adjustment
- Reliable and simple setting via teach-in ensures high process reliability
- 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/WFL](http://www.mysick.com/en/WFL)

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



## Ordering information

Other models available at [www.mysick.com/en/WFL](http://www.mysick.com/en/WFL)



- **Response time:** 100  $\mu$ s (Signal transit time with resistive load.)
- **MDO:** 0.05 mm
- **Switching output:** PNP/NPN
- **Adjustment:** Teach-in

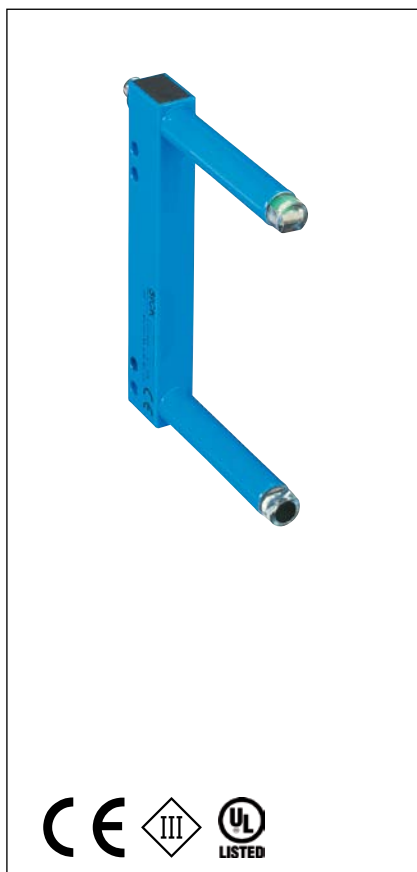
Fork width	Fork depth	Model name	Part no.
2 mm	59 mm	WFL2-60B416	6036828
	42 mm	WFL2-40B416	6036821
	95 mm	WFL2-95B416	6036835
5 mm	59 mm	WFL5-60B416	6036829
	42 mm	WFL5-40B416	6036822
	95 mm	WFL5-95B416	6036836
15 mm	42 mm	WFL15-40B416	6036823
	59 mm	WFL15-60B416	6036830
	95 mm	WFL15-95B416	6036837
30 mm	42 mm	WFL30-40B416	6036824
	59 mm	WFL30-60B416	6036831
	95 mm	WFL30-95B416	6036838
50 mm	42 mm	WFL50-40B416	6036825
	59 mm	WFL50-60B416	6036832
	95 mm	WFL50-95B416	6036839



Fork width	Fork depth	Model name	Part no.
80 mm	42 mm	WFL80-40B416	6036826
	59 mm	WFL80-60B416	6036833
	95 mm	WFL80-95B416	6036840
120 mm	42 mm	WFL120-40B416	6036827
	59 mm	WFL120-60B416	6036834
	95 mm	WFL120-95B416	6036841

## Accessories

	Accessory category	Connection type	Connector type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Plug connectors and cables	Connector M8, 4-pin	Female connector	IP 67	Straight	PVC	2 m	DOL-0804-G02M	6009870
					Angled	PVC	2 m	DOL-0804-W02M	6009871
							5 m	DOL-0804-W05M	6009873



### 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 available at [www.mysick.com/en/WFM](http://www.mysick.com/en/WFM)

- **Response time:** 125 µs (Signal transit time with resistive load.)
- **MDO:** 0.8 mm (Minimum detectable object.)
- **Connection type:** Connector M8, 3-pin
- **Adjustment:** -

Fork width	Fork depth	Switching output	Switching function	Model name	Part no.
30 mm	42 mm	PNP	Dark switching	WFM30-40P321	6037819
			Light switching	WFM30-40P311	6037820
50 mm	60 mm	NPN	Dark switching	WFM30-40N321	6037821
			Light switching	WFM50-60P321	6037824
80 mm	60 mm	PNP	Dark switching	WFM50-60P311	6037825
			Light switching	WFM50-60N321	6037826
120 mm	124 mm	NPN	Dark switching	WFM80-60P321	6037828
			Light switching	WFM80-60P311	6037829
120 mm	124 mm	PNP	Dark switching	WFM80-60N321	6037830
			Light switching	WFM120-120P321	6037832
120 mm	124 mm	NPN	Dark switching	WFM120-120P311	6037833
			Light switching	WFM120-120N321	6037834

## Accessories

	Accessory category	Connection type	Connector type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Plug connectors and cables	Connector M8, 3-pin	Female connector	IP 67	Straight	PVC	2 m	DOL-0803-G02M	6010785
					Angled	PVC	2 m	DOL-0803-W02M	6008489



## At a glance

- Optimized housing with slim fork shape
- Dynamic teach-in via teach or control panel and manual fine adjustment with “+”/“-” buttons
- Light/dark switching function
- Fast response time of 50  $\mu$ s
- PNP or NPN
- IP 65 plastic housing
- Switching output also during teach-in active

## Your benefits

- Slim design allows flexible mounting close to the dispenser of the label which ensures higher accuracy in the process
- Compact housing ensures space-saving installation
- User friendly adjustment allows easy and quick start-up
- External teach-in allows automatic threshold adjustment via the PLC during the process which ensures reliable detection all the time
- Short and fast response times enables precise detection – even at high web speeds

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

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



## Ordering information

Other models available at [www.mysick.com/en/WFS](http://www.mysick.com/en/WFS)

- **Fork width:** 3 mm
- **Fork depth:** 42 mm
- **Response time:** 50  $\mu$ s (Signal transit time with resistive load.)
- **MDO:** 2 mm (Minimum detectable object.)
- **Adjustment:** Teach-in dynamic/static, manual (“+”/“-” button)
- **Connection type:** Connector M8, 4-pin

Switching output	Model name	Part no.
PNP	WFS3-40P415	6043919
NPN	WFS3-40N415	6043920

## Accessories

	Accessory category	Connection type	Connector type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Plug connectors and cables	Connector M8, 4-pin	Female connector	IP 67	Straight	PVC	2 m	DOL-0804-G02M	6009870
					Angled	PVC	2 m	DOL-0804-W02M	6009871
							5 m	DOL-0804-W05M	6009873



### At a glance

- Proximity contrast line sensor in a compact housing
- Application-specific sensor functions
- Detect position of edge of material
- Diameter, width and gap detection of different objects
- Very high reproducibility of 0.03 mm
- Large measurement range: 30 mm
- Visible white LED light spot to enable accurate alignment
- Simple setup, no teach-in necessary

### Your benefits

- Cost-effective solution to reliably determine edge position and width measurement
- Easy-to-integrate, compact housing can be mounted over the web so less downtime is required for maintenance
- No reflector is required, reducing maintenance and providing greater product reliability. Reduces downtime. Only array sensors available in diffuse mode, making them ideal for environments where dirt and dust can interfere with other types of solutions that require a reflector.
- High reproducibility of 0.03 mm and industry-leading resolution enable greater accuracy and quality control
- Highly visible white LED light spot ensures fast and accurate alignment, reducing time-consuming fine adjustment
- No teach, program or menu activities make setup virtually hassle free

→ [www.mysick.com/en/Ax20](http://www.mysick.com/en/Ax20)

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



### Ordering information

Other models available at [www.mysick.com/en/Ax20](http://www.mysick.com/en/Ax20)

Functional principle	Sensing distance	Measurement range	Repeatability	MDO	Switching output	Model name	Part no.
Edge detection, proximity and reflector	25 mm	20 mm	0.03 mm <sup>1)</sup>	0.8 mm <sup>2)</sup>	Q (PNP) <sup>3)</sup>	AT20E-PM111	1044484
					Q (NPN) <sup>3)</sup>	AT20E-NM111	1046458
	100 mm	30 mm	0.05 mm <sup>1)</sup>	1.6 mm <sup>2)</sup>	Q (PNP) <sup>3)</sup>	AT20E-PM331	1045990
					Q (NPN) <sup>3)</sup>	AT20E-NM331	1046459
Edge detection, reflector	25 mm	20 mm	0.03 mm <sup>1)</sup>	0.8 mm <sup>2)</sup>	Q (PNP) <sup>3)</sup>	AL20E-PM111	1046463
					Q (NPN) <sup>3)</sup>	AL20E-NM111	1046460
	100 mm	30 mm	0.05 mm <sup>1)</sup>	1.6 mm <sup>2)</sup>	Q (PNP) <sup>3)</sup>	AL20E-PM331	1046462
					Q (NPN) <sup>3)</sup>	AL20E-NM331	1046461
Diameter detection, proximity and reflector	25 mm	20 mm	0.03 mm <sup>1)</sup>	0.8 mm <sup>2)</sup>	Q (PNP) <sup>3)</sup>	AT20D-PM111	1046464
					Q (NPN) <sup>3)</sup>	AT20D-NM111	1046466
	100 mm	30 mm	0.05 mm <sup>1)</sup>	1.6 mm <sup>2)</sup>	Q (PNP) <sup>3)</sup>	AT20D-PM331	1046465
					Q (NPN) <sup>3)</sup>	AT20D-NM331	1046467






<sup>1)</sup> With respect to sensing distance.

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

<sup>3)</sup> Active when object detected.



## Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Mounting brackets/ plates	Mounting brackets	-	-	-	-	-	BEF-WN-DT20	4043524
 Illustration may differ	Plug connectors and cables	Female connector	Connector M12, 5-pin	IP 67	Straight	PVC	2 m	DOL-1205-G02M	6008899
					Angled	PVC	2 m	DOL-1205-W02M	6008900
					Straight	-	-	DOS-1205-G	6009719
					Angled	-	-	DOS-1205-W	6009720
	Reflectors	Reflective tape	-	-	-	-	-	REF-AX002	2049249
								REF-AX002	2049250



## Distance sensors from SICK – precision for measuring tasks



### Distance sensors

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.









Distance sensors

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	<b>OD Precision</b> . . . . . 284 Three sensor heads with one controller unit: measuring each dimension with high precision
	<b>DT20 Hi</b> . . . . . 286 Reliable, accurate distance measurement up to 1 m
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### Distance sensor selection guide

Product family	Measuring ranges											
	0.01	0.1	0.5	1	5	10	100	500	1,000	5,000	10,000	
OD Value		0.026 m - 0.4 m										
OD Precision		0.024 m - 0.7 m										
DT20 Hi		0.05 m - 1 m										
Dx35		0.05 m - 12 m										
Dx50		0.2 m - 50 m										
Dx100		0.15 m - 300 m										
DMT		0.5 m - 155 m										
OLM100	0 m - 10,000 m											
UM18		0.02 m - 1.3 m										
UM30		0.03 m - 8 m										
UC4		0.013 m - 0.25 m										
UC12		0.02 m - 0.35 m										
ISD400		Transmission range: 0.2 m - 180 m										

	Principle of operation					Page
	Triangulation	Time-of-flight	Optical linear	Ultrasonic	Optical data transmission	
	■					282
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		■				288
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				■		300
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CE III CDRH  
RS-422

### 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 available at [www.mysick.com/en/OD\\_Value](http://www.mysick.com/en/OD_Value)

Measuring range <sup>1)</sup>	Resolution	Repeatability <sup>1) 2) 3) 4)</sup>	Linearity <sup>4) 5) 6)</sup>	Typ. light spot size (distance)	Response time <sup>7)</sup>	Data interface <sup>8)</sup>	Connection type	Switching output <sup>9)</sup>	Model name	Part no.
26 mm ... 34 mm	2 µm	6 µm	± 8 µm	0.1 mm x 0.1 mm (30 mm)	1 ms / 10 ms / 35 ms	4 mA ... 20 mA (≤ 300 Ω)	Connector M12, 8-pin	2 x PNP (100 mA)	OD2-P30W04I0	6036580
								2 x NPN (100 mA)	OD2-N30W04I0	6036572
40 mm ... 60 mm	5 µm	15 µm	± 20 µm	0.5 mm x 1 mm (50 mm)	1 ms / 10 ms / 35 ms	4 mA ... 20 mA (≤ 300 Ω)	Connector M12, 8-pin	2 x PNP (100 mA)	OD2-P50W10I0	6036597
								2 x NPN (100 mA)	OD2-N50W10I0	6036588
65 mm ... 105 mm	10 µm	30 µm	± 40 µm	0.8 mm x 1.3 mm (85 mm)	1 ms / 10 ms / 35 ms	4 mA ... 20 mA (≤ 300 Ω)	Connector M12, 8-pin	2 x PNP (100 mA)	OD2-P85W20I0	6036613
								2 x NPN (100 mA)	OD2-N85W20I0	6036605
60 mm ... 180 mm	30 µm	90 µm	± 120 µm	1 mm x 1.5 m (120 mm)	1 ms / 10 ms / 35 ms	4 mA ... 20 mA (≤ 300 Ω)	Connector M12, 8-pin	2 x PNP (100 mA)	OD2-P120W60I0	6036629
								2 x NPN (100 mA)	OD2-N120W60I0	6036621

<sup>1)</sup> 6 % ... 90 % remission.

<sup>2)</sup> At averaging function medium.

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

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

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

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

<sup>7)</sup> Automatic sensitivity adjustment ≤ 4 ms, 6 ms for the models with measuring range of 100 mm ... 400 mm.

<sup>8)</sup> Resolution analog output 16 bit.

<sup>9)</sup> PNP: HIGH = V<sub>S</sub> - (< 2 V) / LOW = < 2 V; NPN: HIGH = < 2 V / LOW = V<sub>S</sub>.

Measuring range <sup>1)</sup>	Resolution	Repeat-ability <sup>1) 2) 3) 4)</sup>	Linearity <sup>4) 5) 6)</sup>	Typ. light spot size (dis- tance)	Re- sponse time <sup>7)</sup>	Data inter- face <sup>8)</sup>	Con- nection type	Switch- ing output <sup>9)</sup>	Model name	Part no.
100 mm ... 400 mm	75 µm	225 µm	± 750 µm	1.8 mm x 3.5 mm (250 mm)	2 ms / 15 ms / 50 ms	4 mA ... 20 mA (≤ 300 Ω)	Connc- tor M12, 8-pin	2 x PNP (100 mA)	OD2-P250W150I0	6036645
						RS-422	Cable 2 m	2 x PNP (100 mA)	OD2- P250W150A2	6036644
						4 mA ... 20 mA (≤ 300 Ω)	Connc- tor M12, 8-pin	2 x NPN (100 mA)	OD2- N250W150I0	6036637

<sup>1)</sup> 6 % ... 90 % remission.

<sup>2)</sup> At averaging function medium.

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

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

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



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

<sup>7)</sup> Automatic sensitivity adjustment ≤ 4 ms, 6 ms for the models with measuring range of 100 mm ... 400 mm.

<sup>8)</sup> Resolution analog output 16 bit.

<sup>9)</sup> PNP: HIGH =  $V_s - (< 2 V)$  / LOW =  $< 2 V$ ; NPN: HIGH =  $< 2 V$  / LOW =  $V_s$ .

## Accessories

	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Plug connectors and cables	Female connector, M12, 8-pin, straight, 2 m, PVC, shielded, special color code	DOL-1208-G02MF	6020663
		Female connector, M12, 8-pin, straight, 5 m, PVC, shielded, special color code	DOL-1208-G05MF	6020664
		Female connector, M12, 8-pin, straight, shielded	DOS-1208-GA	6028369



**At a glance**

- Many measurement ranges from 24 mm ... 26 mm up to 300 mm ... 700 mm
- CMOS receiving element for measurement independent of surface
- High measuring accuracy and frequency
- Glass thickness measurement with just one sensor head
- Different light spot sizes
- Integrated calculations for up to three sensors
- Stand alone use via RS-422

**Your benefits**

- Non-contact measurement improves quality inspection during production
- Surface-independent measurement algorithms ensure minimum machine downtime, regardless of surface gloss or color
- Reduced processing times as a result of the high measuring frequency of up to 10 kHz
- Simple, cost-effective solution for challenging measuring tasks due to a variety of sensor models
- Optional stand-alone operation via RS-422 means the OD Precision offers maximum performance at lower investment costs
- High visibility LC display enables simple, cost-effective setup
- Many interfaces for simple integration into an existing production environment

→ [www.mysick.com/en/OD\\_Precision](http://www.mysick.com/en/OD_Precision)

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



**Ordering information**

Other models available at [www.mysick.com/en/OD\\_Precision](http://www.mysick.com/en/OD_Precision)

**OD Precision sensor head**

- **Output rate:** 0.1 ms (values for stand-alone use: baud rate set to 921.6 kBaud; sensitivity set manually)
- **Note:** OD Precision sensor head can be used with AOD5-P/N1 or stand-alone via RS-422

Measuring range <sup>2)</sup>	Resolution	Repeatability	Linearity <sup>3)</sup>	Response time <sup>4) 5)</sup>	Laser protection class	Typ. light spot size (distance)	Model name	Part no.
24 mm ... 26 mm	0.02 µm <sup>1)</sup>	0.06 µm <sup>2)</sup>	± 1.6 µm	0.1 ms	1 (EN 60825-1)	25 µm x 35 µm (25 mm)	OD5-25T01	6035975
						100 µm x 700 µm (25 mm)	OD5-25W01	6035976
25 mm ... 35 mm	0.2 µm <sup>3)</sup>	0.6 µm <sup>6)</sup>	± 8 µm	0.1 ms	2 (EN 60825-1)	30 µm x 100 µm (30 mm)	OD5-30T05	6035977
						260 µm x 1,000 µm (30 mm)	OD5-30W05	6035978
65 mm ... 105 mm	1 µm <sup>3)</sup>	3 µm <sup>6)</sup>	± 20 µm	0.1 ms	2 (EN 60825-1)	70 µm x 290 µm (85 mm)	OD5-85T20	6035979
						260 µm x 1,200 µm (85 mm)	OD5-85W20	6035980

<sup>1)</sup> Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256, for OD25-x: 4096.

<sup>2)</sup> Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256, for OD25-x: 4096; constant ambient conditions; 6 % to 90 % remission at default settings.

<sup>3)</sup> Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror; averaging set to: 4096.

<sup>4)</sup> Time needed for automatic sensitivity adjustment is calculated as: sampling period x 20. At default setting 100 µs (10kHz) this is ≤ 2ms.

<sup>5)</sup> Default setting for OD5-350x100 and OD5-500x200 = 0.8 ms, 1.25 kHz likewise, all other types = 0.1 ms / 10 kHz.

<sup>6)</sup> Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror; averaging set to: 4096; constant ambient conditions.

Measuring range <sup>2)</sup>	Resolution	Repeat-ability	Linear-ity <sup>3)</sup>	Response time <sup>4) 5)</sup>	Laser protec-tion class	Typ. light spot size (distance)	Model name	Part no.
250 mm ... 450 mm	5 $\mu\text{m}$ <sup>3)</sup>	15 $\mu\text{m}$ <sup>6)</sup>	$\pm 160 \mu\text{m}$	0.1 ms	2 (EN 60825-1)	700 $\mu\text{m}$ x 2,400 $\mu\text{m}$ (350 mm)	OD5-350W100	6035981
300 mm ... 700 mm	10 $\mu\text{m}$ <sup>3)</sup>	30 $\mu\text{m}$ <sup>6)</sup>	$\pm 320 \mu\text{m}$	0.1 ms	2 (EN 60825-1)	1,000 $\mu\text{m}$ x 3,700 $\mu\text{m}$ (500 mm)	OD5-500W200	6035982

<sup>1)</sup> Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256, for OD25-x: 4096.

<sup>2)</sup> Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256, for OD25-x: 4096; constant ambient conditions; 6 % to 90 % remission at default settings.

<sup>3)</sup> Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror; averaging set to: 4096.

<sup>4)</sup> Time needed for automatic sensitivity adjustment is calculated as: sampling period x 20. At default setting 100  $\mu\text{s}$  (10kHz) this is  $\leq 2\text{ms}$ .

<sup>5)</sup> Default setting for OD5-350x100 and OD5-500x200 = 0.8 ms, 1.25 kHz likewise, all other types = 0.1 ms / 10 kHz.

<sup>6)</sup> Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror; averaging set to: 4096; constant ambient conditions.



## OD Precision controller unit

Switching output <sup>1) 2)</sup>	Typ	Artikelnr.
5 x PNP (100 mA)	AOD5-P1	6035985
5 x NPN (100 mA)	AOD5-N1	6035984

<sup>1)</sup> PNP: HIGH =  $U_V - (< 2 \text{ V})$  / LOW =  $< 2 \text{ V}$ ; NPN: HIGH =  $< 2 \text{ V}$  / LOW =  $U_V$ .

<sup>2)</sup> With use of external 50-pin terminal (accessories).

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Adapters/distributors	External in- and output terminal, 50-pin, and cable, PVC, 3 m, open ends	IO-EXP-AOD5	6035990
		Terminal block for AOD5-P1/AOD5-N1 (OD Precision)	TERM.-AOD5	6035989
 Illustration may differ	Plug connectors and cables	Female connector, M12, 12-pin, straight, 5 m, PVC, shielded, for stand-alone use	D0L-1212-G05M	6035988
		Connection cable, M12, 12-pin, connector straight/socket straight, 2 m	DSL-1212-G02M	6035986
		Connection cable, M12, 12-pin, connector straight/socket straight, 5 m	DSL-1212-G05M	6035987



## At a glance

- Four measuring ranges from 50 mm up to 1,000 mm
- Very high linearity of up to  $\pm 0.5$  mm
- CMOS receiving element enables accurate distance measurement independent of color or shininess
- Red laser
- Scaleable analog and switching output
- Display with easy to use setup menu
- Advanced settings (e.g., averaging function, external laser-off, etc.)

## Your benefits

- Reliable, precise measurement, independent of surface, increases production quality
- Reliable and consistent measurements, regardless of color, reduce changeover time
- Advanced settings provide increased application flexibility to easily solve customer-specific applications
- Fast commissioning via button, remote or numerical teach
- Easy, precise alignment and verification based on red laser light and LC display, decreasing commissioning time
- Tough metal housing permits operation in harsh environments

→ [www.mysick.com/en/DT20\\_Hi](http://www.mysick.com/en/DT20_Hi)

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



## Ordering information

Other models available at [www.mysick.com/en/DT20\\_Hi](http://www.mysick.com/en/DT20_Hi)

- **Laser protection class:** 2 (EN 60825-1)
- **Measuring frequency:** 400 Hz
- **Response time:** 2,5 ms / 10 ms / 40 ms (Dependent on the set average: fast/medium/slow.)

Measuring range <sup>1)</sup>	Resolution <sup>1)</sup>	Repeatability <sup>1) 2) 3)</sup>	Linearity <sup>3) 4)</sup>	Typ. light spot size (distance)	Switching output <sup>5)</sup>	Model name	Part no.
50 mm ... 150 mm	0.1 mm	0.5 mm / 0.25 mm / 0.125 mm	$\pm 0.5$ mm	2 mm x 4 mm (150 mm)	1 x PNP (100 mA)	DT20-P254B	1041278
100 mm ... 300 mm	0.2 mm	1 mm / 0.5 mm / 0.25 mm	$\pm 1$ mm	3 mm x 6 mm (300 mm)	1 x PNP (100 mA)	DT20-P244B	1040406
50 mm ... 150 mm,	0.1 mm	0.5 mm / 0.25 mm / 0.125 mm	$\pm 0.5$ mm	2 mm x 4 mm (150 mm)	1 x NPN (100 mA)	DT20-N254B	1041279
100 mm ... 300 mm	0.2 mm	1 mm / 0.5 mm / 0.25 mm	$\pm 1$ mm	3 mm x 6 mm (300 mm)	1 x NPN (100 mA)	DT20-N244B	1040713
100 mm ... 600 mm	0.5 mm	2 mm / 1 mm / 0.5 mm	$\pm 2$ mm	3 mm x 6 mm (600 mm)	1 x PNP (100 mA)	DT20-P214B	1040012
					1 x NPN (100 mA)	DT20-N214B	1040140
100 mm ... 1,000 mm	1 mm <sup>6)</sup>	10 mm / 5 mm / 2.5 mm <sup>6)</sup>	$\pm 6$ mm <sup>6)</sup>	6 mm x 12 mm (1000 mm)	1 x PNP (100 mA)	DT20-P224B	1040405
					1 x NPN (100 mA)	DT20-N224B	1044216

<sup>1)</sup> 6 % ... 90 % remission.

<sup>2)</sup> Dependent on the set average: fast/medium/slow.

<sup>3)</sup> When calibrated in the application regularly.




<sup>4)</sup> 90 % remission.

<sup>5)</sup> PNP: HIGH =  $V_s - (< 2 V)$  / LOW =  $< 2 V$ ; NPN: HIGH =  $< 2 V$  / LOW =  $V_s$ .

<sup>6)</sup> The models with measuring range of 100 mm ... 1,000 mm meets the specification of the models with measuring range of 100 mm ... 1,000 mm for distances  $< 600$  mm.



## Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/plates	Mounting bracket, stainless steel (1.4404), without mounting material, for DT20 Hi	BEF-WN-DT20	4043524
 Illustration may differ	Plug connectors and cables	Female connector, M12, 5-pin, straight, 2 m, PVC	DOL-1205-G02M	6008899
		Female connector, M12, 5-pin, straight, 5 m, PVC	DOL-1205-G05M	6009868
Female connector, M12, 5-pin, straight, 10 m, PVC		DOL-1205-G10M	6010544	
 Illustration may differ		Female connector, M12, 5-pin, angled, 2 m, PVC	DOL-1205-W02M	6008900
		Female connector, M12, 5-pin, angled, 5 m, PVC	DOL-1205-W05M	6009869
		Female connector, M12, 5-pin, angled, 10 m, PVC	DOL-1205-W10M	6010542



### At a glance

- HDDM™ technology provides the best reliability, ambient light immunity and price/performance ratio
- Measuring range: 50 mm ... 12,000 mm, depending on individually adjustable response time
- Response time: 2.5 ms ... 192 ms
- Accuracy:  $\pm 10$  mm
- Repeatability: 0.5 mm ... 5 mm
- Small housing size
- Laser classes 1 and 2 available
- IO-Link as well as analog and switching output

### Your benefits

- Smallest blind zone and reduced housing size allow for use in confined spaces
- Consistent, reliable and precise measurement even when measuring extremely shiny or dark objects
- Ideal solution for any application requirement by choosing response time and measurement range individually
- Three switching modes provide a simple solution to challenging applications
- No cross talk allows several sensors to be used simultaneously in confined spaces
- Simple and fast teach-in reduces commissioning costs
- IO-Link enables fast batch changes as well as simple maintenance and remote diagnostics
- Low investment costs and high performance guarantee quick return on investment

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

- **Measuring range:** 50 mm ... 12,000 mm (90 % remission; for speed setting Super Slow), 50 mm ... 5,300 mm (18 % remission), 50 mm ... 3,100 mm (6 % remission)
- **Switching output:** 1 x / 1 x / 2 x push-pull: PNP/NPN (100 mA), IO-Link (output Q short-circuit protected; voltage drop < 3 V; output Q<sub>2</sub> selectable: 4 mA ... 20 mA, 0 V ... 10 V or switching output)
- **Multifunctional input:** 1 x (Response time  $\leq 60$  ms)
- **Analog output:** 1 x 4 mA ... 20 mA ( $\leq 450 \Omega$ )/1 x 0 V ... 10 V ( $\geq 50 \text{ k}\Omega$ )/ - (Output Q<sub>2</sub> selectable: 4 mA ... 20 mA, 0 V ... 10 V or switching output).

Laser protection class <sup>1)</sup>	Model name	Part no.
2 (EN 60825-1)	DT35-B15251	1057652
1 (EN 60825-1)	DT35-B15551	1057651

<sup>1)</sup> Wavelength: 658 nm; max. output: 250 mW; pulse duration: 4 ns; pulse repetition rate: 1/250.

## Accessories

	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Plug connectors and cables	Female connector, M12, 5-pin, straight, 2 m, PVC	DOL-1205-G02M	6008899
		Female connector, M12, 5-pin, straight, 5 m, PVC	DOL-1205-G05M	6009868
		Female connector, M12, 5-pin, straight, 10 m, PVC	DOL-1205-G10M	6010544
 Illustration may differ		Female connector, M12, 5-pin, angled, 2 m, PVC	DOL-1205-W02M	6008900
		Female connector, M12, 5-pin, angled, 5 m, PVC	DOL-1205-W05M	6009869
		Female connector, M12, 5-pin, angled, 10 m, PVC	DOL-1205-W10M	6010542



### 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
- Low to reasonable investment costs and high to very high performance levels ensure short return on investment

→ [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 available at [www.mysick.com/en/Dx50](http://www.mysick.com/en/Dx50)

Measuring range <sup>7)</sup>	Laser protection class	Switching output <sup>2)</sup>	Analog output	Model name	Part no.
200 mm ... 10,000 mm 200 mm ... 6,500 mm 200 mm ... 4,000 mm	2 (EN 60825-1) <sup>1)</sup>	1 x PNP (100 mA) <sup>3)</sup>	1x 0 V ... 10 V (≥ 5 kΩ)	DT50-P1114	1047581
		1 x NPN (100 mA) <sup>6)</sup>	1 x 4 mA ... 20 mA (≤ 300 Ω)	DT50-N1113	1047396
			1x 0 V ... 10 V (≥ 5 kΩ)	DT50-N1114	1047582
		1 x PNP (100 mA) <sup>3)</sup>	1 x 4 mA ... 20 mA (≤ 300 Ω)	DT50-P1113	1044369
200 mm ... 20,000 mm 200 mm ... 8,500 mm 200 mm ... 5,000 mm	2 (EN 60825-1) <sup>1)</sup>	1 x NPN (100 mA) <sup>6)</sup>	1 x 4 mA ... 20 mA (≤ 300 Ω)	DT50-N2113	1047398
		1 x PNP (100 mA) <sup>3)</sup>	1 x 4 mA ... 20 mA (≤ 300 Ω)	DT50-P2113	1047314
	2 (EN 60825-1) <sup>1)</sup>	2 x PNP (100 mA) <sup>3)</sup>	-	DS50-P2112	1047407
		2 x NPN (100 mA) <sup>6)</sup>	-	DS50-N2112	1047408
	1 (EN 60825-1) <sup>9)</sup>	2 x PNP (100 mA) <sup>3)</sup>	-	DS50-P2122	1047409
		2 x NPN (100 mA) <sup>6)</sup>	-	DS50-N2122	1047410

<sup>1)</sup> Wavelength: 658 nm; max. output: 180 mW; pulse duration: 5 ns; pulse repetition rate: 1/200. <sup>2)</sup> Output Q short-circuit protected.

<sup>3)</sup> PNP: HIGH = V<sub>S</sub> - (< 2.5 V) / LOW = 0 V. <sup>4)</sup> Response time ≤ 15ms.

<sup>5)</sup> PNP: HIGH = V<sub>S</sub> / LOW = ≤ 2.5 V. <sup>6)</sup> NPN: HIGH = < 2.5 V / LOW = V<sub>S</sub>. <sup>7)</sup> 90% / 18% / 6% remission.

<sup>8)</sup> On Diamond Grade.

<sup>9)</sup> Wavelength: 658 nm; max. output: 120 mW; pulse duration: 2.5 ns; pulse repetition rate: 1/400.

<sup>10)</sup> Wavelength: 658 nm; max. output: 80 mW; pulse duration: 2.5 ns; pulse repetition rate: 1/240.

<sup>11)</sup> Dependent on the set function MF: switching output 2 / laser off, external teach.

<sup>12)</sup> Response time ≤ 60 ms.

Measuring range <sup>7)</sup>	Laser protection class	Switching output <sup>2)</sup>	Analog output	Model name	Part no.
200 mm ... 50,000 mm <sup>8)</sup>	1 (EN 60825-1) <sup>9)</sup>	1 x PNP (100 mA) <sup>3)</sup>	1 x 4 mA ... 20 mA ( $\leq 300 \Omega$ )	DL50-P1123	1047361
		1 x NPN (100 mA) <sup>6)</sup>	1 x 4 mA ... 20 mA ( $\leq 300 \Omega$ )	DL50-N1123	1047401
	1 (EN 60825-1) <sup>10)</sup>	2 x / 1 x PNP (100 mA) <sup>3) 11)</sup>	-	DL50-P2225	1048418
		2 x / 1 x NPN (100 mA) <sup>6) 11)</sup>	-	DL50-N2225	1048419
200 mm ... 10,000 mm 200 mm ... 5,000 mm 200 mm ... 2,500 mm	1 (EN 60825-1) <sup>9)</sup>	1 x PNP (100 mA) <sup>3)</sup>	1 x 4 mA ... 20 mA ( $\leq 300 \Omega$ )	DT50-P1123	1047118
		1 x NPN (100 mA) <sup>6)</sup>	1 x 4 mA ... 20 mA ( $\leq 300 \Omega$ )	DT50-N1123	1047397
		1 x PNP (100 mA) <sup>3)</sup>	1 x 0 V ... 10 V ( $\geq 5 \text{ k}\Omega$ )	DT50-P1124	1047616
		1 x NPN (100 mA) <sup>6)</sup>	1 x 0 V ... 10 V ( $\geq 5 \text{ k}\Omega$ )	DT50-N1124	1047617
200 mm ... 10,000 mm 200 mm ... 6,000 mm 200 mm ... 4,000 mm	2 (EN 60825-1) <sup>1)</sup>	2 x PNP (100 mA) <sup>3)</sup>	-	DS50-P1112	1047402
		2 x NPN (100 mA) <sup>6)</sup>	-	DS50-N1112	1047404
	1 (EN 60825-1) <sup>9)</sup>	2 x PNP (100 mA) <sup>3)</sup>	-	DS50-P1122	1047405
		2 x NPN (100 mA) <sup>6)</sup>	-	DS50-N1122	1047406
200 mm ... 13,000 mm 200 mm ... 5,800 mm 200 mm ... 3,400 mm	1 (EN 60825-1) <sup>9)</sup>	1 x PNP (100 mA) <sup>3)</sup>	1 x 4 mA ... 20 mA ( $\leq 300 \Omega$ )	DT50-P2123	1047399
		1 x NPN (100 mA) <sup>6)</sup>	1 x 4 mA ... 20 mA ( $\leq 300 \Omega$ )	DT50-N2123	1047400

<sup>1)</sup> Wavelength: 658 nm; max. output: 180 mW; pulse duration: 5 ns; pulse repetition rate: 1/200. <sup>2)</sup> Output Q short-circuit protected.

<sup>3)</sup> PNP: HIGH =  $V_S - (< 2.5 \text{ V})$  / LOW = 0 V. <sup>4)</sup> Response time  $\leq 15 \text{ ms}$ .

<sup>5)</sup> PNP: HIGH =  $V_S$  / LOW =  $\leq 2.5 \text{ V}$ . <sup>6)</sup> NPN: HIGH =  $< 2.5 \text{ V}$  / LOW =  $V_S$ . <sup>7)</sup> 90% / 18% / 6% remission.

<sup>8)</sup> On Diamond Grade.







<sup>9)</sup> Wavelength: 658 nm; max. output: 120 mW; pulse duration: 2.5 ns; pulse repetition rate: 1/400.

<sup>10)</sup> Wavelength: 658 nm; max. output: 80 mW; pulse duration: 2.5 ns; pulse repetition rate: 1/240.

<sup>11)</sup> Dependent on the set function MF: switching output 2 / laser off, external teach.

<sup>12)</sup> Response time  $\leq 60 \text{ ms}$ .

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Device protection (mechanical)	Weather protecting hood for Dx50	OBW-KHS-M02	2050205
	Mounting brackets/plates	Mounting bracket, steel, zinc coated, incl. mounting material, for Dx50	BEF-WN-DX50	2048370
		Mounting bracket for weather-protection hood OBW-KHS, steel, zinc coated, incl. mounting material	BEF-WN-OBW	2023251
 Illustration may differ	Plug connectors and cables	Female connector, M12, 5-pin, straight, 2 m, PVC	DOL-1205-G02M	6008899
		Female connector, M12, 5-pin, straight, 5 m, PVC	DOL-1205-G05M	6009868
		Female connector, M12, 5-pin, straight, 10 m, PVC	DOL-1205-G10M	6010544
 Illustration may differ		Female connector, M12, 5-pin, angled, 2 m, PVC	DOL-1205-W02M	6008900
		Female connector, M12, 5-pin, angled, 5 m, PVC	DOL-1205-W05M	6009869
		Female connector, M12, 5-pin, angled, 10 m, PVC	DOL-1205-W10M	6010542
	Reflectors	Reflector plate, DG tape 330 mm x 330 mm, material: base plate aluminum, screw connection	PL240DG	1017910



### At a glance

- 3-axis alignment bracket with quick lock system
- SpeedCon™ and standard M12 electrical connections
- Small and rugged metal housing
- Display with intuitive menu and easy-to-see status LEDs
- Pre-failure and diagnostic data available
- Numerous fieldbus and Ethernet interfaces
- Elongated holes for precise adjustment of sensor offset (or “home position”)
- Versatile accessories

### Your benefits

- 3-axis alignment bracket ensures fast alignment and easy exchange, reducing maintenance and setup costs
- Enhanced closed-loop behavior offers highest performance and productivity
- Fast setup with an intuitive and easy-to-use display guarantees the perfect sensor settings
- Pre-failure and extensive diagnostic data allow for preventive maintenance, ensuring the highest machine uptime
- Numerous fieldbus and Ethernet-based interfaces offer the highest flexibility and fast communication for maximum efficiency
- Small, rugged metal housing and SpeedCon™ compatible connectors ensure hassle-free installation – even in confined spaces
- Numerous accessories allow flexible use and guarantee high operation functionality

→ [www.mysick.com/en/Dx100](http://www.mysick.com/en/Dx100)

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



### Ordering information

Other models available at [www.mysick.com/en/Dx100](http://www.mysick.com/en/Dx100)

Ambient temperature	Measuring range <sup>3)</sup>	Accuracy	Repeatability <sup>2)</sup>	Interface	Model name	Part no.
Operation -20 °C ... +55 °C <sup>1)</sup> Operation with cooling case -20 °C ... +75 °C Storage -40 °C ... +75 °C	0.15 m ... 100 m	± 2 mm	0.5 mm	SSI	DL100-21AA2101	1052684
				PROFIBUS	DL100-21AA2102	1052686
			RS-422	DL100-21AA2103	1052688	
			PROFINET	DL100-21AA2112	1058164	
	0.15 m ... 200 m	± 2.5 mm	1 mm	SSI	DL100-22AA2101	1052690
				PROFIBUS	DL100-22AA2102	1052692
			RS-422	DL100-22AA2103	1052694	
			PROFINET	DL100-22AA2112	1058166	
	0.15 m ... 300 m	± 3 mm	2 mm	SSI	DL100-23AA2101	1052696
				PROFIBUS	DL100-23AA2102	1052698
			RS-422	DL100-23AA2103	1052700	
			PROFINET	DL100-23AA2112	1058168	

<sup>1)</sup> Temperatures < -10 °C require warm-up time of typ. 7 minutes.

<sup>2)</sup> Statistical error 1 σ, environmental conditions constant, min. warm-up time 10 min.

<sup>3)</sup> On Reflective tape „Diamond Grade“.











Ambient temperature	Measuring range <sup>3)</sup>	Accuracy	Repeatability <sup>2)</sup>	Interface	Model name	Part no.
Operation with heating -40 °C ... +55 °C <sup>1)</sup> Operation with cooling case -40 °C ... +75 °C Storage -40 °C ... +75 °C	0.15 m ... 100 m	± 2 mm	0.5 mm	SSI	DL100-21HA2101	1052685
				PROFIBUS	DL100-21HA2102	1052687
			RS-422	DL100-21HA2103	1052689	
			± 0.5 mm	PROFINET	DL100-21HA2112	1058165
	0.15 m ... 200 m	± 2.5 mm	1 mm	SSI	DL100-22HA2101	1052691
				PROFIBUS	DL100-22HA2102	1052693
			RS-422	DL100-22HA2103	1052695	
			± 0.75 mm	PROFINET	DL100-22HA2112	1058167
	0.15 m ... 300 m	± 3 mm	2 mm	SSI	DL100-23HA2101	1052697
				PROFIBUS	DL100-23HA2102	1052699
			RS-422	DL100-23HA2103	1052701	
			± 1 mm	PROFINET	DL100-23HA2112	1058169

<sup>1)</sup> Temperatures < -10 °C require warm-up time of typ. 7 minutes.

<sup>2)</sup> Statistical error 1 σ, environmental conditions constant, min. warm-up time 10 min.

<sup>3)</sup> On Reflective tape „Diamond Grade“.

### Accessories

	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Plug connectors and cables	Female connector, M12, 4-pin, straight, 5 m, PVC	DOL-1204-G05M	6009866
		Female connector, M12, 5-pin, straight, 5 m, PROFIBUS, shielded	DOL-1205-G05MQ	6026006
		Female connector, M12, 8-pin., straight, 5 m, PUR halogen-free, shielded	DOL-1208-G05MAH1	6032449
		Male connector, M12, 4-pin, straight, PROFIBUS, terminal resistor	PR-STE-END	6021156
		Connecting cable, M12 male connector, D-coded, straight, to RJ45, straight, 5 m	SSL-1204-G05MZ60	6048245
		Connecting cable, M12 male connector, D-coded, straight, to M12 male connector, straight, 5 m	SSL-1204-G05MZ90	6048242
		Connection cable, Ethernet patch cable, 5 m, straight, connector M12, 4-pin to connector RJ-45	SSL-2J04-G05ME	6035389
		Male connector, M12, 5-pin, straight, 5 m, PROFIBUS, shielded	STL-1205-G05MQ	6026005
	Reflectors	Reflector plate, DG tape 665 mm x 665 mm, material: base plate aluminum, screw connection, heated	PL560DG-H	1023888
	Terminal and alignment brackets	Alignment unit for Dx100, steel, zinc coated, incl. mounting material	BEF-AH-DX100	2058653



## At a glance

- Measurement range from 0.5 m up to 155 m on natural targets
- Excellent accuracy thanks to time-of-flight measurement
- Easy alignment thanks to pilot laser
- Freely programmable parameters
- RS-422, RS-232, PROFIBUS, analog and two switching outputs
- Near field blanking parameter for operation through a protection window
- Models with filter for measurement of glowing, hot metal (up to 1,400 °C)

## Your benefits

- Extremely wide measurement range of up to 155 m on natural targets offers high flexibility in applications where range is key
- Supplementary visible alignment laser allows fast and easy alignment – even over long distances, offering fast and cost-effective installation
- Tough metal housing design for trouble-free operation in the roughest environmental conditions
- Non-visible, Class 1 IR laser for safe measurement and detection
- User-friendly software with an easy-to-follow interface ensures fast and cost-optimized setup
- Serial and analog interfaces as well as two digital switching outputs allow flexible use for varied applications
- Integrated filter option allows for direct measurement of 1,400 °C glowing, hot targets

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

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



## Ordering information

Other models available at [www.mysick.com/en/DMT](http://www.mysick.com/en/DMT)

Special characteristic	Measuring range	Response time <sup>1)</sup>	Aperture delay time <sup>2)</sup>	Interface	Model name	Part no.
Mechanical aperture	0.5 m ... 155 m <sup>5)</sup>	1 ms ... 4,000 ms	1 s	RS-422, RS-232 <sup>3)</sup>	DMT10-2-1111	1027603
	0.5 m ... 65 m <sup>6)</sup>			PROFIBUS DP	DMT10-2-1211	1027604
	0.5 m ... 40 m <sup>7)</sup>			RS-422, RS-232 <sup>3)</sup>	DMT10-2-1113	1027605
	0.5 m ... 20 m <sup>4)</sup>			PROFIBUS DP	DMT10-2-1213	1027606
Electronic aperture	0.5 m ... 155 m <sup>5)</sup>	1 ms ... 3,000 ms	1 ms	RS-422, RS-232 <sup>3)</sup>	DMT10-2-2111	1028540
	0.5 m ... 65 m <sup>6)</sup>			PROFIBUS DP	DMT10-2-2211	1028541
	0.5 m ... 40 m <sup>7)</sup>					

<sup>1)</sup> Dependant on average setting, average depth, timeout, baud rate, data output, output format and effective dead time of aperture.

<sup>2)</sup> Dependant on average setting, average depth, timeout, baud rate, data output and output format.

<sup>3)</sup> Switchable. <sup>4)</sup> Max. object temperature 1,400 °C.

<sup>5)</sup> 90% remission. <sup>6)</sup> 18 % remission. <sup>7)</sup> 6 % remission.

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Device protection (mechanical)	Thermo protection cooling case DMTx/DML40, peltier cooling unit, fiber glass housing	Cooling Case DML/DMT	6036183
	Plug connectors and cables	Serial RS-232 connecting cable, 3 m, 9-pin, D-sub, socket/open cable end	Connecting cable (socket-open end)	2020319
	Terminal and alignment brackets	Alignment unit for DMT/DML, steel, zinc coated, incl. mounting material	BEF-GH-DMT	5309130





**At a glance**

- Control marks for special functions and sensor configuration
- Measurement range up to 10 km
- High repeatability of 1 mm
- Adjustable resolution as low as 0.1 mm
- Multiple interfaces: SSI, RS-422, RS-485 and CANopen
- Self-adjusting quadruple redundant red LED lighting
- Integrated skew and bank angle for fast parallel mounting, therefore alignment only in one axis is necessary
- Large temperature range from -30 °C to +60 °C

**Your benefits**

- Precise positioning with speeds of up to 4 m/s significantly increases throughput
- Camera-based system with no moving parts in combination with tough metal housing ensure increased lifetime, thus reducing replacement costs
- High ambient light safety due to selfadjusting LED illumination ensures reliable operation, thus increasing machine availability
- Large temperature range from -30 °C to +60 °C offers flexible and reliable use in many applications
- Various interfaces (RS-422, RS-485, SSI and CANopen) offer highest flexibility and easiest system integration, hence saving costs for interface converters and protocol adaption
- Smallest available housing for common industrial serial interfaces offers easy integration in confined spaces, therefore allowing the customer to save room on his machine design

→ [www.mysick.com/en/OLM100](http://www.mysick.com/en/OLM100)

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



**Ordering information**


Other models available at [www.mysick.com/en/OLM100](http://www.mysick.com/en/OLM100)






- **Resolution:** 0.1 mm, 1 mm

Sensing distance	Bar code width <sup>1)</sup>	Output rate	Data interface	Model name	Part no.
100 mm ± 20 mm (to bar code tape, 30 mm bar code width)	30 mm	1 ms	SSI	OLM100-1001	1047411
			RS-422	OLM100-1003	1047412
		5 ms	RS-485	OLM100-1005	1046580
			CANopen	OLM100-1006	1047413
130 mm ± 20 mm (to bar code tape, 40 mm bar code width)	40 mm	1 ms	SSI	OLM100-1051	1050136
			RS-422	OLM100-1053	1050137
		5 ms	RS-485	OLM100-1055	1050135
			CANopen	OLM100-1056	1050138

<sup>1)</sup> The bar code tape available from SICK always has a width of 30 mm. The bar code tape is available in two heights: 30 mm or 40 mm.

**Accessories**

Accessory category	Brief description	Model name	Part no.
 Codes	Width 30 mm, height 30 mm, scanning range 0 m ... 20 m	Bar code tape	5324069
	Width 30 mm, height 30 mm, scanning range 20 m ... 40 m	Bar code tape	5324070
	Width 30 mm, height 30 mm, scanning range 40 m ... 60 m	Bar code tape	5324071
	Width 30 mm, height 30 mm, scanning range 60 m ... 80 m	Bar code tape	5324072
	Width 30 mm, height 30 mm, scanning range 80 m ... 100 m	Bar code tape	5324073

	Accessory category	Brief description	Model name	Part no.
	Plug connectors and cables	Female connector, M12, 5-pin, straight, 5 m, PUR halogen free, shielded	DOL-1205-G05MAC	6036384
		Female connector, M12, 5-pin, straight, 5 m, CAN/CANopen, shielded on pin 1	DOL-1205-G05M_Can	6021166
		Female connector, M12, 8-pin., straight, 5 m, PUR halogen-free, shielded	DOL-1208-G05MAH1	6032449
		Connection cable, Ethernet patch cable, 2 m, straight, connector M12, 4-pin to connector RJ-45	SSL-2J04-G02ME	6034414
		Male connector, M12, 5-pin, straight, terminal resistor, DeviceNet and CANopen	STE-1205-GKEND	6037193





**At a glance**

- Reliable measurement independent of material color, transparency, gloss and ambient light
- Ranges up to 8 m
- High immunity to dirt, dust, humidity and fog
- Time-of-flight measurement ensures precise background suppression
- Internal temperature compensation
- Tough housing designs in varying shapes and sizes
- Large operational temperature range
- Single button teach-in or advanced setup options available

**Your benefits**

- Intelligent measurement filters assure reliable measurement results for highest process stability
- Synchronization or multiplexing allows simultaneous use of up to 10 sensors, which improves application flexibility and process stability
- Best process quality thanks to high measurement accuracy based on continuous temperature compensation
- Various housing types, different measurement ranges, and several setup options fit a wide range of applications
- Tough sensor designs ensure long lifetime and low service costs
- Compatible housings allow easy interchange of optical and ultrasonic sensors in challenging applications
- Reliable operation in optically challenging applications

→ [www.mysick.com/en/UM18](http://www.mysick.com/en/UM18)

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



**Ordering information**

Other models available at [www.mysick.com/en/UM18](http://www.mysick.com/en/UM18)

Working range, limiting range	Output rate	Ultrasonic frequency (typical)	Sending axis	Response time	Switching frequency	Hysteresis	Switching output <sup>1) 2)</sup>	Analog output	Resolution analog output	Model name	Part no.					
20 mm ... 150 mm, 250 mm	8 ms	380 kHz	Straight	40 ms	25 Hz	2 mm	1 x push-pull: PNP/NPN (100 mA); IO-Link	-	-	UM18-21712A211	6048384					
			Angled								UM18-21712A212	6048385				
			Straight		-	-	-	1 x 4 mA ... 20 mA (≤ 500 Ω) <sup>3) 4)</sup>	12 bit	UM18-217126111	6048386					
			Angled							UM18-217126112	6048387					
			Straight							-	-	-	1 x 0 V ... 10 V (≥ 100 kΩ), <sup>4)</sup>	12 bit	UM18-217127111	6048388
			Angled												UM18-217127112	6048389

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

<sup>2)</sup> Push-Pull: PNP/NPN HIGH = U<sub>v</sub> - (< 4 V) / LOW < 2 V.

<sup>3)</sup> For 4 mA ... 20 mA and V<sub>s</sub> ≤ 20 V max. load ≤ 100 Ω.

<sup>4)</sup> Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

Working range, limiting range	Out-put rate	Ultrasonic frequency (typical)	Send- ing axis	Re- sponse time	Switch- ing fre- quency	Hyster- esis	Switching output <sup>1) 2)</sup>	Analog output	Resolution analog output	Model name	Part no.	
30 mm ... 250 mm, 350 mm	8 ms	320 kHz	Straight	40 ms	25 Hz	3 mm	1 x push-pull: PNP/NPN (100 mA); IO-Link	-	-	UM18-21112A211	6048390	
			Angled									UM18-21112A212
			Straight		-	-	-	1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ ) <sup>3) 4)</sup>	12 bit	UM18-211126111	6048392	
			Angled							UM18-211126112	6048393	
			Straight							12 bit	UM18-211127111	6048394
			Angled								UM18-211127112	6048395
65 mm ... 350 mm, 600 mm	16 ms	400 kHz	Straight	80 ms	12 Hz	5 mm	1 x push-pull: PNP/NPN (100 mA); IO-Link	-	-	UM18-21212A211	6048396	
			Angled									UM18-21212A212
			Straight		-	-	-	1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ ) <sup>3) 4)</sup>	12 bit	UM18-212126111	6048398	
			Angled							UM18-212126112	6048399	
			Straight							12 bit	UM18-212127111	6048400
			Angled								UM18-212127112	6048401
120 mm ... 1,000 mm, 1,300 mm	20 ms	200 kHz	Straight	100 ms	10 Hz	20 mm	1 x push-pull: PNP/NPN (100 mA); IO-Link	-	-	UM18-21812A211	6048402	
			Angled									UM18-21812A212
			Straight		-	-	-	1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ ) <sup>3) 4)</sup>	12 bit	UM18-218126111	6048404	
			Angled							UM18-218126112	6048405	
			Straight							12 bit	UM18-218127111	6048406
			Angled								UM18-218127112	6048407







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

<sup>2)</sup> Push-Pull: PNP/NPN HIGH =  $U_V - (< 4 V) / LOW < 2 V$ .

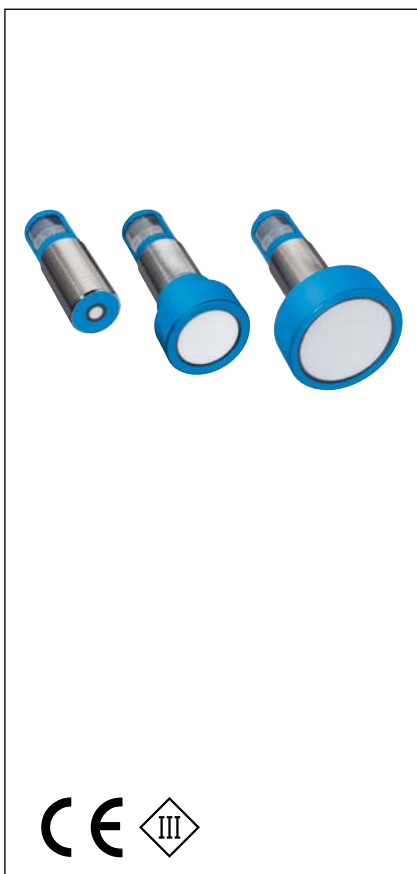
<sup>3)</sup> For 4 mA ... 20 mA and  $V_s \leq 20 V$  max. load  $\leq 100 \Omega$ .

<sup>4)</sup> Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/plates	Mounting plate for M18 sensors, steel, zinc coated, without mounting material	BEF-WG-M18	5321870
		Mounting bracket, M18 thread, steel, zinc coated, without mounting material	BEF-WN-M18	5308446
 Illustration may differ	Plug connectors and cables	Female connector, M12, 5-pin, straight, 2 m, PVC	DOL-1205-G02M	6008899
		Female connector, M12, 5-pin, straight, 5 m, PVC	DOL-1205-G05M	6009868
		Female connector, M12, 5-pin, straight, 2 m, PUR halogen free	DOL-1205-G02MC	6025906
		Female connector, M12, 5-pin, straight, 5 m, PUR halogen free	DOL-1205-G05MC	6025907
 	Terminal and alignment brackets	Clamping block for round sensors M18, with fixed stop	BEF-KHF-M18	2051482
		Plate H for universal bar clamp, steel, zinc coated, incl. universal bar clamp and mounting material	BEF-KHS-H01	2022465





### 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 cross-talk 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 available at [www.mysick.com/en/UM30](http://www.mysick.com/en/UM30)

- Sending axis: straight

Working range, limiting range	Output rate	Ultrasonic frequency (typical)	Response time	Switching frequency	Hysteresis	Switching output	Analog output <sup>1) 2) 3)</sup>	Resolution analog output	Model name	Part no.
30 mm ... 250 mm, 350 mm	8 ms	320 kHz	50 ms	-	-	-	1 x 0 V ... 10 V (≥ 100 kΩ), 1 x 4 mA ... 20 mA (≤ 500 Ω)	12 bit	UM30-211113	6036916
				11 Hz	3 mm	1 x PNP (200 mA) <sup>4) 5)</sup>	UM30-211118		6036921	
						2 x PNP (200 mA) <sup>4) 5)</sup>	-	UM30-211112	6037664	
						2 x NPN (200 mA) <sup>4) 6)</sup>	-	UM30-211114	6037674	

<sup>1)</sup> For 4 mA ... 20 mA and  $V_s \leq 20$  V max. load  $\leq 100 \Omega$ .

<sup>2)</sup> Automatic selection of analog current or voltage output dependent on load.

<sup>3)</sup> Subsequent smoothing of the analog output, dependent on the application, may increase the response time by up to 200 %.

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

<sup>5)</sup> PNP: HIGH =  $V_s - (< 2$  V) / LOW = 0 V.

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

Working range, limiting range	Output rate	Ultrasonic frequency (typical)	Re-sponse time	Switching frequency	Hyster-esis	Switching output	Analog output <sup>1) 2) 3)</sup>	Resolu-tion analog output	Model name	Part no.
65 mm ... 350 mm, 600 mm	16 ms	400 kHz	70 ms	-	-	-	1 x 0 V ... 10 V ( $\geq 100 \text{ k}\Omega$ ), 1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ )	12 bit	UM30-212113	6036917
				8 Hz	5 mm	1 x PNP (200 mA) <sup>4) 5)</sup>	-		-	UM30-212118
						2 x PNP (200 mA) <sup>4) 5)</sup>		UM30-212112		6037665
						2 x NPN (200 mA) <sup>4) 6)</sup>	UM30-212114	6037675		
200 mm ... 1,300 mm, 2,000 mm	23 ms	200 kHz	110 ms	-	-	-	1 x 0 V ... 10 V ( $\geq 100 \text{ k}\Omega$ ), 1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ )	12 bit	UM30-213113	6036918
				6 Hz	20 mm	1 x PNP (200 mA) <sup>4) 5)</sup>	-		-	UM30-213118
						2 x PNP (200 mA) <sup>4) 5)</sup>		UM30-213112		6037666
						2 x NPN (200 mA) <sup>4) 6)</sup>	UM30-213114	6037676		
350 mm ... 3,400 mm, 5,000 mm	43 ms	120 kHz	180 ms	-	-	-	1 x 0 V ... 10 V ( $\geq 100 \text{ k}\Omega$ ), 1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ )	12 bit	UM30-214113	6036919
				3 Hz	50 mm	1 x PNP (200 mA) <sup>4) 5)</sup>	-		-	UM30-214118
						2 x PNP (200 mA) <sup>4) 5)</sup>		UM30-214112		6037667
						2 x NPN (200 mA) <sup>4) 6)</sup>	UM30-214114	6037677		
600 mm ... 6,000 mm, 8,000 mm	60 ms	80 kHz	240 ms	-	-	-	1 x 0 V ... 10 V ( $\geq 100 \text{ k}\Omega$ ), 1 x 4 mA ... 20 mA ( $\leq 500 \Omega$ )	12 bit	UM30-215113	6036920
				2 Hz	100 mm	1 x PNP (200 mA) <sup>4) 5)</sup>	-		-	UM30-215118
						2 x PNP (200 mA) <sup>4) 5)</sup>		UM30-215112		6037668
						2 x NPN (200 mA) <sup>4) 6)</sup>	UM30-215114	6037678		

<sup>1)</sup> For 4 mA ... 20 mA and  $V_s \leq 20 \text{ V}$  max. load  $\leq 100 \Omega$ .

<sup>2)</sup> Automatic selection of analog current or voltage output dependent on load.








<sup>3)</sup> Subsequent smoothing of the analog output, dependent on the application, may increase the response time by up to 200 %.

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

<sup>5)</sup> PNP: HIGH =  $V_s - (< 2 \text{ V})$  / LOW = 0 V.

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

Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/plates	Mounting plate for M30 sensors, steel, zinc coated, without mounting material	BEF-WG-M30	5321871
		Mounting bracket, M30 thread, steel, zinc coated, without mounting material	BEF-WN-M30	5308445
 Illustration may differ	Plug connectors and cables	Female connector, M12, 5-pin, straight, 2 m, PVC	DOL-1205-G02M	6008899
		Female connector, M12, 5-pin, straight, 5 m, PVC	DOL-1205-G05M	6009868
		Female connector, M12, 5-pin, straight, 2 m, PUR halogen free	DOL-1205-G02MC	6025906
		Female connector, M12, 5-pin, straight, 5 m, PUR halogen free	DOL-1205-G05MC	6025907
	Terminal and alignment brackets	Integrated adapter	BEF-EA-CM30	2043770
		Mounting bracket, axial adjustable, with tapering thread M6, without mounting material	BEF-HA-M30A	5311527
		Mounting bracket, radial adjustable, with fixing holes for M4, without mounting material	BEF-HA-M30R	5311528







### At a glance

- Integrated time-of-flight technology detects objects such as glass, liquids and transparent foils, independent of color
- Three operation modes: Distance to Object (DtO), Window (Wnd) or Object between sensor and background (OBSB)
- Immunity to dirt, dust and fog
- One PNP/NPN switching output
- Excellent background suppression

### Your benefits

- Mini housing allows for quick and easy integration, even in the most confined spaces
- Immunity to dirt and dust ensures reliable object detection, even in challenging environmental conditions
- Integrated temperature compensation ensures high measurement accuracy
- Various switching outputs provide application flexibility, which increases reliability and productivity
- Full mechanical compatibility to photoelectric sensors increase application flexibility without machine modification
- Economical version available for simple, cost-sensitive applications
- Fast machine setup due to easy-to-use teach-in button

→ [www.mysick.com/en/UC4](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 available at [www.mysick.com/en/UC4](http://www.mysick.com/en/UC4)

- **Response time:** 30 ms
- **Ultrasonic frequency (typical):** 380 kHz

Accuracy <sup>1)</sup>	Temperature compensation	Working range, limiting range <sup>2)</sup>	Switching output <sup>3)</sup>	Model name	Part no.
0.17 % / K	-	13 mm ... 100 mm, 150 mm	1 x PNP (200 mA) <sup>4)</sup>	UC4-11341	6034667
			1 x NPN (200 mA) <sup>5)</sup>	UC4-11345	6034668
± 1 %	✓	13 mm ... 150 mm, 250 mm	1 x PNP (200 mA) <sup>4)</sup>	UC4-13341	6034669
			1 x NPN (200 mA) <sup>5)</sup>	UC4-13345	6034670

<sup>1)</sup> Referring to current measurement value.




<sup>2)</sup> Teach-in from 21 mm.

<sup>3)</sup> Output Q short-circuit protected.

<sup>4)</sup> PNP: HIGH =  $V_s$  - (< 2 V) / LOW = 0 V.

<sup>5)</sup> NPN: HIGH ≤ 2 V / LOW =  $V_s$ .

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Plug connectors and cables	Female connector, M8, 3-pin, straight, 2 m, PVC	DOL-0803-G02M	6010785
		Female connector, M8, 3-pin, straight, 5 m, PVC	DOL-0803-G05M	6022009
		Female connector, M8, 3-pin, straight, 2 m, PUR halogen free	DOL-0803-G02MC	6025888
		Female connector, M8, 3-pin, straight, 5 m, PUR halogen free	DOL-0803-G05MC	6025889
	Terminal and alignment brackets	Ball clamp bracket, Ball joint bracket, plastic (ABS), incl. mounting material	BEF-GH-MINI01	2023160
		Plate H for universal clamp bracket, Plate H for universal bar clamp, steel, zinc coated, incl. universal bar clamp and mounting material	BEF-KHS-H01	2022465



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

- **Response time:** 30 ms
- **Accuracy:** ± 1 % (Referring to current measurement value)
- **temperature compensation:** ✓

Ultrasonic frequency (typical)	Working range, limiting range	Switching output <sup>1) 2)</sup>	Model name	Part no.
380 kHz	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
500 kHz	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>.

## Accessories

	Accessory category	Brief description	Model name	Part no.
 Illustration may differ	Plug connectors and cables	Female connector, M12, 4-pin, straight, 2 m, PVC	DOL-1204-G02M	6009382
		Female connector, M12, 4-pin, straight, 5 m, PVC	DOL-1204-G05M	6009866
		Female connector, M12, 4-pin, straight, 2 m, PUR halogen free	DOL-1204-G02MC	6025900
		Female connector, M12, 4-pin, straight, 5 m, PUR halogen free	DOL-1204-G05MC	6025901
 	Terminal and alignment brackets	Double clamp bracket for dovetail mounting, Double clamps for dovetail mounting, steel, zinc coated, incl. mounting material	BEF-DKH-W12	2013947
		Plate D for universal clamp bracket, Plate D for universal bar clamp, steel, zinc coated, incl. universal bar clamp and mounting material	BEF-KHS-D01	2022461



### At a glance

- Up to 3 Mbit/s optical transfer rate
- Push button displays opposing device's reception level for simple one man alignment
- PROFIBUS/Ethernet interface
- Adjustable carrier frequency F1/F2
- Integrated repeater
- 10/100 Mbit Ethernet
- Connection and setup without opening device

### Your benefits

- An integrated optical and electronic alignment aid supports fast and cost-effective installation
- The electronically adjustable carrier frequency allows each ISD400 to be used as either sender or receiver unit, thus reducing stock-keeping costs
- Large operating temperature range guarantees highest machine uptimes – even in cold stores
- Flexible and cost-effective system integration due to various fieldbus interfaces
- Increased system speed with fast data transmission

→ [www.mysick.com/en/ISD400](http://www.mysick.com/en/ISD400)

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



### Ordering information

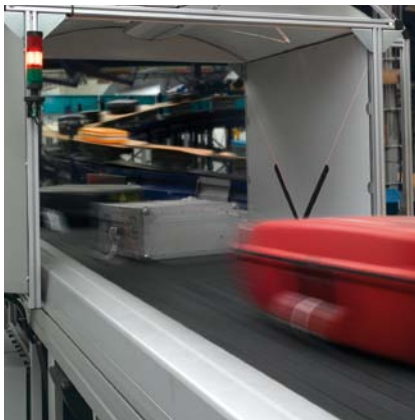
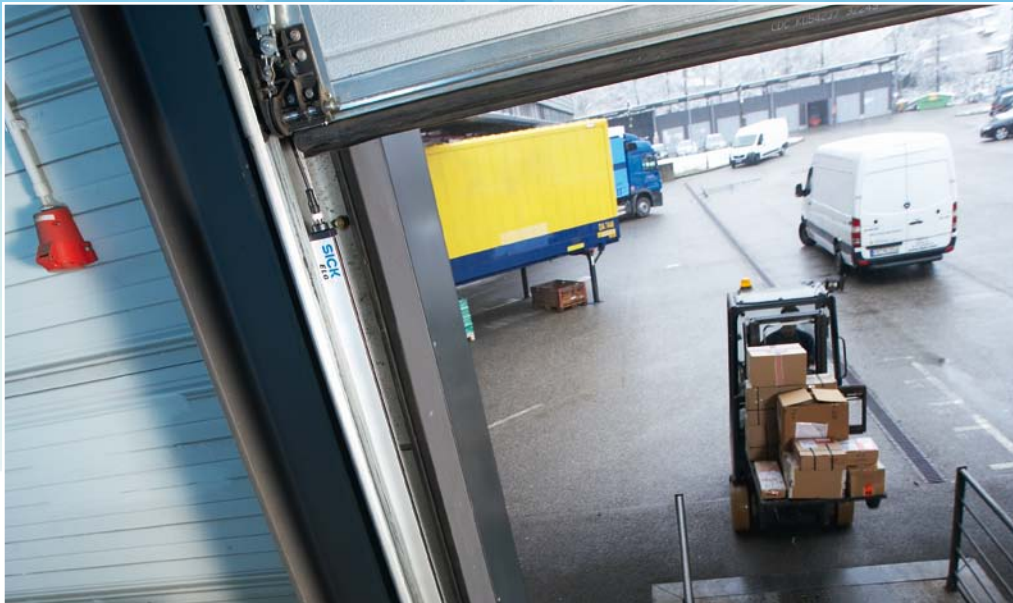
Other models available at [www.mysick.com/en/ISD400](http://www.mysick.com/en/ISD400)

- Transmission range: 0.2 m ... 180 m

Ambient temperature operation	Power consumption	Data interface	Model name	Part no.
-25 °C ... +55 °C	≤ 0.4 A	PROFIBUS DP	ISD400-1111	1042286
		Ethernet <sup>1)</sup>	ISD400-6111	1046119
-40 °C ... +55 °C	≤ 0.8 A	PROFIBUS DP	ISD400-1121	1043511
		Ethernet <sup>1)</sup>	ISD400-6121	1046120

<sup>1)</sup> Internal buffer 8 kB, integrated switch for max. 10 slaves.

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



### Automation light grids

Two-dimensional inspection or counting tasks are important in automation. SICK's automation light grids can be used in a number of these solutions, such as detecting and counting








irregularly shaped objects, people and vehicles, and checking for presence and pallet overhang detection. The tasks are so versatile that one light grid cannot fulfill the requirements of every applica-

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



## Automation light grids

J

	<b>Selection guide automation light grids . . . . .</b>	<b>310</b>
	<b>MLG . . . . .</b> Extended possibilities	<b>312</b>
	<b>ELG. . . . .</b> ELG – the extremely tough and versatile light grid for standard applications	<b>314</b>
	<b>FLG. . . . .</b> Two in one: sender and receiver in one housing	<b>316</b>
	<b>VLC100 . . . . .</b> A new dimension of vision-based automation light grids	<b>317</b>
	<b>SAS . . . . .</b> Better machine control in a small housing	<b>318</b>
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Selection guide automation light grids

	Advanced automation light grids	Standard automation light grids			Smart light grids		
	MLG	ELG	FLG	VLC100	SAS	SPL	SGS
<b>Task</b>							
Position determination	■						
Object presence	■	■	■	■	■		■
Application at toll booths and on industrial doors		■					■
Pick-to-light						■	
Measuring tasks	■						
<b>Function</b>							
Sender/receiver system	■	■	■		■	■	■
Retro-reflective system				■			
Switching	■	■	■	■	■	■	■
Measuring	■						
<b>Minimum detectable object (MDO) (mm)</b>							
2 ... 4			■				
5 ... 10	■ <sup>1)</sup>	■ <sup>1)</sup>		■			
10 ... 20	■	■					
20 ... 30					■ <sup>1)</sup>	■ <sup>1)</sup>	■ <sup>1)</sup>
30 ... 40	■	■					
40 ... 50					■	■	■
60 ... 70	■	■					
70 ... 80	■	■					
80 ... 90	■						■
<b>Interface</b>							
PNP/NPN	■	■	■	■	■	■	■
Analog / PROFIBUS / CANopen / RS-485	■						
Relay		■					
Push-Pull			■				
Seite	312	314	316	317	318	320	322

<sup>1)</sup> Cross beam.





## Detection height

Product family	Detection height (mm)												Page
	100	150	200	250	300	500	1,000	1,500	2,000	2,500	3,000	3,500	
MLG	140 mm ... 3,100 mm												312
ELG	90 mm ... 3,120 mm												314
FLG	120 / 180 / 250 mm x 200 mm (detection area)												316
SAS	120 mm ... 600 mm												318
SPL	120 mm ... 440 mm												320
SGS	600 mm ... 1,400 mm												322

## Working range

Product family	Range (m)												Page
	1	2	3	4	5	6	7	8	9	10	11	12	
MLG	8.5 m												312
ELG	12 m												314
VLC100	2.8 m												317
SAS	3 m												318
SPL	1.5 m												320
SGS	7 m												322



## At a glance

- User-programmable and factory-preset versions available
- Sensing range up to 8.5 m
- Monitoring heights of over 3 m and up to 240 beams possible
- Resolutions of 10 / 20 / 30 / 50 mm and customer-specific resolutions possible
- External teach-in for optimal sensitivity settings
- Short response time < 3 ms
- Up to 6 PNP or NPN switching outputs and two switching inputs
- PROFIBUS, CANopen, analog outputs, RS-485

## Your benefits

- MLG light grids are robust, resistant, and powerful
- Light grid status information to avoid interrupting operation
- Customer-oriented solution based on modular beam separations improves operational safety
- Integrated PROFIBUS, CANopen bus systems, analog outputs, and RS-485 interfaces reduce cabling time and costs
- A fully modular system guarantees the optimum solution for the customer
- With the MLG, the system integrator can offer a solution with the end customer in mind
- Robust metal housing can cope with harsh environments and reduces downtime
- Integrated software program minimizes mounting work, since no additional connection box is required

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

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



## Ordering information

Other models available at [www.mysick.com/en/MLG](http://www.mysick.com/en/MLG)









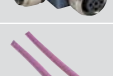

Beam separation	Working range	Detection height	Connection type	Switching output	Model name	Part no.
10 mm	5 m <sup>1)</sup>	140 mm	Connector M12, 5-pin	1 x PNP	MLG1-0140F511	1024259
			Connector M12, 8-pin	3 x PNP	MLG1-0140F812	1022147
		290 mm	Connector M12, 5-pin	1 x PNP	MLG1-0290F511	1023670
			Connector M12, 8-pin	3 x PNP	MLG1-0290F812	1022166
		440 mm	Connector M12, 8-pin	3 x PNP	MLG1-0440F812	1022294
		590 mm	Connector M12, 8-pin	3 x PNP	MLG1-0590F812	1023581
		740 mm	Connector M12, 8-pin	3 x PNP	MLG1-0740F812	1023031
		1,040 mm		1 x PNP	MLG1-1040P811	1040606
		1,340 mm	Connector M12, 8-pin	1 x PNP	MLG1-1340P811	1029194
		1,640 mm	Connector M12, 8-pin	1 x PNP	MLG1-1640P811	1029454
	890 mm	Connector M12, 8-pin	1 x PNP	MLG1-0890I812	1023557	
	8.5 m <sup>1)</sup>	140 mm	Connector M12, 5-pin	1 x PNP	MLG1-0140F521	1026370
		290 mm	Connector M12, 5-pin	1 x PNP	MLG1-0290F521	1024123
		590 mm	Connector M12, 8-pin	1 x PNP	MLG1-0590I822	1023872

<sup>1)</sup> Aperture ± 3°.

Beam separation	Working range	Detection height	Connection type	Switching output	Model name	Part no.
20 mm	5 m <sup>1)</sup>	280 mm	Connector M12, 5-pin	1 x PNP	MLG2-0280F511	1023372
			Connector M12, 8-pin	3 x PNP	MLG2-0280F812	1023585
		580 mm	Connector M12, 8-pin	3 x PNP	MLG2-0580F812	1023555
				1 x PNP	MLG2-0580I812	1023789
			880 mm	Connector M12, 8-pin	1 x PNP	MLG2-0880P811
30 mm	5 m <sup>1)</sup>	1,180 mm	Terminals	4 x PNP	MLG2-1180I212	1047867
30 mm	5 m <sup>1)</sup>	2,070 mm	Connector M12, 8-pin	1 x PNP	MLG3-2070I812	1026548
50 mm	5 m <sup>1)</sup>	700 mm	Connector M12, 5-pin	1 x PNP	MLG5-0700F511	1022867
		1,900 mm	Terminals	6 x PNP	MLG5-1900F212	1025341
		1,450 mm	Connector M12, 8-pin	3 x PNP	MLG5-1450F812	1023604
		2,050 mm	Connector M12, 8-pin	3 x PNP	MLG5-2050F812	1027720
		2,350 mm	Connector M12, 8-pin	3 x PNP	MLG5-2350F812	1022178
		3,100 mm	Connector M12, 8-pin	3 x PNP	MLG5-3100F812	1023803
	8,5 m <sup>1)</sup>	3,100 mm	Connector M12, 8-pin	3 x PNP	MLG5-3100F822	1027719

<sup>1)</sup> Aperture  $\pm 3^\circ$ .

## Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Adapters/distributors	Bus adapters	-	-	-	-	-	ADAPT-PB-MLG	1027921
	Mounting brackets/plates	Mounting brackets	-	-	-	-	-	BEF-NUT-MLG	2023696
	Plug connectors and cables	Female connector	Connector M12, 5-pin	IP 67	Straight	PVC	5 m	DOL-1205-G05M	6009868
		Female connector	Connector M12, 5-pin	-	Straight	-	5 m	DOL-1205-G05MQ	6026006
		Female connector	Connector M12, 8-pin	IP 67	Straight	PVC	5 m	DOL-1208-G05MA	6020993
		Communication and connection cables	-	-	-	-	-	DSL-1208-G02MAC	6030121
		Male connector	-	-	-	-	-	SBO-02F12-SM	6029306
		Male connector	-	-	-	-	-	SBO-02G12-SM	6029305
		Male connector	-	-	Straight	-	5 m	STL-1205-G05MQ	6026005
		Terminal and alignment brackets	Terminal brackets	-	-	-	-	-	BEF-2SMKEAAL2



### 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 available at [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
	150 mm		2 x PNP (Q and /Q)	ELG1-0150P533	1026809	
	5 m	Parallel beam	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
			690 mm	2 x NPN (Q and /Q)	ELG3-0690N511	1041956
		Multiple scan	150 mm	2 x PNP (Q and /Q)	ELG3-0150P513	1025578
			210 mm	2 x NPN (Q and /Q)	ELG3-0210N513	1052378
			210 mm	2 x PNP (Q and /Q)	ELG3-0210P521	1025574
	12 m	Parallel beam	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
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

## Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Plug connectors and cables	Female connector	Connector M12, 4-pin	IP 67	Straight	PVC	2 m	DOL-1204-G02M	6009382
							5 m	DOL-1204-G05M	6009866
							10 m	DOL-1204-G10M	6010543
	Terminal and alignment brackets	Alignment brackets	-	-	-	-	-	BEF-2SMKEAKU4	2019649



### At a glance

- Dynamic or static operating mode, switchable
- Simple adjustment
- Adjustable sensitivity
- Adjustable pushbutton lock
- Rugged metal housing
- Adjustable pulse lengthening
- Switchable NO/NC

### Your benefits

- Simple installation and alignment due to sender and receiver in one housing
- The adjustable pushbutton lock protects against unwanted changes to parameters and manipulation during operation
- The device's adjustable sensitivity, operating mode and pulse lengthening features enable individual parameter changes to fit the requirements of your application
- Also available as an one side open version for simple integration into your application environment
- Large monitoring area, so only one device is required for monitoring small and large parts
- Using the sensitivity setting, it is possible to hide falling debris and only recognize objects that are relevant to detect

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

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



### Ordering information

Other models available at [www.mysick.com/en/FLG](http://www.mysick.com/en/FLG)

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

Version	Beam separation	Minimum detectable object (MDO)	Detection area (W x H)	Model name	Part no.
Close	2 mm	Dynamic: 2 mm <sup>1)</sup> Static: 6 mm	120 mm x 200 mm <sup>1)</sup>	FLG2-20012011	6049334
			180 mm x 200 mm <sup>1)</sup>	FLG2-20018011	6049333
			250 mm x 200 mm <sup>1)</sup>	FLG2-20025011	6049138
	4 mm	Dynamic: 4 mm Static: 6 mm	120 mm x 200 mm	FLG4-20012011	6049135
			180 mm x 200 mm	FLG4-20018011	6049136
			250 mm x 200 mm	FLG4-20025011	6049137
Open	2 mm	Dynamic: 2 mm <sup>1)</sup> Static: 6 mm	120 mm x 200 mm <sup>1)</sup>	FLG2-20012021	6050064
			180 mm x 200 mm <sup>1)</sup>	FLG2-20018021	6050065
			250 mm x 200 mm <sup>1)</sup>	FLG2-20025021	6050066
	4 mm	Dynamic: 4 mm Static: 6 mm	120 mm x 200 mm	FLG4-20012021	6050067
			180 mm x 200 mm	FLG4-20018021	6050068
			250 mm x 200 mm	FLG4-20025021	6050069

<sup>1)</sup> 2 mm MDO in limited detection area.

### Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Plug connectors and cables	Female connector	Connector M12, 4-pin	IP 67	Straight	PVC	2 m	DOL-1204-G02M	6009382
							5 m	DOL-1204-G05M	6009866
					Angled	PVC	2 m	DOL-1204-W02M	6009383
							5 m	DOL-1204-W05M	6009867



### At a glance

- Sensing range up to 2.8 m
- Resolution 6 mm up to 18 mm
- One device only: integrated sender and receiver
- Intuitive one-button operation
- Automatic alignment
- Synchronization of 2 systems
- Easy teach-in function

### Your benefits

- Flexible and individual design of detection area
- Quick commissioning without additional software
- Intuitive, time-saving operation
- No variants: one device concept for all detection areas
- Reduced storage, shipping and commissioning costs
- No expert knowledge required
- High reliability and simple maintenance

→ [www.mysick.com/en/VLC100](http://www.mysick.com/en/VLC100)

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



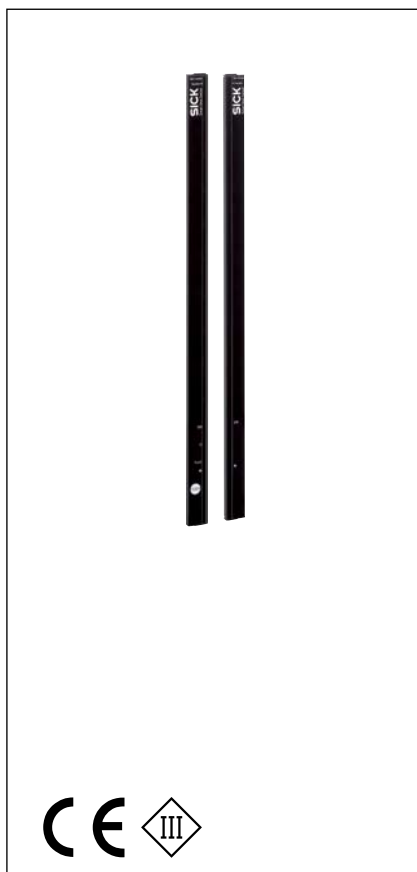
### Ordering information

Other models available at [www.mysick.com/en/VLC100](http://www.mysick.com/en/VLC100)

Working range	Switching output	Model name	Part no.
2 m x 2 m	2 x PNP	VLC100-0201000	1054540

### Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Plug connectors and cables	Female connector	Connector M12, 8-pin	IP 67	Straight	PVC	5 m	DOL-1208-G05MA	6020993
	Reflectors	Reflective tape	-	-	-	-	-	Heavy duty reflective tape, 2 m	2061272
	Terminal and alignment brackets	Terminal brackets	-	-	-	-	-	Mounting kit	2045375



### At a glance

- Variable detection lengths from 120 mm up to 600 mm (in 160 mm increments)
- Set parameters via teach-in with no PC
- Simple teach-in setup
- Maximum range 4 m
- Response time 18 ms
- 25 mm resolution with 40 mm beam separation possible
- Highly immune to sunlight up to 150,000 lx
- Small blind zone < 11 mm

### Your benefits

- Small, slim and sleek design enables easy integration into applications
- Capacitive teach-in button and LEDs make commissioning easier for complex solutions
- Slim and flat models offer flexible mounting options and optimize space while reducing damage
- Customized preset configurations or set parameters via one-touch teach-in with no PC
- Optical synchronization eliminates the need to lay cables, saving time
- Auto-teach and auto-muting enable Plug & Play. And, an alignment aid and “Click & Go” provide faster installation.

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

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



### Ordering information

Other models available at [www.mysick.com/en/SAS](http://www.mysick.com/en/SAS)




- **Beam separation:** 40 mm
- **Working range:** 3 m

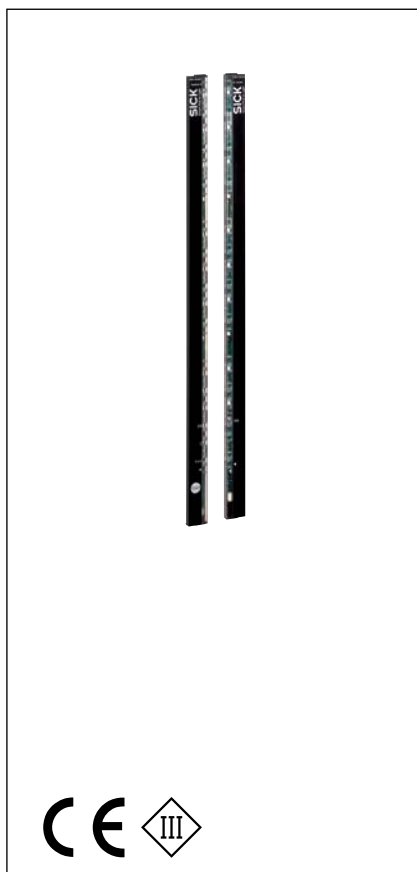
Optical light exit	Aluminum stabilizer	Detection height	Switching output	Model name	Part no.
Flat	Without stabilizer	120 mm	1 x PNP	SAS4-F012P3PS1T00	1207475
				SAS4-F012P3PS1T01	1209637
			SAS4-F012P3PS1W00	1208450	
		280 mm	1 x NPN	SAS4-F012N3PS1T00	1208785
			1 x PNP	SAS4-F028P3PS1T00	1208171
			1 x NPN	SAS4-F028N3PS1T00	1208786
	440 mm	1 x PNP	SAS4-F044P3PS1T00	1045020	
		1 x NPN	SAS4-F044N3PS1T00	1207761	
	600 mm	1 x PNP	SAS4-F060P3PS1T00	1048058	
		1 x NPN	SAS4-F060N3PS1T00	1208787	
	With stabilizer	280 mm	1 x PNP	SAS4-F028P3PS2T00	1207711
		600 mm	1 x PNP	SAS4-F060P3PS2T00	1209213



Optical light exit	Aluminum stabilizer	Detection height	Switching output	Model name	Part no.
Slim	Without stabilizer	120 mm	1 x PNP	SAS4-S012P3PS1T00	1047364
			1 x NPN	SAS4-S012N3PS1T00	1047009
		280 mm	1 x PNP	SAS4-S012N3PS1W00	1047014
			1 x PNP	SAS4-S028P3PS1T00	1047063
			1 x NPN	SAS4-S028N3PS1T00	1207707
		440 mm	1 x NPN	SAS4-S028N3PS1W00	1207704
			1 x PNP	SAS4-S044P3PS1T00	1045019
				SAS4-S044P3PS1W00	1209581
			1 x NPN	SAS4-S044N3PS1T0D	1209170
				SAS4-S044N3PS1T00	1207708
			SAS4-S044N3PS1W00	1207705	
		600 mm	1 x PNP	SAS4-S060P3PS1T00	1047587
				SAS4-S060P3PS1W00	1047525
			1 x NPN	SAS4-S060N3PS1T0D	1209171
				SAS4-S060N3PS1T00	1207709
				SAS4-S060N3PS1W00	1207706
				SAS4-S060N3PS1W02	1207752
		With stabilizer	120 mm	1 x PNP	SAS4-S012P3PS2W04
	600 mm		1 x PNP	SAS4-S060P3PS2W0A	1209013

## Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Mounting brackets/plates	Mounting brackets	-	-	-	-	-	BEF-SLG-SET2	2056518
	Plug connectors and cables	Female connector	Connector M8, 4-pin	IP 67	Straight	PVC	2 m	DOL-0804-G02M	6009870
							5 m	DOL-0804-G05M	6009872
							10 m	DOL-0804-G10M	6010754
	Plug connectors and cables	Connection cable	Connector M8, 4-pin	IP 67	Straight	PVC	2 m	DSL-8204-G02M	6022573
							5 m	DSL-8204-G05M	6034403



### At a glance

- Variable detection lengths from 120 mm up to 440 mm
- No commissioning necessary – Plug & Play operation
- Maximum range 3 m
- Response time 18 ms
- 25 mm resolution with 40 mm beam separation possible
- Highly visible job LEDs along the entire length of the sensor
- Green job LEDs for correct pick and red job LEDs for incorrect pick
- Can be connected to bus systems

### Your benefits

- Highly visible job LEDs can be seen from any position
- Picking error display for order picking improves quality
- Plug & Play operation saves time
- Automatic teach-in when turned on
- Slim and flat models offer flexible mounting options and optimize shelf/bin space while reducing damage
- Quick, cost-effective installation thanks to optical synchronization – no need to wire the sender and receiver together
- Auto-muting, auto-teach and an alignment aid provide more uptime

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

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





### Ordering information

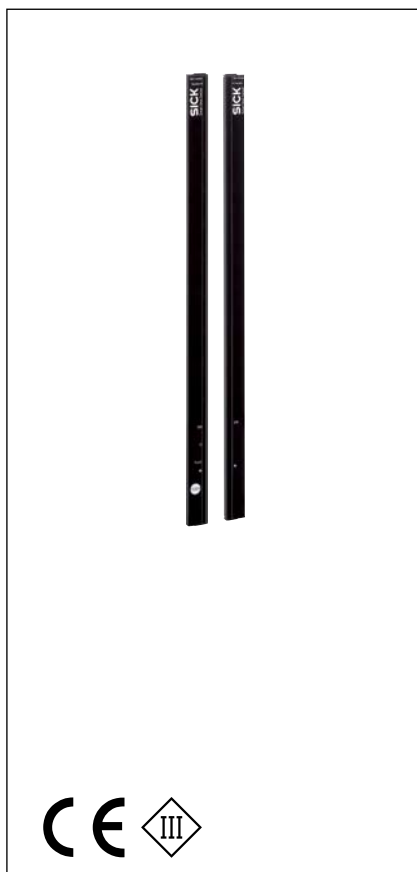
Other models available at [www.mysick.com/en/SPL](http://www.mysick.com/en/SPL)

- **Beam separation:** 40 mm
- **Working range:** 1.5 m

Optical light exit	Aluminum stabilizer	Detection height	Switching output	Model name	Part no.
Flat	Without stabilizer	120 mm	1 x PNP	SPL-F120PPC1W04	1208391
			1 x NPN	SPL-F120PPS1W04	1046128
		1 x PNP	SPL-F120NPS1W04	1208550	
	With stabilizer	280 mm	1 x PNP	SPL-F280PPS1W04	1046764
			1 x PNP	SPL-F440PPS1W04	1046314
		120 mm	1 x PNP	SPL-F120PPS2W04	1047344
Slim	Without stabilizer	280 mm	1 x PNP	SPL-S120PPS1W04	1046127
			1 x PNP	SPL-S280PPS1W04	1046763
		440 mm	1 x PNP	SPL-S440PPS1W04	1046312
	With stabilizer	280 mm	1 x NPN	SPL-S440NPS1W04	1047365
			1 x PNP	SPL-S280PPS2W04	1209197
		440 mm	1 x PNP	SPL-S440PPS2W04	1045018

## Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.			
	Mounting brackets/plates	Mounting brackets	-	-	-	-	-	BEF-SLG-SET2	2056518			
	Plug connectors and cables	Female connector	Connector M8, 4-pin	IP 67	Straight	PVC	2 m	DOL-0804-G02M	6009870			
										5 m	DOL-0804-G05M	6009872
										10 m	DOL-0804-G10M	6010754
			Connection cable	Connector M8, 4-pin	IP 67	Straight	PVC	2 m	DSL-8204-G02M	6022573		
										5 m	DSL-8204-G05M	6034403
				Sensor/actuator box	4 x M12, 5-pin ports	IP 67	-	PUR	5 m	SBL-04D12-KC05	6028394	
			8 x M12, 5-pin ports							SBL-08D12-KC05	6028396	



### At a glance

- Variable detection lengths from 600 mm up to 1,400 mm (in 160 mm increments)
- Simple teach-in setup via cable
- Optional parameter setting with teach-in button, no PC required
- Maximum range 10 m
- Response time 18 ms
- 25 mm or 45 mm MDO possible
- Highly immune to sunlight at 150,000 lx
- Small blind zone < 11 mm

### Your benefits

- Small, slim and sleek design enables easy integration into applications
- Slim and flat models offer flexible mounting options and optimize shelf/bin space while reducing damage
- Customized preset configurations or set parameters via one-touch teach-in with no PC
- Optical synchronization eliminates the need to lay cables, saving time
- Optional: Capacitive teach-in button and LEDs make commissioning easier for complex solutions
- Auto-teach and auto-muting enable Plug & Play. And, an alignment aid and “Click & Go” provide faster installation.

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

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







### Ordering information

Other models available at [www.mysick.com/en/SGS](http://www.mysick.com/en/SGS)

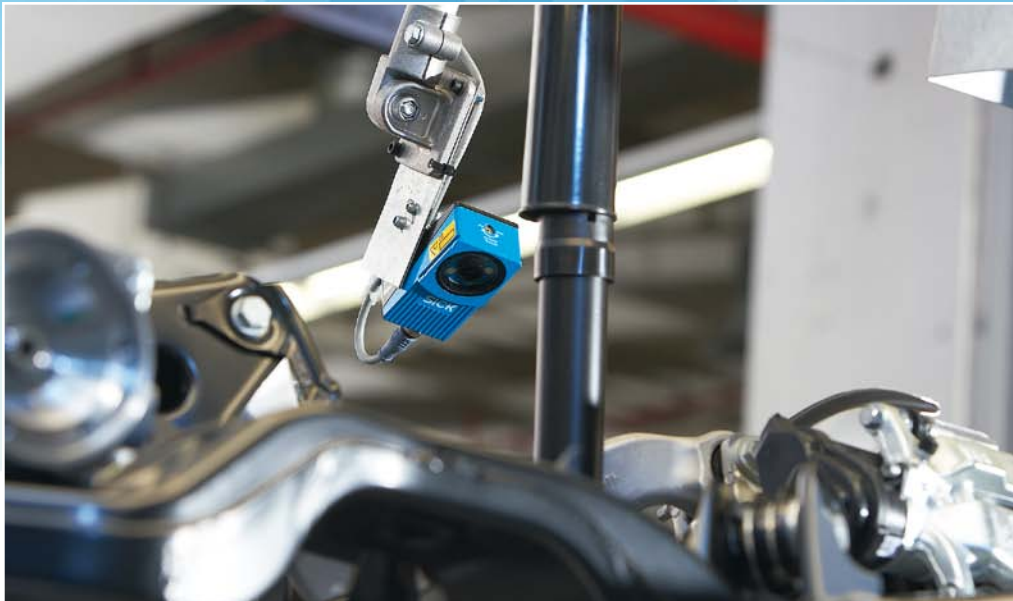
Beam separation	Optical light exit	Aluminum stabilizer	Working range	Detection height	Switching output	Model name	Part no.		
40 mm	Flat	Without stabilizer	3 m	920 mm	NPN	SGS4-F092N3CS1T00	1208794		
				1,080 mm	1 x PNP	SGS4-F108P3PS1W00	1045008		
				1,400 mm	1 x PNP	SGS4-F140P3PS1W00	1045012		
			7 m	600 mm	1 x PNP	SGS4-F060P7PS1W00	1209723		
				760 mm	1 x PNP	SGS4-F076P7PS1W00	1209287		
				920 mm	1 x PNP	SGS4-F092P7PS1T00	1208151		
		3 m	With stabilizer	1,080 mm	1 x PNP	SGS4-F108P7PS1W00	1045010		
				1,240 mm	1 x PNP	SGS4-F124P3PS2T00	1048038		
					3 m	1,400 mm	1 x PNP	SGS4-F140P3PS2T00	1208809

Beam separation	Optical light exit	Aluminum stabilizer	Working range	Detection height	Switching output	Model name	Part no.
40 mm	Slim	Without stabilizer	3 m	760 mm	1 x PNP	SGS4-S076P3PS1T00	1047092
				920 mm	1 x PNP	SGS4-S092P3PS1T00	1208201
				1,080 mm	1 x NPN	SGS4-S108N3PS1T00	1208155
					1 x PNP	SGS4-S108P3PS1W00	1045007
			1,400 mm	1 x PNP	SGS4-S140P3PS1W00	1045011	
			7 m	600 mm	1 x PNP	SGS4-S060P7PS1W00	1209722
				920 mm	1 x PNP	SGS4-S092P7PS1T00	1208200
		1,080 mm		1 x PNP	SGS4-S108P7PS1T00	1209457	
			1 x PNP	SGS4-S108P7PS1W00	1045009		
		With stabilizer	3 m	920 mm	1 x PNP	SGS4-S092P3PS2T00	1208108
				1,240 mm	1 x PNP	SGS4-S124P3PS2W00	1047815
					1 x PNP	SGS4-S124P3PS2W04	1047903
			1,400 mm	1 x PNP	SGS4-S140P3PS2T00	1208109	
				1 x PNP	SGS4-S140P7PS2T00	1208241	
7 m	1,400 mm		1 x PNP	SGS4-S140P7PS2T00	1208241		
	1,400 mm		1 x PNP	SGS4-S140P7PS2T00	1208241		
80 mm	Flat	With stabilizer	3 m	880 mm	1 x PNP	SGS8-F088P3PS2W0E	1208797
				1,360 mm	1 x PNP	SGS8-F136P3PS2W0C	1208516
	Slim	Without stabilizer	3 m	560 mm	2 x PNP	SGS8-S056F3PS1T00	1209297
					1 x PNP	SGS8-S056P3PS1W00	1208141
				720 mm	1 x PNP	SGS8-S072P3PS1W00	1209568
			7 m	880 mm	1 x PNP	SGS8-S088P3PS1W00	1209597
				1,040 mm	2 x PNP	SGS8-S104F7PS1T00	1047499
			With stabilizer	3 m	720 mm	1 x PNP	SGS8-S072P3PS2W0C
	1,360 mm	1 x PNP			SGS8-S136P3PS2T00	1209554	
		1 x PNP			SGS8-S136P3PS2W00	1047161	

## Accessories

	Accessory category	Accessory type	Connection type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Mounting brackets/plates	Mounting brackets	-	-	-	-	-	BEF-SLG-SET1	2055427
								BEF-SLG-SET2	2056518
	Plug connectors and cables	Female connector	Connector M8, 4-pin	IP 67	Straight	PVC	2 m	DOL-0804-G02M	6009870
							5 m	DOL-0804-G05M	6009872
							10 m	DOL-0804-G10M	6010754
	Terminal and alignment brackets	Connection cable	Connector M8, 4-pin	IP 67	Straight	PVC	2 m	DSL-8204-G02M	6022573
							5 m	DSL-8204-G05M	6034403
	Terminal and alignment brackets	Universal terminal systems	-	-	-	-	-	VZA-SLG	2048519

## A new dimension in vision



K



### Vision

Vision solutions are ideal for automated inspection and measurement tasks. SICK's vision sensors, smart cameras and 3D cameras can be used to solve a wide range of applications where there

is a need to measure, locate, inspect and identify. Vision systems provide a solution for more complex application-specific tasks. Our vision products and systems are built for industrial environ-

ments, carefully designed to leverage SICK's 60-plus years of experience with industrial sensors.



Vision



**Inspector** . . . . . 326  
 An intelligent vision solution in an easy-to-use sensor package



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 IVC-3D – The world’s first 3D smart camera makes advanced vision easy



**Ranger** . . . . . 329  
 Fastest 3D and MultiScan for advanced industrial solutions





### At a glance

- High-speed positioning and inspection
- 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

- Powerful yet simple tools enable flexibility in various positioning and inspection applications
- 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 down-times 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 available at [www.mysick.com/en/Inspector](http://www.mysick.com/en/Inspector)

Product name	Field of view internal illumination	Light source	Task	Optics	Model name	Part no.
Inspector I10 Standard	20 mm x 20 mm ... 72 mm x 72 mm	White ring light	Detecting	Fixed	VSPI-1R111	1042779
Inspector I20 Flex	20 mm x 20 mm ... 72 mm x 72 mm	White ring light	Detecting	Exchangeable	VSPI-2F111	1046732
Inspector I20-IR Flex	20 mm x 20 mm ... 72 mm x 72 mm	IR ring light, 850 nm	Detecting	Exchangeable	VSPI-2F141	1054704
Inspector I40	22 mm x 15 mm ... 79 mm x 58 mm	White ring light	Detecting	Exchangeable	VSPI-4F2111	1047913
Inspector I40-LUT	22 mm x 15 mm ... 79 mm x 58 mm	UV ring light	Detecting	Exchangeable	VSPI-4F2311	1050694
Inspector I40-IR Flex	22 mm x 15 mm ... 79 mm x 58 mm	IR ring light, 850 nm	Detecting	Exchangeable	VSPI-4F2411	1054705
Inspector P30	20 mm x 20 mm ... 72 mm x 72 mm	White ring light	Positioning	Exchangeable	VSPP-3F1122	1051982
Inspector PI50	22 mm x 15 mm ... 79 mm x 58 mm	White ring light	Detecting, Positioning	Exchangeable	VSPP-5F2113	1056082
Inspector PI50-IR	22 mm x 15 mm ... 79 mm x 58 mm	IR ring light, 850 nm	Detecting, Positioning	Exchangeable	VSPP-5F2413	1057303

K



## Accessories

	Accessory category	Brief description	Model name	Part no.
	Lens and accessories	Replaces the front window and creates even and homogeneous illumination. For shiny surfaces. Includes adapter ring and O-ring.	Inspector Flex Dome	2050678
		Interchangeable lens, focal length 6 mm, including distance ring	OBJ-B06025BA	2049668
		Interchangeable lens, focal length 16 mm, including distance ring	OBJ-B16018BA	2049418
	Optical filters	Color filter/blue filter (468 nm $\pm$ 62 nm), PMMA	Inspector Flex blue color filter	2050676
		Color filter/green filter (544 nm $\pm$ 53 nm), PMMA	Inspector Flex green color filter	2050677
		Color filter/red filter (> 548 nm), PMMA	Inspector Flex red color filter	2050675
		Inspector Flex visible block filter, > 730 nm	Inspector Flex visible block filter	2061248
	Plug connectors and cables	Power supply and I/O cable, 5 m, M12, 12-pin (female connector/open)	DOL-1212-G05MAS01	6036556
		Connection cable, Ethernet patch cable, 5 m, straight, connector M12, 4-pin to connector RJ-45	SSL-2J04-G05ME	6035389
	Test and monitoring tools	Inspector Viewer	VSPV-22222	2057556



### At a glance

- Easy 3D measurement – provides information about object height, shape and volume
- Independent of contrast and color
- Factory calibrated – instantly providing true metric dimensions at production speed
- Easy-to-use graphical user interface for fast application development
- Stand-alone operation, no PC needed after configuration
- Simple connection of PLCs, robots, and other control systems, e.g., via Ethernet/IP or OPC
- Scans up to 5,000 profiles per second
- Industrial, robust metal housing

### Your benefits

- The IVC-3D makes advanced 3D shape inspections easy, enabling cost-efficient solutions
- Contrast-independent measurement provides greater reliability even at varying object color and when the object color is the same as the background
- Factory calibrated – instantly providing true metric dimensions at production speed
- Self-contained, including all required lighting and analysis software, reducing complexity and cost
- The IVC Studio user interface is easy-to-use and ensures fast application development, saving time and reducing costs
- The camera's OPC server and EtherNet/IP interface enables simple communication with PLCs, robots and control systems, making integration easy

→ [www.mysick.com/en/IVC-3D](http://www.mysick.com/en/IVC-3D)

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



### Ordering information

Other models and accessories available at [www.mysick.com/en/IVC-3D](http://www.mysick.com/en/IVC-3D)

3D profile resolution	Example field of view (H x W)	Working distance	Height resolution	Product name	Model name	Part no.			
1,400 points	300 mm ... 1,000 mm	280 mm ... 1,200 mm <sup>1)</sup>	1.2 mm	IVC-3D 300	IVC-3D41111	1041204			
				IVC-3D 300, plastic windows	IVC-3D41112	1048269			
		280 mm ... 1,200 mm		IVC-3D 300, stainless steel	IVC-3D41113	1049024			
2,048 points	30 mm ... 50 mm	207 mm ... 238 mm <sup>2)</sup>	0.015 mm	IVC-3D 30	IVC-3D31111	1041205			
				IVC-3D 30, plastic windows	IVC-3D31112	1046810			
	50 mm ... 150 mm	190 mm ... 274 mm <sup>1)</sup>	0.04 mm	IVC-3D 50	IVC-3D21111	1027538			
				IVC-3D 50, plastic windows	IVC-3D21112	1041710			
				IVC-3D 50, stainless steel	IVC-3D21113	1050157			
	100 mm ... 200 mm	260 mm ... 400 mm <sup>1)</sup>	0.05 mm	IVC-3D 100	IVC-3D51111	1043579			
				IVC-3D 100, plastic windows	IVC-3D51112	1046912			
				IVC-3D 100 class IIIb / 3B laser	IVC-3D51121	1046868			
				IVC-3D 100, stainless steel	IVC-3D51113	1050158			
				200 mm ... 600 mm	300 mm ... 675 mm <sup>1)</sup>	0.2 mm	IVC-3D 200	IVC-3D11111	1027539
							IVC-3D 200, plastic windows	IVC-3D11112	1042152
	IVC-3D 200, stainless steel	IVC-3D11113	1048004						

<sup>1)</sup> +/- 5 % of max. height range. <sup>2)</sup> +/- 10 % of max. height range.



### At a glance

- High speed 3D at unmatched speed and quality
- In-machine 3D calibration tool
- Contrast and color independent measurements
- MultiScan technology to measure 3D, contrast, and scatter at the same time
- Full flexibility in configuration, working distance, and field of view
- Sensor resolutions of up to 1,536 pixels in 3D and 3,072 pixels in gray scale
- Gigabit Ethernet and CameraLink interfaces

### Your benefits

- High-speed and high-resolution measurement allow you to increase production throughput and still ensure product quality
- Contrast-independent 3D provides more reliable size and position measurements, regardless of an object's color or height
- Unique MultiScan technology lets one camera do the job of many, reducing costs for integration, maintenance, and accessories, creating cost-efficient solutions
- The high level of flexibility and versatility of Ranger makes it an ideal choice for the most challenging tasks
- The wide range of Ranger variants allows you to adapt solution performance and cost with low additional effort

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

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



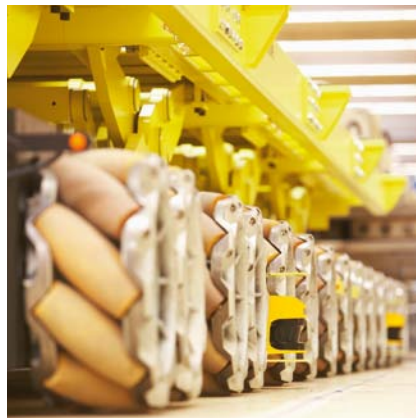
### Ordering information

Other models and accessories available at [www.mysick.com/en/Ranger](http://www.mysick.com/en/Ranger)

Sensor resolution	Technology	Communication interface	Maximum performance	Product name	Model name	Part no.
512 px x 512 px	3D, LineScan	-	1,000 fps 3D profiles/second	Ranger D40	Ranger-D40213	1040383
		CameraLink	30,000 fps 3D profiles/second	Ranger C40	Ranger-C40412	1014218
	3D, Color, MultiScan, LineScan	-	35,000 fps 3D profiles/second	Ranger E40 ColorRanger E40	Ranger-E40414 Ranger-E40434	1040378 1050266
1,536 px x 512 px	3D, LineScan	-	1,000 fps 3D profiles/second	Ranger D50	Ranger-D50213	1040384
		CameraLink	30,000 fps 3D profiles/second	Ranger C50	Ranger-C50412	1014216
				Ranger C50 IR	Ranger-C50422	1014223
				Ranger C55	Ranger-C55412	1014217
	-	35,000 fps 3D profiles/second	Ranger C50 IR	Ranger-C55422	1014224	
			Ranger E50	Ranger-E50414	1040379	
			Ranger E50 IR	Ranger-E50424	1040381	
			Ranger E55	Ranger-E55414	1040380	
	3D, Color, MultiScan, LineScan	-	35,000 fps 3D profiles/second	Ranger E50 IR	Ranger-E55424	1040382
				ColorRanger E50	Ranger-E50434	1050267
				ColorRanger E50 IR	Ranger-E50444	1050269
ColorRanger E55				Ranger-E55434	1050268	
ColorRanger E55 IR	Ranger-E55444	1050270				



## Optical protection – remove the barrier to greater productivity



### Opto-electronic protective devices

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.



Opto-electronic protective devices

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Selection guide opto-electronic protective devices

	Safety laser scanners	Safety camera systems	Safety light curtains	Multiple light beam safety devices	Single-beam photoelectric safety switches
<b>Recommended safety application</b>					
Hazardous point protection with finger or hand detection		■	■		
Hazardous point protection with hand and person detection			■		
One-sided access protection	■		■	■	■
Multi-sided access protection				■	■
Muting/differentiation between people and material	■		■	■	
Mobile hazardous area protection	■				
Stationary hazardous area protection	■	■	■		
<b>Type</b>					
Type 2 (IEC 61496)		■	■	■	■
Type 3 (IEC 61496)	■	■			
Type 4 (IEC 61496)			■	■	■
<b>Performance level</b>					
PL c (EN ISO 13849)		■			■
PL d (EN ISO 13849)	■	■	■	■	
PL e (EN ISO 13849)			■	■	■
<b>Enclosure rating</b>					
IP 54		■			
IP 65	■		■		
IP 66			■	■	
IP 67	■		■	■	■
IP 69K			■	■	
<b>Resolution/Beam separation</b>					
14 mm ... 40 mm			■		
20 mm ... 30 mm		■			
30 mm ... 150 mm	■				
220 mm ... 600 mm				■	
<b>Page</b>	338	350	351	367	376



### Selection guide opto-electronic protective devices

Product family	Scanning range (m)													Page
	0,5	1	2	4	6	8	10	20	30	40	50	60	70	
<b>Safety laser scanners</b>														
S3000 Standard	0 m ... 7 m													338
S3000 Expert	0 m ... 7 m													340
S3000 PROFINET IO Advanced	0 m ... 7 m													342
S3000 Cold Store	0 m ... 7 m													344
S300 Expert	0 m ... 3 m													345
S300 Mini Standard	0 m ... 3 m													347
S300 Mini Remote	0 m ... 3 m													349
<b>Safety camera system</b>														
V300 Work Station Extended	0 m ... 1.5 m													350
<b>Safety light curtains</b>														
miniTwin4	0 m ... 5 m													351
miniTwin2	0 m ... 8 m													353
C4000 Standard	0 m ... 19 m													355
C4000 Advanced	0 m ... 19 m													357
C4000 Micro in IP69K Housing	0 m ... 14.5 m													389
deTec4 Core	0 m ... 10 m													361
C2000 Standard	0 m ... 6 m													363
C2000 Standard in IP69K Housing	0 m ... 14.5 m													365
<b>Multiple light beam safety devices</b>														
M4000 Standard	0 m ... 70 m													367
M4000 Advanced	0 m ... 70 m													369
M4000 Standard in IP69K Housing	0.5 m ... 53 m													372
M2000 Standard	0 m ... 70 m													374
<b>Single-beam photoelectric safety switches</b>														
L4000 Systems	0 m ... 60 m													376
L41	0 m ... 60 m													378
L21	0 m ... 60 m													380



Selection guide safety laser scanners

	S3000 Standard	S3000 Expert	S3000 PROFINET IO Advanced	S3000 Cold Store	S300 Expert	S300 Mini Standard	S300 Mini Remote
<b>Scanning angle</b>							
180°				■			
190°	■	■	■				
270°					■	■	■
<b>Field sets</b>							
1	■					■	
4			■	■			
16					■		■
21 <sup>1)</sup> / 32 <sup>2)</sup>		■					
<b>Ambient operating temperature</b>							
-10 °C ... +50 °C	■	■	■		■	■	■
-30 °C ... +50 °C				■			
<b>Enclosure rating</b>							
IP 65	■	■	■	■	■	■	■
IP 67				■			
<b>Functions</b>							
Safe device communication via EFI	■	■		■	■		■
Direct integration into bus systems			■				
External device monitoring (EDM)	■	■			■	■	
Host/guest mode	■	■		■	■		■
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<sup>1)</sup> In triple field mode.

<sup>2)</sup> In dual field mode.





Selection guide safety light curtains

	miniTwin4	miniTwin2	C4000 Standard	C4000 Advanced	C4000 Micro in IP69K Housing	deTec4 Core	C2000 Standard	C2000 Standard in IP69K Housing
<b>Resolution (mm)</b>								
14	■	■	■	■	■	■		
20			■	■			■	
24	■	■						
30			■	■	■	■	■	■
34	■	■						
40			■	■			■	
<b>Protective field height (mm)</b>								
120 ... 1,200	■	■						
150 ... 1,200								■
150 ... 1,800							■	
300 ... 1,800			■	■	■			
300 ... 2,100						■		
<b>Ambient operating temperature</b>								
0 °C ... +55 °C			■	■			■	■
-20 °C ... +55 °C	■	■						
-30 °C ... +55 °C					■	■		
<b>Enclosure rating</b>								
IP 65	■	■	■	■	■	■	■	■
IP 66					■			■
IP 67					■	■		■
IP 69K					■			■
<b>Functions</b>								
Safe device communication via EFI			■	■				
External device monitoring (EDM)	■	■	■	■	■		■	■
Restart interlock	■	■	■	■	■			
Blanking				■				
PSDI mode with UE402			■	■				
<b>Page</b>	351	353	355	357	359	361	363	365



Selection guide multiple light beam safety devices and single-beam photoelectric safety switches

	M4000 Standard	M4000 Advanced	M4000 Standard in IP69K Housing	M2000 Standard	L4000 Systeme	L41	L21
<b>Number of beams</b>							
1					■	■	■
2	■	■		■			
3	■	■	■	■			
4	■	■	■	■			
5 ... 8	■	■					
<b>Beam separation (mm)</b>							
220	■	■					
300	■	■	■	■			
400	■	■	■	■			
450	■	■		■			
500	■	■					
600	■	■					
<b>Ambient operating temperature</b>							
0 °C ... +55 °C				■			
-20 °C ... +55 °C					■		
-30 °C ... +55 °C	■	■	■				
-40 °C ... +55 °C						■	■
<b>Enclosure rating</b>							
IP 65	■	■	■	■			
IP 66			■				
IP 67			■		■	■	■
IP 69K			■				
<b>Functions</b>							
Safe device communication via EFI		■					
External device monitoring (EDM)	■	■			■		
Restart interlock	■	■			■		
Muting with UE403		■					
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### At a glance

- 4 m, 5.5 m or 7 m protective field range
- 1 field set (1 protective fields, 2 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 two protective fields
- Contour as reference for vertical applications
- Integrated external device monitoring (EDM)

### Your benefits

- Largest protective field range available on the market increases the variety of application possibilities
- Safety engineering - with no loss of productivity.
- Quick recommissioning via configuration memory
- Easily expandable modular system, simple cabling and additional functions 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 available at [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

### Accessories

Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Mounting bracket for direct mounting, from the rear, on wall or machine, not adjustable	-	-	Mounting kit 1	2015623
	Mounting bracket for rear mounting on wall or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623)	-	-	Mounting kit 2	2015624
	Mounting bracket for rear mounting on wall, floor, or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623) and 2 (2015624)	-	-	Mounting kit 3	2015625

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Plug connectors and cables	For connecting the configuration connection to the USB interface on the PC	M8 x 4, USB-A	2 m	DSL-8U04G02M025KM1	6034574
		System plug, not for use with incremental encoders	Without cable, upward	-	SX0A-A0000B	2023797
			Pre-assembled, upward	5 m	SX0A-B0905B	2027170
				10 m	SX0A-B0910B	2027171
	20 m	SX0A-B0920B		2027814		
	Spare parts	Front screen replacement kit with replacement seal and screws	-	-	Front screen replacement kit	2027180





### At a glance

- 4 m, 5.5 m or 7 m protective field range
- 21 switchable field sets (21 protective fields, 42 warning fields)
- Configuration memory integrated in the system plug
- EFI interface for safe SICK device communication
- Incremental encoder inputs for speed-dependent field switching
- Extended measured data output via RS-422 with landmark recognition
- Simultaneous monitoring of two protective fields

### Your benefits

- Largest protective field range available on the market increases the variety of application possibilities
- Variety of field sets ensures safety and productivity when protecting vehicles or moving machine parts
- Easily expandable modular system, simple cabling and additional functions using SICK safety controllers with EFI
- Quick recommissioning via configuration memory
- The correct protective field at any speed avoids unnecessary stops.
- Personnel protection and navigation support in one device
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Decades of proven safety technology guarantee maximum reliability and productivity – even under difficult conditions

→ [www.mysick.com/en/S3000\\_Expert](http://www.mysick.com/en/S3000_Expert)

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



### Ordering information






Other models available at [www.mysick.com/en/S3000\\_Expert](http://www.mysick.com/en/S3000_Expert)

- System part: sensor head with I/O module

Protective field range	Model name	Part no.
4 m	S30A-4011GB	1052107
5.5 m	S30A-6011GB	1052108
7 m	S30A-7011GB	1052109

### Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Mounting brackets/plates	Mounting bracket for direct mounting, from the rear, on wall or machine, not adjustable	-	-	Mounting kit 1	2015623
		Mounting bracket for rear mounting on wall or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623)	-	-	Mounting kit 2	2015624
		Mounting bracket for rear mounting on wall, floor, or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623) and 2 (2015624)	-	-	Mounting kit 3	2015625

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Plug connectors and cables	For connecting the configuration connection to the USB interface on the PC	M8 x 4, USB-A	2 m	DSL-8U04G02M025KM1	6034574
		System plug, not for use with incremental encoders	Without cable, upward	-	SX0A-A0000B	2023797
			Pre-assembled, upward	5 m	SX0A-B1705B	2027174
		System plug, for use with incremental encoders	Without cable, upward	-	SX0A-A0000D	2023310
			Pre-assembled, upward	5 m	SX0A-B1305D	2027176
	Spare parts	Front screen replacement kit with replacement seal and screws	-	-	Front screen replacement kit	2027180



### At a glance

- Direct integration in PROFINET IO safe bus system
- 4 m, 5.5 m or 7 m protective field range
- 4 switchable field sets (4 protective fields, 4 warning fields)
- Managed 2-Port switch for copper or optical fiber based conductors
- Configuration memory integrated in the system plug
- Remote diagnostics and configuration through safety controller
- Simultaneous monitoring of two protective fields

### Your benefits

- Reliable, fault-tolerant communication with PLC controller using state-of-the-art fiber-optic technology
- Efficient, cost-effective protection - networked through direct connection to PROFINET IO networks
- Rapid diagnosis by means of remote access prevents downtimes
- Standardized integration in PLC controllers, thanks to GSDML generic station description
- Largest protective field range available in the market increases the variety of application possibilities
- Quick recommissioning via configuration memory
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Decades of proven safety technology guarantee maximum reliability and availability – even under difficult conditions

→ [www.mysick.com/en/S3000\\_PROFINET\\_IO\\_Advanced](http://www.mysick.com/en/S3000_PROFINET_IO_Advanced)

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



### Ordering information





Other models available at [www.mysick.com/en/S3000\\_PROFINET\\_IO\\_Advanced](http://www.mysick.com/en/S3000_PROFINET_IO_Advanced)

- System part: sensor head with I/O module

Protective field range	Connection type	Model name	Part no.
4 m	Optical fiber conductor (2 sockets for SCRJ push-pull plug)	S30A-4111CL	1052591
	Copper conductor (2 sockets for RJ-45 push-pull plug)	S30A-4111CP	1045650
5.5 m	Optical fiber conductor (2 sockets for SCRJ push-pull plug)	S30A-6111CL	1052593
	Copper conductor (2 sockets for RJ-45 push-pull plug)	S30A-6111CP	1045652
7 m	Optical fiber conductor (2 sockets for SCRJ push-pull plug)	S30A-7111CL	1052595
	Copper conductor (2 sockets for RJ-45 push-pull plug)	S30A-7111CP	1045654



## Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Mounting brackets/plates	Mounting bracket for direct mounting, from the rear, on wall or machine, not adjustable	-	-	Mounting kit 1	2015623
		Mounting bracket for rear mounting on wall or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623)	-	-	Mounting kit 2	2015624
		Mounting bracket for rear mounting on wall, floor, or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623) and 2 (2015624)	-	-	Mounting kit 3	2015625
	Plug connectors and cables	For connection of RJ-45 port of the safety laser scanner with standard M12 connectors	-	30 cm	Adapter cable RJ45PP/M12	6044052
		For connecting the configuration connection to the USB interface on the PC	M8 x 4, USB-A	2 m	DSL-8U04G02M025KM1	6034574
		Supply connector	Without cable	-	SX1A-A0000L	2047286
			Pre-assembled	1 m	SX1A-B0201L	2049575
		Power y-junction with supply connector	-	-	SX1A-B0201M	2049857
	Spare parts	Front screen replacement kit with replacement seal and screws	-	-	Front screen replacement kit	2027180



### At a glance

- Certified for temperatures down to -30 °C
- Modified housing with integrated temperature controller
- IP 67 enclosure rating
- 7 m protective field range
- 4 switchable field sets (4 protective fields, 8 warning fields)
- EFI interface for safe SICK device communication
- Selectable resolution for hand, leg or body detection
- Contour as reference for vertical applications

### Your benefits

- First safety laser scanner available on the market which can be used at temperatures as low as -30 °C
- Hazard area, hazard point, access or vehicle protection in cold areas
- Largest protective field range available in the market increases the variety of application possibilities
- Easy modular expansions and additional functions 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

→ [www.mysick.com/en/S3000\\_Cold\\_Store](http://www.mysick.com/en/S3000_Cold_Store)

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






### Ordering information

Other models available at [www.mysick.com/en/S3000\\_Cold\\_Store](http://www.mysick.com/en/S3000_Cold_Store)

Protective field range	Model name	Part no.
7 m	S31A-7011CA	1041648

### Accessories

Accessory category	Brief description	Model name	Part no.
 Drying agent cartridges	Dry cartridge LMS211/221/220	Desiccant cartridge with male thread M36 x 1.5	5306179
 Mounting brackets/plates	Mounting kit for wall-mounting (adjustment bracket)	Mounting kit	2018303
 Plug connectors and cables	Connection plug for Outdoor-LMS211/221	16-pin connection plug	2018301
	Connecting cable	Connection cable	6025729
	Plug insert 16-pin (for connection plug LMS211/221/220)	Plug insert 16-pin (spring strip)	6004379
	Configuration cable (connection LMS – PC/ RS 232/422), 5 m	Service cable, pre-assembled for RS-232	2019561



### At a glance

- Compact design
- 2 m or 3 m protective field range
- 270° scan angle
- 16 switchable field sets (16 protective fields, 32 warning fields)
- Configuration memory integrated in the system plug
- EFI interface for safe SICK device communication
- Incremental encoder inputs for speed-dependent field switching
- Extended measured data output via RS-422 with landmark recognition

### Your benefits

- Simple integration due to compact design
- Unbeatable cost-effectiveness – 270° scan angle allows complete application protection with only two scanners
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Variety of field sets ensures safety and productivity when protecting vehicles or moving machine parts
- Quick recommissioning via configuration memory
- Easy modular expansions, simple cabling and additional functions using SICK safety controllers with EFI
- The correct protective field at any speed avoids unnecessary stops.
- Personnel protection and navigation support in one device

→ [www.mysick.com/en/S300\\_Expert](http://www.mysick.com/en/S300_Expert)

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







### Ordering information

Other models available at [www.mysick.com/en/S300\\_Expert](http://www.mysick.com/en/S300_Expert)

Protective field range	Model name	Part no.
2 m	S30B-2011GB	1050193
3 m	S30B-3011GB	1057641

### Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Mounting brackets/plates	Mounting bracket for rear mounting on wall or machine	-	-	Mounting kit 1a	2034324
		Mounting bracket for rear mounting on wall or machine with protection of optics hood	-	-	Mounting kit 1b	2034325
		Mounting bracket, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)	-	-	Mounting kit 2	2039302
		Mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)	-	-	Mounting kit 3	2039303

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Plug connectors and cables	For connecting the configuration connection to the USB interface on the PC	M8 x 4, USB-A	2 m	DSL-8U04G02M025KM1	6034574
		System plug, not for use with incremental encoders	Without cable	-	SX0B-A0000G	2032807
			Pre-assembled	5 m	SX0B-B1505G	2034264
		System plug, for use with incremental encoders	Without cable	-	SX0B-A0000J	2032856
			Pre-assembled	5 m	SX0B-B1105J	2032857
		Spare parts	Spare part set optic cover with replacement seal and screws	-	-	Spare part set optic cover





### At a glance

- Very compact design
- 2 m or 3 m protective field range
- 270° scan angle
- 1 field set (1 protective fields, 2 warning fields)
- Selectable resolution for hand, leg or body detection
- Contour as reference for vertical applications
- Integrated external device monitoring (EDM)
- Easy-to-configure fields and functions

### Your benefits

- Simple integration due to ultra-compact design
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Unbeatable cost-effectiveness – 270° scan angle allows complete application protection with only two scanners
- Safety engineering – with no loss of productivity
- 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 available at [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

### Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Mounting brackets/plates	Mounting bracket for rear mounting on wall or machine	-	-	Mounting kit 1a	2034324
		Mounting bracket for rear mounting on wall or machine with protection of optics hood	-	-	Mounting kit 1b	2034325
		Mounting bracket, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)	-	-	Mounting kit 2	2039302
		Mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)	-	-	Mounting kit 3	2039303

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Plug connectors and cables	For connecting the configuration connection to the USB interface on the PC	M8 x 4, USB-A	2 m	DSL-8U04G02M025KM1	6034574
				Connecting cable	M12 x 7 + FE, straight	2.5 m
		5 m	DOL-127SG05ME25KM0			6020354
		10 m	DOL-127SG10ME25KM0			6020352
		20 m	DOL-127SG20ME25KM0			6033096
		M12 x 7 + FE, angled	5 m	DOL-127SW05ME25KM0	6021342	
			10 m	DOL-127SW10ME25KM0	6035566	
			15 m	DOL-127SW15ME25KM0	6021343	
		Spare parts	Spare part set optic cover with replacement seal and screws	-	-	Spare part set optic cover



### At a glance

- Can only be used in EFI system network with a Flexi Soft safety controller or another safety laser scanner
- Very compact design
- 2 m or 3 m protective field range
- 270° scan angle
- Up to 16 switchable field sets (16 protective fields, 32 warning fields)
- Selectable resolution for hand, leg or body detection
- Extended system solutions in combination with Flexi Soft safety controller

### Your benefits

- Simple integration due to ultra-compact design
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Unbeatable cost-effectiveness – 270° scan angle allows complete application protection with only two scanners
- Variety of field sets guarantees safety and productivity when protecting vehicles or moving machine parts
- Easy modular expansions, simple cabling and additional functions using SICK safety controllers with EFI
- Decades of proven safety technology guarantee maximum reliability and availability – even under difficult conditions
- Simple alignment and safe operation in vertical mode

→ [www.mysick.com/en/S300\\_Mini\\_Remote](http://www.mysick.com/en/S300_Mini_Remote)

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



### Ordering information

Other models available at [www.mysick.com/en/S300\\_Mini\\_Remote](http://www.mysick.com/en/S300_Mini_Remote)

Protective field range	Model name	Part no.
2 m	S32B-2011EA	1051884
3 m	S32B-3011EA	1056431

### Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Mounting brackets/plates	Mounting bracket for rear mounting on wall or machine	-	-	Mounting kit 1a	2034324
		Mounting bracket for rear mounting on wall or machine with protection of optics hood	-	-	Mounting kit 1b	2034325
		Mounting bracket, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)	-	-	Mounting kit 2	2039302
		Mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)	-	-	Mounting kit 3	2039303
		For connecting the configuration connection to the USB interface on the PC	M8 x 4, USB-A	2 m	DSL-8U04G02M025KM1	6034574
	Plug connectors and cables	Connecting cable	M12 x 7, straight	5 m	DOL-1SS2G5M0E15KM3	6042338
	Spare parts	Spare part set optic cover with replacement seal and screws	-	-	Spare part set optic cover	2039248



### At a glance

- SIL2 (IEC 61508, EN 62061) and 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 available at [www.mysick.com/en/V300\\_Work\\_Station\\_Extended](http://www.mysick.com/en/V300_Work_Station_Extended)

Model name	Part no.
V30W-0101000	1041542

### Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Plug connectors and cables	Connecting cable	M12 x 7 + FE, straight	2.5 m	DOL-127SG2M5E25KM0	6020537
				5 m	DOL-127SG05ME25KM0	6020354
				7.5 m	DOL-127SG7M5E25KM0	6020353
	Sets	Reflective tape 2 x 1.0 m, test rod, 20 mm diameter	-	-	Resolution set 20 mm	2051336
		Reflective tape 2 x 1.2 m, test rod, 24 mm diameter	-	-	Resolution set 24 mm	2051338
		Reflective tape 2 x 1.5 m, test rod, 30 mm diameter	-	-	Resolution set 30 mm	2051339
	Terminal and alignment brackets	Mounting kit for mounting the sensor on the profile frame	-	-	Mounting kit	2045375





### At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- Compact cross section (15 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 to 1200 mm
- Typical scanning ranges 0 ... 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 straight-forward 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 available at [www.mysick.com/en/miniTwin4](http://www.mysick.com/en/miniTwin4)

#### Standalone device

Resolution	Cable length	Protective field height	Model name	Part no.
14 mm	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






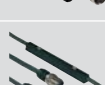






Resolution	Cable length	Protective field height	Model name	Part no.
24 mm	350 mm	240 mm	C4MT-02424ABB03DE0	1207224
		300 mm	C4MT-03024ABB03DE0	1207225
		360 mm	C4MT-03624ABB03DE0	1207227
		480 mm	C4MT-04824ABB03DE0	1207229
	700 mm	600 mm	C4MT-06024ABB03FE0	1207231
		720 mm	C4MT-07224ABB03FE0	1207233
		900 mm	C4MT-09024ABB03FE0	1207236
		1,020 mm	C4MT-10224ABB03FE0	1207238
		1,200 mm	C4MT-12024ABB03FE0	1207241

## Cascaded device

Resolution	Cable length	Protective field height	Model name	Part no.
14 mm	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

## Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Mounting brackets/plates	C-Fix-Flex bracket, adjustable +4°/-4°, metal version, for flat and connector side assembly/assembly/construction/mounting, for all protective field heights	-	-	BEF-1SHABMAL2	2056598
		Combination C-Fix bracket with L-Fix bracket, 2 pieces each, for all sizes, for all protective field heights	-	-	BEF-3AAA0MKU2S04	2045843
		O-Fix bracket, 2 pieces, for all sizes, for all protective field heights	-	-	BEF-3SHAEMKU2	2045835
	Plug connectors and cables	Female connector, M12, 5-pin, straight, 5 m, PVC	Socket M12 x 5, straight	5 m	DOL-1205-G05M	6009868
		Female connector, M12, 5-pin, straight, 10 m, PVC	Socket M12 x 5, straight	10 m	DOL-1205-G10M	6010544
		Extension connection cable	Plug M12 x 5, socket M12 x 5, plug straight/socket straight	1 m	DSL-1205-G01MC	6029280
		Cable for digital I/Os, M12, 5-pin, socket/plug	Plug M12 x 5, socket M12 x 5, plug straight/socket straight	2 m	DSL-1205-G02MC	6025931
		System plug	-	350 mm	Cascade system plug	2046454
		System plug	-	700 mm	Cascade system plug	2046456
		System plug	-	10 m	Standalone system plug	2051290



### At a glance

- Type 2 (IEC 61496), PL d (EN ISO 13849)
- Compact cross section (15 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 to 1200 mm
- Typical scanning ranges 0 ... 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 available at [www.mysick.com/en/miniTwin2](http://www.mysick.com/en/miniTwin2)







#### Standalone device

Resolution	Cable length	Protective field height	Model name	Part no.
14 mm	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
		600 mm	C2MT-06014BBC03FE0	1207801
		700 mm	C2MT-07014BBC03FE0	1207802
24 mm	350 mm	240 mm	C2MT-02424BBC03DE0	1207824
		300 mm	C2MT-03024BBC03DE0	1207825
		360 mm	C2MT-03624BBC03DE0	1207832
		480 mm	C2MT-04824BBC03DE0	1207834
	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

Cascaded systems

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

Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.	
	Mounting brackets/plates	C-Fix-Flex bracket, adjustable +4°/-4°, metal version, for flat and connector side assembly/assembling/construction/mounting, for all protective field heights	-	-	BEF-1SHABMAL2	2056598	
		Combination C-Fix bracket with L-Fix bracket, 2 pieces each, for all sizes, for all protective field heights	-	-	BEF-3AAA0MKU2S04	2045843	
		O-Fix bracket, 2 pieces, for all sizes, for all protective field heights	-	-	BEF-3SHAEMKU2	2045835	
	Plug connectors and cables	Female connector, M12, 5-pin, straight, 5 m, PVC	Socket M12 x 5, straight	5 m	DOL-1205-G05M	6009868	
		Female connector, M12, 5-pin, straight, 10 m, PVC	Socket M12 x 5, straight	10 m	DOL-1205-G10M	6010544	
		Extension connection cable	Plug M12 x 5, socket M12 x 5, plug straight/socket straight	1 m	DSL-1205-G01MC	6029280	
		Cable for digital I/Os, M12, 5-pin, socket/plug	Plug M12 x 5, socket M12 x 5, plug straight/socket straight	2 m	DSL-1205-G02MC	6025931	
		System plug		-	350 mm	Cascade system plug	2046454
					700 mm	Cascade system plug	2046456
10 m					Standalone system plug	2051290	





### At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- 7-segment display
- PSDI mode with the UE402 switching amplifier
- External device monitoring (EDM) and restart interlock (RES)
- Configuration and diagnostics via PC
- Cascade up to three systems
- ADO (Application Diagnostic Output) signaling output for contamination indicator
- Accessory Clone Plug – for configuration memory

### Your benefits

- 7-segment display saves time during alignment and diagnostics
- Beam coding protects the systems against optical interference by ensuring a high level of availability
- Ability to cascade up to three systems optimizes the safety application and reduces wiring costs
- Preconfigured light curtains and the clone plug enables easy and rapid commissioning
- Precise, convenient configuration and diagnostics reduces downtime

→ [www.mysick.com/en/C4000\\_Standard](http://www.mysick.com/en/C4000_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 available at [www.mysick.com/en/C4000\\_Standard](http://www.mysick.com/en/C4000_Standard)







#### Standalone device

Resolution	Scanning range	Protective field height	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
14 mm	0 m ... 8 m	300 mm	C40S-0301CA010	1018591	C40E-0301CA010	1018592
		450 mm	C40S-0401CA010	1018347	C40E-0401CA010	1018348
		600 mm	C40S-0601CA010	1018593	C40E-0601CA010	1018594
		750 mm	C40S-0701CA010	1018595	C40E-0701CA010	1018596
		900 mm	C40S-0901CA010	1018597	C40E-0901CA010	1018598
		1,200 mm	C40S-1201CA010	1018601	C40E-1201CA010	1018602
		1,500 mm	C40S-1501CA010	1018605	C40E-1501CA010	1018606
		1,800 mm	C40S-1801CA010	1018609	C40E-1801CA010	1018610
30 mm	0 m ... 19 m	300 mm	C40S-0303CA010	1018635	C40E-0303CA010	1018636
		450 mm	C40S-0403CA010	1018637	C40E-0403CA010	1018638
		600 mm	C40S-0603CA010	1018639	C40E-0603CA010	1018640
		750 mm	C40S-0703CA010	1018641	C40E-0703CA010	1018642
		900 mm	C40S-0903CA010	1018643	C40E-0903CA010	1018644
		1,200 mm	C40S-1203CA010	1018647	C40E-1203CA010	1018648
		1,500 mm	C40S-1503CA010	1018651	C40E-1503CA010	1018652
		1,800 mm	C40S-1803CA010	1018655	C40E-1803CA010	1018656

## Cascaded device

Resolution	Scanning range	Protective field height	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
14 mm	0 m ... 8 m	300 mm	C40S-0301DA010	1018690	C40E-0301DA010	1018691
		450 mm	C40S-0401DA010	1018349	C40E-0401DA010	1018350
		600 mm	C40S-0601DA010	1018692	C40E-0601DA010	1018693
		750 mm	C40S-0701DA010	1018694	C40E-0701DA010	1018695
		900 mm	C40S-0901DA010	1018696	C40E-0901DA010	1018697
		1,200 mm	C40S-1201DA010	1018700	C40E-1201DA010	1018701
		1,500 mm	C40S-1501DA010	1018704	C40E-1501DA010	1018705
		1,800 mm	C40S-1801DA010	1018708	C40E-1801DA010	1018709
30 mm	0 m ... 19 m	300 mm	C40S-0303DA010	1018733	C40E-0303DA010	1018734
		450 mm	C40S-0403DA010	1018735	C40E-0403DA010	1018736
		600 mm	C40S-0603DA010	1018737	C40E-0603DA010	1018738
		750 mm	C40S-0703DA010	1018739	C40E-0703DA010	1018740
		900 mm	C40S-0903DA010	1018741	C40E-0903DA010	1018742
		1,200 mm	C40S-1203DA010	1018745	C40E-1203DA010	1018746
		1,500 mm	C40S-1503DA010	1018749	C40E-1503DA010	1018750
		1,800 mm	C40S-1803DA010	1018753	C40E-1803DA010	1018754

## Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Safety switching amplifier	Safety switching amplifier	-	-	UE402	1023577
	Plug connectors and cables	Connecting cable	Hirschmann cable socket M26 x 11 + FE, straight	5 m	DOL-0612G05M075KM0	2022545
				10 m	DOL-0612G10M075KM0	2022547
				15 m	DOL-0612G15M075KM0	2022548
				20 m	DOL-0612G20M075KM0	2022549
	Plug connectors and cables	Cascade connection cable	Hirschmann M26 x 11 + FE, plug straight/socket straight	0.5 m	DSL-0612G0M5075KM0	2021838
				1 m	DSL-0612G01M075KM0	2022279
				2.5 m	DSL-0612G2M5075KM0	2022282
	Terminal and alignment brackets	Mounting kit 6, side bracket, rotatable	-	-	BEF-1SHABAZN4	2019506
		Mounting kit 2, rotatable, swivel mount	-	-	BEF-2SMMEAKU4	2019659
	Programming/configuration tools	Clone Plug for saving and transferring configurations	-	-	PLUG1-0C00100	1029665



### At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- Various options for blanking objects: fixed, floating, or teach-in
- 7-segment display
- PSDI mode with the UE402 switching amplifier
- External device monitoring (EDM) and restart interlock (RES)
- Beam coding for correct system allocation
- Configuration and diagnostics via PC
- Cascade up to three systems

### Your benefits

- Blanking functions enable reliable and safe object detection and increase the productivity in the process
- 7-segment display saves time during alignment and diagnostics
- Beam coding protects the systems against optical interference by ensuring a high level of availability
- Clone plug enables easy and rapid commissioning, saving time and costs
- Ability to cascade up to three systems optimizes the safety application and reduces wiring costs
- Precise, convenient configuration and diagnostics reduce downtime

→ [www.mysick.com/en/C4000\\_Advanced](http://www.mysick.com/en/C4000_Advanced)

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



### Ordering information

Other models available at [www.mysick.com/en/C4000\\_Advanced](http://www.mysick.com/en/C4000_Advanced)







#### Standalone device

Resolution	Scanning range	Protective field height	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
14 mm	0 m ... 8 m	300 mm	C40S-0301CA010	1018591	C40E-0301CB010	1018781
		450 mm	C40S-0401CA010	1018347	C40E-0401CB010	1018782
		600 mm	C40S-0601CA010	1018593	C40E-0601CB010	1018783
		750 mm	C40S-0701CA010	1018595	C40E-0701CB010	1018784
		900 mm	C40S-0901CA010	1018597	C40E-0901CB010	1018785
		1,200 mm	C40S-1201CA010	1018601	C40E-1201CB010	1018787
		1,500 mm	C40S-1501CA010	1018605	C40E-1501CB010	1018789
		1,800 mm	C40S-1801CA010	1018609	C40E-1801CB010	1018791
30 mm	0 m ... 19 m	300 mm	C40S-0303CA010	1018635	C40E-0303CB010	1018803
		450 mm	C40S-0403CA010	1018637	C40E-0403CB010	1018804
		600 mm	C40S-0603CA010	1018639	C40E-0603CB010	1018805
		750 mm	C40S-0703CA010	1018641	C40E-0703CB010	1018806
		900 mm	C40S-0903CA010	1018643	C40E-0903CB010	1018807
		1,200 mm	C40S-1203CA010	1018647	C40E-1203CB010	1018810
		1,500 mm	C40S-1503CA010	1018651	C40E-1503CB010	1018812
		1,800 mm	C40S-1803CA010	1018655	C40E-1803CB010	1018814

Cascaded device

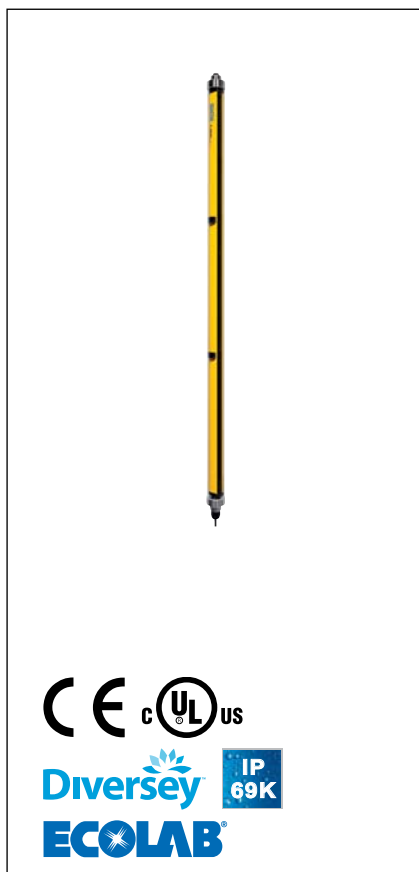
Resolution	Scanning range	Protective field height	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
14 mm	0 m ... 8 m	300 mm	C40S-0301DA010	1018690	C40E-0301DB010	1018827
		450 mm	C40S-0401DA010	1018349	C40E-0401DB010	1018828
		600 mm	C40S-0601DA010	1018692	C40E-0601DB010	1018829
		750 mm	C40S-0701DA010	1018694	C40E-0701DB010	1018830
		900 mm	C40S-0901DA010	1018696	C40E-0901DB010	1018831
		1,200 mm	C40S-1201DA010	1018700	C40E-1201DB010	1018833
		1,500 mm	C40S-1501DA010	1018704	C40E-1501DB010	1018835
		1,800 mm	C40S-1801DA010	1018708	C40E-1801DB010	1018837
30 mm	0 m ... 19 m	300 mm	C40S-0303DA010	1018733	C40E-0303DB010	1018849
		450 mm	C40S-0403DA010	1018735	C40E-0403DB010	1018850
		600 mm	C40S-0603DA010	1018737	C40E-0603DB010	1018851
		750 mm	C40S-0703DA010	1018739	C40E-0703DB010	1018852
		900 mm	C40S-0903DA010	1018741	C40E-0903DB010	1018853
		1,200 mm	C40S-1203DA010	1018745	C40E-1203DB010	1018855
		1,500 mm	C40S-1503DA010	1018749	C40E-1503DB010	1018857
		1,800 mm	C40S-1803DA010	1018753	C40E-1803DB010	1018859

Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Safety switching amplifier	Safety switching amplifier	-	-	UE402	1023577
	Plug connectors and cables	Connecting cable	Hirschmann cable socket M26 x 11 + FE, straight	5 m	DOL-0612G05M075KM0	2022545
				10 m	DOL-0612G10M075KM0	2022547
				15 m	DOL-0612G15M075KM0	2022548
				20 m	DOL-0612G20M075KM0	2022549
	Plug connectors and cables	Cascade connection cable	Hirschmann M26 x 11 + FE, plug straight/socket straight	0.5 m	DSL-0612G0M5075KM0	2021838
				1 m	DSL-0612G01M075KM0	2022279
				2.5 m	DSL-0612G2M5075KM0	2022282
	Terminal and alignment brackets	Mounting kit 6, side bracket, rotatable	-	-	BEF-1SHABAZN4	2019506
		Mounting kit 2, rotatable, swivel mount	-	-	BEF-2SMMEAKU4	2019659
	Programming/ configuration tools	Clone Plug for saving and transferring configurations	-	-	PLUG1-0C00100	1029665







### At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- IP 69K, IP 67, IP 66 and IP 65 enclosure ratings incl. cable
- Withstands wash-down pressure up to 100 bar and water temperature up to 80 °C
- ECOLAB and JohnsonDiversey certified
- Resistant steel materials
- Ventilation valve prevents fogging of the front screen
- Smooth surfaces prevent accumulation of bacteria
- Compact design up to 1.800 mm protective field height

### Your benefits

- The longer service life saves costs. IP 69K-tested product – from the housing materials right up to the connection cable
- As an alternative to hard guards, personnel can quickly access protected areas for service, keeping productivity high
- Saves time in the cleaning and is resistant to high pressure cleaners
- Reliable safeguarding, even when temperatures fluctuate

→ [www.mysick.com/en/C4000\\_Micro\\_in\\_IP69K\\_Housing](http://www.mysick.com/en/C4000_Micro_in_IP69K_Housing)

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#### Standalone device

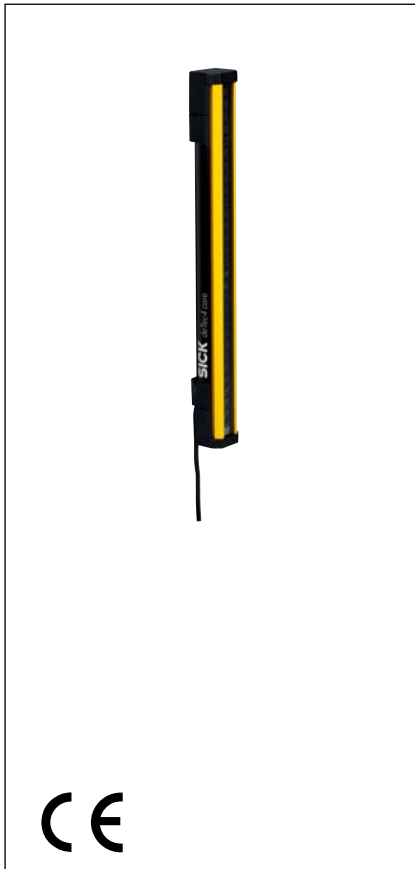
Resolution	Scanning range	Protective field height	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
14 mm	0 m ... 1.8 m	300 mm	C45S-0301AA220	1025722	C45E-0301AG220	1025723
		450 mm	C45S-0401AA220	1025727	C45E-0401AG220	1025728
		600 mm	C45S-0601AA220	1025732	C45E-0601AG220	1025733
		750 mm	C45S-0701AA220	1025737	C45E-0701AG220	1025738
		900 mm	C45S-0901AA220	1025742	C45E-0901AG220	1025743
		1,050 mm	C45S-1001AA220	1025747	C45E-1001AG220	1025748
		1,200 mm	C45S-1201AA220	1025753	C45E-1201AG220	1025754
		1,350 mm	C45S-1301AA220	1055506	C45E-1301AG220	1055507
		1,500 mm	C45S-1501AA220	1055511	C45E-1501AG220	1055512
		1,650 mm	C45S-1601AA220	1055516	C45E-1601AG220	1055517
1,800 mm	C45S-1801AA220	1055521	C45E-1801AG220	1055522		



Resolution	Scanning range	Protective field height	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
30 mm	0 m ... 4.5 m	300 mm	C45S-0303AA220	1025724	C45E-0303AG220	1025725
		450 mm	C45S-0403AA220	1025729	C45E-0403AG220	1025730
		600 mm	C45S-0603AA220	1025734	C45E-0603AG220	1025735
		750 mm	C45S-0703AA220	1025739	C45E-0703AG220	1025740
		900 mm	C45S-0903AA220	1025744	C45E-0903AG220	1025745
		1,050 mm	C45S-1003AA220	1025749	C45E-1003AG220	1025750
		1,200 mm	C45S-1203AA220	1025755	C45E-1203AG220	1025756
		1,350 mm	C45S-1303AA220	1055508	C45E-1303AG220	1055509
		1,500 mm	C45S-1503AA220	1055513	C45E-1503AG220	1055514
		1,650 mm	C45S-1603AA220	1055518	C45E-1603AG220	1055519
	1,800 mm	C45S-1803AA220	1055523	C45E-1803AG220	1055524	
	4 m ... 14.5 m	300 mm	C45S-0303BA220	1055627	C45E-0303AG220	1025725
		450 mm	C45S-0403BA220	1055628	C45E-0403AG220	1025730
		600 mm	C45S-0603BA220	1055629	C45E-0603AG220	1025735
		750 mm	C45S-0703BA220	1055630	C45E-0703AG220	1025740
		900 mm	C45S-0903BA220	1055631	C45E-0903AG220	1025745
		1,050 mm	C45S-1003BA220	1055632	C45E-1003AG220	1025750
		1,200 mm	C45S-1203BA220	1055633	C45E-1203AG220	1025756
		1,350 mm	C45S-1303BA220	1055634	C45E-1303AG220	1055509
		1,500 mm	C45S-1503BA220	1055635	C45E-1503AG220	1055514
1,650 mm		C45S-1603BA220	1055636	C45E-1603AG220	1055519	
1,800 mm	C45S-1803BA220	1055637	C45E-1803AG220	1055524		

Accessories

	Accessory category	Brief description	Model name	Part no.
	Device protection (mechanical)	Bidirectional ventilation membrane made from Gore-Tex	Bidirectional ventilation membrane	5309082
	Other mounting accessories	Mounting tool for M12 cable socket, small housing	Installation wrench	4034690
	Programming/ configuration tools	Test rod holder	BEF-3WNAAAAL1	2052249
		14 mm diameter	Test rod	2022599
		30 mm diameter	Test rod	2022602
	Terminal and alignment brackets	Stainless steel support bracket	BEF-2AAAADES2	2026849
		Stainless steel bracket, rotatable	BEF-2SMMEAES4	2023708
		Reinforced stainless steel bracket, rotatable	BEF-2SMMVAES4	2026850



### At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- Protective operation
- Absence of blind zones
- Resolution of 14 mm or 30 mm
- Protective field height of 300 mm to 2100 mm
- Automatic distance measurement of up to 10 m range
- Ambient operating temperature of -30 °C to +55 °C
- Enclosure rating IP 65 / IP 67

### Your benefits

- Simple assembly with innovative mounting and no blind zones
- Quick commissioning thanks to integrated LED display and automatic distance measurement of up to 10 m
- 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
- Basic function with minimal configuration effort enables quick replacement when servicing is required

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






- Resolution: 14 mm

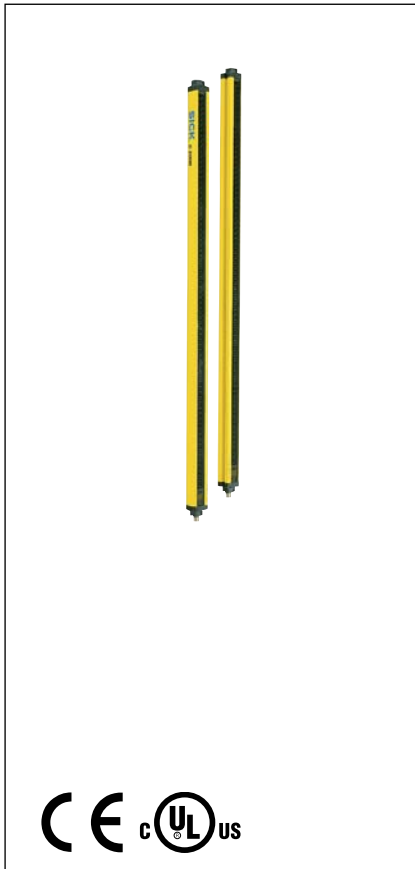
Protective field height	Sender		Receiver	
	Model name	Part no.	Model name	Part no.
300 mm	C4C-SA03010A10000	1211450	C4C-EA03010A10000	1211463
450 mm	C4C-SA04510A10000	1211469	C4C-EA04510A10000	1211470
600 mm	C4C-SA06010A10000	1211471	C4C-EA06010A10000	1211472
750 mm	C4C-SA07510A10000	1211473	C4C-EA07510A10000	1211474
900 mm	C4C-SA09010A10000	1211475	C4C-EA09010A10000	1211515
1,050 mm	C4C-SA10510A10000	1211476	C4C-EA10510A10000	1211477
1,200 mm	C4C-SA12010A10000	1211478	C4C-EA12010A10000	1211479
1,350 mm	C4C-SA13510A10000	1211480	C4C-EA13510A10000	1211481
1,500 mm	C4C-SA15010A10000	1211482	C4C-EA15010A10000	1211483
1,650 mm	C4C-SA16510A10000	1211484	C4C-EA16510A10000	1211485
1,800 mm	C4C-SA18010A10000	1211486	C4C-EA18010A10000	1211487
1,950 mm	C4C-SA19510A10000	1211488	C4C-EA19510A10000	1211489
2,100 mm	C4C-SA21010A10000	1211490	C4C-EA21010A10000	1211491

- Resolution: 30 mm

Protective field height	Sender		Receiver	
	Model name	Part no.	Model name	Part no.
300 mm	C4C-SA03030A10000	1211462	C4C-EA03030A10000	1211464
450 mm	C4C-SA04530A10000	1211492	C4C-EA04530A10000	1211493
600 mm	C4C-SA06030A10000	1211494	C4C-EA06030A10000	1211495
750 mm	C4C-SA07530A10000	1211496	C4C-EA07530A10000	1211497
900 mm	C4C-SA09030A10000	1211498	C4C-EA09030A10000	1211516
1,050 mm	C4C-SA10530A10000	1211499	C4C-EA10530A10000	1211500
1,200 mm	C4C-SA12030A10000	1211501	C4C-EA12030A10000	1211502
1,350 mm	C4C-SA13530A10000	1211503	C4C-EA13530A10000	1211504
1,500 mm	C4C-SA15030A10000	1211505	C4C-EA15030A10000	1211506
1,650 mm	C4C-SA16530A10000	1211507	C4C-EA16530A10000	1211508
1,800 mm	C4C-SA18030A10000	1211509	C4C-EA18030A10000	1211510
1,950 mm	C4C-SA19530A10000	1211511	C4C-EA19530A10000	1211512
2,100 mm	C4C-SA21030A10000	1211513	C4C-EA21030A10000	1211514

## Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Alignment aids	Laser alignment aid for various sensors, laser class 2 (IEC 60825): Never look into the beam.	-	-	AR60	1015741
		Adapter for alignment aid AR60	-	-	Adapter AR60 for deTec4 Core	4070854
	Plug connectors and cables	Female connector, M12, 5-pin, straight, 5 m, PUR halogen free	Straight	5 m	DOL-1205-G05MC	6025907
		Connecting cable	Straight	10 m	DOL-1205-G10MC	6025908
				20 m	DOL-1205-G20MC	6050247
				30 m	DOL-1205-G30MC	6050248
 	Terminal and alignment brackets	FlexFix bracket	-	-	BEF-1SHABPKU4	2066614
		QuickFix bracket			BEF-3SHABPKU2	2066048



### At a glance

- Type 2 (IEC 61496), PL d (EN ISO 13849)
- Robust, industrial housing
- 7-segment display
- Impact and scratch-resistant front screen
- External device monitoring (EDM)
- Beam coding for correct system allocation
- A wide range of standardized connection and mounting accessories
- Internal self-testing function, configurable without PC

### Your benefits

- Customer-friendly interfaces and status display simplify commissioning and maintenance
- High-quality industrial design provides reliable and durable continuous operation
- 7-segment display saves time during alignment and diagnostics
- Rugged design with a high level of resistance to environmental changes ensures high machine availability, even under special ambient conditions
- A multitude of intelligent mounting adapters enables flexible, time-saving installation
- Ability to integrate SICK safe control solutions provides additional application flexibility and customization, including restart interlock and EDM functions
- Special variants for wash down environments

→ [www.mysick.com/en/C2000\\_Standard](http://www.mysick.com/en/C2000_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








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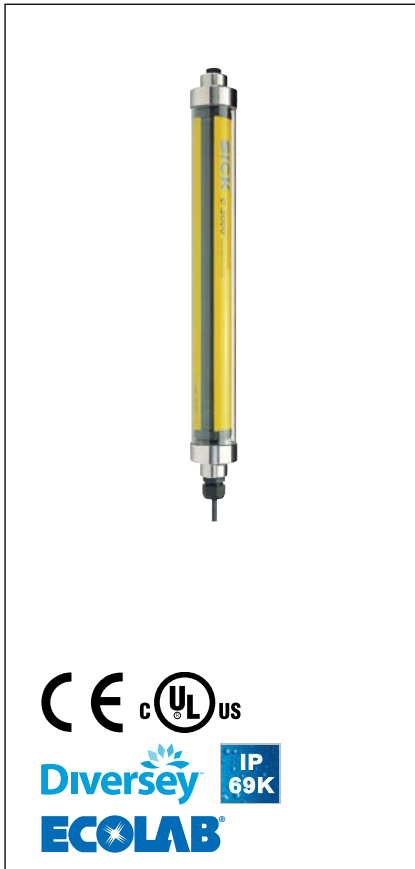
- Scanning range: 0 m ... 6 m

Resolution	Protective field height	Sender		Receiver	
		Model name	Part no.	Model name	Part no.
20 mm	150 mm	C20S-015102A11	1016563	C20E-015302A11	1016564
	300 mm	C20S-030102A11	1016448	C20E-030302A11	1016449
	450 mm	C20S-045102A11	1016573	C20E-045302A11	1016459
	600 mm	C20S-060102A11	1016574	C20E-060302A11	1016575
30 mm	300 mm	C20S-030103A11	1016568	C20E-030303A11	1016569
	450 mm	C20S-045103A11	1016454	C20E-045303A11	1016455
	600 mm	C20S-060103A11	1016477	C20E-060303A11	1016478
	750 mm	C20S-075103A11	1016479	C20E-075303A11	1016480
	900 mm	C20S-090103A11	1016481	C20E-090303A11	1016482
	1,050 mm	C20S-105103A11	1016483	C20E-105303A11	1016484
	1,200 mm	C20S-120103A11	1016594	C20E-120303A11	1016595
	1,350 mm	C20S-135103A12	1016600	C20E-135303A12	1016601
	1,500 mm	C20S-150103A12	1016605	C20E-150303A12	1016606
	1,650 mm	C20S-165103A12	1016610	C20E-165303A12	1016611
1,800 mm	C20S-180103A12	1016615	C20E-180303A12	1016616	

Resolution	Protective field height	Sender		Receiver	
		Model name	Part no.	Model name	Part no.
40 mm	300 mm	C20S-030104A11	1016570	C20E-030304A11	1016571
	450 mm	C20S-045104A11	1016456	C20E-045304A11	1016457
	600 mm	C20S-060104A11	1016576	C20E-060304A11	1016577
	750 mm	C20S-075104A11	1016581	C20E-075304A11	1016582
	900 mm	C20S-090104A11	1016586	C20E-090304A11	1016587
	1,050 mm	C20S-105104A11	1016591	C20E-105304A11	1016592
	1,200 mm	C20S-120104A11	1016596	C20E-120304A11	1016597
	1,350 mm	C20S-135104A12	1016603	C20E-135304A12	1016604
	1,500 mm	C20S-150104A12	1016608	C20E-150304A12	1016609
	1,650 mm	C20S-165104A12	1016613	C20E-165304A12	1016614
1,800 mm	C20S-180104A12	1016618	C20E-180304A12	1016619	

## Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Other mounting accessories	Sliding nut set, M5	-	-	Sliding nuts	2017550
	Plug connectors and cables	Connecting cable	M12 x 7 + FE, straight	5 m	DOL-127SG05ME25KM0	6020354
				10 m	DOL-127SG10ME25KM0	6020352
				15 m	DOL-127SG15ME25KM0	6020872
		Cable receptacles	M12 x 8, straight	-	DOS-1208-G	6028422
	Terminal and alignment brackets	Mounting kit 6, side bracket, rotatable	-	-	BEF-1SHABAZN4	2019506
		Stainless steel bracket, rotatable, for protective field height 150 mm ... 1,200 mm	-	-	BEF-2SMKEAES4	2030288
		Mounting kit 1, rotatable, swivel mount, for protective field height 150 mm ... 1,200 mm	-	-	BEF-2SMKEAKU4	2019649
		Stainless steel bracket, rotatable, for protective field height 1,350 mm ... 1,800 mm	-	-	BEF-2SMMEAES4	2023708
		Mounting kit 2, rotatable, swivel mount, for protective field height 1,350 mm ... 1,800 mm	-	-	BEF-2SMMEAKU4	2019659



### At a glance

- Type 2 (IEC 61496), PL d (EN ISO 13849)
- IP 69K, IP 67, IP 66 and IP 65 enclosure ratings incl. cable
- Withstands wash-down pressure up to 100 bar and water temperature up to 80 °C
- ECOLAB and JohnsonDiversey certified
- Resistant steel materials
- Ventilation valve prevents fogging of the front screen
- Smooth surfaces prevent accumulation of bacteria
- Compact design

### Your benefits

- IP 69K-rated housing and connection cables provide a longer service life, which saves costs
- As an alternative to hard guards, personnel can quickly access and service protected areas, keeping productivity high
- Resistance to high pressure cleaners saves time in the cleaning process
- Reliable safeguarding, even when temperatures fluctuate

→ [www.mysick.com/en/C2000\\_Standard\\_in\\_IP69K\\_Housing](http://www.mysick.com/en/C2000_Standard_in_IP69K_Housing)

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### Ordering information

Other models available at [www.mysick.com/en/C2000\\_Standard\\_in\\_IP69K\\_Housing](http://www.mysick.com/en/C2000_Standard_in_IP69K_Housing)

- Resolution: 30 mm

Scanning range	Protective field height	Sender		Receiver	
		Model name	Part no.	Model name	Part no.
0 m ... 4.5 m	150 mm	C25S-015103C11	1024184	C25E-015303C11	1024185
	300 mm	C25S-030103C11	1024187	C25E-030303C11	1024188
	450 mm	C25S-045103C11	1024190	C25E-045303C11	1024191
	600 mm	C25S-060103C11	1024193	C25E-060303C11	1024194
	750 mm	C25S-075103C11	1024196	C25E-075303C11	1024197
	900 mm	C25S-090103C11	1024199	C25E-090303C11	1024200
	1,050 mm	C25S-105103C11	1024202	C25E-105303C11	1024203
	1,200 mm	C25S-120103C11	1024205	C25E-120303C11	1024206
2.5 m ... 14.5 m	150 mm	C25S-015203C11	1024186	C25E-015303C11	1024185
	300 mm	C25S-030203C11	1024189	C25E-030303C11	1024188
	450 mm	C25S-045203C11	1024192	C25E-045303C11	1024191
	600 mm	C25S-060203C11	1024195	C25E-060303C11	1024194
	750 mm	C25S-075203C11	1024198	C25E-075303C11	1024197
	900 mm	C25S-090203C11	1024201	C25E-090303C11	1024200
	1,050 mm	C25S-105203C11	1024204	C25E-105303C11	1024203
	1,200 mm	C25S-120203C11	1024207	C25E-120303C11	1024206

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Device protection (mechanical)	Bidirectional ventilation membrane made from Gore-Tex	Bidirectional ventilation membrane	5309082
	Other mounting accessories	Mounting tool for M12 cable socket, small housing	Installation wrench	4034690
	Programming/ configuration tools	Test rod holder	BEF-3WNAAAAL1	2052249
		14 mm diameter	Test rod	2022599
		30 mm diameter	Test rod	2022602
	Terminal and alignment brackets	Stainless steel support bracket	BEF-2AAAADDES2	2026849
		Stainless steel bracket, rotatable	BEF-2SMMEAES4	2023708
		Reinforced stainless steel bracket, rotatable	BEF-2SMMVAES4	2026850





### At a glance

- Type 4 (IEC 61496), 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
- Mounting grooves on three housing sides ensure more flexibility during mounting and simplify machine integration
- Customer-friendly interfaces and status display simplify commissioning and maintenance
- 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 available at [www.mysick.com/en/M4000\\_Standard](http://www.mysick.com/en/M4000_Standard)

#### M4000 Standard

Number of beams	Beam separation	Sender		Receiver	
		Model name	Part no.	Model name	Part no.
2	500 mm	M40S-025000AR0	1200000	M40E-025000RR0	1200017
	600 mm	M40S-026000AR0	1200001	M40E-026000RR0	1200018
3	220 mm	M40S-032200AR0	1200002	M40E-032200RR0	1200019
	400 mm	M40S-034000AR0	1200003	M40E-034000RR0	1200020
	450 mm	M40S-034500AR0	1200004	M40E-034500RR0	1200021
4	220 mm	M40S-042200AR0	1200005	M40E-042200RR0	1200022
	300 mm	M40S-043000AR0	1200006	M40E-043000RR0	1200023
5	220 mm	M40S-052200AR0	1200007	M40E-052200RR0	1200024
6	220 mm	M40S-062200AR0	1200008	M40E-062200RR0	1200025
7	220 mm	M40S-072200AR0	1200009	M40E-072200RR0	1200026
8	220 mm	M40S-082200AR0	1200010	M40E-082200RR0	1200027

#### M4000 Standard, with integrated alignment aid and end cap with integrated LED

Number of beams	Beam separation	Sender		Receiver	
		Model name	Part no.	Model name	Part no.
2	500 mm	M40S-025010AR0	1200011	M40E-025030RR0	1200038
	600 mm	M40S-026010AR0	1200012	M40E-026030RR0	1200039
3	400 mm	M40S-034010AR0	1200013	M40E-034030RR0	1200040
	450 mm	M40S-034510AR0	1200014	M40E-034530RR0	1200041
4	300 mm	M40S-043010AR0	1200015	M40E-043030RR0	1200042

## M4000 Standard A/P

Number of beams	Beam separation	Sender/receiver in one housing		Mirror	
		Model name	Part no.	Model name	Part no.
2	500 mm	M40Z-025000RR0	1200120	PSD01-1501 <sup>1)</sup>	1027906
		M40Z-025000TR0	1200122	PSD01-2501 <sup>2)</sup>	1027907
4	300 mm	M40Z-043000TR0	1200123	PSD02-2301 <sup>2)</sup>	1027908







<sup>1)</sup> With mirror deflection (max. effective scanning range 7.5 m). <sup>2)</sup> With fiber-optic cable deflection (max. effective scanning range 4.5 m).

## M4000 Standard A/P, includes end cap with integrated LED

Number of beams	Beam separation	Sender/receiver in one housing		Mirror	
		Model name	Part no.	Model name	Part no.
2	500 mm	M40Z-025020RR0	1200124	PSD01-1501 <sup>1)</sup>	1027906
		M40Z-025020TR0	1200129	PSD01-2501 <sup>2)</sup>	1027907
4	300 mm	M40Z-043020TR0	1200130	PSD02-2301 <sup>2)</sup>	1027908

<sup>1)</sup> With mirror deflection (max. effective scanning range 7.5 m). <sup>2)</sup> With fiber-optic cable deflection (max. effective scanning range 4.5 m).

## Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Alignment aids	Laser alignment aid for various sensors, laser class 2 (IEC 60825): Never look into the beam.	-	-	AR60	1015741
	Device protection (mechanical)	Robust device column with two external mounting slots, maximum installation length 1165 mm, column height 1185 mm	-	-	PU3H11-00000000	2045641
		Robust device column with two external mounting slots, maximum installation length 1265 mm, column height 1285 mm	-	-	PU3H13-00000000	2045642
		Robust device column with two external mounting slots, maximum installation length 965 mm, column height 985 mm	-	-	PU3H96-00000000	2045490
	Mounting brackets/plates	Mounting kit 1, mounting bracket, rigid, L-shaped, including fixing screws and washers	-	-	BEF-3WNGBAST4	7021352
	Plug connectors and cables	Connecting cable	M12 x 7 + FE, straight	5 m	DOL-127SG05ME25KM0	6020354
				10 m	DOL-127SG10ME25KM0	6020352
				15 m	DOL-127SG15ME25KM0	6020872
	Terminal and alignment brackets	Mounting kit 6, side bracket, rotatable	-	-	BEF-1SHABAZN4	2019506
		Mounting kit 12, rotatable, swivel mount	-	-	BEF-2SMGEAKU4	2030510



## At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- Robust housing with three mounting grooves
- 7-segment display
- Wide scanning range, up to 70 m
- External device monitoring (EDM), restart interlock (RES), application diagnostic output (ADO), SDL interface
- Muting in combination with the UE403 switching amplifier
- Laser alignment aid and LED optional integrated
- Configuration and diagnostics via PC

## Your benefits

- The wide scanning range allows the device to be customized according to the application
- Robust design with a high level of resistance to environmental changes ensures high machine availability, even under special ambient conditions
- Mounting grooves on three housing sides ensure more mounting flexibility and simplify machine integration
- Customer-friendly interfaces and status display simplify commissioning and maintenance
- For 2- and 4-sensor muting, the on-site connection of the muting signals significantly minimizes wiring costs and simplifies commissioning and maintenance
- Reduced downtime due to 360° visible LED, diagnostics displays and configuration memory in the UE403 switching amplifier

→ [www.mysick.com/en/M4000\\_Advanced](http://www.mysick.com/en/M4000_Advanced)

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



## Ordering information

Other models available at [www.mysick.com/en/M4000\\_Advanced](http://www.mysick.com/en/M4000_Advanced)

### M4000 Advanced

Number of beams	Beam separation	Sender		Receiver	
		Model name	Part no.	Model name	Part no.
2	500 mm	M40S-025003AA0	1200060	M40E-025003RB0	1200065
		M40S-025003EA0	1202667	M40E-025003WB0	1202707
3	600 mm	M40S-026003AA0	1200070	M40E-026003RB0	1200096
	220 mm	M40S-032203AA0	1200063	M40E-032203RB0	1200097
	400 mm	M40S-034003AA0	1200061	M40E-034003RB0	1200064
4	450 mm	M40S-034503AA0	1200071	M40E-034503RB0	1200098
	220 mm	M40S-042203AA0	1200072	M40E-042203RB0	1200099
5	300 mm	M40S-043003AA0	1200073	M40E-043003RB0	1200100
	220 mm	M40S-052203AA0	1200074	M40E-052203RB0	1200101
6	220 mm	M40S-062203AA0	1200075	M40E-062203RB0	1200102
7	220 mm	M40S-072203AA0	1200076	M40E-072203RB0	1200103
8	220 mm	M40S-082203AA0	1200077	M40E-082203RB0	1200104

## M4000 Advanced, with integrated alignment aid and end cap with integrated LED

Number of beams	Beam separation	Sender		Receiver	
		Model name	Part no.	Model name	Part no.
2	500 mm	M40S-025013AA0	1200057	M40E-025033RB0	1200110
	600 mm	M40S-026013AA0	1200078	M40E-026033RB0	1200111
3	400 mm	M40S-034013AA0	1200069	M40E-034033RB0	1200068
	450 mm	M40S-034513AA0	1200082	M40E-034533RB0	1200112
4	300 mm	M40S-043013AA0	1200080	M40E-043033RB0	1200113

## M4000 Advanced A/P

Number of beams	Beam separation	Sender/receiver in one housing		Mirror	
		Model name	Part no.	Model name	Part no.
2	500 mm	M40Z-025003RB0	1200115	PSD01-1501 <sup>1)</sup>	1027906
		M40Z-025003TB0	1200128	PSD01-2501 <sup>2)</sup>	1027907
4	300 mm	M40Z-043003TB0	1200127	PSD02-2301 <sup>2)</sup>	1027908






<sup>1)</sup> With mirror deflection (max. effective scanning range 7.5 m). <sup>2)</sup> With fiber-optic cable deflection (max. effective scanning range 4.5 m).





## M4000 Advanced A/P, includes end cap with integrated LED

Number of beams	Beam separation	Sender/receiver in one housing		Mirror	
		Model name	Part no.	Model name	Part no.
2	500 mm	M40Z-025023RB0	1200126	PSD01-1501 <sup>1)</sup>	1027906
		M40Z-025023TB0	1200125	PSD01-2501 <sup>2)</sup>	1027907
4	300 mm	M40Z-043023TB0	1200131	PSD02-2301 <sup>2)</sup>	1027908

<sup>1)</sup> With mirror deflection (max. effective scanning range 7.5 m). <sup>2)</sup> With fiber-optic cable deflection (max. effective scanning range 4.5 m).

## Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Safety switching amplifier	Safety switching amplifier	Socket M12 x 5	-	UE403-A0930	1026287
	Device protection (mechanical)	Robust device column with two external mounting slots, maximum installation length 1720 mm, column height 1740 mm	-	-	PU3H17-00000000	2045643
	Muting accessories	M4000 muting arm-kit with four parallel-muting sensors	-	-	M4000 muting arm-kit with four parallel-muting sensors	2046170
		M4000 muting arm-kit with two crossed-muting sensors			M4000 muting arm-kit with two crossed-muting sensors	2046171
		M4000 muting arm-kit with two parallel-muting sensors			M4000 muting arm-kit with two parallel-muting sensors	2060156

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Plug connectors and cables	Connecting cable	Hirschmann cable socket M26 x 11 + FE, straight	5 m	DOL-0610G05M075KM1	2046888
				10 m	DOL-0610G10M075KM1	2046889
	Plug connectors and cables	Cable for digital I/Os, M12, 5-pin, socket/plug	Plug M12 x 5, socket M12 x 5, plug straight/socket straight	2 m	DSL-1205-G02MC	6025931
	Terminal and alignment brackets	Mounting kit 6, side bracket, rotatable	-	-	BEF-1SHABAZN4	2019506
		Mounting kit 12, rotatable, swivel mount	-	-	BEF-2SMGEAKU4	2030510



### At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- IP 69K, IP 67, IP 66 and IP 65 enclosure ratings incl. cable
- Withstands wash-down pressure up to 100 bar and water temperature up to 80 °C
- ECOLAB and JohnsonDiversey certified
- Resistant steel materials
- Ventilation valve prevents fogging of the front screen
- Smooth surfaces prevent accumulation of bacteria
- Unique A/P version for comfortable integration

### Your benefits

- High resistance reduces risk of contamination and increases the production quality
- Cost reduction through long-lasting products, enclosure rating IP 69K for all materials including cable
- Replacement for mechanical guards, with the following advantages:
- Fast access for personnel and service increases productivity
- Saving potential for cleaning time and use of detergents

→ [www.mysick.com/en/M4000\\_Standard\\_in\\_IP69K\\_Housing](http://www.mysick.com/en/M4000_Standard_in_IP69K_Housing)

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



### Ordering information

Other models available at [www.mysick.com/en/M4000\\_Standard\\_in\\_IP69K\\_Housing](http://www.mysick.com/en/M4000_Standard_in_IP69K_Housing)





#### M4000 Standard in IP69K Housing

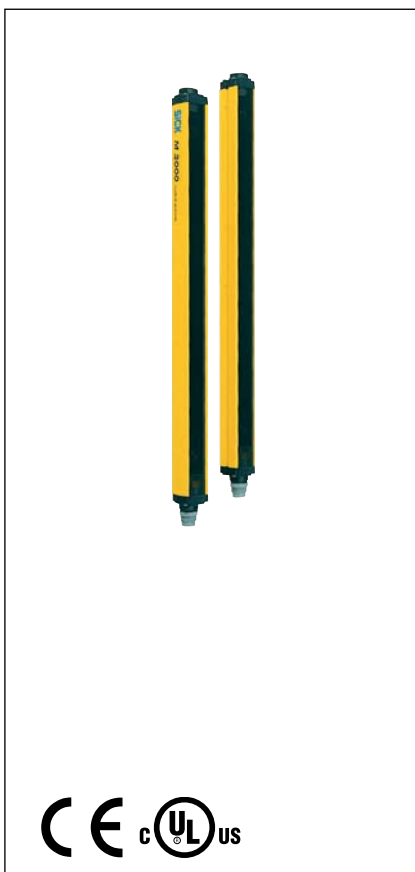
Number of beams	Beam separation	Scanning range	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
3	400 mm	0.5 m ... 15.5 m	M45S-034000ELO	1057664	M45E-034000ELO	1057665
		9 m ... 53 m	M45S-034000ELO	1057664	M45E-034000FLO	1057666

#### M4000 Standard A/P in IP69K Housing

Number of beams	Beam separation	Scanning range	Sender/receiver in one housing		Mirror	
			Model name	Part no.	Model name	Part no.
4	300 mm	0.5 m ... 4 m	M45Z-043000FLO	1057667	PSI02-2302	1057668

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Device protection (mechanical)	Bidirectional ventilation membrane made from Gore-Tex	Bidirectional ventilation membrane	5309082
	Other mounting accessories	Mounting tool for M12 cable socket, large housing	Mounting key	4067618
	Terminal and alignment brackets	Stainless steel support bracket	BEF-2AAAAOES2	2060164
		Reinforced stainless steel bracket, rotatable	BEF-2SMGVAES4	2060165



### At a glance

- Type 2 (IEC 61496), PL d (EN ISO 13849)
- Wide scanning range up to 70 m
- External device monitoring (EDM) and restart interlock (RES)
- Robust, industrial housing
- Internal self-testing – configurable without PC
- 7-segment display for diagnostics
- Beam coding for correct system allocation
- Economical active/passive variants minimize the wiring costs
- Special IP 69K variants for wash down areas

### Your benefits

- High-quality industrial design provides reliable and durable continuous operation
- 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
- The wide scanning range allows the device to be customized according to the application
- Customer-friendly interfaces and status display simplify commissioning and maintenance
- Integrated additional functions: Reset and EDM for short cable distances to connect with cost-optimized, positively guided relays
- Economical active/passive variants minimize the wiring costs and installation time
- Special variants for wash down environments

→ [www.mysick.com/en/M2000\\_Standard](http://www.mysick.com/en/M2000_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 available at [www.mysick.com/en/M2000\\_Standard](http://www.mysick.com/en/M2000_Standard)

#### M2000 Standard







Number of beams	Beam separation or resolution	Scanning range	Sender		Receiver	
			Model name	Part no.	Model name	Part no.
2	500 mm	0 m ... 25 m	M20S-02150A122	1018186	M20E-02150A122	1018187
		0 m ... 70 m	M20S-02250A122	1018174	M20E-02250A122	1018175
3	400 mm	0 m ... 25 m	M20S-03140A122	1018188	M20E-03140A122	1018189
		0 m ... 70 m	M20S-03240A122	1018178	M20E-03240A122	1018179
4	300 mm	0 m ... 25 m	M20S-04130A122	1018190	M20E-04130A122	1018191

#### M2000 Standard A/P

Number of beams	Beam separation	Scanning range	Sender/receiver in one housing		Mirror	
			Model name	Part no.	Model name	Part no.
1	500 mm	0 m ... 6 m	M20Z-02550A122	1018361	PSR01-1501	1016677



## Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Alignment aids	Laser alignment aid for various sensors, laser class 2 (IEC 60825): Never look into the beam.	-	-	AR60	1015741
		Adapter for alignment aid AR60	-	-	Adapter for AR60, for large housing profile	4032461
	Device protection (mechanical)	Robust device column with two external mounting slots, maximum installation length 1165 mm, column height 1185 mm	-	-	PU3H11-00000000	2045641
		Robust device column with two external mounting slots, maximum installation length 1265 mm, column height 1285 mm	-	-	PU3H13-00000000	2045642
		Robust device column with two external mounting slots, maximum installation length 965 mm, column height 985 mm	-	-	PU3H96-00000000	2045490
	Plug connectors and cables	Connecting cable	M12 x 7 + FE, straight	10 m	DOL-127SG10ME25KM0	6020352
				15 m	DOL-127SG15ME25KM0	6020872
	Terminal and alignment brackets	Mounting kit 6, side bracket, rotatable	-	-	BEF-1SHABAZN4	2019506
		Mounting kit 2, rotatable, swivel mount	-	-	BEF-2SMMEAKU4	2019659



### At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849), only in conjunction with UE401
- 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 -20 °C ... +55 °C
- Narrow evaluation device (22.5 mm) with external device monitoring and restart interlock (EDM/RES)
- Fast response time of max. 30 ms
- Up to 8 sensors can be cascaded

### Your benefits

- Easy integration due to small, compact versions with maximum range
- Flexible device integration makes it possible to set up individual protective fields
- Fast response times reduces safety distance and saves production area
- Extremely well suited for extreme ambient conditions such as heat, cold or moisture
- Straightforward configuration without a computer, only with the help of jumpers

→ [www.mysick.com/en/L4000\\_Systems](http://www.mysick.com/en/L4000_Systems)

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











### Ordering information

Other models available at [www.mysick.com/en/L4000\\_Systems](http://www.mysick.com/en/L4000_Systems)

Construction size	Connection type	Scanning range	Optical axis	Housing material	Sender		Receiver	
					Model name	Part no.	Model name	Part no.
M18, 107.7 mm	Plug M12 x 4, straight	0 m ... 5 m	Radial	Metal	L40S-11MA1A	6027341	L40E-11MA1A	6027342
M18, 97.7 mm		0 m ... 10 m	Axial	Plastic	L40S-21KA1A	6027337	L40E-21KA1A	6027338
				Metal	L40S-21MA1A	6027339	L40E-21MA1A	6027340
M30, 100 mm	Plug M12 x 4, angled	0 m ... 60 m	Axial	Metal	L40S-33MA2A	6027335	L40E-33MA2A	6027336



## Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.	
	Safety relays	Contact expansion	Plug-in screw-type terminal	-	UE10-30S3D0	6024918	
		Evaluation unit			UE401-A0010	6027343	
		Flexi Classic main module			UE410-MU3T5	6026136	
	Mounting brackets/plates	Mounting bracket, M30 thread	-	-	BEF-WN-M30	5308445	
	Plug connectors and cables	Female connector, M12, 4-pin, straight, 5 m, PVC	Socket M12 x 4, straight	5 m	D0L-1204-G05M	6009866	
			Socket M12 x 4, angled	5 m	D0L-1204-W05M	6009867	
		Connector		Socket M12 x 4, straight	-	D0S-1204-G	6007302
				Socket M12 x 4, angled	-	D0S-1204-W	6007303



### At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849), only in conjunction with suitable testing device, e.g., Flexi Classic, DeviceNet Safety
- 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 available at [www.mysick.com/en/L41](http://www.mysick.com/en/L41)

Construction size	Connection type	Scanning range	Optical axis	Housing material	Sender		Receiver	
					Model name	Part no.	Model name	Part no.
M18, 107.7 mm	Plug M12 x 4, straight	0 m ... 5 m	Radial	Metal	L41S-11MA1A	6034868	L41E-11MA1A	6034869
M18, 97.7 mm	Plug M12 x 4, straight	0 m ... 10 m	Axial	Metal	L41S-21MA1A	6034866	L41E-21MA1A	6034867
				Plastic	L41S-21KA1A	6034864	L41E-21KA1A	6034865
M30, 100 mm	Plug M12 x 4, angled	0 m ... 60 m	Axial	Metal	L41S-33MA2A	6034863	L41E-33MA2A	6034862

## Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.	
	Safety relays	Contact expansion	Plug-in screw-type terminal	-	UE10-30S3D0	6024918	
		Evaluation unit			UE401-A0010	6027343	
		Flexi Classic main module			UE410-MU3T5	6026136	
	Mounting brackets/plates	Mounting bracket, M30 thread	-	-	BEF-WN-M30	5308445	
	Plug connectors and cables	Female connector, M12, 4-pin, straight, 5 m, PVC	Socket M12 x 4, straight	5 m	D0L-1204-G05M	6009866	
			Socket M12 x 4, angled	5 m	D0L-1204-W05M	6009867	
		Connector		Socket M12 x 4, straight	-	D0S-1204-G	6007302
				Socket M12 x 4, angled	-	D0S-1204-W	6007303



### At a glance

- Type 2 (IEC 61496), PL c (EN ISO 13849), only in conjunction suitable testing device, e.g., Flexi Classic, DeviceNet Safety
- 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 available at [www.mysick.com/en/L21](http://www.mysick.com/en/L21)

Construction size	Connection type	Scanning range	Optical axis	Housing material	Sender		Receiver	
					Model name	Part no.	Model name	Part no.
M18, 107.7 mm	Plug M12 x 4, straight	0 m ... 5 m	Radial	Metal	L21S-11MA1A	6034876	L21E-11MA1A	6034877
M18, 97.7 mm		0 m ... 16 m	Axial	Metal	L21S-21MA1A	6034874	L21E-21MA1A	6034875
				Plastic	L21S-21KA1A	6034872	L21E-21KA1A	6034873
M30, 100 mm	Plug M12 x 4, angled	0 m ... 60 m	Axial	Metal	L21S-33MA2A	6034870	L21E-33MA2A	6034871

## Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	Safety relays	Contact expansion	Plug-in screw-type terminal	-	UE10-30S3D0	6024918
		Flexi Classic main module			UE410-MU3T5	6026136
	Mounting brackets/plates	Mounting bracket, M18 thread	-	-	BEF-WN-M18	5308446
		Mounting bracket, M30 thread	-	-	BEF-WN-M30	5308445
	Plug connectors and cables	Female connector, M12, 4-pin, straight, 5 m, PVC	Socket M12 x 4, straight	5 m	DOL-1204-G05M	6009866
			Socket M12 x 4, angled	5 m	DOL-1204-W05M	6009867
		Connector	Socket M12 x 4, straight	-	DOS-1204-G	6007302
			Socket M12 x 4, angled	-	DOS-1204-W	6007303

## Three product groups for tried and tested, intelligent safety solutions



M

### Safety switches

Safety switches are encountered at many locations where safety is demanded for people and machinery. They are used for protecting mobile separative protective devices, the position determination of

dangerous movements and the safe stop function. The portfolio is divided into three groups: Electro-mechanical and non-contact safety switches and safety command devices.

In conjunction with sens:Control – safe control solutions, SICK offers ideal complete solutions from a single source.





## Safety switches

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### Selection guide safety switches

	Electro-mechanical safety switches									Non-contact safety switches						Safety command devices		
	i12S	i16S	i17S	i110S	i10 Lock	i14 Lock	i200 Lock	i10P	i110R	RE11/RE21/RE31	RE13/RE23	RE27	TR4 Direct	IN3000 Direct	IN4000 Direct	ES21	E100	I110RP
<b>Recommended safety application</b>																		
Interlocking of physical guards without locking	■	■	■	■						■	■	■	■					
Interlocking of physical guards with locking					■	■	■											
Safe position monitoring of machine parameters								■	■					■	■			
Emergency stop																■		■
Manual approval for safe maintenance and setup mode																	■	
<b>Housing material</b>																		
Plastic	■	■	■		■	■	■	■		■	■	■	■	■	■	■	■	
Metal				■					■					■	■			■
<b>Enclosure rating</b>																		
IP 65						■	■							■		■	■	
IP 66								■	■									■
IP 67	■	■	■	■	■					■	■	■		■	■		■	
IP 69K												■						
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### At a glance

- Narrow plastic housing
- Rigid and mobile actuators
- 1 M16 x 1.5 cable entry gland
- 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

→ [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 available at [www.mysick.com/en/i12S](http://www.mysick.com/en/i12S)

Number of positive action N/C contacts	Number of N/O contacts	Model name	Part no.
1	1	i12-SA113	6025057
2	0	i12-SA203	6025100
	1	i12-SB213	6025059

### Accessories

	Accessory category	Design	Actuation option	Model name	Part no.
	Actuators	Angled	Rigid	iE12-A1	5311132
		Rigid	Semiflexible	iE12-F1	5308842
		Straight	Rubber-mounted	iE12-S1	5311131

M



### At a glance

- Compact plastic housing
- Rigid and mobile actuators
- 3 M20 x 1.5 cable entry glands
- 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

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

Number of positive action N/C contacts	Number of N/O contacts	Model name	Part no.
1	1	i16-SA113	6025065
2	0	i16-SA203	6025063

### Accessories

	Accessory category	Brief description	Design	Actuation option	Model name	Part no.
	Actuators	-	Rigid	Fully flexible	iE16-F1	5311129
				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 available at [www.mysick.com/en/i17S](http://www.mysick.com/en/i17S)

Number of positive action N/C contacts	Number of N/O contacts	Model name	Part no.
2	1	i17-SA213	6025067

### Accessories

	Accessory category	Brief description	Design	Actuation option	Model name	Part no.
	Actuators	-	Rigid	Fully flexible	iE16-F1	5311129
				Semiflexible	iE16-F2	5311278
		Catch and retainer kit	-	-	iE16-SCR	5310780
		Self ejecting against simple manipulation	Straight	Rigid	iE17-S1	5311130



**At a glance**

- Standardized metal housing
- Either rigid, fully mobile or bolt actuators available
- 1 M20 x 1.5 cable entry gland
- Slow-action switching elements with four contacts
- IP 67 enclosure rating

**Your benefits**

- Standard device design provides quick and easy mounting
- Rugged metal housing provides increased machine reliability, even when the guard has a mechanical offset
- High availability and safety due to the cone shaped alignment aid
- Improved diagnostics due to additional signaling contacts
- Bolt actuator offers personal protection in the hazardous area and prevents an undesirable restart of the machine

→ [www.mysick.com/en/i110S](http://www.mysick.com/en/i110S)

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






**Ordering information**

Other models available at [www.mysick.com/en/i110S](http://www.mysick.com/en/i110S)

Number of positive action N/C contacts	Number of N/O contacts	Model name	Part no.
2	2	i110-SA223	6025074
3	1	i110-SA313	6025073

**Accessories**

	Accessory category	Design	Actuation option	Model name	Part no.
	Actuators	Rigid	Fully flexible	iE200-F1	5308759
		Straight	Rigid	iE200-S1	5308758
		Bolt actuator straight	Rigid	iE200-B1	5308760





### At a glance

- Narrow plastic housing
- Rigid or mobile actuators
- 3 M20 x 1.5 cable entry glands
- 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

→ [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 available at [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	i10-E0233 Lock	6022585
	0	0	1	1	Cable gland	i10-E0253 Lock	6020536
		1	1	0	Cable gland	i10-E0313S02 Lock	6011368
		2	0	0	Cable gland	i10-E0453 Lock	6020598
		2	0	0	Connector	i10-E0454 Lock	6045056








- Locking type: mechanical

Number of positive action N/C solenoid monitoring contacts	Number of N/O solenoid monitoring contacts	Number of positive action N/C door monitoring contacts	Number of N/O door monitoring contacts	Number of N/C door monitoring contacts	Connection type	Model name	Part no.
2	1	0	0	1	Cable gland	i10-M0233 Lock	6022580
	0	0	1	1	Cable gland	i10-M0253 Lock	6027397
		2	0	0	Cable gland	i10-M0453 Lock	6029934
		2	0	0	Connector	i10-M0454 Lock	6045055

M



Accessories

	Accessory category	Brief description	Design	Actuation option	Model name	Part no.
	Actuators	-	Angled	Rigid	iE10-A1	5306535
		With overtravel	Angled	Rigid	iE10-A4	5308497
		Door hinged at top/ bottom	Rigid	Semiflexible	iE10-R1	5306528
		Door hinged on left/ right	Rigid	Semiflexible	iE10-R2	5306529
		-	Straight	Rigid	iE10-S1	5306527
		-		Rubber-mounted	iE10-S2	5306530
		With overtravel	Straight	Rigid	iE10-S4	5308383





### At a glance

- Compact plastic housing
- 3 M20 x 1.5 cable entry glands
- Locked with spring force
- Lock monitoring
- LED locking indicator
- Mechanical unlocking mechanism on three sides

### Your benefits

- Cost-effective solution for all standard safety applications
- LED status indicator offers improved diagnostics
- Flexible electrical connectivity due to three cable entry glands
- Easy access to wiring for installation and maintenance due to a hinged cover – access to the unlocking mechanism from three sides
- Small housing saves space and can be mounted in tight areas

→ [www.mysick.com/en/i14\\_Lock](http://www.mysick.com/en/i14_Lock)

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



### Ordering information

Other models available at [www.mysick.com/en/i14\\_Lock](http://www.mysick.com/en/i14_Lock)

- Locking type: mechanical

Number of positive action N/C solenoid monitoring contacts	Number of N/O solenoid monitoring contacts	Number of positive action N/C door monitoring contacts	Number of N/O door monitoring contacts	Number of N/C door monitoring contacts	Connection type	Model name	Part no.
2	1	0	0	0	Cable gland	i14-M0213 Lock	6025060
3	0	0	0	0	Cable gland	i14-M0303 Lock	6025062

### Accessories

	Accessory category	Brief description	Design	Actuation option	Model name	Part no.
	Actuators	Catch and retainer set for increased retaining force	Straight	Rigid	iE14-S1	5311133
	Locks and keys	Key	–	–	iE14-E01	5311282



### At a glance

- Compact plastic housing
- Stainless steel entry for actuator
- Either rigid, mobile or bolt actuators available
- 3 M20 x 1.5 cable entry glands
- Locked by spring force and magnetic force
- Lock and door monitoring
- LED locking indicator

### Your benefits

- High reliability due to rugged metal actuator head, even when the guard has a mechanical offset
- Flexible electrical connectivity due to three cable entry glands
- Improved diagnostics due to additional contacts for door monitoring and LED lock monitoring
- Different switching elements offer the appropriate solution for electrical installation
- Bolt actuator offers personal protection in the hazardous area and prevents an undesirable restart of the machine

→ [www.mysick.com/en/i200\\_Lock](http://www.mysick.com/en/i200_Lock)

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






### Ordering information

Other models available at [www.mysick.com/en/i200\\_Lock](http://www.mysick.com/en/i200_Lock)

Locking type	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.
Electrical	1	1	2	1	0	Cable gland	i200-E0323 Lock	6026140
Mechanical	1	1	2	1	0	Cable gland	i200-M0323 Lock	6025113
	2	0	2	1	0	Cable gland	i200-M0413 Lock	6025115

### Accessories

	Accessory category	Design	Actuation option	Model name	Part no.
	Actuators	Bolt actuator straight	Rigid	iE200-B1	5308760
		Rigid	Fully flexible	iE200-F1	5308759
		Straight	Rigid	iE200-S1	5308758





### At a glance

- Standardized plastic housing
- Roller plunger with plastic roller
- 1 M20 x 1.5 cable entry gland
- Slow-action switching elements with three contacts

### Your benefits

- Standard device design provides quick and easy mounting
- Cost-effective solution for all standard safety applications

→ [www.mysick.com/en/i10P](http://www.mysick.com/en/i10P)

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



### Ordering information

Other models available at [www.mysick.com/en/i10P](http://www.mysick.com/en/i10P)

Number of positive action N/C contacts	Number of N/O contacts	Model name	Part no.
2	1	i10-PA213	6025088



### At a glance

- Standardized metal housing
- Metal turning lever with plastic roller
- 1 M20 x 1.5 cable entry gland
- Slow-action or snap-action switching element with up to four contacts

### Your benefits

- Standard device design provides quick and easy mounting
- High availability due to rugged metal housing
- Different switching elements offer the appropriate solution for electrical installation
- Improved diagnostics due to additional signaling contacts

→ [www.mysick.com/en/i110R](http://www.mysick.com/en/i110R)

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



### Ordering information

Other models available at [www.mysick.com/en/i110R](http://www.mysick.com/en/i110R)

Number of positive action N/C contacts	Number of N/O contacts	Model name	Part no.
1	1	i110-RA123	6025109
2	2	i110-RA223	6025108
3	1	i110-RA313	6025107





### At a glance

- Response range of up to 6 mm
- 1 NO/1 NC contact
- Up to performance level PL e / Cat. 4 (EN ISO 13849)
- Direct connection to safe control solution possible
- Sensors with plug connector or connected cable

### 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
- Direct connection to the safe control solution eliminates any additional wiring and reduces installation time
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards

→ [www.mysick.com/en/RE11\\_RE21\\_RE31](http://www.mysick.com/en/RE11_RE21_RE31)

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



### Ordering information

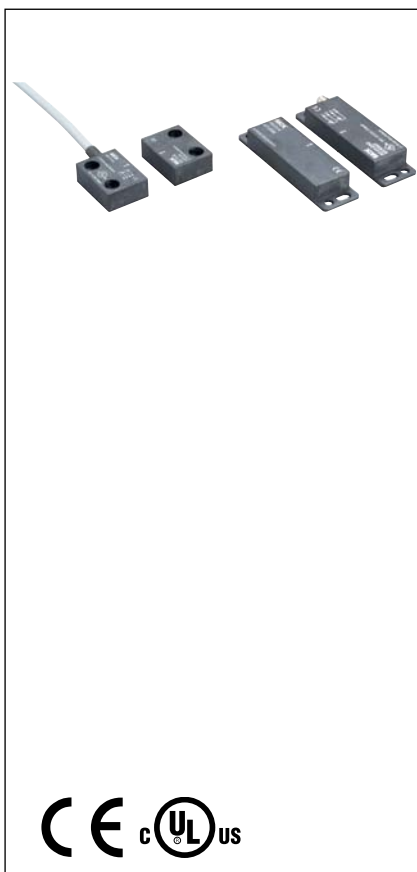
Other models available at [www.mysick.com/en/RE11\\_RE21\\_RE31](http://www.mysick.com/en/RE11_RE21_RE31)

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

Connection type	Cable length	Safe switch on distance $S_{ao}$	Model name	Part no.
M8 plug connector, 4-pin	-	3 mm	RE11-DAC	6036766
Cable	3 m	3 mm	RE11-DA03	6034292
	5 m	3 mm	RE11-DA05	6035616
M8 plug connector, 4-pin	-	6 mm	RE21-DAC	6036767
Cable	3 m	6 mm	RE21-DA03	6034324
	5 m	6 mm	RE21-DA05	6035617

### Accessories

	Accessory category	Brief description	Model name	Part no.
	Actuators	Replacement actuator for RE11-Dxxx	RE11-K	5320136
		Replacement actuator for RE21-Dxxx	RE21-K	5320137
	Other mounting accessories	Spacer for RE11 / RE13	RE10-SD	5322315
		Spacer for RE21 / RE23 / RE27	RE20-SD	5320067



### At a glance

- Response range up to 7 mm for small design and, up to 9 mm for standard design
- 2 N/O contacts
- Up to performance level PL e / Cat. 4 (EN ISO 13849)
- Direct connection to safe control solution possible
- Sensors with plug connector or connected cable

### 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
- Direct connection to the safe control solution eliminates any additional wiring and reduces installation time
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards

→ [www.mysick.com/en/RE13\\_RE23](http://www.mysick.com/en/RE13_RE23)

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



### Ordering information

Other models available at [www.mysick.com/en/RE13\\_RE23](http://www.mysick.com/en/RE13_RE23)

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

Connection type	Cable length	Safe switch on distance $S_{ao}$	Model name	Part no.
M8 plug connector, 4-pin	-	7 mm	RE13-DAC	6036769
Cable	3 m	7 mm	RE13-DA03	6034333
M8 plug connector, 4-pin	-	9 mm	RE23-DAC	6036927

### Accessories

	Accessory category	Brief description	Model name	Part no.
	Actuators	Replacement actuator for RE13-Dxxx	RE13-K	5320139
		Replacement actuator for RE23-Dxxx	RE23-K	5313595
	Other mounting accessories	Spacer for RE11 / RE13	RE10-SD	5322315
		Spacer for RE21 / RE23 / RE27	RE20-SD	5320067





### At a glance

- Response range of up to 9 mm
- 3 N/O contacts
- Up to performance level PL e / Cat. 4 (EN ISO 13849)
- Direct connection to safe control solution possible
- Sensors with plug connector or connected cable
- LED status indicator

### 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
- Direct connection to the safe control solution eliminates any additional wiring and reduces installation time
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards
- Fast diagnostics via LED status indicator

→ [www.mysick.com/en/RE27](http://www.mysick.com/en/RE27)

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





### Ordering information

Other models available at [www.mysick.com/en/RE27](http://www.mysick.com/en/RE27)

- **System part:** sensor & actuator
- **Design:** rectangular
- **Safe switch on distance  $S_{ac}$ :** 9 mm

Connection type	Cable length	Model name	Part no.
Cable with plug, M12, 8-pin	0.3 m	RE27-DACL	6039760
Cable	5 m	RE27-DA05L	6034343
	10 m	RE27-DA10L	6035619
	20 m	RE27-DA20L	6035003

### Accessories

	Accessory category	Brief description	Model name	Part no.
	Actuators	Replacement actuator for RE27-Dxxx	RE27-K	5320151
	Other mounting accessories	Spacer for RE21 / RE23 / RE27	RE20-SD	5320067





### At a glance

- Response range of up to 25 mm
- Sensor and actuator up to enclosure rating IP 69K
- Multicoded and unique coded sensors
- Up to performance level PL e (EN ISO 13849)
- Two OSSD safety outputs for direct connection of sensors to a single safety controller
- Safe series connection of up to 30 sensors possible
- LED status indicator
- Boundary area indication and magnetic retaining force (both optional)

### 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
- Just one safety switch in conjunction with a suitable safety module makes it possible to solve applications up to PL e and Cat. 4 (EN ISO 13849)
- Long service life due to durable and low-maintenance design
- Fast diagnostics via LED status indicator
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards

→ [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 available at [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 <sub>ao</sub>	Safe switch off distance S <sub>ar</sub>	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
			Unique coded	Cable with plug, M12, 8-pin	0.2 m	TR4-SAU01C	6022319
				Cable	3 m	TR4-SAU03P	6022317
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
			Unique coded	Cable with plug, M12, 8-pin	0.2 m	TR4-SBU01C	6044628
				Cable	3 m	TR4-SBU03P	6044626



- **Design:** rectangular
- **System part:** sensor & actuator
- **Dimensions:** 25 mm x 88 mm x 20 mm
- **Safe switch on distance  $S_{ac}$ :** 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
		Unique coded	Cable with plug, M12, 8-pin	0.2 m	TR4-SDU01C	6044641
			Cable	3 m	TR4-SDU03P	6044639
✓	-	Multicoded	Cable with plug, M12, 8-pin	0.2 m	TR4-SEM01C	6044644
			Cable	3 m	TR4-SEM03P	6044642
		Unique coded	Cable with plug, M12, 8-pin	0.2 m	TR4-SEU01C	6044647
			Cable	3 m	TR4-SEU03P	6044645
	✓	Multicoded	Cable with plug, M12, 8-pin	0.2 m	TR4-SFM01C	6044650
			Cable	3 m	TR4-SFM03P	6044648
		Unique coded	Cable with plug, M12, 8-pin	0.2 m	TR4-SFU01C	6044653
			Cable	3 m	TR4-SFU03P	6044651

Accessories

	Accessory category	Brief description	Design	Model name	Part no.
	Actuators	Replacement actuator for TR4-SAMxxx	Cylindrical	TR4-RAM000	5321030
		Replacement actuator for TR4-SAUxxx	Cylindrical	TR4-RAU000	5321031
		Replacement actuator for TR4-SBMxxx	Cylindrical	TR4-RBM000	5321032
		Replacement actuator for TR4-SBUxxx	Cylindrical	TR4-RBU000	5321033
		Replacement actuator for TR4-SDMxxx	Rectangular	TR4-RDM000	5325631
		Replacement actuator for TR4-SDUxxx	Rectangular	TR4-RDU000	5325632
		Replacement actuator for TR4-SEMxxx and TR4-SFMxxx	Rectangular	TR4-RFM000	5325633
		Replacement actuator for TR4-SEUxxx and TR4-SFUxxx	Rectangular	TR4-RFU000	5325634



### At a glance

- Direct connection to safe control solution possible
- 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)
- Sensors with plug connector

### Your benefits

- Cost-effective solution for applications up to PL d / SILCL2
- Space-saving mounting due to compact housing design
- 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
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards

→ [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 available at [www.mysick.com/en/IN3000\\_Direct](http://www.mysick.com/en/IN3000_Direct)

- **System part:** sensor
- **Design:** cylindrical
- **Connection type:** connector

Housing diameter	Installation type	Model name	Part no.
M30	Non-flush	IN30-E0208K	6044655
M18	Non-flush	IN30-E0305K	6034576
	Flush	IN30-E0306K	6034581
M12	Non-flush	IN30-E0407K	6034582

### Accessories

Accessory category	Brief description	Model name	Part no.
Mounting brackets/plates	Mounting bracket, M12 thread	BEF-WN-M12	5308447
	Mounting bracket, M18 thread	BEF-WN-M18	5308446
	Mounting bracket, M30 thread	BEF-WN-M30	5308445
Terminal and alignment brackets	Clamping block for round sensors M12, without fixed stop	BEF-KH-M12	2051479
	Clamping block for round sensors M18, without fixed stop	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 15 mm
- LED status indicator
- Up to performance level PL e / Cat. 4 (EN ISO 13849)
- Sensors with 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

→ [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 available at [www.mysick.com/en/IN4000\\_Direct](http://www.mysick.com/en/IN4000_Direct)

System part	Design	Installation type	Connection type	Model name	Part no.
Sensor	Rectangular	Non-flush	Connector	IN40-E0101K	6027388



### At a glance

- Either as surface-mounted version with housing or as built-in version (Ø 22 mm)
- Built-in version for machine control panels with self-monitoring contacts between the pushbutton and switching element
- Surface-mounted version for direct mounting on different machines and systems
- Rotational or key unlocking
- Variants with LED ring lighting
- Available with protective collar to prevent inadvertent actuation

### Your benefits

- Increased safety due to self-monitoring contacts
- Reduction in accidental faults due to variants with a protective collar
- User-friendly status indicator identified by a colored mark or LED ring around the pushbutton simplifies diagnostics
- Successful down to the last detail: award-winning and appealing design

→ [www.mysick.com/en/ES21](http://www.mysick.com/en/ES21)

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



### Ordering information

Other models available at [www.mysick.com/en/ES21](http://www.mysick.com/en/ES21)

- **System part:** complete devices
- **Obstruction protection:** ✓
- **Release type:** rotary release

Mounting version	Number of positive action N/C contacts	Number of N/O contacts	Contact module for panel mount version	Illumination	Model name	Part no.
Surface mount version	1	0	-	-	ES21-SA10C1	6036145
		1	-	-	ES21-SA10D1	6036146
	2	0	-	-	ES21-SA10E1	6036147
		1	-	-	ES21-SA10F1	6036148
				✓	ES21-SA11H1	6036751
Panel mount version	2	1	✓	-	ES21-SB10G1	6036492





### At a glance

- Rope lengths up to 30 m, with rope break and rope pull function
- Metal housing with integrated rotary unlocking lever and fault display
- 1 M20 x 1.5 cable entry glands
- Slow-action switching elements with four contacts
- Complies to the standards EN ISO 13850 and IEC/EN 60947-5-5

### Your benefits

- The emergency stop function can be triggered at any point along the rope
- Simple adjustment of the rope tension
- Rugged metal housing offers a high level of protection for the rope pull switch
- User-friendly systems available with many rope lengths
- Additional contacts provide quick and easy diagnostics

→ [www.mysick.com/en/i110RP](http://www.mysick.com/en/i110RP)

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







### Ordering information

Other models available at [www.mysick.com/en/i110RP](http://www.mysick.com/en/i110RP)

Number of positive action N/C contacts	Number of N/O contacts	Model name	Part no.
2	2	i110-RP223	6025077
3	1	i110-RP313	6025076

### Accessories

	Accessory category	Brief description	Model name	Part no.
	Ropes and rope accessories	Rope accessory set, rope length 5 m	iE110-P05	5311136
		Rope accessory set, rope length 10 m	iE110-P10	5311137
		Rope accessory set, rope length 20 m	iE110-P20	5311138
		Rope accessory set, rope length 30 m	iE110-P30	5311139
		Corner pulley inside	iE110-PCPI	5325887
		Corner pulley outside	iE110-PCPO	5325888

	Accessory category	Brief description	Model name	Part no.
	Ropes and rope accessories	Rope, length 100 m	iE110-PL100	5310814
		Rope, length 30 m	iE110-PL30	5310813
		Rope grippers	iE110-PRG	5314230
		Tensioner	iE110-PTR	5309034



### At a glance

- Plastic housing with connected cable
- 3-stage functional structure (off-on-off)
- Slow-action switching elements with four contacts
- Variant with additional plus/minus buttons
- Complies to the standard IEC/EN 60947-5-8

### Your benefits

- Personal protection with enabling switches: increased safety in setup mode when protective devices are deactivated
- Plus/minus buttons for additional control of direction of movement
- Different cable lengths available to meet customer application requirements

→ [www.mysick.com/en/E100](http://www.mysick.com/en/E100)

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



### Ordering information

Other models available at [www.mysick.com/en/E100](http://www.mysick.com/en/E100)

- Number of positive action N/C contacts: 2
- Number of N/O contacts: 2
- Type of connection cable: straight

Cable length	Plus/minus buttons	Model name	Part no.
5 m	-	E100-A2A22S05A	6012141
10 m	-	E100-A2A22S10A	6021916
5 m	✓	E100-B2A22S05A	6022879
10 m	✓	E100-B2A22S10A	6022880
25 m	✓	E100-B2A22S25A	6033234

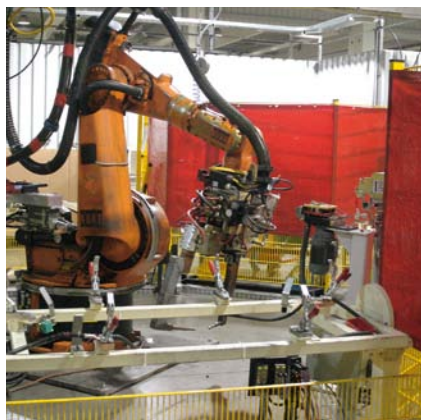
### Accessories

	Accessory category	Brief description	Model name	Part no.
	Terminal and alignment brackets	Bracket for E100	Bracket	5308209





## Safe control solutions for intelligent machine designs



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### sens:Control – safe control solutions











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.



**sens:Control – safe control solutions**

<p><b>Selection guide sens:Control – safe control solutions. . . . . 410</b></p>	
 <p><b>UE10-2FG . . . . . 412</b> The ideal solution to integrate relay outputs</p>	 <p><b>UE48-30S . . . . . 417</b> Safety relay with 3 safety outputs for all common safety applications</p>
 <p><b>UE10-30S . . . . . 413</b> The universal output expansion module</p>	 <p><b>UE11-4DX . . . . . 418</b> Time-delayed contact expansion for all safety relays</p>
 <p><b>UE23-3MF . . . . . 414</b> Connection solution for safety switches and emergency stop pushbuttons</p>	 <p><b>Flexi Classic . . . . . 419</b> Efficient and easy-to-use safety controller</p>
 <p><b>UE43-3MF . . . . . 415</b> Complete monitoring of safety switches and emergency stop pushbuttons</p>	 <p><b>Flexi Soft. . . . . 421</b> Software programmable safety controller</p>
 <p><b>UE48-20S . . . . . 416</b> Safety relay for all common safety applications</p>	 <p><b>Motion Control . . . . . 423</b> Increased productivity with safe monitoring</p>



Selection guide sens:Control – safe control solutions

	Safety relays							Safety controllers		
	UE10-2FG	UE10-30S	UE23-3MF	UE43-3MF	UE48-20S	UE48-30S	UE11-4DX	Flexi Classic	Flexi Soft	Motion Control
<b>Application</b>										
Modular system								■	■	
Simple logic	■	■	■	■	■	■	■			
Medium logic								■		
Complex logic									■	
Safe device communication via EFI									■	
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Selection guide safety relays

	UE10-2FG	UE10-30S	UE23-3MF	UE43-3MF	UE48-20S	UE48-30S	UE11-4DX
<b>Application</b>							
Safety command devices			■	■	■	■	
Safety switches			■	■	■	■	
Pressure sensitive mats in 4 wire technology					■	■	
Opto-electronic protective devices	■	■			■	■	
Contact expansion							■
<b>Functions</b>							
Manual reset (monitored)			■	■	■	■	
Automatic reset	■	■	■	■	■	■	
External device monitoring (EDM)			■	■	■	■	
Path for external device monitoring	■	■					■
<b>Number of enable current paths</b>							
2	■				■		
3		■	■	■		■	
4							■
<b>Number of signalling current paths</b>							
0	■					■	
1		■	■	■	■		
2							■
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## Selection guide safety controllers

	Flexi Classic	Flexi Soft	Motion Control
<b>Application</b>			
Safety command devices	■	■	
Safety switches	■	■	
Pressure sensitive mats in 4 wire technology		■	
Opto-electronic protective devices	■	■	
Motion control		■	■
<b>Functions</b>			
Can be configured using a screwdriver	■		■
Software based		■	
Safe device communication via EFI		■	
Linking of stations via EFI		■	
External device monitoring (EDM)	■	■	■
<b>Logic</b>			
Simple logic	■		
Medium logic	■		
Complex logic		■	
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### 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 available at [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 terminal	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 available at [www.mysick.com/en/UE10-30S](http://www.mysick.com/en/UE10-30S)

Connection type	Model name	Part no.
Screw-type terminals	UE10-30S2DO	6024917
Plug-in screw type terminal	UE10-30S3DO	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 available at [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

- Evaluation unit for emergency stop pushbuttons and safety switches
- Cross circuit detection and sequence monitoring for dual-channel actuation
- Supports discrepancy monitoring
- 3 safety outputs, 1 application diagnostic output
- Manual or automatic reset
- External device monitoring (EDM)

### Your benefits

- Complete monitoring and evaluation of sensors
- Offers all needed contact paths in a compact form
- Fast diagnostics via status information reduces downtime
- Fast, tool-free exchange via coded, plug-in screw-type terminals
- Combines the advantages of classic relays and easy circuitry

→ [www.mysick.com/en/UE43-3MF](http://www.mysick.com/en/UE43-3MF)

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



### Ordering information

Other models available at [www.mysick.com/en/UE43-3MF](http://www.mysick.com/en/UE43-3MF)

Supply voltage	Model name	Part no.
24 V AC	UE43-3MF2A0	6024898
115 V AC	UE43-3MF2A1	6024899
120 V AC	UE43-3MF2A2	6024900
230 V AC	UE43-3MF2A3	6024901
24 V DC	UE43-3MF2D3	6024897





### 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 available at [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 terminal	UE48-20S3D2	6024916



### 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
- 3 safety outputs
- 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, tool-free exchange via coded, plug-in screw-type terminals
- Combines the advantages of classic relays and easy circuitry

→ [www.mysick.com/en/UE48-30S](http://www.mysick.com/en/UE48-30S)

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 available at [www.mysick.com/en/UE48-30S](http://www.mysick.com/en/UE48-30S)

Connection type	Model name	Part no.
Screw-type terminals	UE48-30S2D2	6025089
Plug-in screw type terminal	UE48-30S3D2	6025097





### At a glance

- Contact expansions enable four additional safety outputs for evaluation units in the safety relays product family group
- Pre-set time delay
- Feedback path for external device monitoring (EDM)
- Coded plugs for all slots

### Your benefits

- Offers all needed contact paths in a compact form
- Time delay for optimal protection of brake applications
- 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/UE11-4DX](http://www.mysick.com/en/UE11-4DX)

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



### Ordering information

Other models available at [www.mysick.com/en/UE11-4DX](http://www.mysick.com/en/UE11-4DX)

Connection type	Off-delay time	Model name	Part no.
Plug-in screw type terminal	0.5 s	UE11-4DX3D30.5	6024925
	1 s	UE11-4DX3D31	6024926
	2 s	UE11-4DX3D32	6024927
	3 s	UE11-4DX3D33	6024928



### At a glance

- Rotary DIP switch for easy adjustment
- Modularly expandable
- Direct wiring for all types of sensors
- Logic functions (AND/ OR/ Muting/ Bypass/ Reset/ EDM)
- Integration into all common networks (PROFIBUS-DP, DeviceNet, CANopen, Modbus TCP, Ethernet (TCP/IP), EtherNet/IP and PROFINET IO)

### Your benefits

- Optimal scalability prevents extra inputs and outputs, reducing unnecessary hardware
- Configuration via rotary DIP switch reduces wiring and simplifies logic configuration
- The Flexi Classic Configurator tool offers easy logic configuration and wiring help
- Complete diagnostics of the system reduces downtime
- Its compact design makes it possible to save space in the control cabinet

→ [www.mysick.com/en/Flexi\\_Classic](http://www.mysick.com/en/Flexi_Classic)

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



### Ordering information

Other models available at [www.mysick.com/en/Flexi\\_Classic](http://www.mysick.com/en/Flexi_Classic)

#### Flexi Classic main modules

Connection type	Delay time (outputs Q3/Q4)	Muting	Model name	Part no.
Plug-in spring terminals	-	-	UE410-MU4T0	6035243
	0 s ... 5 s	-	UE410-MU4T5	6032669
	0 s ... 50 s	-	UE410-MU4T50	6032670
	0 s ... 300 s	-	UE410-MU4T300	6032671
	-	✓	UE410-MM4	6034645

#### Flexi Classic expansion modules

Connection type	Delay time (outputs Q3/Q4)	Muting	Model name	Part no.
Plug-in spring terminals	-	-	UE410-XU4T0	6035245
	0 s ... 5 s	-	UE410-XU4T5	6032672
	0 s ... 50 s	-	UE410-XU4T50	6032673
	0 s ... 300 s	-	UE410-XU4T300	6032674
	-	✓	UE410-XM4	6034646
	-	-	UE410-8DI4	6032675
	-	✓	UE410-MDI4	6034647




## Relay expansion modules

Connection type	Number of N/O contacts	Number of application diagnostic outputs	Model name	Part no.
Plug-in spring terminals	2	1	UE410-2R04	6032677
	4	2	UE410-4R04	6032676

## Flexi Classic gateways

Fieldbus	Model name	Part no.
PROFIBUS-DP	UE410-PRO4	6032678
DeviceNet	UE410-DEV4	6032679
CANopen®	UE410-CAN4	6033112
Ethernet (TCP/IP), EtherNet/IP	UE410-EN1	1042964
Ethernet (TCP/IP), Modbus TCP	UE410-EN3	1042193
PROFINET IO	UE410-EN4	1044078

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Muting accessories	Muting lamp, 2 m, incl. mounting kit	Indicator lamp	2019909



### At a glance

- Modularly expandable (12 ... 144 inputs/outputs)
- Intuitive configuration software: easy operation, simulation mode, wiring diagrams, freely downloadable
- Configuration memory in the system plug
- Safely link up to four Flexi Soft safety controllers via EFI
- Integration into all common fieldbus systems
- Enhanced sensor functionalities via EFI interface
- 48 TÜV certified function blocks

### Your benefits

- Prevention of redundant inputs and outputs saves money
- Fast commissioning via a system plug that saves and stores system configurations
- Less downtimes due to gateways, e.g., PROFINET IO, PROFIBUS-DP, EtherCAT, CANopen, Modbus TCP, Ethernet (TCP/IP)
- Safe communication without additional hardware saves time, space and money
- Fast electronic installation via complete wiring diagram
- Simulation mode allows a user to verify the safety functions before installation
- Fast hardware selection by drag and drop from a list of simple to understand element icons

→ [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 available at [www.mysick.com/en/Flexi\\_Soft](http://www.mysick.com/en/Flexi_Soft)

#### Flexi Soft main modules

Number of EFI interfaces	Model name	Part no.
-	FX3-CPU000000 <sup>1)</sup>	1043783
2	FX3-CPU130002 <sup>1)</sup>	1043784

<sup>1)</sup> The system plug has to be ordered separately!

#### Flexi Soft expansion modules

Connection type	Number of inputs	Number of outputs	Model name	Part no.
Plug-in spring terminals	8 single channel	4	FX3-XTI084002	1044125
		-	FX3-XTDI80002	1044124

#### Flexi Soft gateways






Fieldbus	Model name	Part no.
EtherCAT	FX0-GETC00000	1051432
PROFIBUS-DP	FX0-GPRO00000	1044075
CANopen	FX0-GCAN00000	1044076
Modbus TCP	FX0-GMOD00000	1044073
EtherNet/IP	FX0-GENT00000	1044072
PROFINET IO	FX0-GPNT00000	1044074



Relay expansion modules

Connection type	Number of N/O contacts	Number of application diagnostic outputs	Model name	Part no.
Plug-in spring terminals	2	1	UE410-2R04	6032677
	4	2	UE410-4R04	6032676

Accessories

	Accessory category	Brief description	Connection type	Cable length	Model name	Part no.
	System plug	Integrated configuration memory	Screw terminals	-	FX3-MPL000001	1043700
 <small>Illustration may differ</small>	Adapters / distributors	Converter RS-232 to USB (if no RS-232 interface is available with the PC)	Connector RS-232, USB	-	Converter RS-232 to USB	6035396
	Configuration connection cable	For connecting the configuration connection to the serial interface on the PC	M8 x 4, SUB-D 9-pin	2 m	DSL-8D04G02M025KM1	6021195
		For connecting the configuration connection to the USB interface on the PC	M8 x 4, USB-A	2 m	DSL-8U04G02M025KM1	6034574
	Plug connectors and cables	Fitting for EFI connections	-	By the meter	EFI connection cable	6029448







### At a glance

- Zero-speed and drive monitoring
- Variants with standstill monitoring by means of residual voltage measurement
- Clear diagnostics via the output LEDs without a software tool
- Function support via SICK's already known configuration tools
- PL e (EN ISO 13849), SIL3 (IEC 61508), SILCL 3 (EN 62061)
- Variants with a maximum input frequency of 2 kHz
- Adjustable monitoring limit/monitoring frequency from 0.1 to 9.9 Hz or 0.5 to 99 Hz
- Variants with a maximum motor supply voltage 690 V

### Your benefits

- High machine availability
- Increase productivity via safe monitoring
- Easy commissioning - using only a screwdriver - reduces installation time
- Easy to retrofit
- Additional HTL encoder evaluation possible
- Cascading of units is possible

→ [www.mysick.com/en/Motion\\_Control](http://www.mysick.com/en/Motion_Control)

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



### Ordering information

Other models available at [www.mysick.com/en/Motion\\_Control](http://www.mysick.com/en/Motion_Control)

#### Speed Monitor MOC3SA

Configurable speed limit	Connection type	Model name	Part no.
0.1 Hz ... 9.9 Hz	Plug-in screw type terminal	MOC3SA-AAB43D31	6034245
	Plug-in spring terminals	MOC3SA-AAB44D31	6034246
0.5 Hz ... 99 Hz	Plug-in screw type terminal	MOC3SA-BAB43D31	6034247
	Plug-in spring terminals	MOC3SA-BAB44D31	6034248

#### Standstill Monitor MOC3ZA

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



## Measuring the speed and position with the greatest possible precision



Photo: Wieland Werke AG

0

### Motor feedback systems

Commutation, position and speed measurement with the corresponding number of interfaces used to require three sensors. Today SICK motor feedback systems offer these functions in one single device. A consistent mechanical interface allows for a high level of

flexibility. SICK motor feedback systems have also set the standards for electrical interfaces such as HIPERFACE® and HIPERFACE DSL®. SICK motor feedback systems meet important requirements such as temperature resistance, high resolution, multiturn design with a

mechanical gear box and a high level of electromagnetic immunity. The motor feedback systems certified according to SIL2 permit implementation of the machine directive as per EN ISO 13849.



**Motor feedback systems**

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**Speed and position measurement with ultimate precision . . . . . 428**

## Solutions for electrical drive engineering

### Innovation & partnership

Progress means innovation and innovations lead to the development of new products and technologies.

This has been demonstrated by SICK for decades with its range of motor feedback systems and interfaces.

It goes without saying for us that close partnerships are essential for success. The mutual development of solutions for creating successful projects and offering you the best possible service are equally important to us. This forms the basis for long-term and sustainable partnerships.

### Flexibility

SICK offers you a product portfolio which combines various technologies into a minimum of mechanisms. Do you require various performance levels? We can deliver!

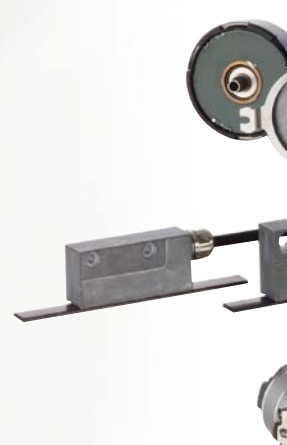
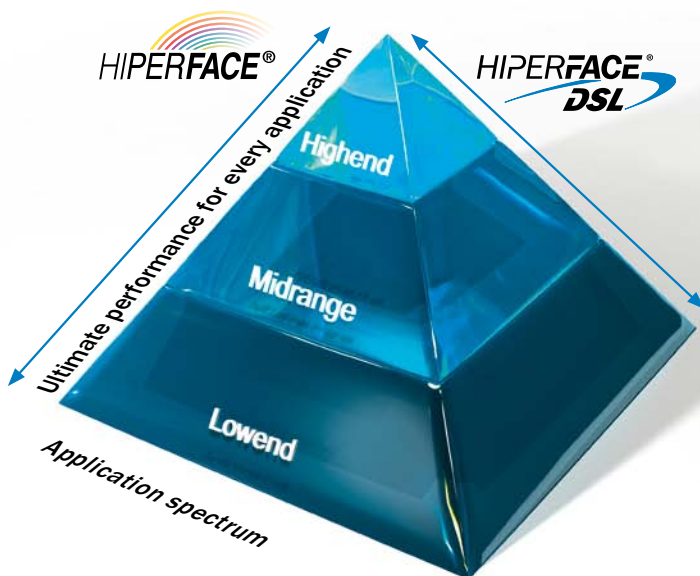
SICK's motor feedback systems additionally optimize your products, reduce system costs and offer you the flexibility you need to succeed in today's marketplace.



### Safety

SICK's certified safety motor feedback systems are available in a broad range of performance levels, enabling individual selection in order to fulfill market requirements.

These safety components represent the state-of-the-art and facilitate easier certification of systems compared to non-certified products. With SICK you always have a competent partner at your side.





The wide range of available technologies covering everything from compact servo drives through to powerful direct drives are ideal for creating bespoke solutions. A mechanical interface to the customer's equipment serves to minimize variances on-site across a broad spectrum of technologies.

In addition to its comprehensive product portfolio, technology leader SICK also ensures for continuous development in the field of drive engineering. Building on SSI and HIPERFACE®, HIPERFACE® DSL represents the next stage of evolution in terms of drive engineering.

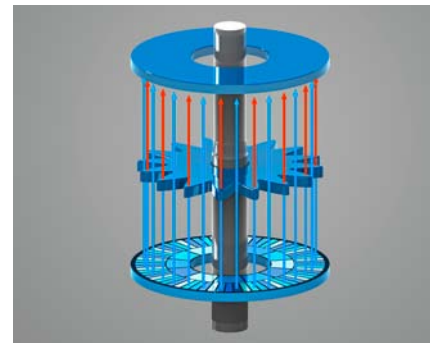


## Speed and position measurement with ultimate precision

Motor feedback systems from SICK fulfill important requirements such as temperature resistance, high resolution, electronic type labeling, multi-turn designs with mechanical gear mechanisms, high stability and last but not least, small dimensions enabling short motor lengths.



### Capacitive technologies ...



### ... for low-end applications

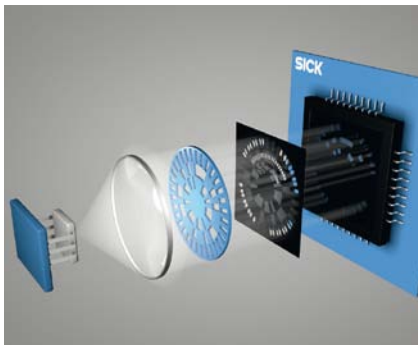
- Bearingless encoder systems
- Rugged technology

Example uses:

SEK/SEL34  
SEK/SEL37  
SEK90 to 260



**Optical technologies ...**



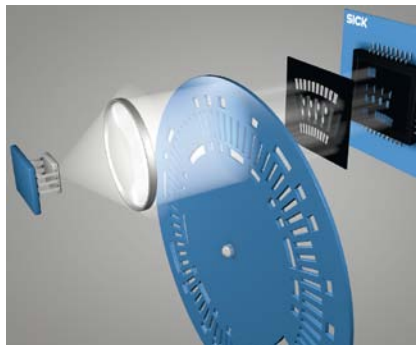
**... for midrange applications**

- Sensing centrally to rotary axis
- High resolution combined with compact housing design

Example uses:

SKS/SKM36  
EKS/EKM36

**Optical technologies ...**



**... for high-end applications**

- Ultimate resolution
- Rugged, metal code disk

Example uses:

SRS/SRM50  
SFS/SFM60

**Multi-turn technologies ...**



**... for all performance classes**

- Maximum reliability through geared technology

Used for all multi-turns



## Perfect rotary and linear path measurement



### P

#### Encoders

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 rpm, 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.





## Encoders

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Selection guide encoders

	Incremental encoders			Absolute encoders single turn	Absolute encoders multiturn			Wire draw encoders		Linear encoders with measuring element or magnetic tape	
	DBS36	DFS60	DFV60	AFS60	A3M60	AFM60	ATM60	EcoLine	HighLine	KH53	TTK70
<b>Task</b>											
Incremental detection of position or speed	■	■	■					■	■		
Absolute position detection				■	■	■	■	■	■	■	■
<b>Interface</b>											
TTL/HTL	■	■	■					■	■		
Analog								■	■		
HIPERFACE®								■	■		■
SSI				■		■		■	■	■	■
PROFIBUS					■		■	■	■	■	
CANOpen							■	■	■		
DeviceNet							■	■	■		
EtherNet/IP				■		■		■	■		
PROFINET				■		■		■	■		
EtherCAT				■		■		■	■		
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Selection guide absolute and incremental encoders

	Incremental encoders			Absolute encoders singleturn	Absolute encoders multiturn		
	DBS36	DFS60	DFV60	AFS60	A3M60	AFM60	ATM60
<b>Number of revolutions</b>							
No absolute measurement	■	■	■				
1 revolution absolute				■			
≥ 2 revolutions absolute					■	■	■
<b>Resolution</b>							
≤ 2500 pulses/steps	■	■	■	■	■	■	■
≤ 8192 pulses/steps		■	■	■	■	■	■
> 8192 pulses/steps		■		■	■	■	■
> 32,768 pulses/steps		■		■		■	
Programming by customer (line count/zero pulse)	■	■	■	■	■	■	■
<b>Space for installation</b>							
∅ ≤ 36 mm	■						
∅ ≤ 40 mm	■						
∅ ≤ 50 mm	■						
∅ ≤ 60 mm	■	■		■	■	■	■
∅ ≤ 90 mm	■	■		■	■	■	■
<b>Flange / shaft type</b>							
Face mount flange	■	■		■	■	■	■
Servo flange		■		■	■	■	■
Blind hollow shaft	■	■		■	■	■	■
Through hollow shaft		■		■	■	■	■
<b>Special requirements</b>							
Position above measuring wheel			■				
Page	436	438	440	448 ff.	456 ff.	448 ff.	442 ff.



Selection guide wire draw and linear encoders

	Wire draw encoders		Linear encoders with measuring element or magnetic tape	
	EcoLine	HighLine	KH53	TTK70
<b>Path measurement</b>				
Incremental	■	■		
Absolute	■	■	■	■
<b>Number of measuring cycles</b>				
≤ 1,000,000	■	■		
Unlimited			■	■
<b>Measurement length</b>				
≤ 5 m	■	■	■	■
≤ 10 m	■	■	■	
≤ 50 m		■	■	
≤ 548 m			■	
≤ 1700 m			■	
<b>Resolution</b>				
≤ 1 μm				■
≤ 0.05 mm	■	■		■
≤ 0.1 mm	■	■	■	■
<b>Installation size</b>				
Small	■			■
Medium		■		
Large		■	■	
<b>Page</b>	458	459	461	463







### 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 available at [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	12 mm	DFS60A-BEPC65536	1036816
	15 mm	DFS60A-BHPC65536	1036819
	10 mm	DFS60A-BDPC65536	1036815
	1/2 "	DFS60A-BFPC65536	1036817
Solid shaft, servo flange	6 mm	DFS60A-S1PC65536	1036761
Solid shaft, face mount flange	10 mm	DFS60A-S4PC65536	1036726
Through hollow shaft	10 mm	DFS60A-TDPC65536	1036955
	12 mm	DFS60A-TEPC65536	1036956
	1/2 "	DFS60A-TFPC65536	1036957
	15 mm	DFS60A-THPC65536	1036959

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/plates	Mounting bracket for encoder with face mount flange	BEF-WF-36	2029164
	Programming and configuration tools	Programming Tool USB, for programmable SICK encoders AFS60, AFM60, DFS60, VFS60, DFV60 and wire draw encoders with programmable encoders.	PGT-08-S	1036616
		Display Programming Tool for programmable SICK incremental encoders DFS60, VFS60, DFV60 and wire draw encoders with DFS60. Compact dimensions, low weight and intuitive to use.	PGT-10-S	1052967
	Other mounting accessories	Measuring wheel, smooth for solid shaft 10 mm, circumference 200 mm, diameter 63.66 mm	BEF-MR-010020	5312988
		Servo clamps, small, for servo flange (clamping claws, mounting eccentric)	BEF-WK-SF	2029166
	Plug connectors and cables	Mating connector M12, 8-pin, straight, fitted with cable 5 m, 8-wire	DOL-1208-G05MAC1	6032867
		Female connector M12, straight, shielded	DOS-1208-GA01	6045001
		Programming cable incremental for Programming Tools PGT-08-S and PGT10-S	DSL-2D08-G0M5AC3	2046579
	Shaft adaptation	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981
		Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982



### 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 available at [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	TTL/RS422	100	DBS36E-S3AK00100	1060535
			360	DBS36E-S3AK00360	1060536
			500	DBS36E-S3AK00500	1060538
			1,000	DBS36E-S3AK01000	1060539
			1,024	DBS36E-S3AK01024	1060144
			2,048	DBS36E-S3AK02048	1058602
		HTL/push pull	100	DBS36E-S3EK00100	1060540
			360	DBS36E-S3EK00360	1060541
			500	DBS36E-S3EK00500	1060543
			1,000	DBS36E-S3EK01000	1060544
			1,024	DBS36E-S3EK01024	1060545
			2,048	DBS36E-S3EK02048	1059907





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

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Other mounting accessories	Servo clamp	BEF-WK-RESOL	2039082
	Plug connectors and cables	Female connector M12, 8-pin, straight, shielded	DOS-1208-GA01	6045001
		Male connector, M12, 8-pin, straight, shielded	STE-1208-GA01	6044892
		Cable, by the meter, 4 x 2 x 0,15 mm <sup>2</sup> , shielded, ø 5,6 mm	LTG-2308-MWENC	6027529
	Shaft adaptation	Beam coupling, shaft diameter 6 mm / 6 mm, max. shaft offset: radially +/- 0,3 mm, axially +/- 0,3 mm, angle +/- 3 degrees; max. speed 10.000 rpm, -10 to +80 degrees Celsius, torsional spring stiffness of 38 Nm/rad	KUP-0606-MS	2066285
		Beam coupling, shaft diameter 6 mm / 8 mm, max. shaft offset: radially +/- 0,3 mm, axially +/- 0,3 mm, angle +/- 3 degrees; max. speed 10.000 rpm, -10 to +80 degrees Celsius, torsional spring stiffness of 38 Nm/rad	KUP-0608-MS	2066130
		Beam coupling, shaft diameter 6 mm / 10 mm, max. shaft offset: radially +/- 0,3 mm, axially +/- 0,3 mm, angle +/- 3 degrees; max. speed 10.000 rpm, -10 to +80 degrees Celsius, torsional spring stiffness of 38 Nm/rad	KUP-0610-MS	2066298
		Collet for blind hollow shaft, shaft diameter 6 mm, outer diameter 8 mm, collet 6 mm	SPZ-006-DD36-A	2056390
		Collet for blind hollow shaft, shaft diameter 5 mm, outer diameter 8 mm, collet 5 mm	SPZ-005-AD-A	2066991



### At a glance

- Rotatable spring arm for universal use
- 300 mm wheel circumference with o-ring made from NBR70
- Mounting arm and measurement wheels made from aluminum
- Programmable output voltage, zero pulse position, zero pulse width and number of pulses
- Connection: radial M12 connector outlet or radial/axial cable outlet
- Electrical interfaces: 5V & 24V TTL/RS-422, 24 V HTL/push pull
- Remote zero setting possible

### Your benefits

- Universal-use spring arm ensures fast and simple mounting
- The high level of spring tension enables use in harsh environmental conditions
- Reduced storage costs and downtime due to programmability
- Connector-in cable outlet in radial or axial direction enables customer-specific cable solutions
- Excellent concentricity even at high speeds
- Permanent and safe operation due to a high enclosure rating, temperature resistance and a long bearing lifetime
- Programmability via the PGT-08 programming software and the PGT-10-S display programming tool allow the encoder to be adapted flexibly and quickly according to customer needs
- Programmable zero pulse position simplifies installation

→ [www.mysick.com/en/DFV60\\_measuring\\_wheel\\_encoder](http://www.mysick.com/en/DFV60_measuring_wheel_encoder)

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








### Ordering information

Other models available at [www.mysick.com/en/DFV60\\_measuring\\_wheel\\_encoder](http://www.mysick.com/en/DFV60_measuring_wheel_encoder)

- **Mechanical interface:** 2 measuring wheels, '0' ring surface
- **Electrical interface:** TTL/HTL programmable
- **Range of pulses per revolution:** 65,536

Connection type	Model name	Part no.
Connector, M12, 8-pin, radial	DFV60A-22PC65536	1051309
Cable, universal, 1.5 m	DFV60A-22PK65536	1051331
Cable, universal, 3 m	DFV60A-22PL65536	1051334
Cable, universal, 5 m	DFV60A-22PM65536	1051337

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/ plates	Spring arm/mounting arm	DFV60 spring arm	2056155
	Programming and configuration tools	Programming Tool USB, for programmable SICK encoders AFS60, AFM60, DFS60, VFS60, DFV60 and wire draw encoders with programmable encoders.	PGT-08-S	1036616
		Display Programming Tool for programmable SICK incremental encoders DFS60, VFS60, DFV60 and wire draw encoders with DFS60. Compact dimensions, low weight and intuitive to use.	PGT-10-S	1052967
	Other mounting accessories	Measuring wheel, O-ring for solid wheel 10 mm, diameter 95.7 mm, circumference 300 mm, contact surface 5 mm wide	BEF-MR-010030R	2049278
	Plug connectors and cables	Female connector M12, 8-pin, straight, pre-wired with 5 m cable 8-wire, 4 x 2 x 0.25 mm <sup>2</sup> , screened, suitable for use in a drag chain	DOL-1208-G05MAC1	6032867
		Female connector M12, 8-pin, straight, screened, for field assembly	DOS-1208-GA	6028369
		Female connector M23, 12-pin, straight, screened	DOS-2312-G	6027538
		Programming cable incremental for Programming Tools PGT10-S	DSL-0D08-GoM5AC3	2061739
		Programming cable incremental for Programming Tools PGT-08-S and PGT10-S	DSL-2D08-G0M5AC3	2046579



### At a glance

- Extremely rugged, tried-and-tested absolute multiturn encoder with a resolution of up to 26 bits
- Mechanical interface: face mount flange, servo flange, blind hollow shaft and extensive adapter accessories
- Zero-set and preset functions via hardware or software
- No battery required
- Electrical interface: PROFIBUS DP as per IEC61158 / RS 485, electrically isolated
- Electronically adjustable, configurable resolution
- Magnetic scanning

### Your benefits

- Fewer variants are required since one freely programmable encoder offers all singleturn and multiturn resolutions
- Easy setup due to various connectivity options (3x PG, 3x M12)
- Less maintenance and a long service life reduce overall costs
- Application flexibility due to easily interchangeable collets for the blind hollow shaft
- Quick commissioning using the zero set/preset function either at the press of the button on the device or via software
- Increased productivity due to highly reliable shock and vibration resistance
- Worldwide availability and service ensure quick and reliable customer service

→ [www.mysick.com/en/ATM60\\_PROFIBUS](http://www.mysick.com/en/ATM60_PROFIBUS)

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



### Ordering information

Other models available at [www.mysick.com/en/ATM60\\_PROFIBUS](http://www.mysick.com/en/ATM60_PROFIBUS)

- **Electrical interface:** 10 V ... 32 V, Profibus
- **Connection type:** bus adaptor with cable screw fixings or connector
- **Number of steps:** ≤ 8,192
- **Resolution:** 8,192 x 8,192







Mechanical interface	Shaft diameter	Model name	Part no.
Solid shaft, face mount flange	10 mm, 19 mm	ATM60-P4H13X13	1030013
Solid shaft, servo flange	6 mm, 10 mm	ATM60-P1H13X13	1030014
Blind hollow shaft	15 mm <sup>1)</sup>	ATM60-PAH13X13	1030015

<sup>1)</sup> Collets for 6, 8, 10, 12, 14 mm and 1/4 " , 3/8 " and 1/2 " as accessories, separate order item. For 15 mm shaft diameter collet is not needed.

### Accessories

	Accessory category	Brief description	Model name	Part no.
	Adapters/distributors	Profibus adapter KA3, 3 x PG	AD-ATM60-KA3PR	2029225
		Profibus adapter SR3, 3 x PG	AD-ATM60-SR3PR	2031985
	Mounting brackets/plates	Mounting bracket for encoder with face mount flange	BEF-WF-36	2029164
	Other mounting accessories	Servo clamps, small, for servo flange (clamping claws, mounting eccentric)	BEF-WK-SF	2029166

P

	Accessory category	Brief description	Model name	Part no.
	Plug connectors and cables	Female connector, M12, 4-pin, straight, 5 m, PVC, round connector M12 x 1, 4-pin	DOL-1204-G05M	6009866
		Female connector, M12, 5-pin, straight, 5 m, PROFIBUS, shielded	DOL-1205-G05MQ	6026006
		PROFIBUS cable, 2 x 0.34 mm, sold by the meter	LTG-2102-MW	6021355
		Male connector, M12, 5-pin, straight, 5 m, PROFIBUS, shielded	STL-1205-G05MQ	6026005
	Shaft adaptation	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981
		Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982
		Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983
		Collet for hollow shaft diameter 6 mm	SPZ-006-AD-A	2029174
		Collet for hollow shaft diameter 8 mm	SPZ-008-AD-A	2029176
		Collet for hollow shaft diameter 10 mm	SPZ-010-AD-A	2029178
		Collet for hollow shaft diameter 12 mm	SPZ-012-AD-A	2029179
		Collet for hollow shaft diameter 14 mm	SPZ-014-AD-A	2048863
		Collet for hollow shaft diameter 1/4"	SPZ-1E4-AD-A	2029175
		Collet for hollow shaft diameter 3/8"	SPZ-3E8-AD-A	2029177
Collet for hollow shaft diameter 1/2"	SPZ-1E2-AD-A	2029180		



### At a glance

- Extremely rugged, tried-and-tested absolute multiturn encoder with a resolution of up to 26 bits
- Mechanical interface: face mount, servo flange, blind hollow shaft, adapter accessories
- Zero-set and preset functions via hardware/software
- No battery
- Electrical interface: CAN specification 2.0B, electrically isolated; DS 301, V4.01, DSP 406, V2.0, Class 2
- Electronically adjustable, configurable resolution
- Network status info via duo LED
- Magnetic scanning

### Your benefits

- Fewer variants are required since one freely programmable encoder offers all singleturn and multiturn resolutions
- Easy setup due to electrical connection adapters (1 to 3x PG, 2x M12)
- Less maintenance and a long service life reduce overall costs
- Application flexibility due to easily interchangeable collets for the blind hollow shaft
- Quick commissioning using the zero set/preset function either at the press of the button on the device or via software
- Increased productivity due to highly reliable shock and vibration resistance
- Worldwide availability and service ensure quick and reliable customer service

→ [www.mysick.com/en/ATM60\\_CANopen](http://www.mysick.com/en/ATM60_CANopen)

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



### Ordering information

Other models available at [www.mysick.com/en/ATM60\\_CANopen](http://www.mysick.com/en/ATM60_CANopen)







- **Electrical interface:** 10 V ... 32 V, CANopen
- **Connection type:** bus adaptor with cable screw fixings or connector
- **Number of steps:** ≤ 8,192
- **Resolution:** 8,192 x 8,192

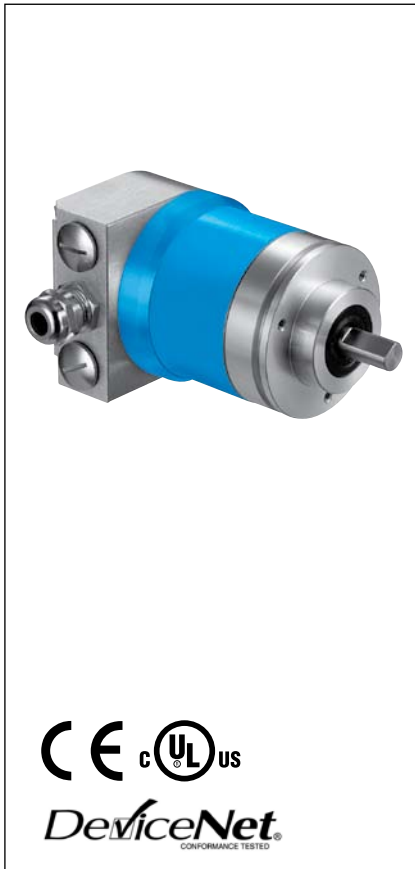
Mechanical interface	Shaft diameter	Model name	Part no.
Solid shaft, face mount flange	10 mm, 19 mm	ATM60-C4H13X13	1030024
Solid shaft, servo flange	6 mm, 10 mm	ATM60-C1H13X13	1030025
Blind hollow shaft	15 mm <sup>1)</sup>	ATM60-CAH13X13	1030026

<sup>1)</sup> Collets for 6, 8, 10, 12, 14 mm and 1/4", 3/8" and 1/2" as accessories, separate order item. For 15 mm shaft diameter collet is not needed.

### Accessories

	Accessory category	Brief description	Model name	Part no.
	Adapters/distributors	CANopen adapter	AD-ATM60-KR1CO	2029230
			AD-ATM60-KR2CO	2029231
			AD-ATM60-KR3CO	2029232
			AD-ATM60-SR1CO	2031686
			AD-ATM60-SR2CO	2020935
	Mounting brackets/plates	Mounting bracket for encoder with face mount flange	BEF-WF-36	2029164
	Other mounting accessories	Servo clamps, small, for servo flange (clamping claws, mounting eccentric)	BEF-WK-SF	2029166

	Accessory category	Brief description	Model name	Part no.
	Plug connectors and cables	Female connector, M12, 5-pin, straight, shielded, mating connector M12, 5-pin, straight	DOS-1205-GA	6027534
		Connection cable, M12, 5-pin, connector straight/socket straight, 6 m, CAN/CANopen, shielded	DSL-1205-G06MK	6028327
		Cable, by the meter, DeviceNet/CANopen, 2x 0.34 mm <sup>2</sup> + 2x 0.25 mm <sup>2</sup> , twisted pair	LTG-2804-MW	6028328
		Male connector, M12, 5-pin, straight, shielded, male connector, M12, 5-pin, straight	STE-1205-GA	6027533
	Shaft adaptation	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981
		Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982
		Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983
		Collet for hollow shaft diameter 6 mm	SPZ-006-AD-A	2029174
		Collet for hollow shaft diameter 8 mm	SPZ-008-AD-A	2029176
		Collet for hollow shaft diameter 10 mm	SPZ-010-AD-A	2029178
		Collet for hollow shaft diameter 12 mm	SPZ-012-AD-A	2029179
		Collet for hollow shaft diameter 14 mm	SPZ-014-AD-A	2048863
		Collet for hollow shaft diameter 1/4"	SPZ-1E4-AD-A	2029175
Collet for hollow shaft diameter 3/8"	SPZ-3E8-AD-A	2029177		
Collet for hollow shaft diameter 1/2"	SPZ-1E2-AD-A	2029180		



### At a glance

- Extremely rugged, tried-and-tested absolute multiturn encoder with a resolution of up to 26 bits
- Mechanical interface: face mount, servo flange, blind hollow shaft and adapter accessories
- Zero set and preset functions via hardware/software
- No battery
- Electrical interface: CAN/DeviceNet specification 2.0B, electrically isolated; device profile: Generic [0]
- Electronically adjustable, configurable resolution
- Network status info via duo LED
- Magnetic scanning

### Your benefits

- Fewer variants are required since one freely programmable encoder offers all singleturn and multiturn resolutions
- Easy setup due to electrical connection adapters (1 to 2x PG, 1 to 2x M12)
- Less maintenance and a long service life reduce overall costs
- Application flexibility due to easily interchangeable collets for the blind hollow shaft
- Quick commissioning using the zero set/preset function either at the press of the button on the device or via software
- Increased productivity due to highly reliable shock and vibration resistance
- Worldwide availability and service ensure quick and reliable customer service

→ [www.mysick.com/en/ATM60\\_DeviceNet](http://www.mysick.com/en/ATM60_DeviceNet)

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



### Ordering information

Other models available at [www.mysick.com/en/ATM60\\_DeviceNet](http://www.mysick.com/en/ATM60_DeviceNet)

- **Electrical interface:** 10 V ... 32 V, DeviceNet
- **Connection type:** bus adaptor with cable screw fixings or connector
- **Number of steps:** ≤ 8,192
- **Resolution:** 8,192 x 8,192

Mechanical interface	Shaft diameter	Model name	Part no.
Solid shaft, face mount flange	10 mm, 19 mm	ATM60-D4H13X13	1030017
Solid shaft, servo flange	6 mm, 10 mm	ATM60-D1H13X13	1030018
Blind hollow shaft	15 mm <sup>1)</sup>	ATM60-DAH13X13	1030019







<sup>1)</sup> Collets for 6, 8, 10, 12, 14 mm and 1/4 ", 3/8 " and 1/2 " as accessories, separate order item. For 15 mm shaft diameter collet is not needed.

### Accessories

	Accessory category	Brief description	Model name	Part no.
	Adapters/distributors	DeviceNet adapter	AD-ATM60-KR1DN	2029228
			AD-ATM60-KR2DN	2029229
			AD-ATM60-SR1DN	2029226
			AD-ATM60-SR2DN	2029227
	Mounting brackets/plates	Mounting bracket for encoder with face mount flange	BEF-WF-36	2029164
	Other mounting accessories	Servo clamps, small, for servo flange (clamping claws, mounting eccentric)	BEF-WK-SF	2029166

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	Accessory category	Brief description	Model name	Part no.
	Plug connectors and cables	Female connector, M12, 5-pin, straight, shielded, mating connector M12, 5-pin, straight	DOS-1205-GA	6027534
		Connection cable, M12, 5-pin, connector straight/socket straight, 6 m, CAN/CANopen, shielded	DSL-1205-G06MK	6028327
		Cable, by the meter, DeviceNet/CANopen, 2x 0.34 mm <sup>2</sup> + 2x 0.25 mm <sup>2</sup> , twisted pair	LTG-2804-MW	6028328
		Male connector, M12, 5-pin, straight, shielded, male connector, M12, 5-pin, straight	STE-1205-GA	6027533
	Shaft adaptation	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981
		Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982
Bellows coupling, shaft diameter 10 mm / 10 mm		KUP-1010-B	5312983	
		Collet for hollow shaft diameter 6 mm	SPZ-006-AD-A	2029174
		Collet for hollow shaft diameter 8 mm	SPZ-008-AD-A	2029176
		Collet for hollow shaft diameter 10 mm	SPZ-010-AD-A	2029178
		Collet for hollow shaft diameter 12 mm	SPZ-012-AD-A	2029179
		Collet for hollow shaft diameter 14 mm	SPZ-014-AD-A	2048863
		Collet for hollow shaft diameter 1/4"	SPZ-1E4-AD-A	2029175
		Collet for hollow shaft diameter 3/8"	SPZ-3E8-AD-A	2029177
Collet for hollow shaft diameter 1/2"	SPZ-1E2-AD-A	2029180		



### 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 available at [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

Mechanical interface	Shaft diameter	Resolution	Model name	Part no.	
Solid shaft, servo flange	6 mm x 10 mm	32,768 x 4,096	AFM60B-S1PC032768	1037514	
Solid shaft, face mount flange	10 mm x 19 mm		AFM60B-S4PC032768	1037504	
Blind hollow shaft	10 mm		AFM60B-BDPC032768	1051111	
	12 mm		AFM60B-BEPC032768	1051112	
	15 mm		AFM60B-BHPC032768	1053813	
Through hollow shaft	10 mm		AFM60B-TDPC032768	1051096	
	12 mm		AFM60B-TEPC032768	1038903	
	15 mm		AFM60B-THPC032768	1053067	
Solid shaft, servo flange	6 mm x 10 mm		32,768 x 1	AFS60B-S1PC032768	1037494
Solid shaft, face mount flange	10 mm x 19 mm			AFS60B-S4PC032768	1037484
Blind hollow shaft	10 mm	AFS60B-BDPC032768		1051052	
	12 mm	AFS60B-BEPC032768		1037927	
	15 mm	AFS60B-BHPC032768		1039024	
Through hollow shaft	10 mm	AFS60B-TDPC032768		1051069	
	12 mm	AFS60B-TEPC032768		1037941	
	15 mm	AFS60B-THPC032768		1051522	



## Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/plates	Mounting bracket for encoder with face mount flange	BEF-WF-36	2029164
	Programming and configuration tools	Programming Tool USB, for programmable SICK encoders AFS60, AFM60, DFS60, VFS60, DVF60 and wire draw encoders with programmable encoders	PGT-08-S	1036616
	Plug connectors and cables	Cable connector female JST inc. sealing, 3 m cable 8-core, 4 x 2 x 0.15 mm <sup>2</sup> , with screening, cable diameter 5.6 mm	DOL-0J08-G03MAA6	2048591
		Cable socket, 8-pin straight, fitted with 8-core cable 2 m, 4 x 2 x 0.25 mm <sup>2</sup> , shielded, carrier-capable (on adapter)	DOL-1208-G02MAC1	6032866
		Cable socket, 8-pin straight, fitted with 8-core cable 5 m, 4 x 2 x 0.25 mm <sup>2</sup> , shielded, carrier-capable (on adapter)	DOL-1208-G05MAC1	6032867
			Female connector M12, 8-pin, straight, shielded	DOS-1208-GA01
		Adapter cable absolute SSI – PGT-08-S consists of male 9-pin SUB-D connector and M12 8-pin inline cable connector, pre-assembled using 8-core cable, 4 x 2 x 0.08 mm <sup>2</sup> , screened, cable length 0.5 m	DSL-2D08-G0M5AC2	2048439
	Shaft adaptation	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981
		Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982



### At a glance

- 30 bit (AFM60), 18 bit (AFS60) multi-functional absolute encoders
- Device Level Ring
- Extensive diagnostics: Min/max values for temperature, position, speed. Operating hours counter, display of flags, alarms and warnings using e.g. a fault header (32 bit)
- Status display via 5 duo LEDs
- Rotary axis function
- IP address via DHCP / DEC switches
- Ethernet/IP interface (extended profile 0x22)

### Your benefits

- DLR functionality for reliability with simple maintenance, fewer cables and lower installation costs, simple adaptation to existing network topologies
- Lower installation costs due to fewer external switches
- High level of productivity thanks to superior diagnostics with 32-bit fault header, fast communication and high level of redundancy
- Optimal machine availability thanks to early warning and fault detection system
- Simple setting for various applications thanks to rotary axis function
- Simple installation due to user-friendly on-board configuration assembly
- Industrial-application design for use in particularly cramped space conditions

→ [www.mysick.com/en/AFS\\_AFM60\\_EtherNet\\_IP](http://www.mysick.com/en/AFS_AFM60_EtherNet_IP)

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



### Ordering information







Other models available at [www.mysick.com/en/AFS\\_AFM60\\_EtherNet\\_IP](http://www.mysick.com/en/AFS_AFM60_EtherNet_IP)

- **Electrical interface:** EtherNet/IP
- **Connection type:** 3 x connector M12, 4-pin, axial
- **Number of steps:** ≤ 262,144

Mechanical interface	Shaft diameter	Resolution	Model name	Part no.
Blind hollow shaft	10 mm	262,144 x 4,096	AFM60A-BDIB018X12	1055325
	12 mm		AFM60A-BEIB018X12	1055326
	15 mm		AFM60A-BHIB018X12	1055328
Solid shaft, servo flange	6 mm x 10 mm		AFM60A-S1IB018X12	1055331
Solid shaft, face mount flange	10 mm x 19 mm		AFM60A-S4IB018X12	1055334
Blind hollow shaft	10 mm		262,144 x 1	AFS60A-BDIB262144
	12 mm	AFS60A-BEIB262144		1055358
	15 mm	AFS60A-BHIB262144		1055360
Solid shaft, servo flange	6 mm x 10 mm	AFS60A-S1IB262144		1055362
Solid shaft, face mount flange	10 mm x 19 mm	AFS60A-S4IB262144		1055364

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## Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/plates	Mounting bracket for encoder with face mount flange	BEF-WF-36	2029164
	Other mounting accessories	Servo clamps, small, for servo flange (clamping claws, mounting eccentric)	BEF-WK-SF	2029166
	Plug connectors and cables	Round screw system M12 angled connector female on open end with cable 5 m	DOL-1204-W05MC	6025904
		Angled connector female M12, 4-pin, power supply	DOS-1204-W	6007303
		Cabinet through M12, 4 pin, D-coded on RJ45 jack, input jack 90 °, IP 65 / 65	Passage jack Ethernet RJ45	6048180
		Male connector M12, angled	STE-1204-WE	6048152
		Round screw system M12 connector angled to open end, shielded with cable 5 m	STL-1204-W05ME90	6047913
	Shaft adaptation	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981
		Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982
		Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983



### At a glance

- High-resolution 30-bit absolute encoder (18-bit singleturn and 12-bit multiturn)
- Face mount flange, servo flange and blind hollow shaft
- Connection type: 3 x M12 axial plug
- EtherCAT-IO-RT interface
- Less than 5 ms data update time
- Round axis functionality
- Alarms, warnings and diagnostics functions for speed, position, temperature, operating time, etc.
- Status display via 5 LEDs

### Your benefits

- Increased productivity as a result of intelligent diagnostics functions and rapid data transfer
- Increase in network reliability due to early error detection
- Simple installation with various configuration options
- Flexible, easy setup and high resolutions for various applications with binary, integer and “decimal point” values based on round axis functionality
- Maximum system availability through embedded switch technology
- Compact and cost-efficient design

→ [www.mysick.com/en/AFS\\_AFM60\\_EtherCAT](http://www.mysick.com/en/AFS_AFM60_EtherCAT)

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



### Ordering information






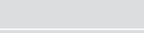


Other models available at [www.mysick.com/en/AFS\\_AFM60\\_EtherCAT](http://www.mysick.com/en/AFS_AFM60_EtherCAT)

- **Electrical interface:** EtherCAT
- **Connection type:** 3 x connector M12, 4-pin, axial
- **Number of steps:** ≤ 262,144
- **Resolution:** 262,144 x 4,096

Mechanical interface	Shaft diameter	Model name	Part no.
Blind hollow shaft	12 mm	AFM60A-BEEB018X12	1059056
	10 mm	AFM60A-BDEB018X12	1059057
	15 mm	AFM60A-BHEB018X12	1059053
Solid shaft, servo flange	6 mm	AFM60A-S1EB018X12	1059061
Solid shaft, face mount flange	10 mm	AFM60A-S4EB018X12	1059060
Blind hollow shaft	10 mm	AFS60A-BDEB262144	1059068
	12 mm	AFS60A-BEEB262144	1059067
	15 mm	AFS60A-BHEB262144	1059064
Solid shaft, servo flange	6 mm	AFS60A-S1EB262144	1059072
Solid shaft, face mount flange	10 mm	AFS60A-S4EB262144	1059071



## Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/plates	Mounting bracket for encoder with face mount flange	BEF-WF-36	2029164
	Other mounting accessories	Servo clamps, small, for servo flange (clamping claws, mounting eccentric)	BEF-WK-SF	2029166
	Plug connectors and cables	Round screw system M12 angled connector female on open end with cable 5 m	DOL-1204-W05MC	6025904
		Angled connector female M12, 4-pin, power supply	DOS-1204-W	6007303
		Cabinet through M12, 4 pin, D-coded on RJ45 jack, input jack 90 °, IP 65 / 65	Passage jack Ethernet RJ45	6048180
		Male connector M12, angled	STE-1204-WZ	6048262
		Round screw system M12 connector angled to open end, shielded with cable 5 m	STL-1204-W05MZ90	6048257
		Shaft adaptation	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B
	Bellows coupling, shaft diameter 6 mm / 10 mm		KUP-0610-B	5312982
	Bellows coupling, shaft diameter 10 mm / 10 mm		KUP-1010-B	5312983



### At a glance

- High-resolution 30-bit absolute encoder (18-bit singleturn and 12-bit multiturn)
- Face mount flange, servo flange and blind hollow shaft
- Connection type: 3 x M12 axial plug
- PROFINET-IO-RT interface
- Less than 5 ms data update time
- Round axis functionality
- Alarms, warnings and diagnostics functions for speed, position, temperature, operating time, etc.
- Status display via 5 LEDs

### Your benefits

- Increased productivity as a result of intelligent diagnostics functions and rapid data transfer
- Increase in network reliability due to early error detection
- Simple installation with various configuration options
- Flexible, easy setup and high resolutions for various applications with binary, integer and “decimal point” values based on round axis functionality
- Maximum system availability through embedded switch technology
- Compact and cost-efficient design

→ [www.mysick.com/en/AFS\\_AFM60\\_PROFINET](http://www.mysick.com/en/AFS_AFM60_PROFINET)

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



### Ordering information

Other models available at [www.mysick.com/en/AFS\\_AFM60\\_PROFINET](http://www.mysick.com/en/AFS_AFM60_PROFINET)






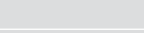


- **Electrical interface:** PROFINET
- **Connection type:** 3 x connector M12, 4-pin, axial
- **Number of steps:** ≤ 262,144
- **Resolution:** 262,144 x 4,096

Mechanical interface	Shaft diameter	Model name	Part no.
Blind hollow shaft	12 mm	AFM60A-BENB018X12	1059034
	10 mm	AFM60A-BDNB018X12	1059035
	15 mm	AFM60A-BHNB01812	1059031
Solid shaft, servo flange	6 mm	AFM60A-S1NB018X12	1059040
Solid shaft, face mount flange	10 mm	AFM60A-S4NB018X12	1059039
Blind hollow shaft	10 mm	AFS60A-BDNB262144	1059047
	12 mm	AFS60A-BENB262144	1059046
	15 mm	AFS60A-BHNB262144	1059043
Solid shaft, servo flange	6 mm	AFS60A-S1NB262144	1059051
Solid shaft, face mount flange	10 mm	AFS60A-S4NB262144	1059050





## Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/plates	Mounting bracket for encoder with face mount flange	BEF-WF-36	2029164
	Other mounting accessories	Servo clamps, small, for servo flange (clamping claws, mounting eccentric)	BEF-WK-SF	2029166
	Plug connectors and cables	Round screw system M12 angled connector female on open end with cable 5 m	DOL-1204-W05MC	6025904
		Angled connector female M12, 4-pin, power supply	DOS-1204-W	6007303
		Cabinet through M12, 4 pin, D-coded on RJ45 jack, input jack 90 °, IP 65 / 65	Passage jack Ethernet RJ45	6048180
		Male connector M12, angled	STE-1204-WZ	6048262
		Round screw system M12 connector angled to open end, shielded with cable 5 m	STL-1204-W05MZ90	6048257
	Shaft adaptation	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981
		Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982
		Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983



### At a glance

- Robust absolute multiturn encoder with up to 31 bits (14 bits singleturn and 17 bits multiturn)
- Face mount flange, servo flange or blind hollow shaft
- Compact design (<70 mm)
- Integrated PROFIBUS interface with DP V0, V1 and V2 functionality (dependent on type)
- Connection system: 3x M12 connectors
- Protection class up to IP67
- Operating temperature: -30 °C to +80 °C (dependent on type)

### Your benefits

- High level of system reliability even in extreme environmental conditions
- Lower maintenance costs due to non-contact single and multiturn magnetic scanning
- Space-saving, cost-efficient design ensures easy integration into applications with limited space
- High level of productivity due to quick communication and position calculation
- Immune to contamination and condensation, making it ideal for harsh environmental conditions
- Very good price-performance ratio

→ [www.mysick.com/en/A3M60\\_PROFIBUS](http://www.mysick.com/en/A3M60_PROFIBUS)

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



### Ordering information








Other models available at [www.mysick.com/en/A3M60\\_PROFIBUS](http://www.mysick.com/en/A3M60_PROFIBUS)

- **Electrical interface:** PROFIBUS
- **Connection type:** 3 x M12, 5-pin, axial
- **Number of steps:** ≤ 8,192
- **Resolution:** 8,192 x 8,192

Mechanical interface	Shaft diameter	Model name	Part no.
Solid shaft, face mount flange	10 mm x 19 mm	A3M60B-S4PB013X13	1038826
Solid shaft, servo flange	6 mm x 10 mm	A3M60B-S1PB013X13	1051018
Blind hollow shaft	8 mm	A3M60B-BBPB013X13	1051016
	10 mm	A3M60B-BDPB013X13	1038824
	12 mm	A3M60B-BEPB013X13	1038825
	15 mm	A3M60B-BHPB013X13	1051017
	3/8 "	A3M60B-BCPB013X13	1053327
	1/2 "	A3M60B-BFPB013X13	1053328
	14 mm	A3M60B-BGPB013X13	1051325
	5/8 "	A3M60B-BJPB013X13	1053329



## Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/plates	Mounting bracket for encoder with face mount flange	BEF-WF-36	2029164
	Other mounting accessories	Servo clamps, small, for servo flange (clamping claws, mounting eccentric)	BEF-WK-SF	2029166
	Plug connectors and cables	Female connector M12, 5-pin, angled, pre-wired with 5 m cable 3 x 0.34 mm <sup>2</sup> , screened	DOL-1202-W05MC	6042067
		PROFIBUS female connector M12, 5-pin, angled, pre-wired with 5 m bus cable 2-wire, 2 x 0.64 mm <sup>2</sup> , screened, B-coding	DOL-1205-W05MQ	6041423
		PROFIBUS cable, 2 x 0.34 mm, sold by the meter	LTG-2102-MW	6021355
		PROFIBUS male connector M12, 5-pin, angled, pre-wired with 5 m cable 2-wire, 2 x 0.64 mm <sup>2</sup> , screened, B-coding	STL-1205-W05MQ	6041426
	Shaft adaptation	Bellows coupling, shaft diameter 6 mm / 6 mm	KUP-0606-B	5312981
		Bellows coupling, shaft diameter 6 mm / 10 mm	KUP-0610-B	5312982
		Bellows coupling, shaft diameter 10 mm / 10 mm	KUP-1010-B	5312983



### At a glance

- Measuring lengths of 1.25 m, 3 m, 5 m, and 10 m
- Various interfaces thanks to modular concept - all servo flange encoders can be mounted
- Analog interface with push-button teach available
- Very small housing (55 ... 190 mm)
- Slim housing with spring integrated in the measuring drum
- Light yet shock-proof and temperature-resistant plastic housing (Noryl)

### 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 thanks to pushbutton teach
- 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)

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



### Ordering information

Other models available at [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-pin, radial output 1.5 m	BCG05-K1KM01PP	6039745
	0 V ... 10 V, Analog	Cable 3-pin, radial output 1.5 m	BCG05-L1KM01PP	6039746
0 m ... 3 m	4 mA ... 20 mA, Analog	Cable 3-pin, radial output 1.5 m	BCG08-K1KM03PP	6039747
	0 V ... 10 V, Analog	Cable 3-pin, radial output 1.5 m	BCG08-L1KM03PP	6039748
0 m ... 5 m	4 mA ... 20 mA, Analog	Cable 3-pin, radial output 1.5 m	BCG13-K1KM05PP	6039749
	0 V ... 10 V, Analog	Cable 3-pin, radial output 1.5 m	BCG13-L1KM05PP	6039750
0 m ... 10 m	4 mA ... 20 mA, Analog	Connector M12, 5-pin, radial	BCG19-K1EM10PP	6048294
	0 V ... 10 V, Analog	Connector M12, 5-pin, radial	BCG19-L1EM10PP	6048295

### Accessories

	Accessory category	Model name	Part no.
	Plug connectors and cables	D0S-1205-G	6009719
		STE-1205-G	6022083

P



## At a glance

- Modular measuring system with a wide selection of interfaces/measuring lengths
- Measuring lengths: 2 m ... 50 m
- Very rugged system (dirt scraper, integrated brushes)
- High-quality winding mechanism and wire input
- Interfaces: - TTL/HTL - ANALOG, SSI, PROFIBUS, CANopen, DeviceNet, HIPERFACE®
- High enclosure rating
- Highly resistant to shock and vibrations
- High resolution possible

## Your benefits

- Reliable solution in harsh environments
- Long service life due to rugged industrial housing
- Quick and easy installation without the need for precise linear guidance
- Low integration and maintenance costs
- Customization option reduces storage costs
- Teach-in function enables fast installation

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

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







## Ordering information

Other models available at [www.mysick.com/en/HighLine](http://www.mysick.com/en/HighLine)

Measuring range	Electrical interface	Connection type	Model name	Part no.
0 m ... 2 m	SSI	Connector M23, 12-pin, radial	BTF08-A1AM0240	1034299
0 m ... 5 m	SSI	Connector M23, 12-pin, radial	BTF13-A1AM0520	1034300
	CANopen®	Bus adapter with cable gland or connector	BTF13-C1HM0525	1034318
	DeviceNet		BTF13-D1HM0525	1034312
	PROFIBUS		BTF13-P1HM0525	1034306
0 m ... 10 m	SSI	Connector M23, 12-pin, radial	BTF13-A1AM1020	1034301
	CANopen®	Bus adapter with cable gland or connector	BTF13-C1HM1025	1034319
	DeviceNet		BTF13-D1HM1025	1034313
	PROFIBUS		BTF13-P1HM1025	1034307
PROFIBUS	BTF13-P1HM2025		1034308	
0 m ... 20 m	PROFIBUS	Bus adapter with cable gland or connector	BTF13-P1HM3025	1034309
0 m ... 30 m	PROFIBUS		BTF19-P1HM5017	1034310
0 m ... 50 m	PROFIBUS			
0 m ... 2 m	10 V ... 32 V, TTL/RS422	Connector M23, 12-pin, radial	PRF08-C1AM0240	1034329
0 m ... 5 m	10 V ... 32 V, HTL/push pull	Connector M23, 12-pin, radial	PRF13-E1AM0520	1034336

Accessories

	Accessory category	Brief description	Model name	Part no.
	Terminal and alignment brackets	Holder for Item Profile	MRA-F080-R	6028632
			MRA-F180-R	6028631
	Wire draw mechanism	Wire draw BTF/PRF/MRA	Joint ball	5318683
		Wire draw brush	MRA-F080-B	6045341
			MRA-F130-B	6038562





### At a glance

- Non-contact length measurement – maintenance-free, rugged, long lifetime
- High reproducibility (0.3 mm / 1 mm), high system resolution (0.1 mm)
- SSI and PROFIBUS interfaces
- Determination of absolute position
- Measuring lengths of up to 1,700 m possible
- Can be used in harsh environments
- High travel speeds of up to 6.6 m/s
- Distance tolerance between read head and measuring element: up to 55 mm ± 20 mm possible

### Your benefits

- After installation, the system is immediately available and completely maintenance-free, which leads to time and cost savings.
- Reliable determination of position under harshest environmental conditions such as influences of dirt, dust, fog, shocks and vibrations
- Greater efficiency and better productivity
- Savings on time – no reference run necessary on initial operation due to absolute position measurement
- accurate positioning even with high mounting tolerances

→ [www.mysick.com/en/KH53](http://www.mysick.com/en/KH53)

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



### Ordering information

Other models available at [www.mysick.com/en/KH53](http://www.mysick.com/en/KH53)







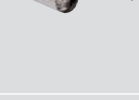




Measurement range	Electrical interface	System part	Model name	Part no.
0 m ... 38 m	SSI	Read head 38	KHK53-AXB00038	1030052
0 m ... 54 m		Read head 54	KHK53-AXB00054	1035443
0 m ... 254 m		Read head 354	KHK53-AXB00354	1030072
0 m ... 107 m	PROFIBUS	Read head 107	KHK53-PXF00107	1036164
0 m ... 548 m		Read head 548	KHK53-PXF00548	1036168
0 m ... 1,700 m		Read head 1700	KHK53-PXF01700	1036166

System part	Model name	Part no.
Measuring element up to 38 m	KHT53-XXX00038	1030055
	KHU53-XXX00038	1030056
Measuring element up to 54 m	KHT53-XXX00054	1035445
	KHU53-XXX00054	1035446
Measuring element up to 107 m	KHT53-XXX00107	1030065
	KHU53-XXX00107	1030066
Measuring element up to 354 m	KHT53-XXX00354	1030075
	KHU53-XXX00354	1030076
Measuring element up to 548 m	KHT53-XXX00548	1035451
	KHU53-XXX00548	1035452
Measuring element up to 1700 m	KHT53-XXX01700	1030085
	KHU53-XXX01700	1030086

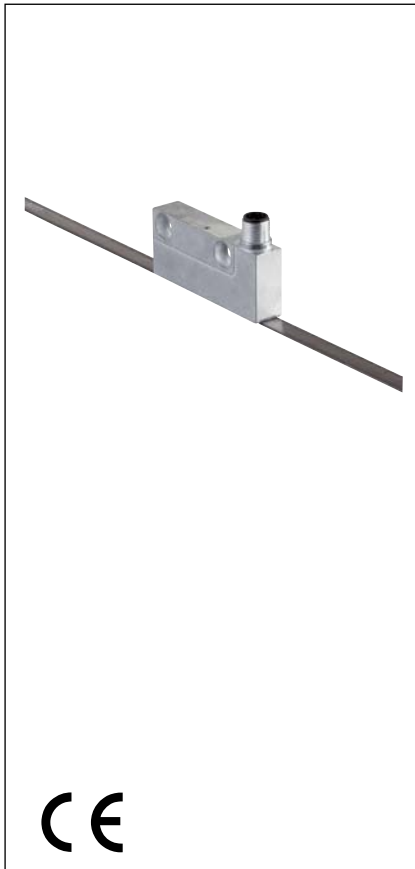


System part	Model name	Part no.
Mounting gauge 38	KHM53-XXX00038	1030057
Mounting gauge 54	KHM53-XXX00054	1035447
Mounting gauge 107	KHM53-XXX00107	1030067
Mounting gauge 354	KHM53-XXX00354	1030077
Mounting gauge 548	KHM53-XXX00548	1035453
Mounting gauge 1700	KHM53-XXX01700	1030087

## Accessories

	Accessory category	Brief description	Model name	Part no.
	Mounting brackets/plates	Mounting bracket	BEF-WK-KHT53	2029159
	Terminal and alignment brackets	Clamps	BEF-KHA-KHT53	2042468
	Programming and configuration tools	Programming Tool for encoders with SSI interface	PGT-01-S	1030111
	Plug connectors and cables	Female connector, M12, 4-pin, straight, 5 m, PVC, round connector M12 x 1, 4-pin	DOL-1204-G05M	6009866
		Female connector M12, 5-pin, straight, with 10 m cable 2-core, screened, for Profibus data cable	DOL-1205-G10MQ	6026008
		Connector M23 female, 12-pin, straight, 5 m cable 12 cores, 4 x 2 x 0.25 + 2 x 0.5 + 2 x 0.14 mm <sup>2</sup> , SSI and programming, with screening, capable of being dragged, not salt water and UV resistant	DOL-2312-G05MMA1	2029202
		Connector M23 female, 12-pin, straight, 10 m cable 12 cores, 4 x 2 x 0.25 + 2 x 0.5 + 2 x 0.14 mm <sup>2</sup> , SSI and programming, with screening, capable of being dragged, not salt water and UV resistant	DOL-2312-G10MMA1	2029203
		Bus-OUT, PROFIBUS plug, M12	PR-STE-1205-G	6021354
		M12 plug PROFIBUS terminating resistor	PR-STE-END	6021156
		Mating connector M23, 12-pin	STE-2312-G	6027537
		Male connector, 5-pin, straight, with 10 m cable 2-core, screened, for Profibus data cable	STL-1205-G10MQ	6026007





### At a glance

- Non-contact determination of absolute position
- Small, compact read head
- Standard SSI interface, combined with SinCos output
- Measuring lengths of up to 4 m
- High level of accuracy ( $\pm 10 \mu\text{m}$ )
- High resolution ( $1 \mu\text{m}$  with SSI)
- High travel speed of up to 10 m/s

### Your benefits

- Small size, light weight and high measurement speed make it ideal for a variety of applications
- After installation, the system is immediately available and completely maintenance-free, which leads to time and cost savings
- Immune to environmental factors like contamination and condensation, ensuring increased reliability
- Real-time speed determination plus absolute positioning due to SinCos and SSI output

→ [www.mysick.com/en/TTK70](http://www.mysick.com/en/TTK70)

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



### Ordering information

Other models available at [www.mysick.com/en/TTK70](http://www.mysick.com/en/TTK70)


- **Measuring length:** 4,000 mm

Electrical interface	Resolution	System part	Model name	Part no.
4.5 V DC ... 30 V DC, SSI	1 $\mu\text{m}$	Read head	TTK70-AXA0-K02	1038033

Description	Magnetic strip length	Model name	Part no.
Magnetic tape with adhesive tape and cover band incl. <sup>1)</sup>	0.5 m	MVM-0M5-2MC-MKLB	6037415
	1 m	MVM-01M-2MC-MKLB	6037417
	2 m	MVM-02M-2MC-MKLB	6037419
	3 m	MVM-03M-2MC-MKLB	6037421
	4 m	MVM-04M-2MC-MKLB	6037423
	1.5 m	MVM-1M5-2MC-MKLB	6037418
	2.5 m	MVM-2M5-2MC-MKLB	6037420
	3.5 m	MVM-3M5-2MC-MKLB	6037422

<sup>1)</sup> Working temperature range  $-20 \dots +70 \text{ }^\circ\text{C}$ , storage temperature range  $-30 \dots +80 \text{ }^\circ\text{C}$ .

### Accessories

Accessory category	Brief description	Model name	Part no.
 Plug connectors and cables	Female connector, M12, 12-pin, angled, 2 m, PVC, shielded, drilled and twisted pair	DOL-1212-W02MAC1	6039824
	Female connector, M12, 12-pin, angled, 5 m, PVC, shielded, drilled and twisted pair	DOL-1212-W05MAC1	6039825



## Optimum solutions for gas analysis in process or emission applications



### Gas analyzers

For analyzing gases we offer an extensive range of gas analyzers and analyzer systems. Adaptation to different system conditions or solutions of complex measuring tasks - we have the answer: in-situ and extractive measu-

ring technology for instrumentation of complete facilities. The in-situ technology is characterized by low maintenance requirements and very short response times by direct measurement in the gas duct. The extractive gas analyzers can be

extended by numerous external system components to form a complete analyzer system. Our versatile gas analyzers can be adapted specifically to the measuring task and are suitable for a broad range of applications.





Gas analyzers



**TRANSIC100LP** . . . . . 466  
Laser measurement of oxygen in harsh industrial applications



**GMS800** . . . . . 466  
Tailor-made gas analysis solutions for process and emission monitoring



**GM32** . . . . . 467  
Direct measurement of aggressive gases



**MERCEM300Z** . . . . . 467  
Innovative measurement of mercury in flue gases





### TRANSIC100LP – at a glance

- O<sub>2</sub> transmitter using effective laser spectroscopy
- Optimized for use in harsh industrial environments – explosion-protected version
- Measurement directly in the process or within the slip stream using a sample cell (option)
- Resistant against aggressive chemicals or high moisture
- Stable measuring values due to drift monitoring
- Low maintenance requirements
- Heated optics to prevent condensation

### Your benefits

- Compact design requires minimum space and easy use
- Minimizes the need for sample conditioning equipment
- Fast results due to the measurement close to the process
- Very low operation costs because there are no consumables and no nitrogen purging is needed
- Diagnostic output for preventive maintenance

→ [www.mysick.com/en/TRANSIC100LP](http://www.mysick.com/en/TRANSIC100LP)

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



### GMS800 – at a glance

- 7 different analyzer modules: DEFOR (NDUV, UVRAS), FIDOR (FID), MULTOR (NDIR), OXOR-E (electrochemical O<sub>2</sub>), OXOR-P (paramagnetic O<sub>2</sub>), THERMOR (TC) and UNOR (NDIR)
- 4 different types of enclosures
- Gas module with sample gas pump and/or control sensors
- New enclosure type for easy and quick integration in analyzer cabinets
- Remote diagnosis via Ethernet with software SOPAS ET

### Your benefits

- Approved according to EN 15267-3 and EN 14181
- Installations in Non-Ex-areas and Ex-areas (Zone 1 and 2 according to ATEX) possible
- Minimum service and maintenance work as well as easy reconditioning of existing installations due to modular design
- Adjustment without test gases via optional adjustment unit
- Minimal influence of ambient temperature through thermostatic controlled modules
- System solutions with turn-key analyzer cabinets MAC800
- Reliable measuring results by proven measurement technology
- Easy maintenance and repair due to replacement of complete assemblies or modules

→ [www.mysick.com/en/GMS800](http://www.mysick.com/en/GMS800)

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



Q



### GM32 – at a glance

- Up to 6 measuring components at the same time (incl. gas pressure and temperature)
- Automatic self-test function (QAL3) without test gases
- Several independent measuring ranges with automatically optimized precision possible
- Direct measurement without sampling
- Reliable measuring results at high dust concentrations

### Your benefits

- Unbiased measuring values due to in-situ measurement
- Fast or short-term changes in the process are being detected
- Representative measurement by selection of an appropriate probe or cross-duct type
- Fast on-site service due to modular design
- Long maintenance-free intervals

→ [www.mysick.com/en/GM32](http://www.mysick.com/en/GM32)

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



### MERCEM300Z – at a glance

- Accurate measurement of “total mercury” directly in a thermal converter (patented)
- Measuring operation without using consumables
- Very low maintenance gas sampling using an ejector pump – no moving parts
- Integrated adjustment cell for automatic drift correction
- Automatic adjustment of the entire measuring system with a built-in test gas generator (optional)
- Modular design with the entire system

### Your benefits

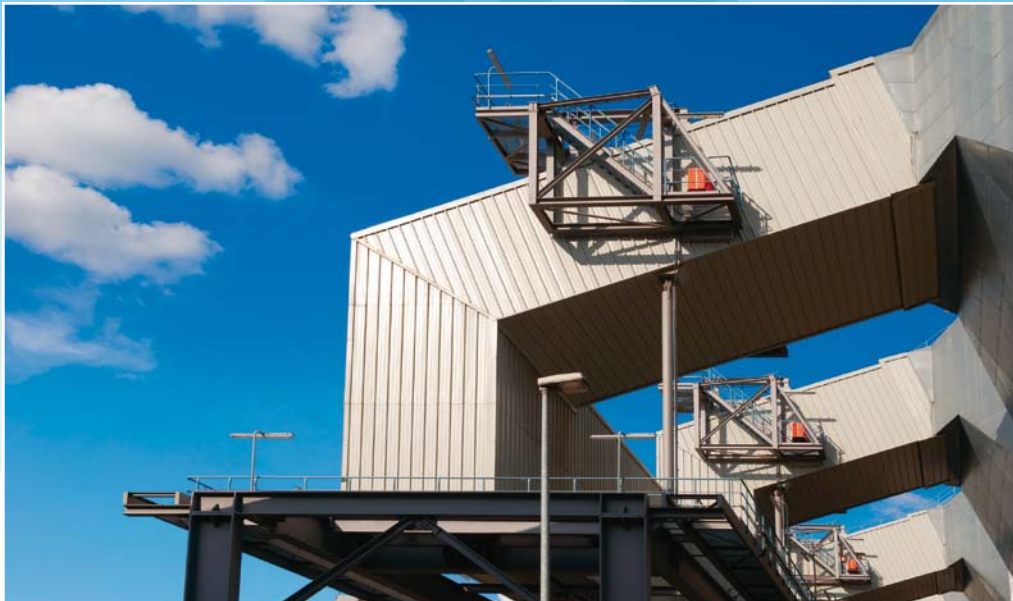
- Reliable results of the actual measuring values of elemental Hg and Hg compounds in gases
- Very low operating expenses
- Minimum maintenance expenditure
- Long-term stability minimizes technician time requirements due to self-adjusting measuring system
- Measuring certainty using the fully automated adjustment with test gas
- Convenient and fast access for easy service and user-friendly remote diagnosis

→ [www.mysick.com/en/MERCEM300Z](http://www.mysick.com/en/MERCEM300Z)

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



## So nothing gets dusty: innovative solutions for dust measurement



### Dust measuring devices





SICK establishes a new standard in dust measurement: durable and low-maintenance systems for detecting and moni-

toring dust concentration. All of the dust measuring systems can be seamlessly integrated into existing measurement

landscapes at your plant. Easy installation and commissioning and comfortable handling are self-evident.



## Dust measuring devices

	<b>DUSTHUNTER S</b> . . . . . 470 Innovative dust monitors with scattered light technology
	<b>DUSTHUNTER T</b> . . . . . 470 Transmissiometers for monitoring of dust concentrations
	<b>DUSTHUNTER C</b> . . . . . 471 Two in one – dust monitor with transmittance and scattered light measurement
	<b>FWE200</b> . . . . . 471 Extractive scattered light technology for measurement of dust in wet gases





### DUSTHUNTER S – at a glance

- For very low to medium dust concentrations
- For small to large duct diameters
- Automatic check of zero and reference point
- Contamination check (not DUSTHUNTER B50)

### Your benefits

- Easy installation, commissioning, and operation
- Measurement independent of gas velocity, humidity and particle charge
- Approved according to EN 15267-3 (not DUSTHUNTER SB50)
- Low maintenance due to self-monitoring

→ [www.mysick.com/en/DUSTHUNTER\\_S](http://www.mysick.com/en/DUSTHUNTER_S)

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



### DUSTHUNTER T – at a glance

- For medium to high dust concentrations
- For small to large measuring distances
- Automatic check of zero and reference point
- Integrated contamination check (not DUSTHUNTER T50)
- Automatic self-alignment of the optical assembly (only DUSTHUNTER T200)

### Your benefits

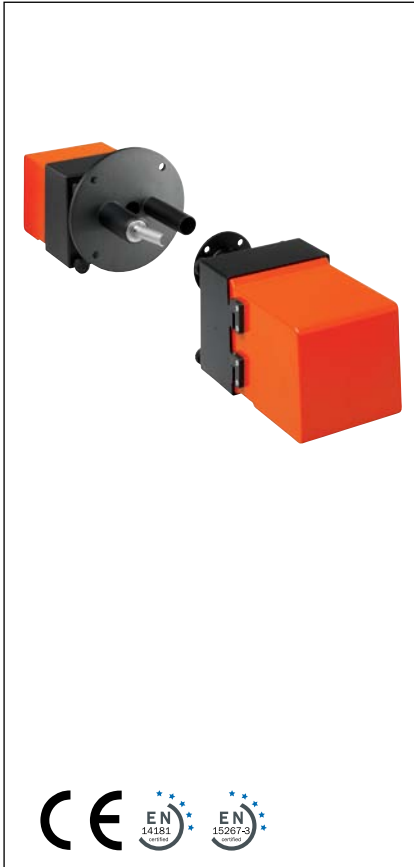
- Easy installation, commissioning and operation
- Measurement independent of gas velocity, humidity and particle charge
- Low maintenance due to self-monitoring
- Approved according to EN 15267-3 (not DUSTHUNTER T50)

→ [www.mysick.com/en/DUSTHUNTER\\_T](http://www.mysick.com/en/DUSTHUNTER_T)

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







### DUSTHUNTER C – at a glance

- Combination of transmittance and scattered light measurement
- For very low to high dust concentrations
- For medium to large duct diameters
- Automatic check of zero and reference point
- Contamination monitoring and compensation on both sides
- Automatic self-alignment

### Your benefits

- Suitable for highly fluctuating dust concentrations
- Reliable application due to redundant measurement
- Low maintenance due to self-monitoring function
- Prepared for the future to monitor decreasing limit values
- Approved according to EN 15267-3

→ [www.mysick.com/en/DUSTHUNTER\\_C](http://www.mysick.com/en/DUSTHUNTER_C)

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



### FWE200 – at a glance

- For very low to medium dust concentrations
- Gas sampling and return combined in one probe
- Contamination check
- Automatic check of zero and reference point

### Your benefits

- Reliable dust measurement in wet gas
- No movable parts with contact to aggressive gas, therefore low maintenance efforts
- Installation directly at the duct due to compact design

→ [www.mysick.com/en/FWE200](http://www.mysick.com/en/FWE200)

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



## Sensor solutions for a better traffic safety



### Tunnel sensors

More safety, less congestion – this is the main objective of traffic management in the future. Intelligent traffic monitoring systems will form the basis of modern traffic management technology. With our highly sophisticated measuring systems, we are on the right road to solving a few of these issues.

As the volume of traffic rises, the need to continuously monitor pollution levels is becoming increasingly important. Our tunnel sensors measure exhaust gases where they arise, thereby enabling effective monitoring and control of emissions, and ensuring that ventilation systems operate efficiently. Developed by experts

with many years of experience, our measuring systems are tailored to meet the requirements.



## Tunnel sensors



**VICOTEC320** . . . . . 474  
For the control of ventilation and for filter monitoring in road tunnels



**VICOTEC410** . . . . . 474  
For ventilation control in road tunnels



**FLOWSIC200** . . . . . 475  
The tunnel flow velocity measuring device for long term operation



**SMOTEC450** . . . . . 475  
Fast and reliable smoke detection for every type of tunnel





### VICOTEC320 – at a glance

- Very low detection limits for NO and NO<sub>2</sub>
- Automatic function monitoring and self-adjustment
- Very sturdy design in stainless steel
- Automatic beam alignment between sender/receiver unit and reflector

### Your benefits

- Energy and cost savings for ventilation control due to very low zero offset and accurate measurement
- Low operational costs because no air aspiration system, no test gases and no ambient air required
- Low maintenance requirements due to long maintenance interval (1 year)

→ [www.mysick.com/en/VICOTEC320](http://www.mysick.com/en/VICOTEC320)

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



### VICOTEC410 – at a glance

- Automatic adjustment function (AutoAdjust)
- Contamination check
- Menu-driven operation via evaluation unit

### Your benefits

- Direct measurement without time lag
- Cost savings during operation and maintenance (especially for VICOTEC411)
- Flexible system integration with analog outputs or PROFIBUS

→ [www.mysick.com/en/VICOTEC410](http://www.mysick.com/en/VICOTEC410)

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





### FLAWSIC200 – at a glance

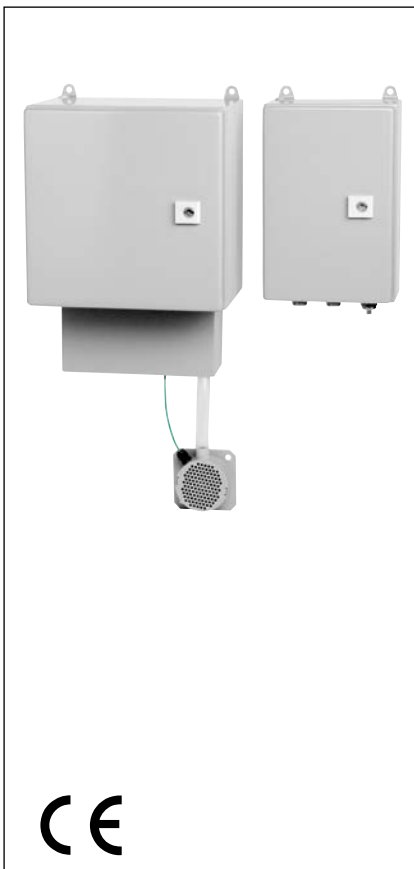
- Very large measuring distance possible
- Contact-free measurement
- Extremely rugged compounds made of titanium, stainless steel or die cast
- Versions for very corrosive atmospheres
- Determination of flow direction
- No mechanically moving parts

### Your benefits

- Representative measurement across total tunnel width
- Very reliable measurement, compared with punctual measurement methods
- Accurate measurement of low flow velocities
- Long maintenance intervals up to 5 years
- Low operational costs due to reliable operation and low maintenance
- High availability of devices and therefore also of measurement data

→ [www.mysick.com/en/FLOWSIC200](http://www.mysick.com/en/FLOWSIC200)

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



### SMOTEC450 – at a glance

- Very fast and accurate scattered light measurement
- Automatic control functionalities
- Contamination check
- Heated chamber for evaporation of fog droplets
- Rugged enclosure made of stainless steel

### Your benefits

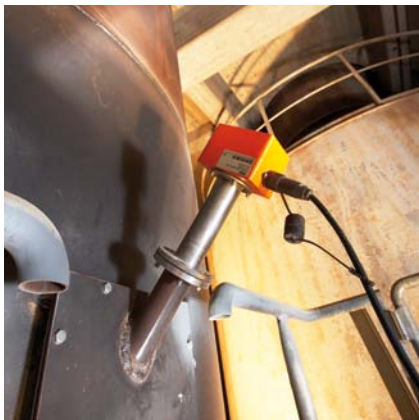
- Early and reliable warning for optimum efficiency during self-rescue phase

→ [www.mysick.com/en/SMOTEC450](http://www.mysick.com/en/SMOTEC450)

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



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



### Gas flow measuring devices

With diverse gas flow measuring devices SICK provides solutions for a wide variety of measuring tasks - from calculating

volume flows in processes, custody transfer applications in natural gas industry, environmental monitoring of

plants, on test stands in automotive industry and many others.



Gas flow measuring devices



**FLOWSIC100 CEMS** . . . . . 478  
 Volume flow measuring devices for continuous emission monitoring (CEMS)



**FLOWSIC100 Flare** . . . . . 478  
 Reliable gas flow measurement for flare gas applications



**FLOWSIC100 Process** . . . . . 479  
 Reliable and accurate volume flow measurement in processes



**FLOWSIC600** . . . . . 479  
 Gas meter for custody transfer and process applications





### FLWSIC100 CEMS – at a glance

- Rugged titanium transducers for high durability
- Corrosion-resistant material for application in aggressive gases (option)
- Integral measurement over the duct diameter with types H, M and S
- Probe type PR for economic installation from one side of the duct
- Automatic function control with zero and span point check

### Your benefits

- Reliable flow measurement for ducts with small up to very large diameters
- High durability of the device
- Minimum operating and maintenance costs
- Accurate measuring results under difficult measuring conditions
- Measurement without pressure loss, therefore no influences on the process
- User-friendly operation via SOPAS ET software
- Reliable function monitoring due to enhanced diagnosis

→ [www.mysick.com/en/FLWSIC100\\_CEMS](http://www.mysick.com/en/FLWSIC100_CEMS)

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



### FLWSIC100 Flare – at a glance

- Innovative sensor design for very high gas velocities
- Highly accurate time resolution for measurements near zero point
- For pressure up to 16 bar
- Hermetically sealed transducers made of titanium or stainless steel
- For hazardous areas Zone 1, Zone 2 (ATEX/IECEX) and CSA Class I, Div1
- Retraction mechanism as an option
- Automatic zero and span point check

### Your benefits

- Suitable for very low up to very high gas velocities
- No flow turbulences at the sensor tip, therefore no signal disturbance
- Exchange of sender/receiver units during plant operation
- No movable parts, therefore low maintenance
- Measurement independent of pressure, temperature and gas composition
- User-friendly operation via MCUP control unit

→ [www.mysick.com/en/FLWSIC100\\_Flare](http://www.mysick.com/en/FLWSIC100_Flare)

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





## FLOWSIC100 Process – at a glance

- Corrosion-resistant transducers made of stainless steel or titanium
- Process pressure up to 16 bar
- Explosion-proof version for applications in Zone 2 (ATEX) available
- Hermetically sealed ultrasonic transducers
- Measurement without pressure loss, therefore no influences on the process
- Automatic function control with zero and span point check

### Your benefits

- Reliable and accurate measurement also at low gas velocities
- No movable parts, therefore low maintenance
- Measurement independent of pressure, temperature and gas composition
- No influence on the gas flow due to contact-free measurement
- Approved for usage in hazardous areas Zone 2 (ATEX)
- User-friendly operation and device diagnosis via MCU control unit and SOPAS ET operating software



→ [www.mysick.com/en/FLOWSIC100\\_Process](http://www.mysick.com/en/FLOWSIC100_Process)

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

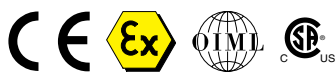


## FLOWSIC600 – at a glance

- Bidirectional measurement
- Path layout without reflection
- High efficient transducers
- Wide measuring range up to 1 : 130
- Low risk of hardware damage from overload
- Integrated logbook and data logs
- Low power consumption (<1 W)

### Your benefits

- Low maintenance effort due to intelligent self-diagnosis
- No pressure loss
- Nearly insensitive to pressure regulator noise
- Calibration with air at atmospheric pressure possible
- Transducer can be dismantled under line pressure
- Power supply via solar panel possible



→ [www.mysick.com/en/FLOWSIC600](http://www.mysick.com/en/FLOWSIC600)

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







## Simple integration into your automation world

Our intelligent sensor solutions and safety controllers make available different integration technologies that allow easy access – from HMI, PLC, and engineering tools – to data from our sensors. In this way, we support you towards solving your application rapidly and easily and increase machine availability with a continuous diagnostic concept.

### Industrial communication



SICK's fieldbus and network solutions allow sensors and safety controllers from SICK to be connected to all common automation systems. This guarantees simple and fast access to all available data and information.



### PLC and engineering tool integration



Whether the issue is generic integration using device description files, standardized interfaces (e.g. TCI, FDT/DTM) for diagnosis or integration into the PLC program via function blocks – the user-friendly tools from SICK support you in implementation.

### HMI integration



SICK offers a wide range of means to integrate process, status, and diagnostic data from SICK sensors into a visualization system. Tools such as OPC servers, web servers, or SCL allow simple and fast integration into your individual HMI solution – independent of the technology used.

### Software and tools

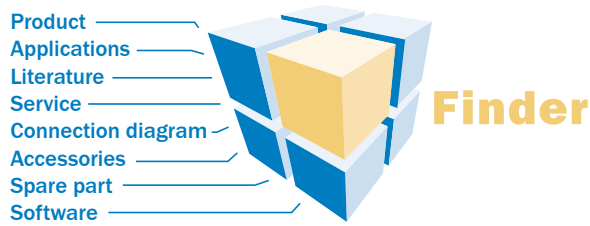


Our software tools support you in establishing connections, parameterizing and diagnosing sensors and safety controllers from SICK. The intuitive user interface permits simple and fast designing and realization of the application required.

[www.sick.com/industrial-communication](http://www.sick.com/industrial-communication)

## www.mysick.com – search online and order

Search online quickly and safely – with the SICK “Finders”

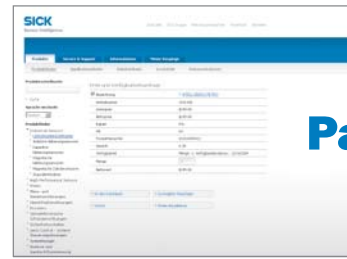


**Product Finder:** We can help you to quickly target the product that best matches your application.

**Applications Finder:** Select the application description on the basis of the challenge posed, industrial sector, or product group.

**Literature Finder:** Go directly to the operating instructions, technical information, and other literature on all aspects of SICK products.

Efficiency – with the e-commerce tools from SICK



**Find out prices and availability:** Determine the price and possible delivery date of your desired product simply and quickly at any time.

**Request or view a quote:** You can have a quote generated online here. Every quote is confirmed to you via e-mail.

**Order online:** You can go through the ordering process in just a few steps.

## For safety and productivity: 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 system design all the way 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.



**Consulting & Design**

Globally available experts for cost-effective solutions



**Product & System Support**

Fast and reliable, by telephone or on location



**Verification & Optimization**

Checks and recommendations for increased availability



**Upgrade & Retrofits**

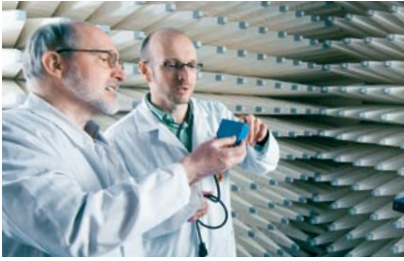
Uncovers new potential for machines and systems



**Training & Education**

Employee qualification for increased competitiveness

## SICK at a glance



### Leading technologies

With a staff of more than 5,800 and nearly 50 subsidiaries and representations worldwide, SICK is one of the leading and most successful manufacturers of sensor technology. The power of innovation and solution competency have made SICK the global market leader. No matter what the project and industry may be, talking with an expert from SICK will provide you with an ideal basis for your plans – there is no need to settle for anything less than the best.



### Unique product range

- Non-contact detecting, counting, classifying, positioning and measuring of any type of object or media
- Accident and operator protection with sensors, safety software and services
- Automatic identification with bar code and RFID readers
- Laser measurement technology for detecting the volume, position and contour of people and objects
- Complete system solutions for analysis and flow measurement of gases and liquids



### Comprehensive services

- SICK LifeTime Services – for safety and productivity
- Application centers in Europe, Asia and North America for the development of system solutions under real-world conditions
- E-Business Partner Portal [www.mysick.com](http://www.mysick.com) – price and availability of products, requests for quotation and online orders

Worldwide presence with subsidiaries in the following countries:

Australia  
Belgium/Luxembourg  
Brasil  
Česká Republika  
Canada  
China  
Danmark  
Deutschland  
España  
France  
Great Britain  
India  
Israel  
Italia  
Japan

México  
Nederland  
Norge  
Österreich  
Polska  
România  
Russia  
Schweiz  
Singapore  
Slovenija  
South Africa  
South Korea  
Suomi  
Sverige  
Taiwan  
Türkiye  
United Arab Emirates  
USA

Please find detailed addresses and additional representatives and agencies in all major industrial nations at [www.sick.com](http://www.sick.com)