



C4P-EA1803S001

deTec

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
C4P-EA1803S001	1081274

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

Detailed technical data

Features

Product version	deTec4 Prime
Application	Normal industrial environment
System part	Receiver
Resolution	30 mm
Scanning range	30 m
Protective field height	1,800 mm
Response time	13 ms (Uncoded) 24 ms (code 1 or code 2)
No blind zones	Yes
Synchronization	Optical synchronization
Items supplied	Receiver with preassembled system plug M12, 5-pin 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.

Functions

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

Interfaces

System connection	Plug, M12, 5-pin
Extension connection	–
Configuration method	DIP switch on system plug
Display elements	LEDs
Application diagnostic output (ADO)	✓

Electronics

Protection class	III (IEC 61140)
Supply voltage V_S	24 V DC (19.2 V ... 28.8 V)
Ripple	≤ 10 %
Power consumption typical	3.89 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 V DC ... 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 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.

Mechanics

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)

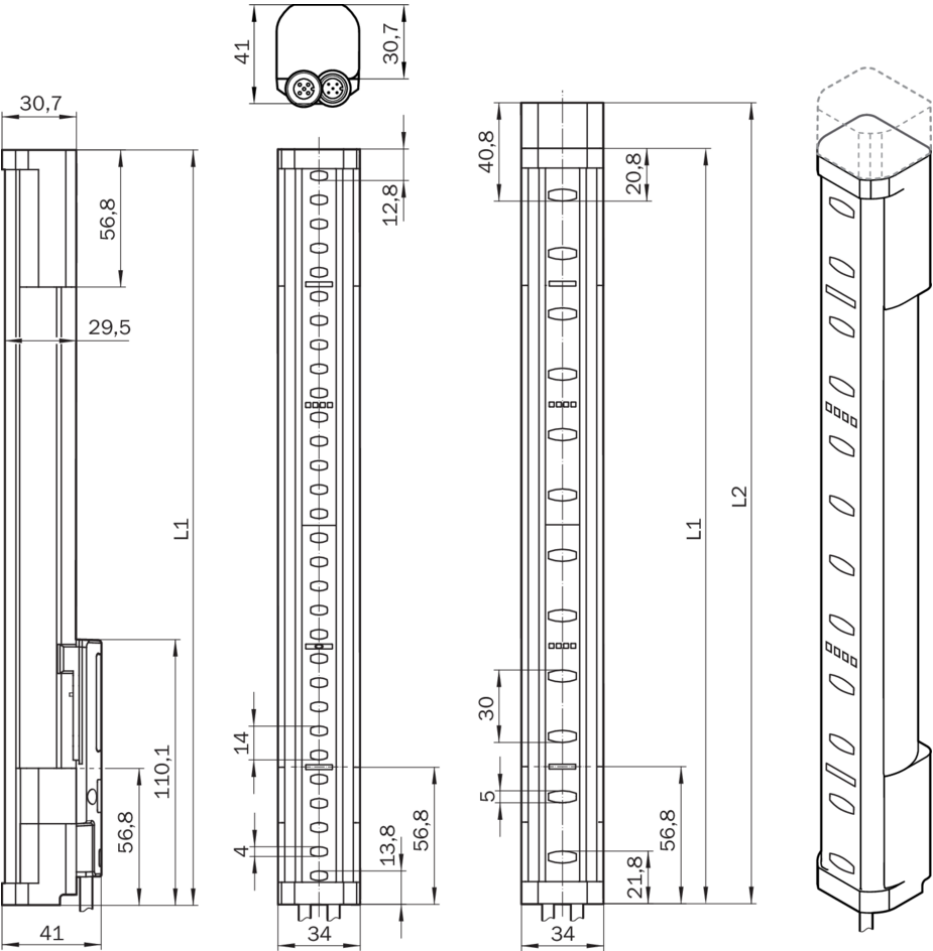
Certificates

ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
KCs certificate	✓
ULus approval	✓
cUL approval	✓
Japan Press Safety certificate	✓
China GB/T certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

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



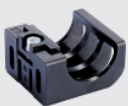
Dimensions in mm (inch)

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.
system plugs and extension modules			
	• Function range: SP1 • System connection: Plug, M12, 5-pin • Extension connection: Without extension connection	SP1-1000	2076832
	• Function range: SP1 • System connection: Plug, M12, 5-pin • Extension connection: Female connector M12, 5-pin	SP1-1100	2076833
	• Function range: SP1 • System connection: Male connector M12, 8-pin • Extension connection: Without extension connection	SP1-1200	2076834
	• Function range: SP1 • System connection: Male connector M12, 8-pin • Extension connection: Female connector M12, 5-pin	SP1-1300	2076835
network devices			
		IOLA2US-01101 (SiLink2 Master)	1061790
		SIG200-0A0G12200	1102605
		SIG200-0A0412200	1089794
		SIG200-0A0512200	1089796

	Brief description	Type	part no.
connectors and cables			
		IO-Link connector	2092757
	• 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: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A18-020UA5XLEAX	2095652
	• Connection type head A: Female connector, M12, 5-pin, A-coded • Connection type head B: Female connector, M12, 5-pin, A-coded • Connection type head C: Male connector, M12, 5-pin, A-coded • Description: Unshielded	DSC-1205T000025KMC	6030664
Safety relays			
	• 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
	• 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
Mounting systems			
	• Description: FlexFix bracket for 2 devices (e.g. sender and receiver), can be aligned $\pm 15^\circ$, including M5 screw • Material: Plastic • Details: Plastic • Packing unit: 4 pieces	BEF-1SHABPKU4	2066614
	• Description: QuickFix bracket for 2 devices (e.g. sender and receiver) • Material: Plastic • Details: Plastic • Packing unit: 4 pieces	BEF-3SHABPKU4	2098710

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.”

WORLDWIDE PRESENCE:

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