



deTec

BECAUSE WE TAKE SAFETY TO THE NEXT LEVEL

Safety light curtains

**SICK**  
Sensor Intelligence.



# ALL OF OUR EXPERIENCE GOES INTO YOUR SUCCESS

SICK offers more than 65 years of experience in the area of safety solutions. SICK developed the very first light curtain for accident prevention on machinery back in the 1950s. With plenty of expertise, we continuously work on improving our deTec product family in order to provide you with crucial benefits when using this safety light curtain.





### Count on future proof investments



With the NFC technology, you have entirely new options for on-site diagnosis using a smartphone. IO-Link also makes it possible to read out diagnostic data continuously regardless of your location. The data acquired in this way can then be used for subsequent process steps in an Industry 4.0 approach.

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### Save time and money



All devices in the deTec and deTem product families have a consistent housing and mounting concept as well as standard cables. The deTec can be quickly mounted and aligned using suitable brackets and the integrated alignment aid. Thanks to its modular design, functions can be activated quickly and easily using the appropriate system plug for each application, and completely without software.

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### Intelligent protection for more productivity



The intelligent functions of deTec4 make your machine design flexible, cost-effective and compact. The innovative human-material differentiation through object pattern recognition with Smart Box Detection provides access protection in an automated material flow. This requires no external signals or further devices, which saves you time and money throughout the entire machine life cycle.

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### Safety at all levels



Design your machine to be safe. SICK has taken all of its experience in the area of safety solutions and put it into the deTec product family. The intelligent deTec4 device concept illustrates our innovative approach concerning productivity while continuing to keep our focus on the most important objective – the protection of people.

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## BECOME A TECHNOLOGY LEADER

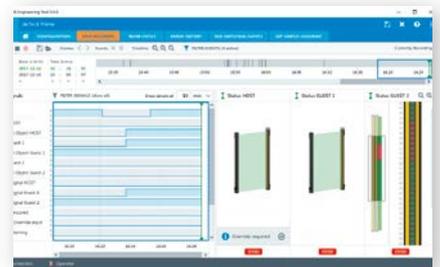
In making a decision on investment in safety solutions, there is one aspect that is especially targeted: being future proof. With the innovative deTec product family, you are securing a vital technological advantage today, and getting a good, well equipped start into a successful future. With the deTec4, SICK is the first manufacturer of safety light curtains to provide on site diagnostics by means of innovative NFC technology for smartphones or tablets.

### Increased productivity and short downtimes – the future of mobile maintenance



- + The future-oriented NFC technology supports fast device configuration as well as extensive and innovative diagnostics options via smartphone app.

### Safety and automation united – IO-Link makes a cost-effective system design possible



- + With data made available by the IO-Link, comprehensive diagnostics are possible, and the data can be used directly in other process steps. For example, a subsequent step could apply the provided height measurement data while simultaneously executing a safety function, without the need for additional equipment components.





## TIME IS MONEY – WITH deTec YOU SAVE BOTH

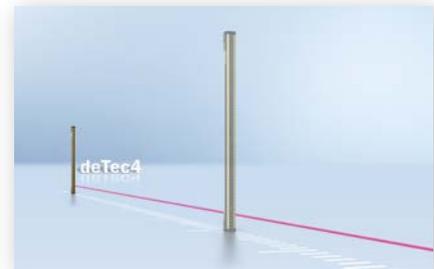
The profitability of an investment begins with quick commissioning. With the deTec4, your safety solution is ready to use quickly – the light curtain features standardized connectivity and, in comparison with previous versions, now has a uniform housing design. Matching accessories are available for the deTec4 as well. The safety light curtains shine while in operation – and also in case of service – with an excellent cost-benefit ratio.

### Reduced configuration effort



- + With the innovative SP1 and SP2 system plugs, you can easily activate the desired functions without software.
- + The smartphone app or the SOPAS ET configuration software makes configuration with the DIP switch assistant easier. For example, it displays the correct settings on the system plug for you. The light curtain can also be easily adjusted using the signal strength display of each individual light beam.

### Fast commissioning



- + Quick and easy alignment and excellent ease of use directly on the light curtain. Four blue LEDs display the strength of the signal. The synchronization status of the uppermost and lowermost beams can also be visualized. Thanks to an integrated laser alignment aid, adjusting and using the system takes no time at all.
- + The entire deTec product family features a uniform housing design while being equipped with identical mounting systems as well as compatible standard cables, including product-specific accessories.



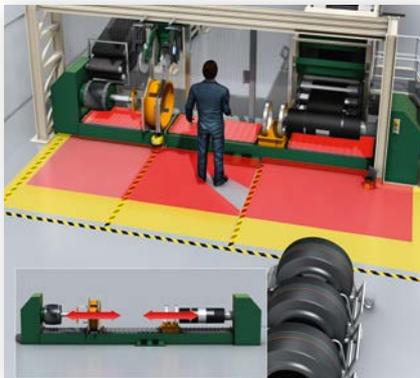
## INTELLIGENT PROTECTION FOR MORE PRODUCTIVITY

Unnecessary downtimes and machine failures rapidly impact productivity. deTec4 provides support to machine operators and maintenance personnel in the efficient operation of machines and systems. The extended range of functions of the deTec4 over the predecessor models is an innovation, resulting in increased availability. With the automation and measurement functions, you already have an eye toward the future. Easy configuration, completely without software, saves additional time and money.



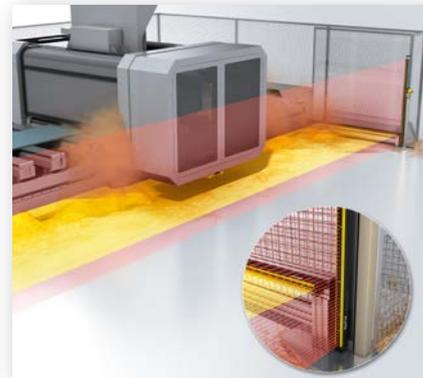
### Smart Box Detection

- + Smart Box Detection reliably detects rectangular objects. The protective field of the deTec4 above the object remains active and ensures a constantly high level of safety.



### Dynamic protective field widths

- + High level of flexibility: "Dynamic protective field widths" during operation.



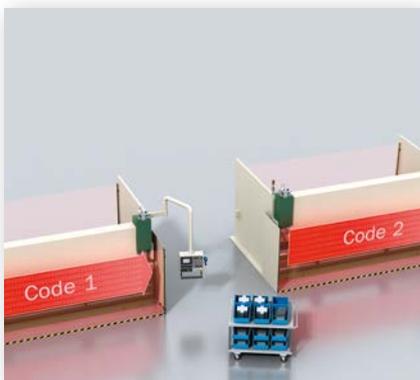
### Smart presence detection

- + Safe productivity and availability: "Smart presence detection" prevents unwanted shutoffs.



### Reduced resolution

- + Safety and availability using intelligent evaluation algorithms. Small objects such as thin sheets, chips or little creatures such as insects will not lead to a machine shutoff – whereas hands will certainly be detected.



### Beam coding

- + The highest availability and prevention of unwanted shutoffs using beam coding on adjacent machines.



### 2-signal muting and IO-Link

- + Safety and automation in one: Muting station with height measurement through IO-Link.



# SAFETY GUARANTEED ON ALL LEVELS

The deTec4 safety light curtains represent reliable protection for people – without compromising productivity and efficiency. SICK has placed all of its experience into the development of light curtains in the area of safety solutions: Protective field heights of 300 to 2,100 mm, performance level e, safety integrity level 3, Type 4, IP65, IP67 and IP69K enclosure ratings, a high temperature resistance between -30 °C and +55 °C and special for especially harsh fields of application ensure reliable processes and functional safety.



### Standardized connectivity and product-specific accessories

⊕ For the entire deTec product family, implementation into your machine design always remains the same.



### Safety – serially, with cascaded modules

⊕ Implementation of safe presence detection thanks to up to three blind zone-free protective fields adjoining each other.



### Flexible mounting concept

⊕ Simply and seamlessly integrated using a suitable bracket for the application.



### Reliable against coolants or lubricants

⊕ Variants with cured glass are also available for use in environments with coolants and lubricants.



### Safety in explosive environments

⊕ Depending on the application, various ex-zones can be created using additional deTec variants.



### Safest under high pressure

⊕ All of our application knowledge has been packed into the protective housing, featuring an enclosure rating of IP69K and providing a high degree of productivity.



Additional variants at → [www.sick.com/deTec](http://www.sick.com/deTec)

## THE RIGHT CHOICE FOR EACH PHASE

The deTec product family provides clear advantages in every life cycle phase – beginning with machine or system planning all the way through maintenance. At the same time, high-quality safety services provide the perfect complement to the safety light curtains. The collaboration of hardware and service makes work easier for all personnel involved in each phase, increases productivity in total and creates the basis for sustainable economic activity.



### 1. Planning and engineering the machine

- + Compact housing saves space
- + Simple machine design due to compatible connectivity
- + Simple integration into all compatible engineering tools such as 3D Models or EPLAN
- + Saving additional sensors by continuing to use the transferred beam data via IO-Link (e.g. for height measurements)

#### SICK Services

- + Consulting and design: Machine safeguarding evaluation, safety concept, system design



### 2. Purchasing components

- + The universal light curtain, which can be adapted to the application using the system plug, optimizes storage capacity and eases management of the number of parts.
- + Cost-efficient connecting cables that use conventional connectivity
- + Saving additional sensors by transferring measuring functions

#### SICK Services

- + Conformity Assessment



### 3. Machine sales

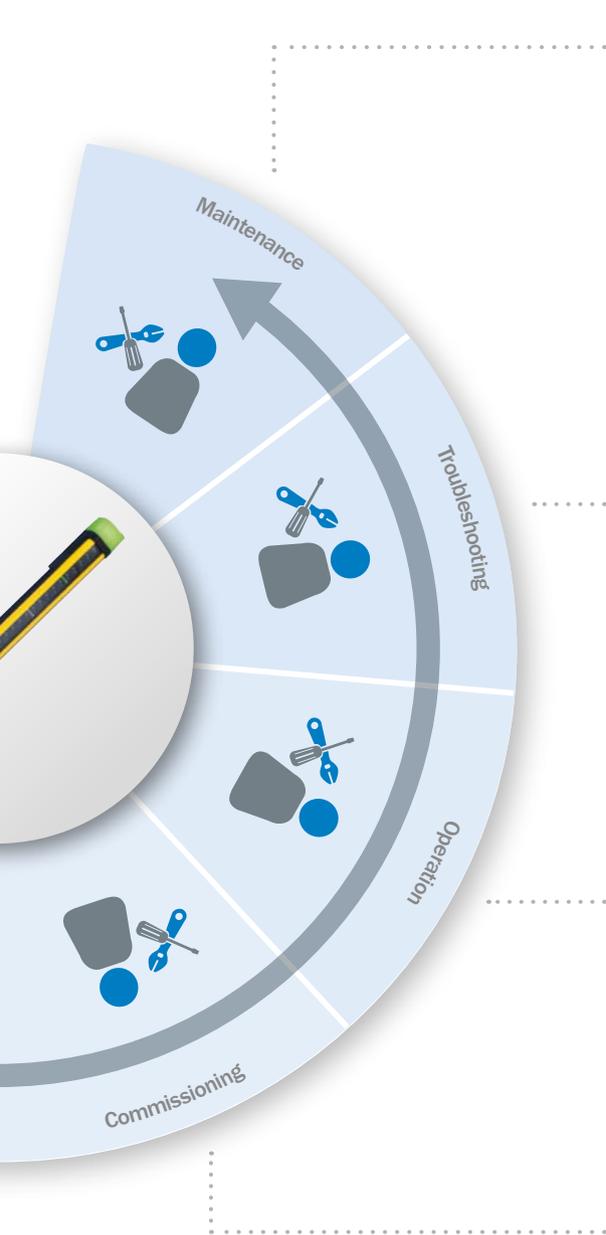
- + Innovative technologies and new functions for an investment with a future
- + Flexibility thanks to uniform housing design across the entire product family, standardized connectivity and product-specific accessories
- + NFC provides security against remote access, even allowing for use in areas where wireless data communication is not allowed, since data is only sent short distances in the presence of a receiver



### 4. Structure and mounting

- + The flexible mounting concept and low weight of deTec4 offer a wide variety of mounting possibilities
- + Reducing costs by using conventional connectivity, foregoing special connecting cables that are difficult to obtain





## 8. Maintenance



- ⊕ Predictive maintenance using IO-Link data analysis
- ⊕ Easy reading out of the device data using smartphone and NFC technology is also possible without voltage supply
- ⊕ Optimized maintenance option in the app using the signal strength light bar of each beam
- ⊕ Save time and money through the remote maintenance option, such as in retrieving the configuration's security checksum

### SICK Services

- ⊕ Maintenance

## 7. Troubleshooting



- ⊕ Faster device exchange due to a modular system plug concept
- ⊕ The NFC technology always ensures that only the data from a deTec4 – and not a neighboring deTec4 – will be transmitted to the smart phone
- ⊕ Considerable reduction in machine idle times thanks to quick diagnostics using NFC and smartphones or IO-Link

### SICK Services

- ⊕ Troubleshooting on site

## 6. Operation



- ⊕ Quickly reads the device status using multi-colored diagnostic LEDs
- ⊕ High machine availability with consistently high safety due to innovative functions like the Smart Box Detection

### SICK Services

- ⊕ Periodic inspection

## 5. Commissioning



- ⊕ Saves time by configuring without AF/Notebook
- ⊕ Fast and easy commissioning using the DIP switch assistant in the app
- ⊕ Ready to use quickly through comprehensive alignment assistance

### SICK Services

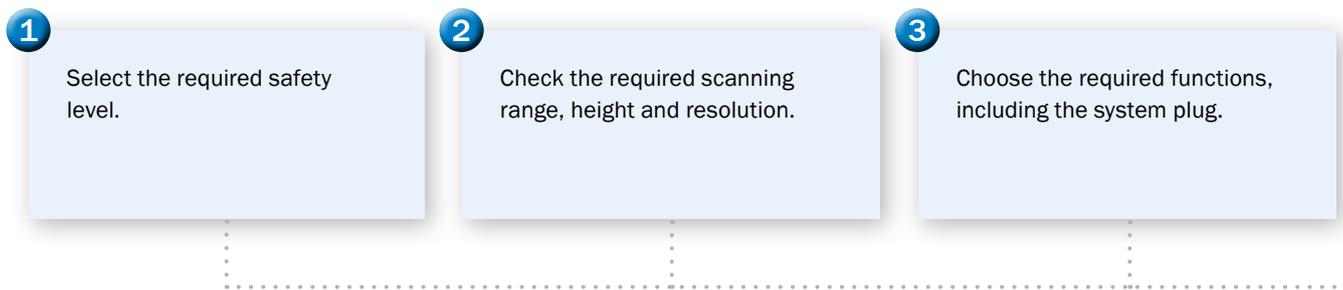
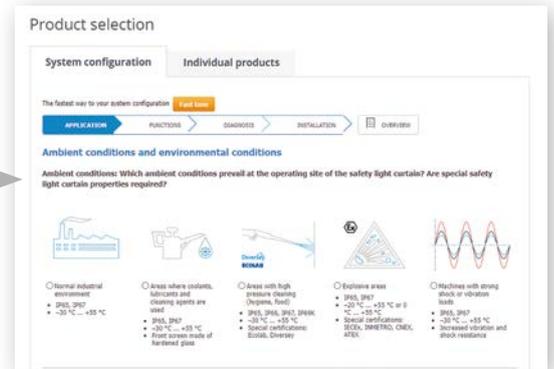
- ⊕ Initial inspection
- ⊕ Stop time measurement

# SELECTION GUIDE

Unsure of what deTec safety light curtain is needed?

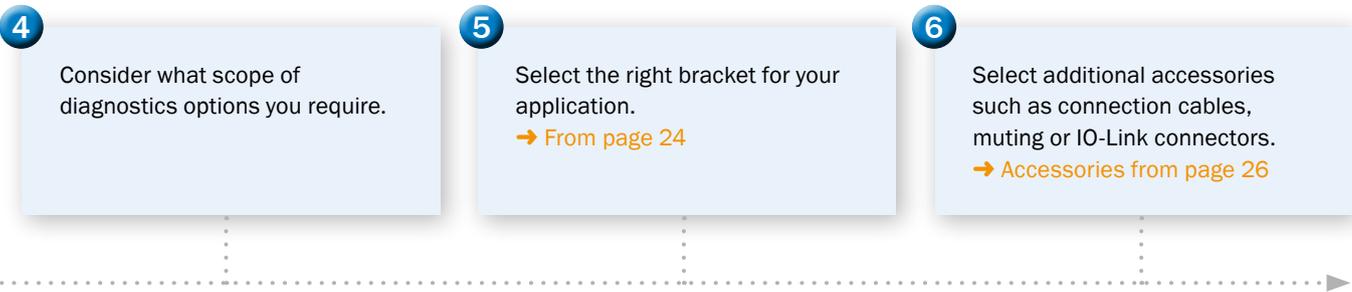
Simply follow the steps in our online configuration tool at [www.sick.com/deTec](http://www.sick.com/deTec)

- + Simple product selection based on questions
- + Selection of your deTec safety light curtain including accessories
- + Direct transfer to the shopping cart and online order possible



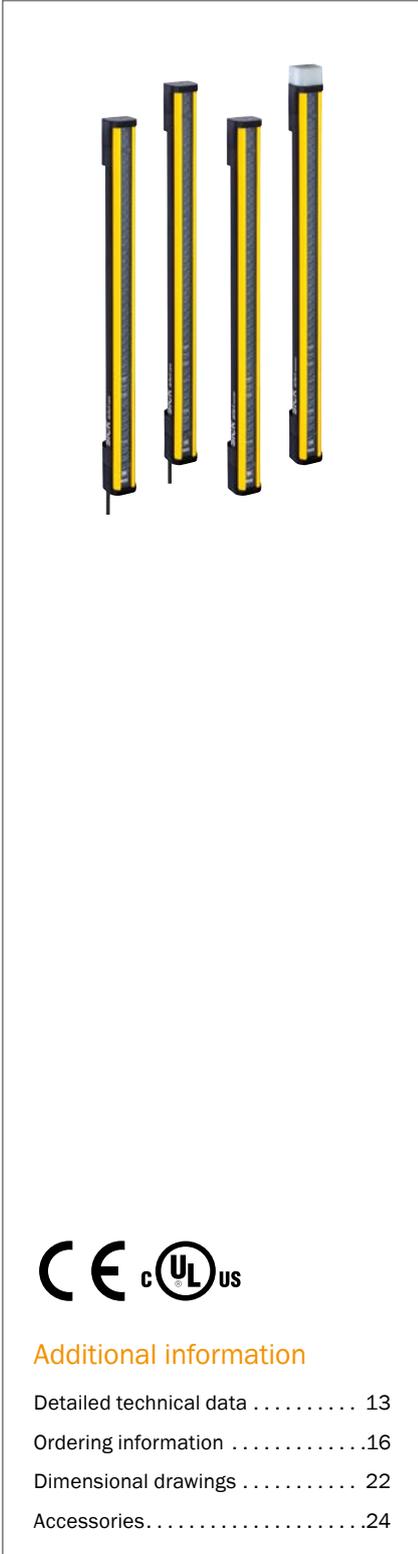
Produkt	1 Safety-related parameters		2 Features				3 Functions			
	Type 2, PL c, SIL1	Type 4, PL e, SIL3	Typical scanning range	Protective field height	Resolution	Protective operation	Automated scanning range measurement	Beam coding	Restart interlock	
<b>deTec4</b>										
	SP1	■	■	■	■	■	■	■	■	■
	SP2	■	■	■	■	■	■	■	■	■
<b>deTec Core</b>										
	■	■	■	■	■	■	■	■	■	■

<sup>1)</sup> Reduced resolution of 1 or 2 beams.  
<sup>2)</sup> Devices with resolution 14 mm.



3 Functions									4 Diagnostics						Page
External device monitoring (EDM)	Cascade	Smart presence detection	Reduced resolution <sup>1)</sup>	Dynamic protective field width during operation	2-signal muting	Smart Box Detection <sup>2)</sup>	Integrated laser alignment aid	Alignment quality – LED alignment display	OSSD-Status – ERROR-LED	Field indicator – LED indicator light	NFC	IO-Link	ADO		
■	■						■	■	■	■	■	■	■	→ 16	
■	■	■	■	■	■		■	■	■	■	■	■	■	→ 16	
								■	■					→ 20	

# BECAUSE WE TAKE SAFETY TO THE NEXT LEVEL



### Additional information

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### Product description

The intelligent deTec safety light curtains are ideal for the protection of hazardous areas, entrances, and hazardous points. Modern technologies such as NFC and IO-Link with their diverse functionality increase the level of automation and thereby productivity. The result: Simple on-site diagnostics, fast commissioning, and comprehensive data for automating downstream processes. Furthermore, the flexible connection concept in

combination with the uniform housing design ensures low cabling, installation and configuration costs. The required functions are activated without software via the matching system plug. Thanks to different enclosure ratings as well as variants for explosion-hazardous areas, deTec also provides solutions for applications in harsh environments.

### At a glance

- NFC diagnosis & smartphone app
- Diagnostics and automation via IO-Link
- Object pattern recognition using Smart Box Detection
- 2-signal muting
- Smart presence detection
- Configuration of all functions without software
- Reduced resolution: 1 or 2 beams
- Different enclosure ratings and variants for use in explosion-hazardous areas

### Your benefits

- Benefit from a productivity boost and short downtimes thanks to the innovative diagnostic options
- Increase the level of automation and process transparency of your systems with IO-Link
- The reliable object pattern recognition without external signals or devices ensures a cost-effective and compact machine design
- Muting offers productivity and safety in human-material differentiation
- High availability: smart presence detection prevents unwanted switch-offs
- Easy commissioning and configuration without the need for software saves you time and money

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

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



## Detailed technical data

More detailed data can be found in the operating instructions. Download → [www.sick.com](http://www.sick.com)

## Features

	deTec4		deTec Core	
	Resolution 14 mm	Resolution 30 mm	Resolution 14 mm	Resolution 30 mm
<b>Application</b>	Normal industrial environment			
<b>Protective field height</b>	300 mm ... 2,100 mm (depending on type)			
<b>Scanning range</b>	20 m	30 m	10 m	15 m
<b>No blind zones</b>	Yes			
<b>Synchronization</b>	Optical synchronisation			
<b>Integrated laser alignment aid</b>	✓		-	

## Safety-related parameters

	deTec4		deTec Core	
			deTec4 Core	deTec2 Core
<b>Type</b>	Type 4 (IEC 61496-1)		Type 4 (IEC 61496-1)	Type 2 (IEC 61496-1)
<b>Safety integrity level</b>	SIL3 (IEC 61508)		SIL3 (IEC 61508)	SIL1 (IEC 61508)
<b>Category</b>	Category 4 (ISO 13849-1)		Category 4 (ISO 13849-1)	Category 2 (ISO 13849-1)
<b>Performance level</b>	PL e (ISO 13849-1)		PL e (ISO 13849-1)	PL c (ISO 13849-1)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>				
Single device	1.53 x 10 <sup>-8</sup>		3.7 x 10 <sup>-9</sup>	3.1 x 10 <sup>-8</sup>
Cascade with one guest	3.05 x 10 <sup>-8</sup>		-	-
Cascade with two guest devices	4.56 x 10 <sup>-8</sup>		-	-
<b>T<sub>M</sub> (mission time)</b>	20 years (ISO 13849-1)			
<b>Safe state in the event of a fault</b>	At least one OSSD is in the OFF state.			

## Functions

	deTec4		deTec Core
	System plug SP1	System plug SP2	
<b>Protective operation</b>	✓		
<b>Automatic calibration of the protective field width</b>	✓		
<b>Beam coding</b>	✓		-
<b>Restart interlock</b>	✓		-
<b>External device monitoring (EDM)</b>	✓		-
<b>Cascading</b>	✓		-
<b>Smart presence detection</b>	-	✓	-
<b>Reduced resolution</b>	-	✓	-
<b>Dynamic protective field width during operation</b>	-	✓	-
<b>Sender with reduced scanning range</b>	-	✓	-
<b>Human-material differentiation</b>	-	✓	-
2-signal muting	-	✓	-
Smart Box Detection	-	✓ <sup>1)</sup>	-

<sup>1)</sup> Only devices with resolution 14 mm. For details, see the operating instructions.

## Interfaces

	deTec4	deTec Core
<b>Connection type</b>		
System connection	Male connector M12, 5-pin / male connector M12, 8-pin (depending on system plug) <sup>1)</sup>	Male connector M12, 5-pin
Extension connection	Female connector M12, 5-pin (depending on system plug) <sup>1)</sup>	–
<b>Configuration method</b>	DIP switch on the system plug	–
<b>Display elements</b>	LEDs	
<b>Display of the synchronization status of the upper and lower beams</b>	✓	–
<b>End cap with integrated LED</b>	✓ (depending on type)	–
<b>Application diagnostic output (ADO)</b>	✓ (depending on system plug) <sup>1)</sup>	–
<b>IO-Link</b>	✓ (depending on system plug) <sup>1)</sup>	–
<b>Near Field Communication (NFC)</b>	✓	–
<b>Fieldbus, industrial network</b>		
Integration via Flexi Soft safety controller	CANopen, DeviceNet™, EtherCAT®, EtherNet/IP™, Modbus TCP, PROFIBUS DP, PROFINET <sup>2)</sup>	

<sup>1)</sup> System plugs have to be ordered separately.

<sup>2)</sup> For additional information on Flexi Soft → [www.sick.com/Flexi\\_Soft](http://www.sick.com/Flexi_Soft).

## Electrical data

	deTec4	deTec Core
<b>Protection class</b>	III (IEC 61140)	
<b>Supply voltage <math>V_s</math></b>	24 V DC (19.2 V ... 28.8 V)	
<b>Ripple</b>	≤ 10 %	
<b>Output signal switching devices (OSSDs)</b>		
Type of output	2 PNP semiconductors, short-circuit protected, cross-circuit monitored <sup>1)</sup>	
ON state, switching voltage HIGH	24 V DC ( $V_s - 2.25 V \dots V_s$ )	
OFF state, switching voltage LOW	≤ 2 V DC	
Current-carrying capacity per OSSD	≤ 500 mA	≤ 300 mA
<b>Diagnostic outputs</b>		
Type of output	PNP semiconductor, short-circuit protected <sup>1)</sup>	–
Output voltage HIGH (active)	≥ $V_s - 3 V$	–
Output voltage LOW (deactivated)	High resistance	–
Output current HIGH (active)	≤ 100 mA	–

<sup>1)</sup> Applies to the voltage range between –30 V and +30 V.

## Mechanical data

<b>Dimensions</b>	See dimensional drawing
<b>Housing material</b>	Aluminum extruded profile

## Ambient data

<b>Enclosure rating</b>	IP65 (IEC 60529) IP67 (IEC 60529)
<b>Ambient operating temperature</b>	-30 °C ... +55 °C
<b>Storage temperature</b>	-30 °C ... +70 °C
<b>Air humidity</b>	15 % ... 95 %, non-condensing
<b>Vibration resistance</b>	5 g, 10 Hz ... 55 Hz (IEC 60068-2-6)
<b>Shock resistance</b>	10 g, 16 ms (IEC 60068-2-27)

## Other information

	deTec4	deTec Core
<b>Wave length</b>	850 nm	
<b>Integrated laser alignment aid</b>	✓	-
Laser class	1	-
Type of light	Visible red light	-
Wave length	650 nm	-

## Ordering information

### deTec4

A deTec4 safety light curtain consists of:

- Sender
- Receiver
- System plug sender (always SP1)
- System plug receiver (SP1 or SP2) → The receiver system plug defines the available functions of the deTec4.

#### Selection aid deTec4 system plugs

System plugs for **stand-alone**:

- Sender: SP1
- Receiver: SP1 or SP2 (defines the available functions)

Options:

- System connection 5-pin or 8-pin (e.g. for RES, EDM, ADO, Muting)
- Receiver without or with extension connection (e.g. for RES, EDM, ADO, IO-Link, muting)

System plugs for **host/guest cascade**:

- Host sender: SP1 with extension connection
- Host receiver: SP1 or SP2 (defines the available functions) with extension connection
- Guest sender: SP1 with system connection M12, 5-pin
- Guest receiver: SP1 with system connection M12, 5-pin

Options:

- Host system connection 5-pin or 8-pin (e.g. for RES, EDM, ADO)
- Guest receiver without or with extension connection (e.g. for RES, EDM, ADO, IO-Link)

System plugs for **host/guest/guest cascade**:

- Host sender: SP1 with extension connection
- Host receiver: SP1 or SP2 (defines the available functions) with extension connection
- Guest1 sender: SP1 with system connection M12, 5-pin with extension connection
- Guest1 receiver: SP1 with system connection M12, 5-pin with extension connection
- Guest2 sender: SP1 with system connection M12, 5-pin
- Guest2 receiver: SP1 with system connection M12, 5-pin

Options:

- Host system connection 5-pin or 8-pin (e.g. for RES, EDM, ADO)
- Guest2 receiver without or with extension connection (e.g. for RES, EDM, ADO, IO-Link)

#### deTec4 system plugs

Functions	Usage	System connection	Extension connection	Type	Part no.
SP1	Sender and receiver	Male connector M12, 5-pin	-	1000	2076832
			Female connector M12, 5-pin (RES, EDM, ADO, IO-Link, cascading)	1100	2076833
		Male connector M12, 8-pin (RES, EDM, ADO)	-	1200	2076834
			Female connector M12, 5-pin (RES, EDM, ADO, IO-Link, cascading)	1300	2076835
SP2	Receiver	Male connector M12, 5-pin	-	2000	2093097
			Female connector M12, 5-pin (RES, EDM, ADO, IO-Link, cascading, smart presence detection, muting)	2100	2093098
		Male connector M12, 8-pin (RES, EDM, ADO, muting)	-	2200	2093099
			Female connector M12, 5-pin (RES, EDM, ADO, IO-Link, cascading, smart presence detection, muting)	2300	2093100

**deTec4: sender with normal scanning range / receiver without LED indicator lamp**

Please note: Scope of delivery without system plug. System plugs have to be ordered separately.

Resolution	Scanning range	Protective field height	Sender		Receiver	
			Type	Part no.	Type	Part no.
14 mm	20 m	300 mm	C4P-SA03011A00	1220084	C4P-EA03011C00	1220097
		450 mm	C4P-SA04511A00	1220085	C4P-EA04511C00	1220098
		600 mm	C4P-SA06011A00	1220086	C4P-EA06011C00	1220099
		750 mm	C4P-SA07511A00	1220087	C4P-EA07511C00	1220100
		900 mm	C4P-SA09011A00	1220088	C4P-EA09011C00	1220101
		1,050 mm	C4P-SA10511A00	1220089	C4P-EA10511C00	1220102
		1,200 mm	C4P-SA12011A00	1220090	C4P-EA12011C00	1220103
		1,350 mm	C4P-SA13511A00	1220091	C4P-EA13511C00	1220104
		1,500 mm	C4P-SA15011A00	1220092	C4P-EA15011C00	1220105
		1,650 mm	C4P-SA16511A00	1220093	C4P-EA16511C00	1220106
		1,800 mm	C4P-SA18011A00	1220094	C4P-EA18011C00	1220121
		1,950 mm	C4P-SA19511A00	1220095	C4P-EA19511C00	1220107
		2,100 mm	C4P-SA21011A00	1220096	C4P-EA21011C00	1220108
30 mm	30 m	300 mm	C4P-SA03031A00	1220123	C4P-EA03031C00	1220137
		450 mm	C4P-SA04531A00	1220124	C4P-EA04531C00	1220138
		600 mm	C4P-SA06031A00	1220125	C4P-EA06031C00	1220139
		750 mm	C4P-SA07531A00	1220126	C4P-EA07531C00	1220140
		900 mm	C4P-SA09031A00	1220127	C4P-EA09031C00	1220141
		1,050 mm	C4P-SA10531A00	1220128	C4P-EA10531C00	1220142
		1,200 mm	C4P-SA12031A00	1220129	C4P-EA12031C00	1220143
		1,350 mm	C4P-SA13531A00	1220130	C4P-EA13531C00	1220144
		1,500 mm	C4P-SA15031A00	1220131	C4P-EA15031C00	1220145
		1,650 mm	C4P-SA16531A00	1220132	C4P-EA16531C00	1220146
		1,800 mm	C4P-SA18031A00	1220134	C4P-EA18031C00	1220147
		1,950 mm	C4P-SA19531A00	1220135	C4P-EA19531C00	1220148
		2,100 mm	C4P-SA21031A00	1220136	C4P-EA21031C00	1220149

**deTec4: sender with normal scanning range / receiver with LED indicator lamp**

Please note: Scope of delivery without system plug. System plugs have to be ordered separately.

- **Special feature on the receiver:** Receiver with integrated LED indicator lamp

Resolution	Scanning range	Protective field height	Sender		Receiver	
			Type	Part no.	Type	Part no.
14 mm	20 m	300 mm	C4P-SA03011A00	1220084	C4P-EA03011D00	1220109
		450 mm	C4P-SA04511A00	1220085	C4P-EA04511D00	1220110
		600 mm	C4P-SA06011A00	1220086	C4P-EA06011D00	1220111
		750 mm	C4P-SA07511A00	1220087	C4P-EA07511D00	1220112
		900 mm	C4P-SA09011A00	1220088	C4P-EA09011D00	1220113
		1,050 mm	C4P-SA10511A00	1220089	C4P-EA10511D00	1220114
		1,200 mm	C4P-SA12011A00	1220090	C4P-EA12011D00	1220115
		1,350 mm	C4P-SA13511A00	1220091	C4P-EA13511D00	1220116
		1,500 mm	C4P-SA15011A00	1220092	C4P-EA15011D00	1220117
		1,650 mm	C4P-SA16511A00	1220093	C4P-EA16511D00	1220118
		1,800 mm	C4P-SA18011A00	1220094	C4P-EA18011D00	1220122
		1,950 mm	C4P-SA19511A00	1220095	C4P-EA19511D00	1220119
		2,100 mm	C4P-SA21011A00	1220096	C4P-EA21011D00	1220120
30 mm	30 m	300 mm	C4P-SA03031A00	1220123	C4P-EA03031D00	1220150
		450 mm	C4P-SA04531A00	1220124	C4P-EA04531D00	1220151
		600 mm	C4P-SA06031A00	1220125	C4P-EA06031D00	1220152
		750 mm	C4P-SA07531A00	1220126	C4P-EA07531D00	1220153
		900 mm	C4P-SA09031A00	1220127	C4P-EA09031D00	1220154
		1,050 mm	C4P-SA10531A00	1220128	C4P-EA10531D00	1220155
		1,200 mm	C4P-SA12031A00	1220129	C4P-EA12031D00	1220156
		1,350 mm	C4P-SA13531A00	1220130	C4P-EA13531D00	1220157
		1,500 mm	C4P-SA15031A00	1220131	C4P-EA15031D00	1220158
		1,650 mm	C4P-SA16531A00	1220132	C4P-EA16531D00	1220159
		1,800 mm	C4P-SA18031A00	1220134	C4P-EA18031D00	1220160
		1,950 mm	C4P-SA19531A00	1220135	C4P-EA19531D00	1220161
		2,100 mm	C4P-SA21031A00	1220136	C4P-EA21031D00	1220162

**deTec4: sender with reduced scanning range / receiver without LED indicator lamp**

Please note: Scope of delivery without system plug. System plugs have to be ordered separately.

- **Special feature on the sender:** Sender with reduced scanning range to avoid mutual interference between nearby deTec4 safety light curtains

Resolution	Scanning range	Protective field height	Sender		Receiver	
			Type	Part no.	Type	Part no.
14 mm	2,5 m	300 mm	C4P-SA03011C00	1220639	C4P-EA03011C00	1220097
		450 mm	C4P-SA04511C00	1220640	C4P-EA04511C00	1220098
		600 mm	C4P-SA06011C00	1220641	C4P-EA06011C00	1220099
		750 mm	C4P-SA07511C00	1220642	C4P-EA07511C00	1220100
		900 mm	C4P-SA09011C00	1220643	C4P-EA09011C00	1220101
		1,050 mm	C4P-SA10511C00	1220644	C4P-EA10511C00	1220102
		1,200 mm	C4P-SA12011C00	1220645	C4P-EA12011C00	1220103
		1,350 mm	C4P-SA13511C00	1220646	C4P-EA13511C00	1220104
		1,500 mm	C4P-SA15011C00	1220647	C4P-EA15011C00	1220105
		1,650 mm	C4P-SA16511C00	1220648	C4P-EA16511C00	1220106
		1,800 mm	C4P-SA18011C00	1220649	C4P-EA18011C00	1220121
		1,950 mm	C4P-SA19511C00	1220650	C4P-EA19511C00	1220107
2,100 mm	C4P-SA21011C00	1220651	C4P-EA21011C00	1220108		

**deTec4: sender with reduced scanning range / receiver with LED indicator lamp**

Please note: Scope of delivery without system plug. System plugs have to be ordered separately.

- **Special feature on the sender:** Sender with reduced scanning range to avoid mutual interference between nearby deTec4 safety light curtains
- **Special feature on the receiver:** Receiver with integrated LED indicator lamp

Resolution	Scanning range	Protective field height	Sender		Receiver	
			Type	Part no.	Type	Part no.
14 mm	2,5 m	300 mm	C4P-SA03011C00	1220639	C4P-EA03011D00	1220109
		450 mm	C4P-SA04511C00	1220640	C4P-EA04511D00	1220110
		600 mm	C4P-SA06011C00	1220641	C4P-EA06011D00	1220111
		750 mm	C4P-SA07511C00	1220642	C4P-EA07511D00	1220112
		900 mm	C4P-SA09011C00	1220643	C4P-EA09011D00	1220113
		1,050 mm	C4P-SA10511C00	1220644	C4P-EA10511D00	1220114
		1,200 mm	C4P-SA12011C00	1220645	C4P-EA12011D00	1220115
		1,350 mm	C4P-SA13511C00	1220646	C4P-EA13511D00	1220116
		1,500 mm	C4P-SA15011C00	1220647	C4P-EA15011D00	1220117
		1,650 mm	C4P-SA16511C00	1220648	C4P-EA16511D00	1220118
		1,800 mm	C4P-SA18011C00	1220649	C4P-EA18011D00	1220122
		1,950 mm	C4P-SA19511C00	1220650	C4P-EA19511D00	1220119
2,100 mm	C4P-SA21011C00	1220651	C4P-EA21011D00	1220120		

deTec4 Core

Please note: System connection M12, 5-pin included.

Resolution	Scanning range	Protective field height	Sender		Receiver	
			Type	Part no.	Type	Part no.
14 mm	10 m	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
30 mm	15 m	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

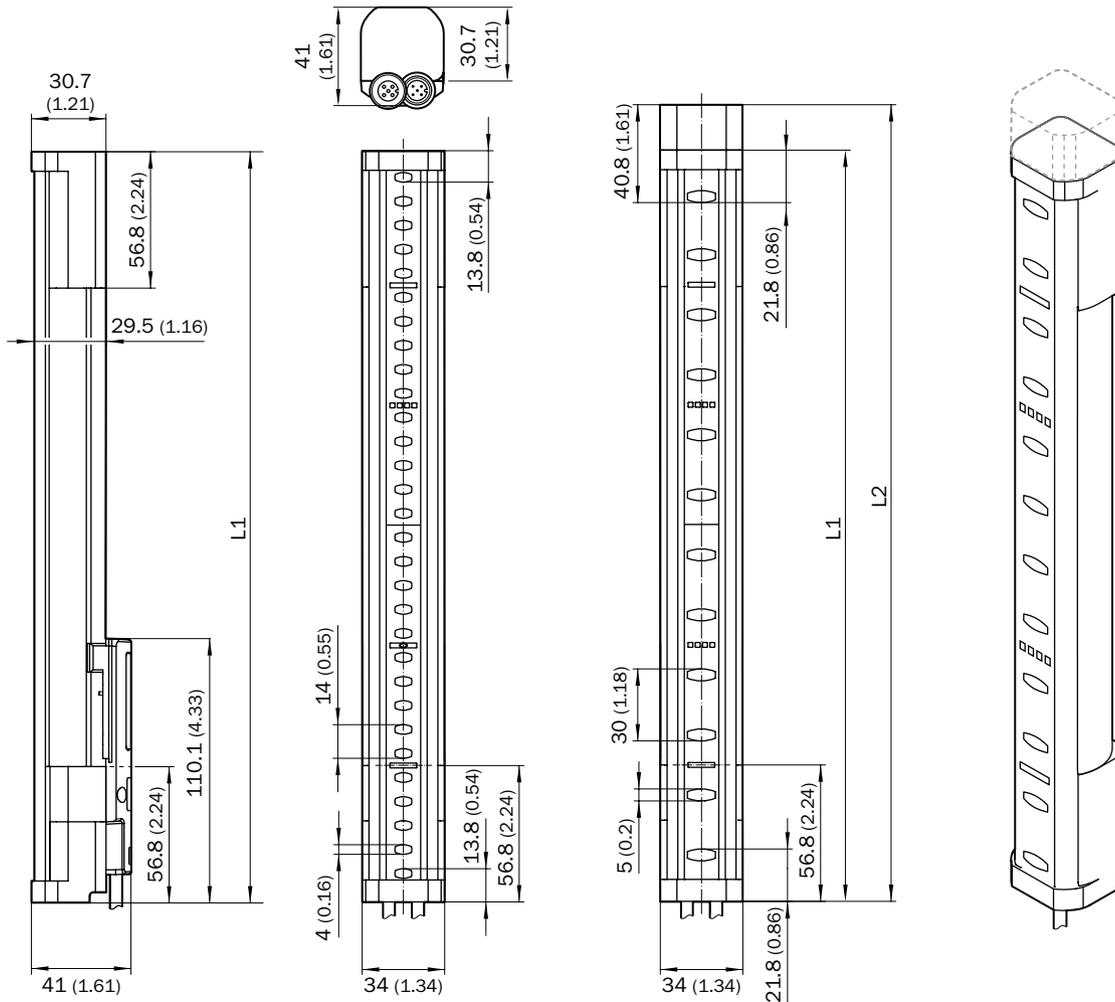
**deTec2 Core**

Please note: System connection M12, 5-pin included.

Resolution	Scanning range	Protective field height	Sender		Receiver	
			Type	Part no.	Type	Part no.
14 mm	10 m	300 mm	C2C-SA03010A10000	1213163	C2C-EA03010A10000	1213188
		450 mm	C2C-SA04510A10000	1213189	C2C-EA04510A10000	1213190
		600 mm	C2C-SA06010A10000	1213191	C2C-EA06010A10000	1213192
		750 mm	C2C-SA07510A10000	1213193	C2C-EA07510A10000	1213194
		900 mm	C2C-SA09010A10000	1213195	C2C-EA09010A10000	1213196
		1,050 mm	C2C-SA10510A10000	1213197	C2C-EA10510A10000	1213198
		1,200 mm	C2C-SA12010A10000	1213183	C2C-EA12010A10000	1213199
		1,350 mm	C2C-SA13510A10000	1215643	C2C-EA13510A10000	1216120
		1,500 mm	C2C-SA15010A10000	1216121	C2C-EA15010A10000	1216122
		1,650 mm	C2C-SA16510A10000	1216123	C2C-EA16510A10000	1216124
		1,800 mm	C2C-SA18010A10000	1216125	C2C-EA18010A10000	1216126
		1,950 mm	C2C-SA19510A10000	1216127	C2C-EA19510A10000	1216128
		2,100 mm	C2C-SA21010A10000	1216129	C2C-EA21010A10000	1216130
30 mm	15 m	300 mm	C2C-SA03030A10000	1213200	C2C-EA03030A10000	1213184
		450 mm	C2C-SA04530A10000	1213202	C2C-EA04530A10000	1213203
		600 mm	C2C-SA06030A10000	1213204	C2C-EA06030A10000	1213205
		750 mm	C2C-SA07530A10000	1213206	C2C-EA07530A10000	1213207
		900 mm	C2C-SA09030A10000	1213208	C2C-EA09030A10000	1213209
		1,050 mm	C2C-SA10530A10000	1213210	C2C-EA10530A10000	1213211
		1,200 mm	C2C-SA12030A10000	1213212	C2C-EA12030A10000	1213213
		1,350 mm	C2C-SA13530A10000	1213214	C2C-EA13530A10000	1213215
		1,500 mm	C2C-SA15030A10000	1213216	C2C-EA15030A10000	1213217
		1,650 mm	C2C-SA16530A10000	1213218	C2C-EA16530A10000	1213219
		1,800 mm	C2C-SA18030A10000	1213220	C2C-EA18030A10000	1213221
		1,950 mm	C2C-SA19530A10000	1213222	C2C-EA19530A10000	1213223
		2,100 mm	C2C-SA21030A10000	1213201	C2C-EA21030A10000	1213164

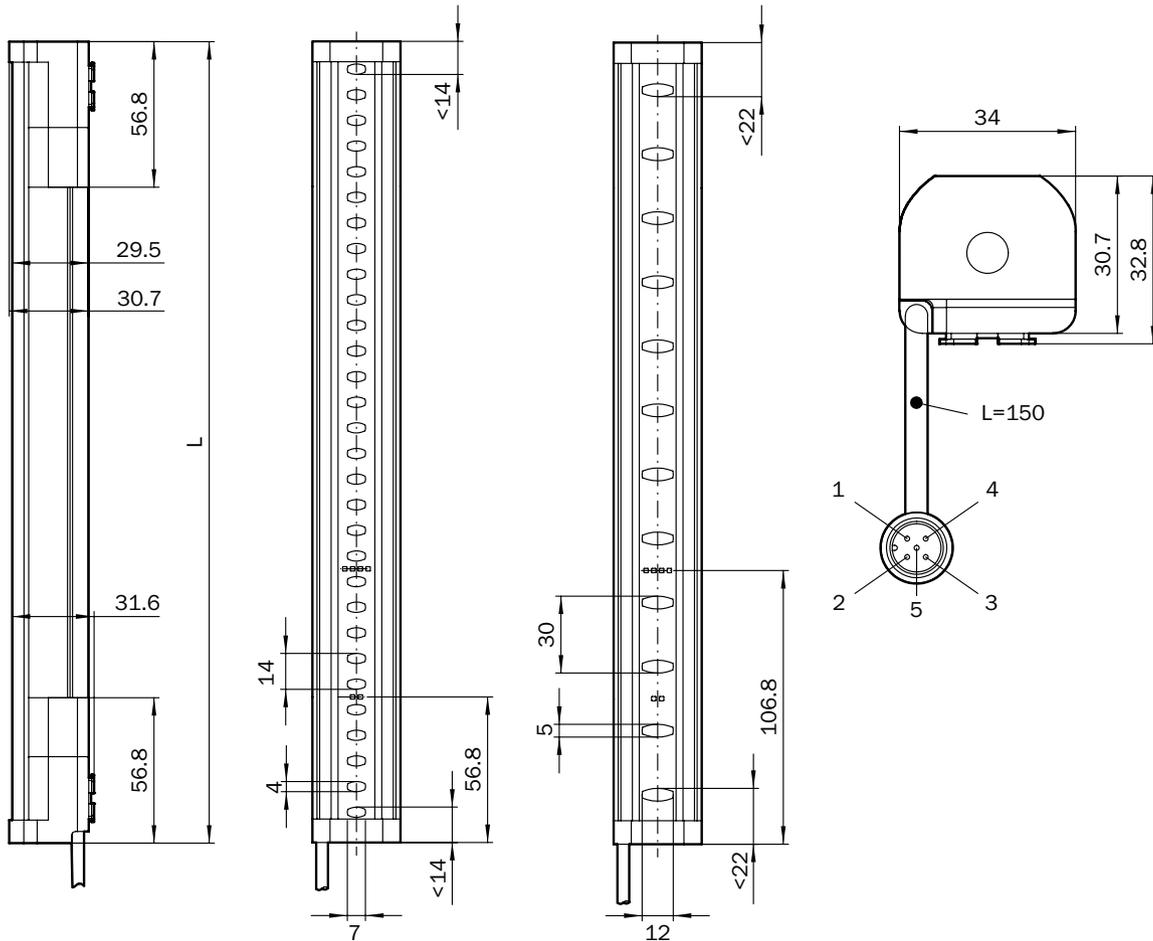
Dimensional drawings (Dimensions in mm (inch))

deTec4



Protective field height	L1	L2
300	313	332
450	463	482
600	613	632
750	763	782
900	913	932
1,050	1,063	1,082
1,200	1,213	1,232
1,350	1,362	1,381
1,500	1,512	1,531
1,650	1,662	1,681
1,800	1,812	1,831
1,950	1,962	1,981
2,100	2112	2,131

## deTec Core



Protective field height	L
300	313
450	463
600	613
750	763
900	913
1,050	1,063
1,200	1,213
1,350	1,362
1,500	1,512
1,650	1,662
1,800	1,812
1,950	1,962
2,100	2112

Accessories

Mounting systems

Terminal and alignment brackets

Figure	Description	Packing unit	Suitable for	Type	Part no.		
						deTec4	deTec Core
	QuickFix bracket	2 pieces	1 device (sender or receiver)	BEF-3SHABPKU2	2066048	●	●
		4 pieces	2 devices (sender and receiver)	BEF-3SHABPKU4	2098710	●	●
	FlexFix bracket Sensor alignment ± 15° Including screw M5	2 pieces	1 device (sender or receiver)	BEF-1SHABPKU2	2098709	●	●
		4 pieces	2 devices (sender and receiver)	BEF-1SHABPKU4	2066614	●	●
	Compact FlexFix bracket Sensor alignment ± 15° Including screw M5	2 pieces	1 device (sender or receiver)	BEF-1SHTBPKU2	2117730	-	●
		4 pieces	2 devices (sender and receiver)	BEF-1SHTBPKU4	2117731	-	●
	Swivel mount bracket for 1 device (e.g. sender or receiver), 360° alignment possible, consisting of swivel mount port and swivel mount adapter, including M5 screw, plastic	2 pieces	1 device (sender or receiver)	BEF-2SMJEPKU2	2121685	-	●
	Swivel mount bracket for 2 devices (e.g. sender or receiver), 360° alignment possible, consisting of swivel mount port and swivel mount adapter, including M5 screw, plastic	4 pieces	2 devices (sender and receiver)	BEF-2SMJEPKU4	2118584	-	●
	Flat mount bracket comprising one A bracket and one B bracket for one device (e.g., sender or receiver), plastic	2 pieces	1 device (sender or receiver)	BEF-3SHAHPKU2	2121705	-	●
	Flat mount bracket comprising two A brackets and two B brackets for two devices (e.g., sender and receiver), plastic	4 pieces	2 devices (sender and receiver)	BEF-3SHAHPKU4	2118327	-	●
	Mounting kit FlexFix (FlexFix brackets, alignment tool and mounting material suitable for fastening to device columns PU3H)	2 pieces	1 device (sender or receiver)	BEF-1SHABBKU2	2073543	●	●
	FlexFix replacement kit (Mounting kit for replacement of swivel mount brackets 2019649 and 2019659 or side bracket 2019506 with the FlexFix bracket when using the wells provided)	4 pieces	2 devices (sender and receiver)	BEF-1SHABS004	2100345	●	●
	FlexFix replacement kit (Mounting kit for replacement of swivel mount brackets 2030510 or side bracket 2019506 with the FlexFix bracket when using the wells provided)	4 pieces	2 devices (sender and receiver)	BEF-1SHABU004	2099282	●	●

## Mounting tools

Figure	Description	Packing unit	Suitable for	Type	Part no.	deTec4	deTec Core
	Alignment tool for sensor alignment in areas with limited accessibility, e.g. device columns PU3H	1 piece	FlexFix bracket, Compact FlexFix bracket	Alignment tool	4084133	●	●

## Front screen protection

Figure	Description	Packing unit	Suitable for	Type	Part no.	deTec4	deTec Core
	Self-adhesive protective film for the front screen (protects sensors from damage by flying sparks and welding beads)	1 piece	Sufficient for two sensors with a protective field height of 2.100 mm	Self-adhesive protective film	2069268	●	●

## Protective caps

Figure	Description	Type	Part no.	deTec4	deTec Core
	For a deTec4 sender with extension connection that does not have an additional guest connected to it, the extension connection has no function and must be sealed with a protective cap.	Protective cap, M12 for female connector	5310772	●	-

## Connection systems

### Plug connectors and cables

#### Connecting cables

- **Model:** PUR, halogen-free, unshielded

Figure	Connection type		Conductor cross-section	Length of cable	Type	Part no.	deTec4	deTec Core
	Female connector M12, 5-pin, straight	Flying leads	0.34 mm <sup>2</sup>	2 m	YF2A15-020UB5XLEAX	2095617	●	●
				5 m	YF2A15-050UB5XLEAX	2095618	●	●
				10 m	YF2A15-100UB5XLEAX	2095619	●	●
				15 m	YF2A15-150UB5XLEAX	2095620	●	●
				20 m	YF2A15-200UB5XLEAX	2095614	●	●
				30 m	YF2A15-300UB5XLEAX	2095621	●	●
	Female connector M12, 5-pin, angled	Flying leads	0.34 mm <sup>2</sup>	2 m	YG2A15-020UB5XLEAX	2095772	●	●
				5 m	YG2A15-050UB5XLEAX	2095773	●	●
				10 m	YG2A15-100UB5XLEAX	2095774	●	●
	Female connector M12, 8-pin, straight	Flying leads	0.25 mm <sup>2</sup>	2 m	YF2A18-020UA5XLEAX	2095652	●	-
				5 m	YF2A18-050UA5XLEAX	2095653	●	-
				7.5 m	YF2A18-075UA5XLEAX	2099230	●	-
				10 m	YF2A18-100UA5XLEAX	2095654	●	-
				15 m	YF2A18-150UA5XLEAX	2095679	●	-
				20 m	YF2A18-200UA5XLEAX	2095680	●	-
	Female connector M12, 8-pin, angled	Flying leads	0.25 mm <sup>2</sup>	2 m	YG2A18-020UA5XLEAX	2095779	●	-
				5 m	YG2A18-050UA5XLEAX	2095780	●	-
				10 m	YG2A18-100UA5XLEAX	2095781	●	-

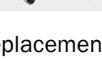
#### Connection cables

- **Model:** PUR, halogen-free, unshielded

Figure	Connection type		Conductor cross-section	Length of cable	Type	Part no.		
	Female connector M12, 5-pin, straight	Male connector, M12, 5-pin, straight	0.34 mm <sup>2</sup>	0.6 m	YF2A15-C60UB5M2A15	2096006	●	●
				1 m	YF2A15-010UB5M2A15	2096007	●	●
				2 m	YF2A15-020UB5M2A15	2096009	●	●
				5 m	YF2A15-050UB5M2A15	2096010	●	●
				10 m	YF2A15-100UB5M2A15	2096011	●	●
				15 m	YF2A15-150UB5M2A15	2096171	●	●
	Female connector M12, 8-pin, straight	Male connector, M12, 8-pin, straight	0.25 mm <sup>2</sup>	0.6 m	YF2A18-C60UA5M2A18	2096031	●	-
				1 m	YF2A18-010UA5M2A18	2096032	●	-
				2 m	YF2A18-020UA5M2A18	2096033	●	-
				5 m	YF2A18-050UA5M2A18	2096034	●	-
				10 m	YF2A18-100UA5M2A18	2096035	●	-

Replacement cables (replacement of C4000 with deTec)

- **Length of cable:** 0,25 m
- **Items supplied:** 2 cables

Figure	Connection type		Model	Type	Part no.	deTec4	deTec Core
	deTec system connection	Replacement C4000					
	Female connector, M12, 5-pin, straight	Male connector, M12, 8-pin, straight	PVC, unshielded	DSL-1285GM25034KM1	2070987	●	●
		Male connector, M26, 12-pin, straight	PVC, unshielded	DSL-6182GM25034KM1	2070989	●	●
		Male connector, M26, 7-pin, straight	PVC, unshielded	DSL-6187GM25034KM1	2070988	●	●
	Female connector, M12, 8-pin, straight	Male connector, M12, 8-pin, straight	PUR, halogen-free, unshielded	DSL-6108GM25034KM1	2034865	●	-
		Male connector, M26, 12-pin, straight (RES)	PUR, halogen-free, unshielded	DSL-6129GM25034KM1	2081442	●	-
		Male connector, M26, 12-pin, straight (ADO)	PUR, halogen-free, unshielded	DSL-6129GM25034KM7	2112706	●	-
		Male connector, M26, 7-pin, straight	PUR, halogen-free, unshielded	DSL-6130GM25034KM1	2081443	●	-

Replacement cables (replacement of C2000 with deTec)

- **Length of cable:** 0,25 m
- **Items supplied:** 1 cable

Figure	Connection type		Model	Type	Part no.		
	deTec system connection	Replacement C2000					
	Female connector, M12, 8-pin, straight	Male connector, M12, 8-pin, straight (sender)	PUR, unshielded	DSL-1M08G0M2D25KM4	2120145	●	-
		Male connector, M12, 8-pin, straight (receiver)		DSL-1M08GM25D25KM4	2120144	●	-

## Modules and gateways

Connection modules

Figure	Description	Type	Part no.		
	IO-Link V1.1 Class A port, USB2.0 port, optional external power supply 24 V / 1 A	IOLA2US-01101 (SiLink2 Master)	1061790	●	-

T-connectors and pushbuttons

Figure	Description	Type	Part no.	deTec4	deTec Core
	T-connector M12, 5-pin For simultaneous connection to sender and receiver. Splits the cable from the control cabinet to the sender and receiver.	DSC-1205T000025KM0	6030664	●	●
	T-connector M12, 8-pin For simultaneous connection to sender and receiver. Splits the cable from the control cabinet to the sender and receiver.	DSC-1208T000025KM0	6058647	●	-
	T-connector with pushbutton for laser alignment aid, M12, 5-pin For simultaneous connection to sender and receiver. Splits the cable from the control cabinet to the sender and receiver. The pushbutton makes it possible to switch on and off the laser alignment aid integrated into the deTec4 Prime sender.	T-connector with pushbutton for laser alignment aid, M12, 5-pin	2077933	●	-
	Pushbutton for laser alignment aid, M12, 5-pin The pushbutton makes it possible to switch on and off the laser alignment aid integrated into the deTec4 Prime sender.	Pushbutton for laser alignment aid, M12, 5-pin	2082166	●	-
	Pushbutton for laser alignment aid, M12, 8-pin The pushbutton makes it possible to switch on and off the laser alignment aid integrated into the deTec4 Prime sender.	Pushbutton for laser alignment aid, M12, 8-pin	2082167	●	-

Connectors

Figure	Description	Type	Part no.		
	The muting connector makes it possible to connect 2 muting sensors and one muting lamp.	Muting connector	2092758	●	-
	The IO-Link connector is used to establish a connection between suitable devices and an IO-Link master, enabling communication via IO-Link. The IO-Link connector can also be used to connect up to 2 muting sensors.	IO-Link connector	2092757	●	-

Power supply units and power supply cables

Figure	Input voltage	Output voltage	Output current	Type	Part no.		
	100 V AC ... 240 V AC	24 V DC	≤ 2.1 A	PS50WE24V	7028789	●	●
			≤ 3.9 A	PS95WE24V	7028790	●	●

Reflectors and optics

Alignment aids

Figure	Description	Type	Part no.		
	Laser alignment aid AR 60, Laser class 2 (IEC 60825). Do not look into the beam!	AR60	1015741	●	●
	Adapter AR60 for deTec, deTem and MLG-2	AR60 adapter, deTec, deTem, MLG-2	4070854	●	●

## Deflector mirrors

- **Description:** Horizontal deflection
- **Mirror material:** Glass
- **Items supplied:** Inclusive mounting kit swivel mount

Figure	Mirror width	Mirror height	Suitable for protective field height	Type	Part no.		
						deTec4	deTec Core
	73 mm	340 mm	≤ 300 mm	PNS75-034	1019414	●	●
		490 mm	≤ 450 mm	PNS75-049	1019415	●	●
		640 mm	≤ 600 mm	PNS75-064	1019416	●	●
		790 mm	≤ 750 mm	PNS75-079	1019417	●	●
		940 mm	≤ 900 mm	PNS75-094	1019418	●	●
		1.090 mm	≤ 1.050 mm	PNS75-109	1019419	●	●
		1.240 mm	≤ 1.200 mm	PNS75-124	1019420	●	●
		1.390 mm	≤ 1.350 mm	PNS75-139	1019421	●	●
		1.540 mm	≤ 1.500 mm	PNS75-154	1019422	●	●
		1.690 mm	≤ 1.650 mm	PNS75-169	1019423	●	●
		1.840 mm	≤ 1.800 mm	PNS75-184	1019424	●	●
		1.990 mm	≤ 1.950 mm	PNS75-199	1092962	●	●
		2.140 mm	≤ 2.100 mm	PNS75-214	1092963	●	●
	123 mm	340 mm	≤ 300 mm	PNS125-034	1019425	●	●
		490 mm	≤ 450 mm	PNS125-049	1019426	●	●
		640 mm	≤ 600 mm	PNS125-064	1019427	●	●
		790 mm	≤ 750 mm	PNS125-079	1019428	●	●
		940 mm	≤ 900 mm	PNS125-094	1019429	●	●
		1.090 mm	≤ 1.050 mm	PNS125-109	1019430	●	●
		1.240 mm	≤ 1.200 mm	PNS125-124	1019431	●	●
		1.390 mm	≤ 1.350 mm	PNS125-139	1019432	●	●
		1.540 mm	≤ 1.500 mm	PNS125-154	1019433	●	●
		1.690 mm	≤ 1.650 mm	PNS125-169	1019434	●	●
		1.840 mm	≤ 1.800 mm	PNS125-184	1019435	●	●
		1.990 mm	≤ 1.950 mm	PNS125-199	1092964	●	●
		2.140 mm	≤ 2.100 mm	PNS125-214	1092965	●	●

## Further accessories

### Test and monitoring tools

Figure	Description	Type	Part no.	deTec4	deTec Core
	14 mm diameter	Test rod 14 mm	2022599	●	●
	24 mm diameter (An effective resolution of 24 mm can be achieved with a physical resolution of 14 mm using the function reduced resolution by 1 beam)	Test rod 24 mm	2045592	●	-
	30 mm diameter	Test rod 30 mm	2022602	●	●
	34 mm diameter (An effective resolution of 34 mm can be achieved with a physical resolution of 14 mm using the function reduced resolution by 2 beams)	Test rod 34 mm	2045593	●	-
	Test rod holder	BEF-3WNAAAAL1	2052249	●	●

### Cleaning agent

Figure	Description	Type	Part no.		
	Cloth for cleaning the front screen	Lens cloth	4003353	●	●
	Plastic cleaner and care product, anti-static, 0.5 liter	Plastic cleaner	5600006	●	●

## Safety command devices

### Reset pushbuttons

Figure	Description	Items supplied	Type	Part no.		
	Reset pushbutton	Including retaining clip, "RESET" cover and "RESET/OVERRIDE" cover	ER12-SB3C5	6045316	●	-

## Mirror columns and device columns

## Mirror columns with protective field height mirror

Figure	Suitable for protective field height	Mirror length	Column height	Type	Part no.	deTec4	deTec Core
	≤ 1,050 mm	1,082 mm	1,281.5 mm	PM3C13-00030000	1043453	●	●
	≤ 1,350 mm	1,382 mm	1,569 mm	PM3C15-00030000	1077525	●	●
	≤ 1,500 mm	1,532 mm	1,716.5 mm	PM3C17-00030000	1043454	●	●
	≤ 1,650 mm	1,682 mm	2,016.5 mm	PM3C19-00030000	1043455	●	●
	≤ 1,800 mm	1,832 mm	2,216.5 mm	PM3C20-00030000	1043456	●	●
	≤ 1,950 mm	1,982 mm	2,269 mm	PM3C22-00030000	1093216	●	●
	≤ 2,100 mm	2,132 mm	2,419 mm	PM3C24-00030000	1093217	●	●

## Device columns with two external mounting grooves

Figure	Suitable for protective field height: deTec	Max. installation length	Column height	Type	Part no.		
	≤ 900 mm	965 mm	985 mm	PU3H96-00000000	2045490	●	●
	≤ 1,050 mm	1,165 mm	1,185 mm	PU3H11-00000000	2045641	●	●
	≤ 1,200 mm	1,265 mm	1,285 mm	PU3H13-00000000	2045642	●	●
	≤ 1,500 mm	1,550 mm	1,570 mm	PU3H15-00000000	2068813	●	●
	≤ 1,650 mm	1,720 mm	1,740 mm	PU3H17-00000000	2045643	●	●
	≤ 1,950 mm	2,020 mm	2,040 mm	PU3H21-00000000	2045644	●	●
	≤ 2,100 mm	2,250 mm	2,270 mm	PU3H22-00000000	2045645	●	●
2,400 mm		2,420 mm	PU3H24-00000000	2045646	●	●	

## Muting accessories

### Muting sensors

- **Design:** rectangular
- **Housing material:** plastic

Figure	Sensor principle	Detection principle	Sensing range max.	Light source	Type	Part no.	deTec4	deTec Core
	Photoelectric retro-reflective sensor	Dual lens	0.15 m ... 12 m <sup>1)</sup> 0.15 m ... 10 m <sup>2)</sup>	PinPoint LED	GL10-P4151	1069860	●	-
			≤ 6 m <sup>1)</sup>	PinPoint LED	GL6-P0211S49	1070568	●	-
	Photoelectric proximity sensor	Background suppression	20 mm ... 950 mm <sup>3)</sup>	PinPoint LED	GTB10-P4411S01	1066852	●	-
			5 mm ... 500 mm <sup>3)</sup>	LED	GTB6-P7441S56	1077541	●	-

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

<sup>2)</sup> Reflector P250.

<sup>3)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033).

### Reflectors

Figure	Description	Type	Part no.		
	Rectangular, screw connection	P250	5304812	●	-

## Muting mountig systems

Figure	Description	Length	Diame- ter	Usage	Type	Part no.	deTec4	deTec Core
	Muting arm bracket	-	-	For mounting muting arm 2111923 or 2111924 on the deTec or deTem	Muting arm bracket	2106455	●	-
	Muting arm, long	400 mm	18 mm	For parallel muting (L-muting or T-muting)	Muting arm, long	2111923	●	-
	Muting arm, short	200 mm	18 mm	For cross muting (X-muting)	Muting arm, short	2111924	●	-
	Sensor bracket G6 and P250	-	-	For mounting muting sensor G6 or reflector P250 on muting arm 2111923 or 2111924	BEF-2KHAAKU1	2113145	●	-
	Universal bracket for round steel muting arms, for mounting muting sensors or reflectors	-	-	-	BEF-KHS-N01	2044953	●	-
	Cable cover for muting arm, long, 400 mm	-	-	-	Cable cover for muting arm	2115890	●	-

## Signal and status indicators

Figure	Description	Items supplied	Length of cable	Type	Part no.		
 Illustration may differ	Muting lamp	Inclusive male connector M12 and connection cable, mounting bracket and mounting kit	2 m	Muting indicator lamp	2033118	●	-
			10 m	Muting indicator lamp	2033119	●	-
	LED lamp for visualization of the sensor status, e.g. muting status or ADO	Inclusive mounting bracket and mounting kit	-	LED lamp	2129217	●	-

Sensor Integration Gateway  
SIG200

Figure	Brief description	Type	Part no.	deTec4	deTec Core
	<ul style="list-style-type: none"> <li>• <b>Further functions:</b> Web server available, USB connection for easy configuration of the SIG200 Sensor Integration Gateway with SOPAS ET, the engineering tool from SICK, logic editor is available for easy configuration of logic functions</li> <li>• <b>I/O connection:</b> 4 x M12, 5-pin female connector, A-coded</li> <li>• <b>Connection CONFIG:</b> 1 x M8, 4-pin female connector, USB 2.0 (USB-A)</li> <li>• <b>Logic editor:</b> yes</li> <li>• <b>Communication interface:</b> IO-Link, USB, Ethernet, PROFINET, REST API</li> <li>• <b>Product category:</b> IO-Link Master</li> </ul>	SIG200-0A0412200	1089794	●	-
	<ul style="list-style-type: none"> <li>• <b>Description:</b> The SIG200 Sensor Integration Gateway is an IO-Link master with 4 configurable ports through which the IO-Link devices or standard inputs or standard outputs can be connected to a PLC or cloud application using the REST API.</li> <li>• <b>Further functions:</b> Web server available, USB connection for easy configuration of the SIG200 Sensor Integration Gateway with SOPAS ET, the engineering tool from SICK, logic editor is available for easy configuration of logic functions</li> <li>• <b>I/O connection:</b> 4 x M12, 5-pin female connector, A-coded</li> <li>• <b>Connection CONFIG:</b> 1 x M8, 4-pin female connector, USB 2.0 (USB-A)</li> <li>• <b>Logic editor:</b> yes</li> <li>• <b>Communication interface:</b> IO-Link, USB, Ethernet, EtherNet/IP™, REST API</li> <li>• <b>Product category:</b> IO-Link Master</li> </ul>	SIG200-0A0512200	1089796	●	-
	<ul style="list-style-type: none"> <li>• <b>Further functions:</b> Web server available, USB connection for easy configuration of the SIG200 Sensor Integration Gateway with SOPAS ET, the engineering tool from SICK, logic editor is available for easy configuration of logic functions</li> <li>• <b>I/O connection:</b> 4 x M12, 5-pin female connector, A-coded</li> <li>• <b>Connection CONFIG:</b> 1 x M8, 4-pin female connector, USB 2.0 (USB-A)</li> <li>• <b>Logic editor:</b> yes</li> <li>• <b>Communication interface:</b> IO-Link, USB, Ethernet, REST API</li> <li>• <b>Product category:</b> IO-Link Master</li> </ul>	SIG200-0A0G12200	1102605	●	-

## Safety relays Rely

Figure	Brief description	Type	Part no.		
				deTec4	deTec Core
	<ul style="list-style-type: none"> <li>• <b>Applications:</b> Output expansion module for OSSDs</li> <li>• <b>Compatible sensor types:</b> Safety sensors with OSSDs</li> <li>• <b>Connection type:</b> Front connector with spring terminals</li> <li>• <b>Restart interlock:</b> no</li> <li>• <b>External device monitoring (EDM):</b> Via path</li> <li>• <b>Outputs:</b> 2 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe)</li> <li>• <b>Housing width:</b> 18 mm</li> </ul>	RLY3-OSSD100	1085343	●	●
	<ul style="list-style-type: none"> <li>• <b>Applications:</b> Evaluation unit</li> <li>• <b>Compatible sensor types:</b> Safety sensors with OSSDs</li> <li>• <b>Connection type:</b> Front connector with spring terminals</li> <li>• <b>Restart interlock:</b> yes</li> <li>• <b>External device monitoring (EDM):</b> Integrated</li> <li>• <b>Outputs:</b> 2 enabling current paths (safe), 2 application diagnostic outputs (not safe), 1 test pulse output (not safe)</li> <li>• <b>Housing width:</b> 18 mm</li> </ul>	RLY3-OSSD200	1085344	●	●
	<ul style="list-style-type: none"> <li>• <b>Applications:</b> Evaluation unit</li> <li>• <b>Compatible sensor types:</b> Safety sensors with OSSDs</li> <li>• <b>Connection type:</b> Front connector with spring terminals</li> <li>• <b>Restart interlock:</b> yes</li> <li>• <b>External device monitoring (EDM):</b> Integrated</li> <li>• <b>Outputs:</b> 3 enabling current paths (safe), 2 application diagnostic outputs (not safe), 1 test pulse output (not safe)</li> <li>• <b>Housing width:</b> 18 mm</li> </ul>	RLY3-OSSD300	1099969	●	●
	<ul style="list-style-type: none"> <li>• <b>Applications:</b> Output expansion module for OSSDs</li> <li>• <b>Compatible sensor types:</b> Safety sensors with OSSDs</li> <li>• <b>Connection type:</b> Front connector with spring terminals</li> <li>• <b>Restart interlock:</b> no</li> <li>• <b>External device monitoring (EDM):</b> Via path</li> <li>• <b>Outputs:</b> 4 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe), 1 signaling current path (not safe)</li> <li>• <b>Housing width:</b> 28 mm</li> </ul>	RLY3-OSSD400	1099971	●	●
	<ul style="list-style-type: none"> <li>• <b>Applications:</b> Evaluation unit</li> <li>• <b>Compatible sensor types:</b> Safety sensors with OSSDs, Safety sensors with test input, safety sensors with potential-free outputs, Safety pressure mats</li> <li>• <b>Connection type:</b> Front connector with spring terminals</li> <li>• <b>Restart interlock:</b> yes</li> <li>• <b>External device monitoring (EDM):</b> Integrated</li> <li>• <b>Outputs:</b> 3 enabling current paths (safe), 2 application diagnostic outputs (not safe), 2 test pulse outputs (not safe)</li> <li>• <b>Housing width:</b> 18 mm</li> </ul>	RLY3-MULT100	1100692	●	●

Figure	Brief description	Type	Part no.	deTec4	deTec Core
	<ul style="list-style-type: none"> <li>• <b>Applications:</b> Evaluation unit for stop category 1 applications</li> <li>• <b>Compatible sensor types:</b> Safety sensors with OSSDs, safety sensors with potential-free outputs</li> <li>• <b>Connection type:</b> Front connector with spring terminals</li> <li>• <b>Restart interlock:</b> yes</li> <li>• <b>External device monitoring (EDM):</b> Integrated</li> <li>• <b>Outputs:</b> 2 enabling current paths (safe), 1 release-delayed enabling current path, for stop category 1 applications (safe), 2 application diagnostic outputs (not safe), 3 test pulse outputs (not safe)</li> <li>• <b>Housing width:</b> 18 mm</li> </ul>	RLY3-TIME100	1100688	●	●





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