



# deTem A/P

IMPRESSIVE FLEXIBILITY

Safety multibeam sensors

**SICK**  
Sensor Intelligence.



### **For more individuality**

Choose between different variants and various ranges of functions according to your individual requirements. With its compact housing an passive unit, deTem A/P also offers you more freedom and flexibility when it comes to machine design.



### **For economic simplicity**

The wiring-free passive reflector unit reduces acquisition costs and installation overhead. You will also benefit from fast machine integration thanks to software-free configuration, standardized connection technology, and cross-product accessories.

## FLEXIBILITY AND EFFICIENCY ARE KEY

The need for greater flexibility and efficiency in modern production and logistics facilities presents industrial companies with new challenges. Machine designs that are compact and versatile but also economical are in demand. Furthermore, there is a need to reduce installation and commissioning costs, and continuously optimize production processes even as complexity increases.

deTem A/P provides the answer to a wide variety of challenges. Equipped with an active transmitter and receiver unit and a passive reflector unit, deTem A/P achieves sensing ranges of up to 8 m. Three different variants deliver decisive competitive advantages in access protection and muting applications. Why not see for yourself!



More information:  
→ [www.sick.com/detem](http://www.sick.com/detem)



### For high usability

Smart functions such as the integrated alignment quality display and the SICK Safety Assistant App ensure an intuitive operating experience. These functions enable deTem A/P to support you in every phase of the machine life cycle, from configuration and commissioning through to maintenance and diagnostics.



### For productive processes

Where sensors provide valuable information, processes can be made more efficient. deTem A/P lets you evaluate real-time diagnostic data via NFC or IO-Link, thereby giving you the ability to troubleshoot quickly as well as continuously optimize your processes.

## THREE VARIANTS, COUNTLESS OPTIONS

deTem A/P offers you the right variant for every requirement in a way that is as simple as it is intelligent.

### Complete muting set included: deTem4 LT Muting A/P

Install, connect, go – deTem4 LT Muting A/P is a plug and play solution for safe human-material differentiation in applications with automatic pallet conveyor systems. The muting sensors are already pre-installed and aligned. It transmits data via NFC that you can utilize to increase your added value. The top LED shows you the system status at all times. Other useful functions include beam coding, restart interlock, and override.

### Integrated intelligence: deTem4 A/P

Intelligent access protection or space-saving muting solution? The smart high-end all-rounder deTem4 A/P offers you great versatility in an extremely compact manner. A real highlight is the IO-Link interface, which gives you access to real-time diagnostic data to increase productivity. Advanced functions such as beam coding, external device monitoring, restart interlock, and the optional top LED round off the performance package.

### Cost-effectiveness assured: deTem Core A/P

The deTem Core A/P offers you maximum safety at an attractive price-performance ratio for access protection up to 8 m. The built-in alignment aid and status LEDs are particularly user-friendly, as is the cross-product connectivity and accessories concept for all deTem products. Diagnostic data via NFC and the SICK Safety Assistant App help increase efficiency.



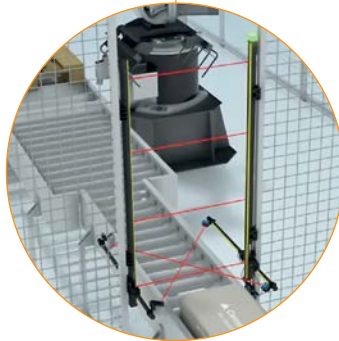
find out more in our deTem A/P video  
[→ www.sick.com/deTem-AP\\_video](http://www.sick.com/deTem-AP_video)





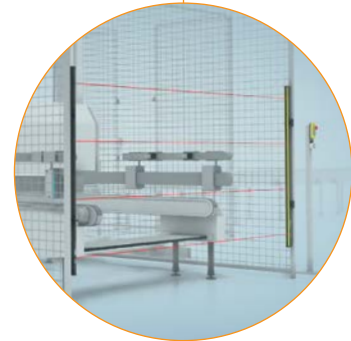
### Safe differentiation between humans and goods on pallets

It doesn't get any easier and cost-effective than this! deTem4 LT Muting A/P is the ideal solution for plants with pallet conveyor systems.



### Configurable muting or intelligent access protection deTem4 A/P is flexible in use.

Get more out of your application with top features like IO-Link.



### Single-sided access protection

deTem Core A/P is the ideal solution for cost-effective access protection without major compromises.



Are you looking for a TÜV-certified solution for human-material differentiation without muting sensors? Then Safe Entry Exit from SICK might interest you.

→ [www.sick.com/safe\\_entry\\_exit](http://www.sick.com/safe_entry_exit)

Do you need multi-sided access protection, sensing ranges over 8 m, or a solution for special application environments? Then we recommend you take a look at deTem Core.

→ [www.sick.com/deTem\\_Core](http://www.sick.com/deTem_Core)

## SECURE YOUR CONNECTION TO THE FUTURE



Via the NFC interface, you can access data in the SICK Safety Assistant app without any complex connection setup. The app supports you with a DIP switch wizard for quick device configuration, and also provides diagnostic information.

→ [www.sick.com/sick\\_safety\\_assistant\\_app](http://www.sick.com/sick_safety_assistant_app)



The deTem4 A/P IO-Link interface combines safety with automation. Diagnostic data can be read out in real time and from anywhere. This enables you to increase the productivity of your systems with fast error analyses and process optimizations.



### Innovative passive side

The special feature of the deTem A/P is the innovative scepter design of the passive sides. High-precision prisms deflect the light beam and accurately reflect it back. This allows large scanning ranges of up to 8 m. The passive sides are mounted using the same practical and compact brackets as the active sides.

### Optical interaction

The integrated alignment indicator ensures easy alignment of the device. Multi-color status LEDs provide quick feedback about work processes. The standardized connections, brackets and accessories across products ensures a consistent, intuitive user experience.





### Perfect synergy

In addition to hardware, SICK also offers suitable software solutions. The SOPAS Engineering Tool presents IO-Link data in a clear dashboard. You get access to beam states, an error history, and shutdown analysis.

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



### Safe control solutions

Thanks to the space-saving ReLy safety relay and the user-friendly Flexi Compact safety controller, deTem A/P comes with the ideal monitoring and control system. Fast response times allow short safety distances.

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

→ [www.sick.com/Flexi\\_Compact](http://www.sick.com/Flexi_Compact)



### Pioneer

We support you in your digital transformation with products, systems, consulting, and tailored software. The SICK Installed Base Manager creates a digital image of your installed sensors with the aim of increasing efficiency.

→ [www.sick.com/sick\\_installed\\_base\\_manager](http://www.sick.com/sick_installed_base_manager)

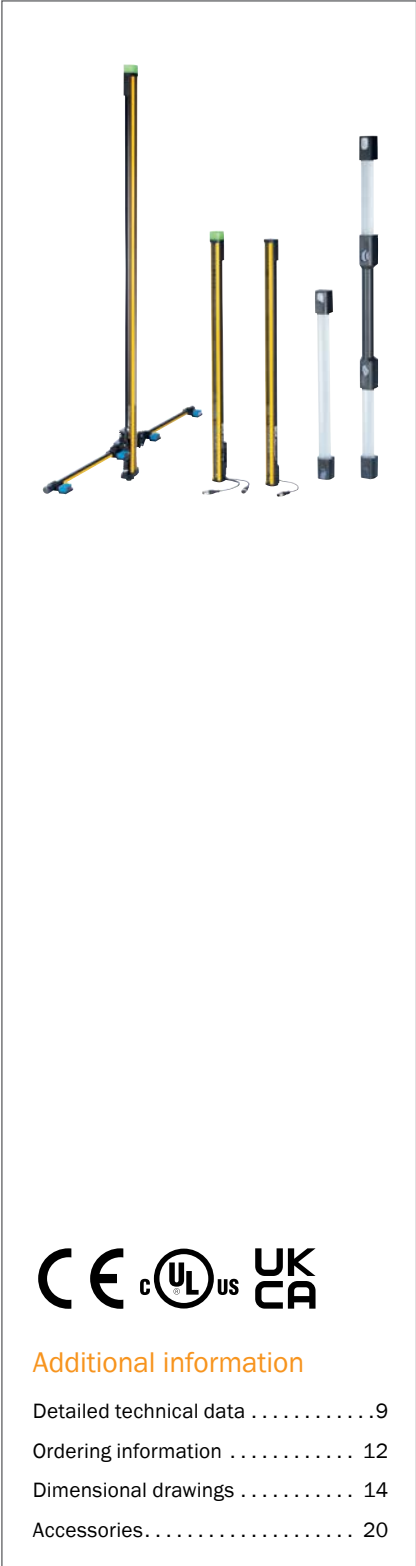


## EVERYTHING FROM A SINGLE SOURCE

Are you looking for a secure and intelligent complete solution for your requirements? SICK offers an extensive portfolio of other sensors as well as services. SICK also has a global network of experts in functional safety who can assist you on-site. We will be happy to support you with your specific project. For more information and contact details, visit:

→ [www.sick.com/safe-productivity](http://www.sick.com/safe-productivity)

# MORE EFFICIENCY WITH SAFETY



### Additional information

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### Product description

The safety multibeam sensors deTem A/P are active/passive systems in a compact housing and offer high flexibility for access protection and entry/exit monitoring (muting). Depending on needs and in order to meet individual requirements, the scanning range, number of beams and various muting sensors can be selected. In addition,

### At a glance

- NFC, IO-Link and SICK Safety Assistant app with real-time diagnostic data
- Various scanning ranges up to 8 m, 2 or 4 beams, 2-signal muting
- Sender and receiver in a compact housing

### Your benefits

- Increase your productivity in access protection and muting applications thanks to process optimization options with real-time diagnostic data
- Stay flexible when selecting the appropriate scanning range, number of beams and muting sensors
- Minimize your wiring and installation efforts

deTem A/P impresses with valuable diagnostic data that allow immediate process optimization in real time and thus contribute to higher productivity. Sophisticated product details allow easy integration into the existing machine design and optimum use of space in production halls.

- Beam coding, external device monitoring (EDM) and restart interlock
- Configuration of all functions without software
- Optionally integrated: Top LED

- Benefit from the possibility of a compact plant layout and simple integration
- Save time and money due to easy commissioning and configuration
- Respond quickly to machine downtime thanks to the all-round visibility of the status display

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

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/deTem](http://www.sick.com/deTem)

## Features

	deTem4 A/P	deTem4 LT Muting A/P	deTem4 Core A/P	deTem2 Core A/P
<b>Application</b>	Normal industrial environment			
<b>Scanning range</b>				
Fibre-optic deflection	3.2 m			
Prism deflection	7 m / 8 m (depending on type)	–	7 m / 8 m (depending on type)	
<b>Number of beams</b>	2 / 4 (depending on type)	4	2 / 4 (depending on type)	
<b>Beam separation</b>	300 mm / 500 mm (depending on type)	300 mm	300 mm / 500 mm (depending on type)	
<b>Response time</b>	20 ms			
<b>End cap with integrated LED</b>	✓ (depending on type)	✓	–	

## Safety-related parameters

	deTem4 A/P	deTem4 LT Muting A/P	deTem4 Core A/P	deTem2 Core A/P
<b>Type</b>	Type 4 (IEC 61496-1)			Type 2 (IEC 61496-1)
<b>Safety integrity level</b>	SIL3 (IEC 61508)			SIL1 (IEC 61508)
<b>Category</b>	Category 4 (ISO 13849-1)			Category 2 (ISO 13849-1)
<b>Performance level</b>	PL e (ISO 13849-1)			PL c (ISO 13849-1)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	6.6 × 10 <sup>-9</sup>	6.8 × 10 <sup>-9</sup>	5.3 × 10 <sup>-9</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

	deTem4 A/P	deTem4 LT Muting A/P	deTem4 Core A/P	deTem2 Core A/P
<b>Protective operation</b>	✓			
<b>Beam coding</b>	✓		–	
<b>Restart interlock</b>	✓		–	
<b>External device monitoring (EDM)</b>	✓		–	
<b>Differentiation between man and material (muting)</b>	✓			
Muting type	Flexible 2-signal muting	L muting left / L muting right / T muting (depending on type)	–	
C1 muting release	–	✓	–	
Concurrence monitoring	✓		–	
Monitoring of total muting time	✓		–	
Sensor gap monitoring	✓		–	
Muting with override	✓		–	
Exit monitoring	✓		–	
End of muting by ESPE	✓		–	

## Interfaces

	deTem4 A/P	deTem4 LT Muting A/P	deTem4 Core A/P	deTem2 Core A/P
<b>System connection</b>	Depending on system plug (M12 male connector, 5-pin or 8-pin)	Male connector M12, 8-pin	Male connector M12, 5-pin	
<b>Extension connection</b>	Depending on system plug (without extension connection or with M12 female connector, 5-pin)	–		
<b>Connection for reset/override pushbutton</b>	–	Female connector M12, 5-pin	–	
<b>Connection for muting sensor</b>	–	2 × female connector, M12, 5-pin	–	
<b>Configuration method</b>	DIP switch on system plug	Hard wired		
<b>Display elements</b>	LEDs			
<b>Alignment aid</b>	Alignment quality via diagnostic LEDs			
<b>LEDs</b>	✓ (depending on type)	✓	–	
<b>Application diagnostic output (ADO)</b>	✓		–	
<b>IO-Link</b>	✓	–	–	
<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>1)</sup>			

<sup>1)</sup> For additional information on Flexi Soft → [www.sick.com/Flexi\\_Soft](http://www.sick.com/Flexi_Soft).

## Electrical data

	deTem4 A/P	deTem4 LT Muting A/P	deTem4 Core A/P	deTem2 Core A/P
<b>Protection class</b>	III (IEC 61140) <sup>1)</sup>			
<b>Supply voltage <math>V_s</math></b>	24 V DC (19.2 V DC ... 28.8 V DC) <sup>2)</sup>			
<b>Residual ripple</b>	≤ 10 % <sup>3)</sup>			
<b>Output signal switching devices (OSSDs)</b>	2 PNP semiconductors, short-circuit protected, cross-circuit monitored <sup>4)</sup>			
ON state, switching voltage HIGH	24 V DC ( $V_s - 2.25$ V DC ... $V_s$ )			
OFF state, switching voltage LOW	≤ 2 V DC			
Current-carrying capacity per OSSD	≤ 500 mA			
<b>Application diagnostic output (ADO)</b>	PNP semiconductor, short-circuit protected <sup>4)</sup>			
Output voltage HIGH (active)	≥ $V_s - 3$ V			
Output voltage LOW (deactivated)	High resistance			
Current loading	≤ 100 mA			

<sup>1)</sup> SELV/PELV safety/protective extra-low voltage.

<sup>2)</sup> The external voltage supply must be capable of buffering brief mains voltage failures of 20 ms as specified in EN 60204-1. Suitable power supplies are available as accessories from SICK.

<sup>3)</sup> Within the limits of  $V_s$ .

<sup>4)</sup> Applies to the voltage range between –30 V and +30 V.

## Mechanical data

<b>Dimensions</b>	See dimensional drawing
<b>Material</b>	
	Housing Aluminum extruded profile / PMMA (depending on type)
Front screen	Polycarbonate, scratch-resistant coating

## 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

<b>Type of light</b>	Near-infrared (NIR), invisible
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## Ordering information

### deTem4 A/P

A deTem4 A/P safety multibeam sensor consists of:

- 1 active unit
- 1 passive unit
- 1 system plug active unit

### Selection aid deTem4 A/P system plug for active unit

- Functions: SP1 (without muting) or SP2 (with muting)

Options:

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

### System plugs for active units

Functions	System connection	Extension connection	Type	Part no.
SP1	Male connector M12, 5-pin	-	1000	2076832
		Female connector M12, 5-pin (RES, EDM, ADO, IO-Link)	1100	2076833
	Male connector M12, 8-pin (RES, EDM, ADO)	-	1200	2076834
		Female connector M12, 5-pin (RES, EDM, ADO, IO-Link)	1300	2076835
SP2	Male connector M12, 5-pin	Female connector M12, 5-pin (RES, EDM, ADO, IO-Link, muting)	2100	2093098
	Male connector M12, 8-pin (RES, EDM, ADO, muting)	Female connector M12, 5-pin (RES, EDM, ADO, IO-Link, muting)	2300	2093100

### deTem4 A/P for low scanning range (fibre-optic deflection)

Number of beams	Beam separation	Scanning range	End cap with integrated LED	Active unit		Passive unit	
				Type	Part no.	Type	Part no.
2	500 mm	3.2 m	-	M4P-ZA02500C00	1102633	PSN01-2501	1101921
			✓	M4P-ZA02500D00	1102635	PSN01-2501	1101921
4	300 mm	3.2 m	-	M4P-ZA04300C00	1102634	PSN02-2301	1102144
			✓	M4P-ZA04300D00	1102636	PSN02-2301	1102144

### deTem4 A/P for great scanning range (prism deflection)

Number of beams	Beam separation	Scanning range	End cap with integrated LED	Active unit		Passive unit	
				Type	Part no.	Type	Part no.
2	500 mm	8 m	-	M4P-ZA02500C00	1102633	PSN01-3501	1103066
			✓	M4P-ZA02500D00	1102635	PSN01-3501	1103066
4	300 mm	7 m	-	M4P-ZA04300C00	1102634	PSN02-3301	1103067
			✓	M4P-ZA04300D00	1102636	PSN02-3301	1103067

## deTem4 LT Muting A/P

A deTem4 LT Muting A/P safety multibeam sensor consists of:

- 1 active unit
- 1 passive unit
- 1 muting arm for active unit with mounted muting sensors
- 1 muting arm for passive unit with mounted reflectors
- 4 FlexFix brackets

System part	Number of beams	Beam separation	Scanning range	End cap with integrated LED	Type	Part no.
Muting system	4	300 mm	3.2 m	✓	L-muting left	1108692
					L-muting right	1108691
					T-muting	1110584

## deTem4 Core A/P

A deTem4 Core A/P safety multibeam sensor consists of:

- 1 active unit
- 1 passive unit

## deTem4 Core A/P for low scanning range (fibre-optic deflection)

Number of beams	Beam separation	Scanning range	Active unit		Passive unit	
			Type	Part no.	Type	Part no.
2	500 mm	3.2 m	M4C-ZA02500C10	1102644	PSN01-2501	1101921
4	300 mm	3.2 m	M4C-ZA04300C10	1102645	PSN02-2301	1102144

## deTem4 Core A/P for great scanning range (prism deflection)

Number of beams	Beam separation	Scanning range	Active unit		Passive unit	
			Type	Part no.	Type	Part no.
2	500 mm	8 m	M4C-ZA02500C10	1102644	PSN01-3501	1103066
4	300 mm	7 m	M4C-ZA04300C10	1102645	PSN02-3301	1103067

## deTem2 Core A/P

A deTem2 Core A/P safety multibeam sensor consists of:

- 1 active unit
- 1 passive unit

## deTem2 Core A/P for low scanning range (fibre-optic deflection)

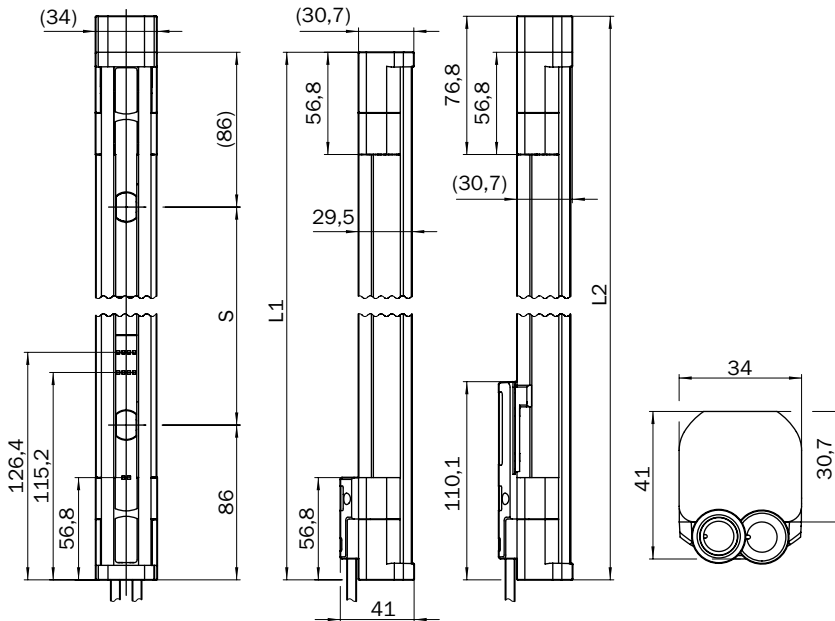
Number of beams	Beam separation	Scanning range	Active unit		Passive unit	
			Type	Part no.	Type	Part no.
2	500 mm	3.2 m	M2C-ZA02500C10	1102646	PSN01-2501	1101921
4	300 mm	3.2 m	M2C-ZA04300C10	1102647	PSN02-2301	1102144

## deTem2 Core A/P for great scanning range (prism deflection)

Number of beams	Beam separation	Scanning range	Active unit		Passive unit	
			Type	Part no.	Type	Part no.
2	500 mm	8 m	M2C-ZA02500C10	1102646	PSN01-3501	1103066
4	300 mm	7 m	M2C-ZA04300C10	1102647	PSN02-3301	1103067

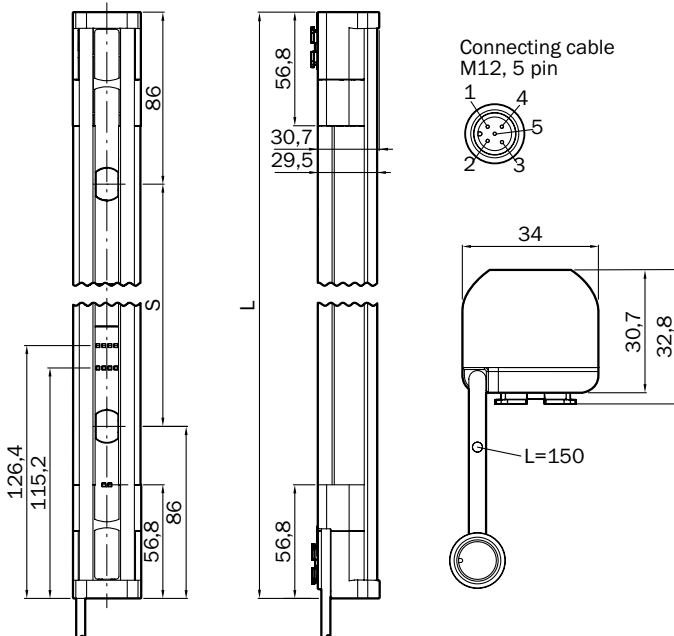
Dimensional drawings (Dimensions in mm)

Active unit deTem4 A/P



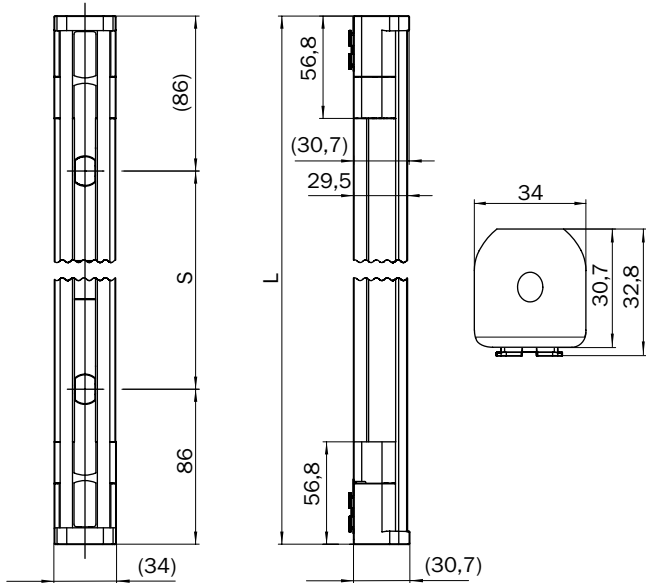
Number of beams	Beam separation S	L1	L2
2	500	672	692
4	300	1072	1092

Active unit deTem4 Core A/P, deTem2 Core A/P



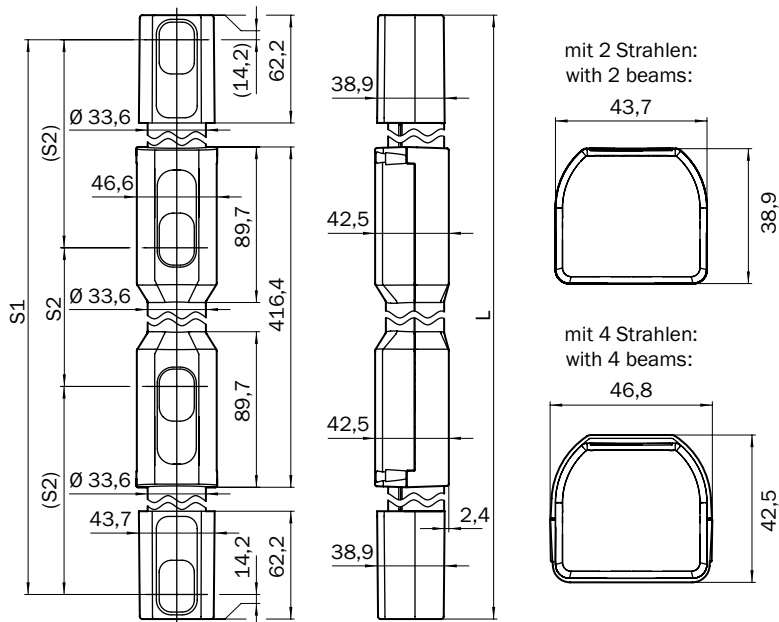
Number of beams	Beam separation S	L
2	500	672
4	300	1072

## Passive unit for small sensing range (fiber deflection)



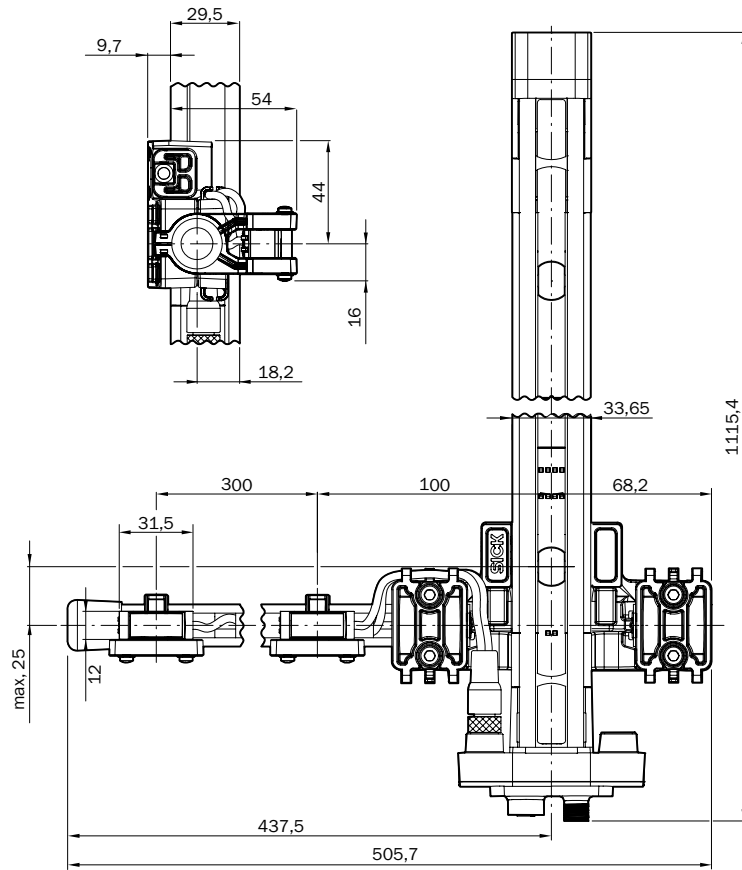
Number of beams	Beam separation S	L
2	500	672
4	300	1072

## Passive unit for large sensing range (prism deflection)

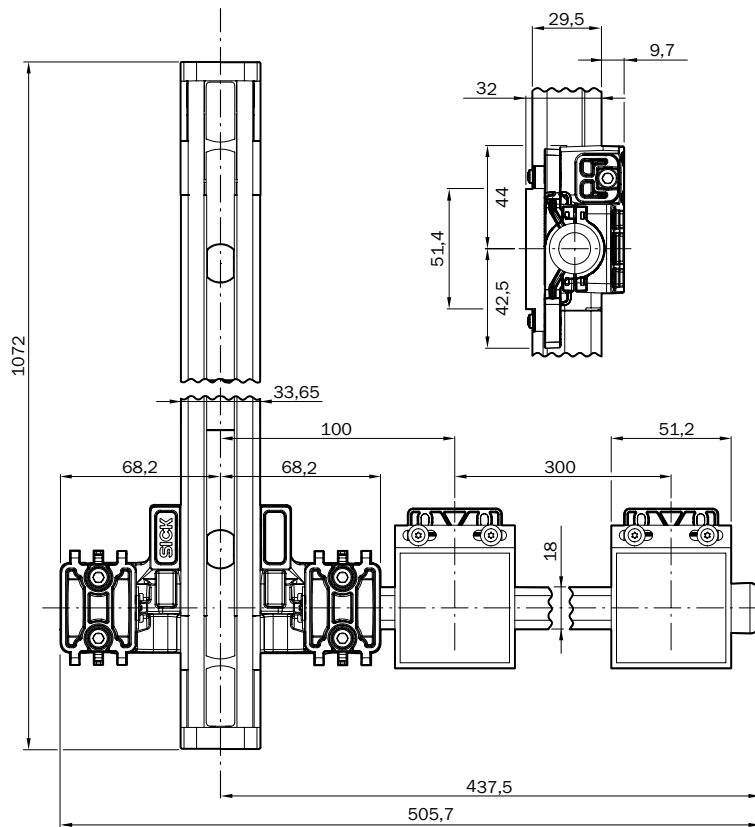


Number of beams	Beam separation S1	Beam separation S2	L
2	500	-	528.4
4	-	300	928.4

deTem4 LT Muting A/P, L muting left, active

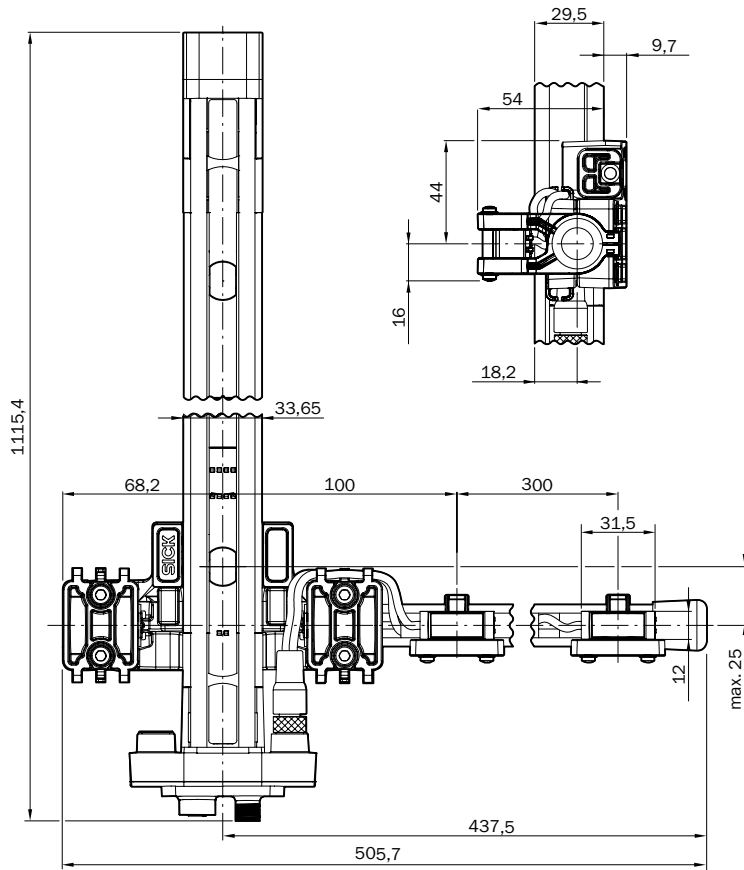


deTem4 LT Muting A/P, L muting left, passive

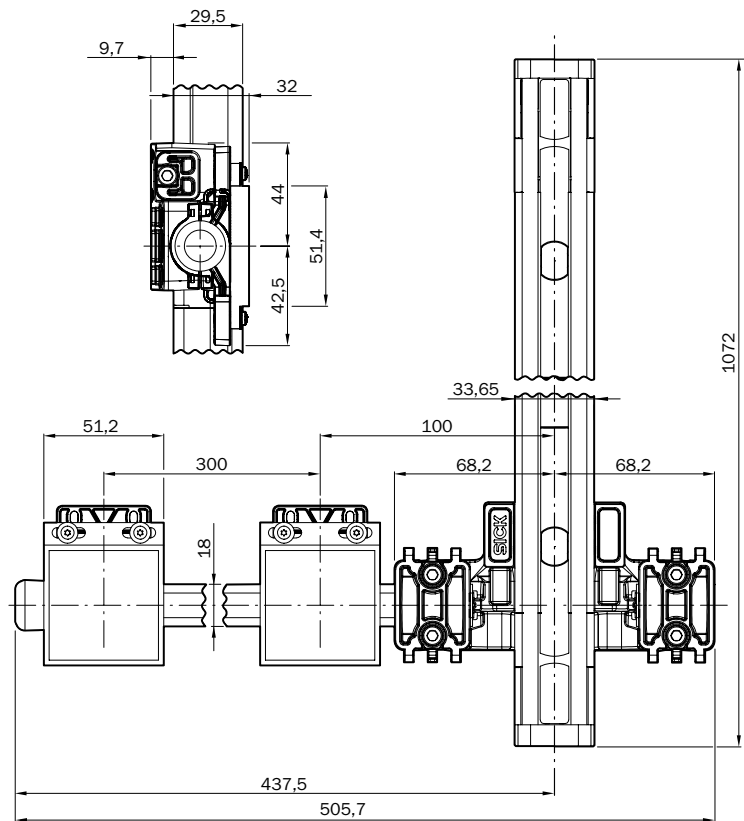




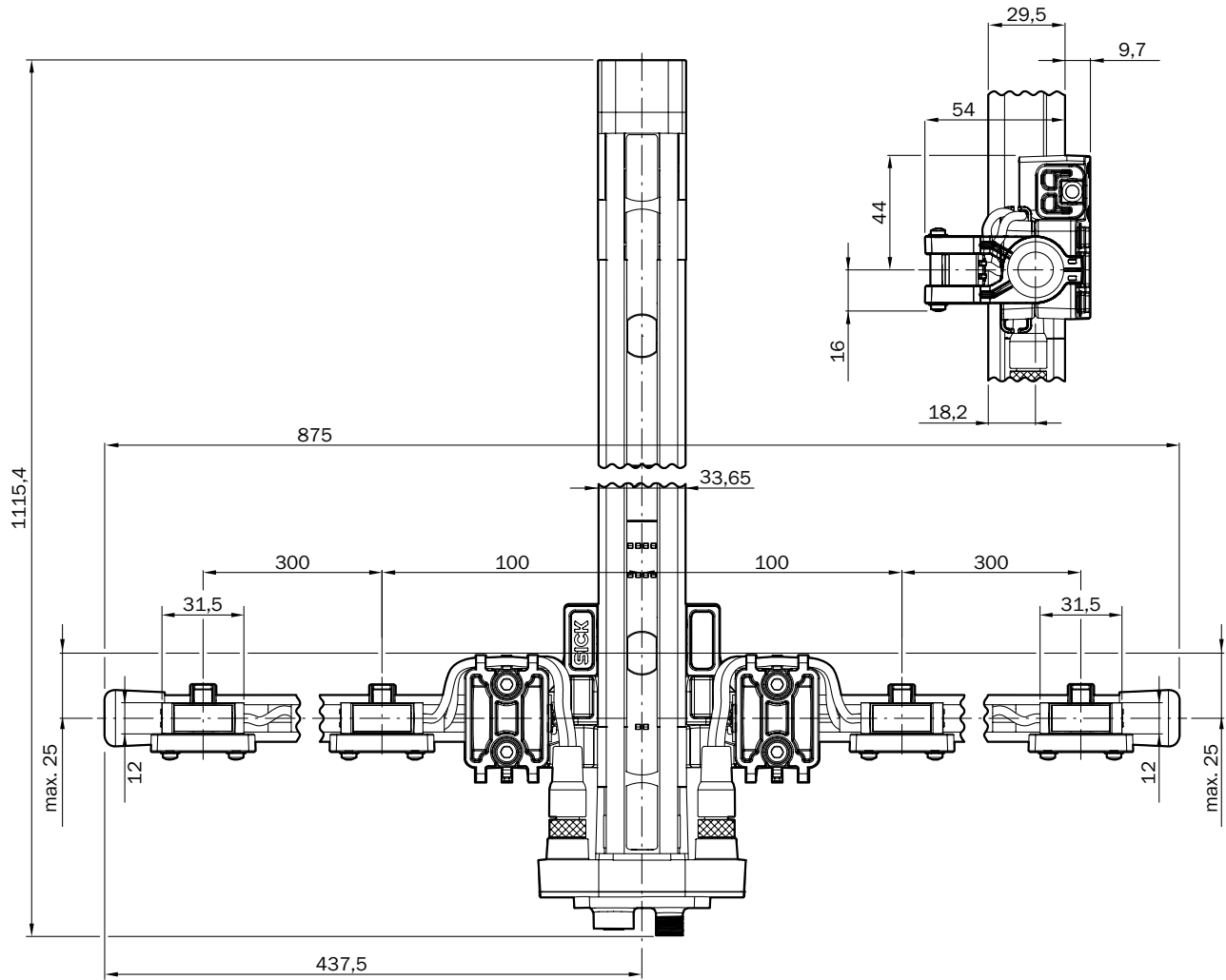
deTem4 LT Muting A/P, L muting right, active



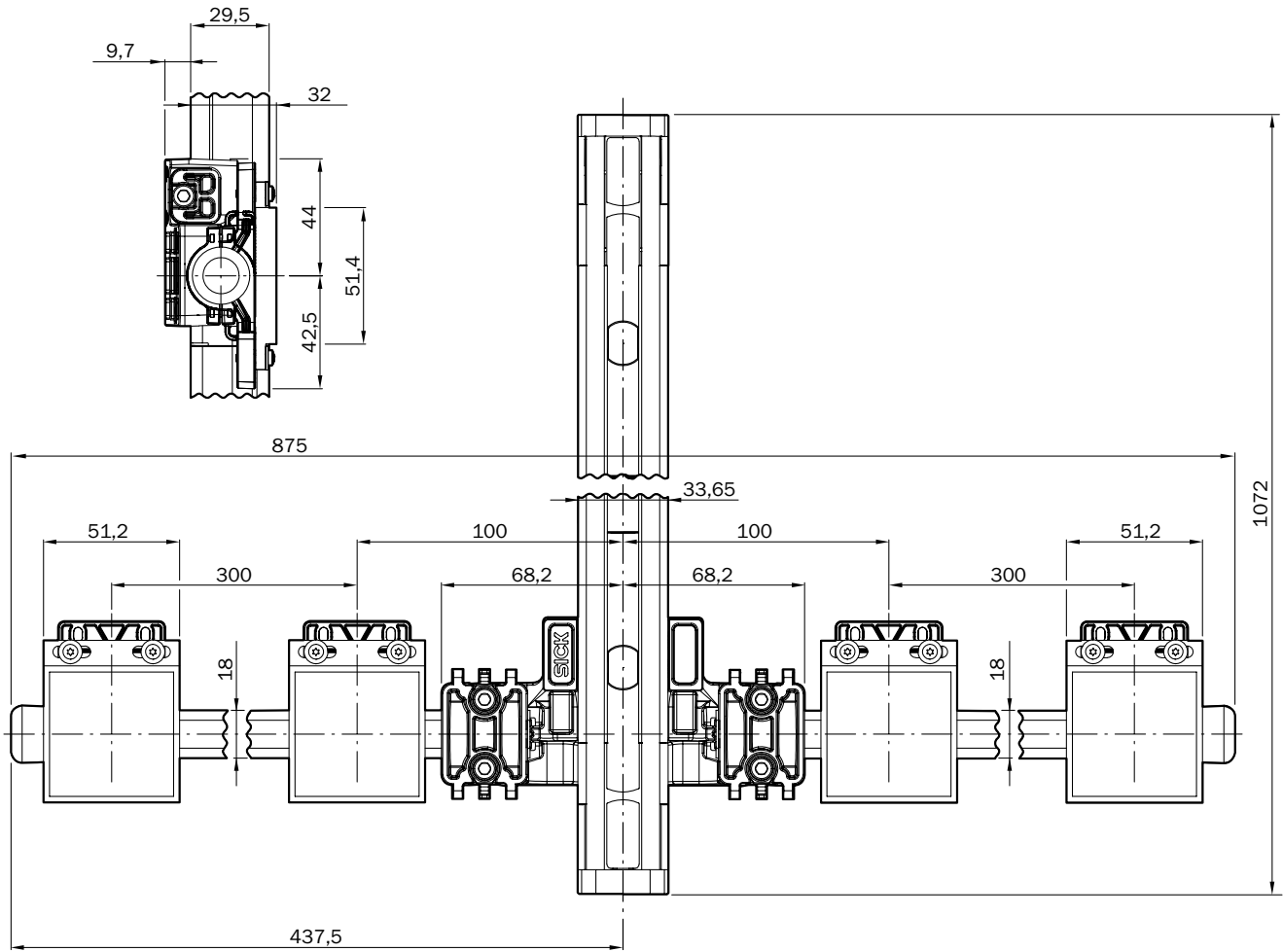
deTem4 LT Muting A/P, L muting right, passive



deTem4 LT Muting A/P, T muting, active










deTem4 LT Muting A/P, T muting, passive



Accessories

Mounting systems

Terminal and alignment brackets

Figure	Description	Packing unit	Type	Part no.	deTem4 A/P	deTem4 LT Muting A/P	deTem4 Core A/P	deTem2 Core A/P
	QuickFix bracket for 1 device (e.g. active or passive), plastic	2 pieces	BEF-3SHABPKU2	2066048	●	-	●	●
	QuickFix bracket for 2 devices (e.g. active and passive), plastic	4 pieces	BEF-3SHABPKU4	2098710	●	-	●	●
	FlexFix bracket for 1 device (e.g. active or passive), can be aligned ± 15°, including M5 screw, plastic	2 pieces	BEF-1SHABPKU2	2098709	●	●	●	●
	FlexFix bracket for 2 devices (e.g. active and passive), can be aligned ± 15°, including M5 screw, plastic	4 pieces	BEF-1SHABPKU4	2066614	●	●	●	●
	Compact FlexFix bracket for 1 device (e.g. active or passive), can be aligned ± 15°, including M5 screw, for mounting with countersunk screws, plastic	2 pieces	BEF-1SHTBPKU2	2117730	-	-	●	●
	Compact FlexFix bracket for 2 devices (active and passive), can be aligned ± 15°, including M5 screw, for mounting with countersunk screws, plastic	4 pieces	BEF-1SHTBPKU4	2117731	-	-	●	●
	Swivel mount bracket for 1 device (e.g. active or passive), 360° alignment possible, consisting of swivel mount port and swivel mount adapter, including M5 screw, plastic	2 pieces	BEF-2SMJEPKU2	2121685	-	-	●	●
	Swivel mount bracket for 2 devices (e.g. active and passive), 360° alignment possible, consisting of swivel mount port and swivel mount adapter, including M5 screw, plastic	4 pieces	BEF-2SMJEPKU4	2118584	-	-	●	●
	Flat mount bracket comprising one A bracket and one B bracket for one device (e.g., active or passive), plastic	2 pieces	BEF-3SHAHPKU2	2121705	-	-	●	●
	Flat mount bracket comprising two A brackets and two B brackets for two devices (e.g., active and passive), plastic	4 pieces	BEF-3SHAHPKU4	2118327	-	-	●	●
	FlexFix mounting kit for 1 device, e.g. active or passive (FlexFix bracket, alignment tool and assembly materials for installation in PU3H device columns), plastic	2 pieces	BEF-1SHABBKU2	2073543	●	-	●	●
	FlexFix replacement bracket (mounting kit for replacement of swivel mount brackets 2019649 and 2019659 or side bracket 2019506 with the FlexFix bracket when using the wells provided), Aluminum (anodised), plastic	4 pieces	BEF-1SHABS004	2100345	●	-	●	●

Device protection (mechanical)

Front screen protection

Figure	Description	Packing unit	Type	Part no.				
	Self-adhesive protective film for the front screen (protects sensors from damage by flying sparks and welding beads)	1 piece	Self-adhesive protective film	2069268	●	●	●	●

## Mounting tools





Figure	Description	Packing unit	Type	Part no.	deTem4 A/P	deTem4 LT Muting A/P	deTem4 Core A/P	deTem2 Core A/P
	Alignment tool for aligning sensors in areas with limited accessibility, e.g. device columns	1 piece	Alignment tool	4084133	●	●	●	●

## Plug connectors and cables


## Plug connectors and cables

## Connecting cables

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


Figure	Connection type		Conductor cross-section	Length of cable	Type	Part no.				
	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	●	-	●	●
	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	●	●	-	-
				2.5 m	YF2A18-025UA5XLEAX	2099229	●	●	-	-
				5 m	YF2A18-050UA5XLEAX	2095653	●	●	-	-
				7.5 m	YF2A18-075UA5XLEAX	2099230	●	●	-	-
				10 m	YF2A18-100UA5XLEAX	2095654	●	●	-	-
				15 m	YF2A18-150UA5XLEAX	2095679	●	●	-	-
	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


Figure	Connection type		Model	Conductor cross-section	Length of cable	Type	Part no.				
	Female connector, M12, 5-pin, straight	Male connector, M12, 5-pin, straight	PUR, halogen-free, unshielded	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	●	●	-	-

## Modules and gateways

### Connection modules



Figure	Description	Type	Part no.	deTem4 A/P	deTem4 LT Muting A/P	deTem4 Core A/P	deTem2 Core A/P
	IO-Link V1.1 Class A port, USB2.0 port, optional external power supply 24V / 1A	IOLA2US-01101 (SiLink2 Master)	1061790	●	-	-	-

### Power supply units and power supply cables

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



## Adaptor

### Other adapters


Figure	Description	Type	Part no.				
	Connector for connecting an IO-Link master and up to 2 muting sensors to a safety light curtain or a safety multibeam sensor	IO-Link connector	2092757	●	-	-	-
	Connector for connecting 2 muting sensors and a muting lamp to a safety light curtain or a safety multibeam sensor	Muting connector	2092758	●	-	-	-

## Reflectors and optics

### Alignment aids



Figure	Description	Type	Part no.				
	Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!	AR60	1015741	●	●	●	●
	Adapter AR60 for housing cross-section 34 mm x 31 mm	Adapter AR60, 34x31	4070854	●	●	●	●

### Optics cloths


Figure	Description	Type	Part no.				
	Cloth for cleaning optical surfaces	Lens cloth	4003353	●	●	●	●

## Further accessories

## Test and monitoring tools


Figure	Description	Type	Part no.	deTem4 A/P	deTem4 LT Muting A/P	deTem4 Core A/P	deTem2 Core A/P
	30 mm diameter	Test rod 30 mm	2022602	●	●	●	●
 Illustration may differ	Test rod holder	BEF-3WNAAAAL1	2052249	●	●	●	●

## Cleaning agent

Figure	Description	Type	Part no.				
	Plastic cleaner and care product, anti-static, 0.5 liter	Plastic cleaner	5600006	●	●	●	●


## Safety command devices

## Reset pushbuttons and multiple 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





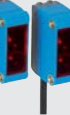
Device columns with two external mounting grooves

Figure	Max. installation length	Column height	Type	Part no.				
					deTem 4 A/P	deTem 4 LT Muting A/P	deTem 4 Core A/P	deTem 2 Core A/P
	965 mm	985 mm	PU3H96-00000000	2045490	●	-	●	●
	1,165 mm	1,185 mm	PU3H11-00000000	2045641	●	-	●	●
	1,265 mm	1,285 mm	PU3H13-00000000	2045642	●	-	●	●
	1,550 mm	1,570 mm	PU3H15-00000000	2068813	●	-	●	●
	1,720 mm	1,740 mm	PU3H17-00000000	2045643	●	-	●	●
	2,020 mm	2,040 mm	PU3H21-00000000	2045644	●	-	●	●
	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.				
	Photoelectric retro-reflective sensor	Dual lens	0.15 m ... 12 m <sup>1)</sup>	PinPoint LED	GL10-P4151	1069860	●	-	-	-
0.15 m ... 10 m <sup>2)</sup>										
			≤ 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>							
	Photoelectric retro-reflective sensor	Background suppression	≤ 4 m	PinPoint-LED	GL6-P0311S94	1102710	-	●	-	-


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

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




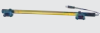




<sup>3)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033).





## Reflectors

Figure	Description	Type	Part no.				
				deTem4 A/P	deTem4 LT Muting A/P	deTem4 Core A/P	deTem2 Core A/P
	Rectangular, screw connection	P250	5304812	●	●	-	-




## Muting mountig systems

Figure	Description	Length	Diame-ter	Usage	Type	Part no.				
	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	●	-	-	-
	Muting arm with mounted muting sensors for active unit	-	-	-	Muting arm for active unit	2109381	-	●	-	-
	Muting arm with mounted reflectors for passive unit	-	-	-	Muting arm for passive unit	2109753	-	●	-	-
	Sensor bracket G6 and P250	-	-	For mounting muting sensor G6 or reflector P250 on muting arm 2111923 or 2111924	BEF-2KHAAAKU1	2113145	●	●	-	-
	Universal bracket for round steel arm 400 mm, for mounting sensors or reflectors	-	-	-	BEF-KHS-N01	2044953	●	-	-	-
	Cable cover for muting arm, long, 400 mm	-	-	-	Cable cover for muting arm	2115890	●	●	-	-

## Muting lamps

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.	deTem4 A/P	deTem4 LT Muting A/P	deTem4 Core A/P	deTem2 Core A/P
	<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	●	-	-	-

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