



C4P-EA06030A00

deTec

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Note	Resolution	Scanning range	Protective field height	System part	Type	Part no.
The system plug has to be ordered separately. For details, see "Accessories".	30 mm	30 m	600 mm	Receiver	C4P-EA06030A00	1215306

The system plug has to be ordered separately. For details, see "Accessories".

Other models and accessories → www.sick.com/deTec

Detailed technical data

Features

Sub product family	deTec4 Prime
Application	Normal industrial environment
System part	Receiver
Resolution	30 mm
Scanning range	30 m
Protective field height	600 mm
Response time	10 ms (Uncoded) 15 ms (code 1 or code 2)
No blind zones	Yes
Synchronization	Optical synchronisation
Items supplied	Receiver Test rod with diameter corresponding to the resolution of the safety light curtain Safety instruction Mounting instructions Operating instructions for download

Safety-related parameters

Type	Type 4 (IEC 61496-1)
Safety integrity level	SIL 3 (IEC 61508)
Category	Category 4 (ISO 13849-1)
Performance level	PL e (ISO 13849-1)
PFH _D (mean probability of a dangerous failure per hour)	
Single device	9.6 x 10 ⁻⁹
Cascade with one guest	1.9 x 10 ⁻⁸
Cascade with two guest devices	2.9 x 10 ⁻⁸
T _M (mission time)	20 years (ISO 13849-1)

Safe state in the event of a fault	At least one OSSD is in the OFF state.
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Functions

Protective operation	✓
Automatic calibration of the protective field width	✓
Beam coding	✓
Restart interlock	✓
External device monitoring (EDM)	✓
Cascading	✓

Interfaces

System connection	Depending on system plug (M12 male connector, 5-pin or 8-pin)
Extension connection	Depending on system plug (without extension connection or with M12 female connector, 5-pin)
Configuration method	DIP switch on system plug
Display elements	LEDs
Application diagnostic output (ADO)	✓

Electrical data

Protection class	III (IEC 61140)
Supply voltage V_S	24 V DC (19.2 V ... 28.8 V)
Ripple	≤ 10 %
Power consumption typical	3.36 W (DC)
Output signal switching devices (OSSDs)	
Type of output	2 PNP semiconductors, short-circuit protected, cross-circuit monitored ¹⁾
ON state, switching voltage HIGH	24 V DC ($V_S - 2.25 \text{ V DC} \dots V_S$)
OFF state, switching voltage LOW	≤ 2 V DC
Current-carrying capacity per OSSD	≤ 500 mA
Application diagnostic output (ADO)	
Type of output	PNP semiconductor, short-circuit protected ¹⁾
Output voltage HIGH (active)	≥ $V_S - 3 \text{ V}$
Output voltage LOW (deactivated)	High resistance
Output current HIGH (active)	≤ 100 mA

¹⁾ Applies to the voltage range between -30 V and +30 V.

Mechanical data

Dimensions	See dimensional drawing
Housing material	Aluminum extruded profile

Ambient data

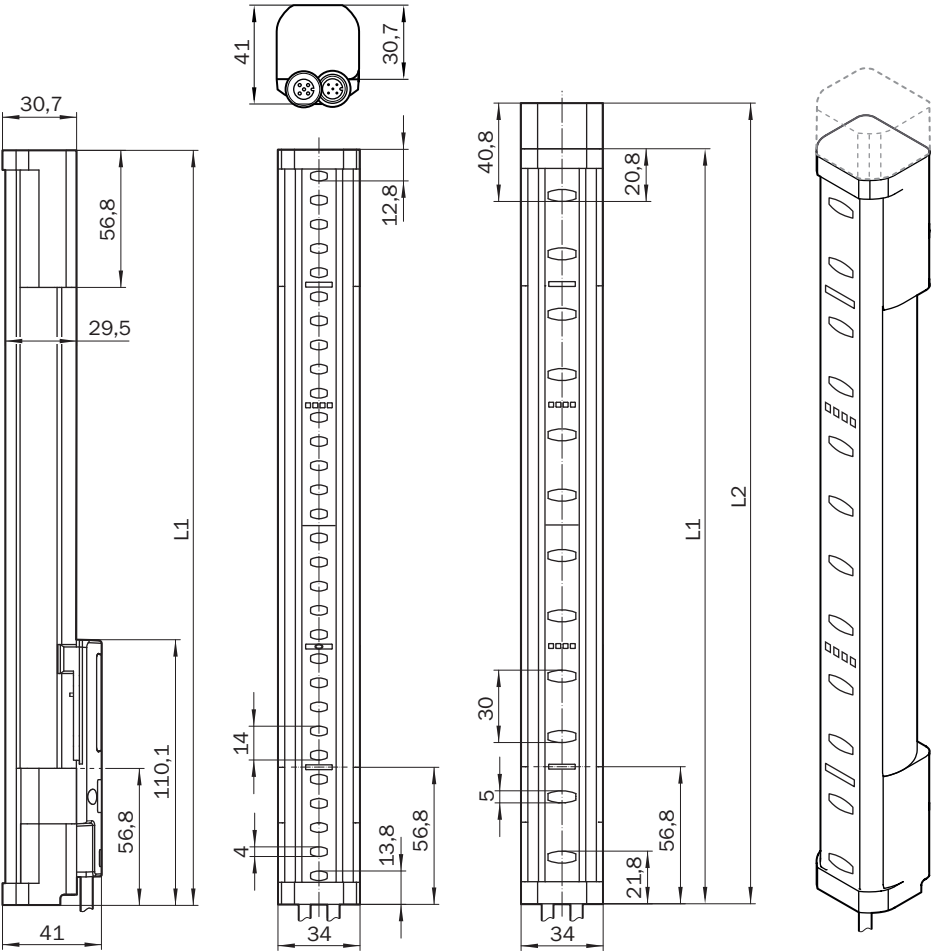
Enclosure rating	IP65 (IEC 60529) IP67 (IEC 60529)
Ambient operating temperature	-30 °C ... +55 °C
Storage temperature	-30 °C ... +70 °C
Air humidity	15 % ... 95 %, Non-condensing
Vibration resistance	5 g, 10 Hz ... 55 Hz (IEC 60068-2-6)

Shock resistance	10 g, 16 ms (IEC 60068-2-27)
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Classifications

ECLASS 5.0	27272704
ECLASS 5.1.4	27272704
ECLASS 6.0	27272704
ECLASS 6.2	27272704
ECLASS 7.0	27272704
ECLASS 8.0	27272704
ECLASS 8.1	27272704
ECLASS 9.0	27272704
ECLASS 10.0	27272704
ECLASS 11.0	27272704
ECLASS 12.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	46171620

Dimensional drawing (Dimensions in mm (inch))



Protective field height	L1	L2
300 (11.81)	313 (12.32)	332 (13.07)
450 (17.72)	463 (18.23)	482 (18.98)
600 (23.62)	613 (24.13)	632 (24.88)
750 (29.53)	763 (30.04)	782 (30.79)
900 (35.43)	913 (35.94)	932 (36.69)
1,050 (41.34)	1,063 (41.85)	1,082 (42.6)
1,200 (47.24)	1,213 (47.75)	1,232 (48.5)
1,350 (53.15)	1,362 (53.62)	1,381 (54.37)
1,500 (59.06)	1,512 (59.53)	1,531 (60.28)
1,650 (64.96)	1,662 (65.43)	1,681 (66.18)
1,800 (70.87)	1,812 (71.34)	1,831 (72.09)
1,950 (76.77)	1,962 (77.24)	1,981 (77.99)
2,100 (82.68)	2,112 (83.15)	2,131 (83.9)

Recommended accessories

Other models and accessories → www.sick.com/deTec

	Brief description	Type	Part no.
Connection modules			
	IO-Link V1.1 Class A port, USB2.0 port, optional external power supply 24V / 1A	IOLA2US-01101 (SiLink2 Master)	1061790
	Connector for connecting an IO-Link master and up to 2 muting sensors to a safety light curtain or a multiple light beam safety device	IO-Link connector	2092757
Distributors			
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, A-coded Connection type head B: Male connector, M12, 5-pin, A-coded Connection type head C: Female connector, M12, 5-pin, A-coded Description: T-piece for simultaneous connection to sender and receiver, splits the cable from the control cabinet to the sender and receiver Note: 5-pin 	DSC-1205T000025KM0	6030664
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 8-pin, A-coded Connection type head B: Female connector, M12, 8-pin, A-coded Connection type head C: Male connector, M12, 8-pin, A-coded Description: T-distributor for simultaneous connection to sender and receiver, splits the cable from the control cabinet between the sender and receiver Note: 8-pin 	DSC-1208T000025KM0	6058647
Plug connectors and cables			
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 8-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 8-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A18-020UA5XLEAX	2095652
Terminal and alignment brackets			
	4 pieces, FlexFix bracket for 2 devices (e.g. sender and receiver), can be aligned $\pm 15^\circ$, including M5 screw, plastic	BEF-1SHABPKU4	2066614
	4 pieces, QuickFix bracket for 2 devices (e.g. sender and receiver), plastic	BEF-3SHABPKU4	2098710
Safety switching amplifier			
	<ul style="list-style-type: none"> Applications: Output expansion module for OSSDs Compatible sensor types: Safety sensors with OSSDs Connection type: Front connector with spring terminals Restart interlock: no External device monitoring (EDM): Via path Outputs: 2 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe) Housing width: 18 mm 	RLY3-OSSD100	1085343
	<ul style="list-style-type: none"> Applications: Output expansion module for OSSDs Compatible sensor types: Safety sensors with OSSDs Connection type: Front connector with spring terminals Restart interlock: no External device monitoring (EDM): Via path Outputs: 4 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe), 1 signaling current path (not safe) Housing width: 28 mm 	RLY3-OSSD400	1099971

	Brief description	Type	Part no.
SP1 system plug			
	<ul style="list-style-type: none"> • System plug: SP1 • Connection type: Male connector M12, 5-pin • Extension connection: – 	1000	2076832
	<ul style="list-style-type: none"> • System plug: SP1 • Connection type: Male connector M12, 5-pin • Extension connection: Female connector M12, 5-pin 	1100	2076833
	<ul style="list-style-type: none"> • System plug: SP1 • Connection type: Male connector M12, 8-pin • Extension connection: – 	1200	2076834
	<ul style="list-style-type: none"> • System plug: SP1 • Connection type: Male connector M12, 8-pin • Extension connection: Female connector M12, 5-pin 	1300	2076835
Sensor Integration Gateway			
	<ul style="list-style-type: none"> • Further functions: Web server integrated, 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 • Connection CONFIG: 1 x M8, 4-pin female connector, USB 2.0 (USB-A) • Logic editor: yes • Communication interface: IO-Link, USB, Ethernet, PROFINET, REST API • Product category: IO-Link Master 	SIG200-0A0412200	1089794
	<ul style="list-style-type: none"> • Description: 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. • Further functions: Web server integrated, 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 • Connection CONFIG: 1 x M8, 4-pin female connector, USB 2.0 (USB-A) • Logic editor: yes • Communication interface: IO-Link, USB, Ethernet, EtherNet/IP™, REST API • Product category: IO-Link Master 	SIG200-0A0512200	1089796
	<ul style="list-style-type: none"> • Further functions: Web server integrated, 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 • Connection CONFIG: 1 x M8, 4-pin female connector, USB 2.0 (USB-A) • Logic editor: yes • Communication interface: IO-Link, USB, Ethernet, REST API • Product category: IO-Link Master 	SIG200-0A0G12200	1102605

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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