



EXE-12D6613A020

deTec

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

deTec4 Ex

Resolution	Scanning range	Protective field height	System part	Type	Part no.
30 mm	25.2 m	1,200 mm	Receiver	EXE-12D6613A020	1097710

Completely pre-installed including connecting cable, 30 m, flying lead, 8-wire

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

Detailed technical data

Features

Application	Explosive areas
Ex-approvals	ATEX for gas: II 2 G Ex db IIB T6 ATEX for dust: II 2 D Ex tb IIIC T56°C Db IP6X NFPA 70/NEC 500 Class I, Div. 1, Groups C and D NFPA 70/NEC 500 Class II, Div. 1, Groups E, F and G NFPA 70/NEC 500 Class III, Div. 1
System part	Receiver
Resolution	30 mm
Scanning range	25.2 m
Protective field height	1,200 mm
Response time	12 ms (Uncoded) 20 ms (code 1 or code 2)
Synchronization	Optical synchronisation
Items supplied	Receiver in explosion-proof enclosure with connecting cable, 30 m 2 handles including screws Test rod with diameter corresponding to the resolution of the safety light curtain Safety instruction Mounting instructions Operating instructions on CD-ROM

Safety-related parameters

Type	Type 4 (IEC 61496-1)
Safety integrity level	SIL3 (IEC 61508) SILCL3 (IEC 62061)
Category	Category 4 (ISO 13849-1)
Performance level	PL e (ISO 13849-1)
PFH_D (mean probability of a dangerous failure per hour)	15.3 x 10 ⁻⁹
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)	✓

Interfaces

System connection	Connecting cable, 30 m, flying lead, 8-wire
Configuration method	DIP switch on system plug
Display elements	LEDs
Display of the synchronization status of the upper and lower beams	✓
Application diagnostic output (ADO)	✓
Fieldbus, industrial network Integration via Flexi Soft safety controller	CANopen ¹⁾ DeviceNet™ EtherCAT® EtherNet/IP™ Modbus TCP PROFIBUS DP PROFINET

¹⁾ For additional information on Flexi Soft -> www.sick.com/Flexi_Soft.

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	3.63 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.

Mechanical data

Dimensions	See dimensional drawing
Housing cross-section	161.8 mm x 142.1 mm

Housing material	Aluminum cast/AlSi7Mg0.6
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Ambient data




Enclosure rating	IP65 (IEC 60529) IP66 (IEC 60529)
Ambient operating temperature	-20 °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)



Classifications

ECl@ss 5.0	27272704
ECl@ss 5.1.4	27272704
ECl@ss 6.0	27272704
ECl@ss 6.2	27272704
ECl@ss 7.0	27272704
ECl@ss 8.0	27272704
ECl@ss 8.1	27272704
ECl@ss 9.0	27272704
ECl@ss 10.0	27272704
ECl@ss 11.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
UNSPSC 16.0901	46171620

Recommended accessories

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

	Brief description	Type	Part no.
Terminal and alignment brackets			
	2 pieces, alignment bracket for explosion-proof enclosure	BEF-1SHABRST2	2072525
Alignment aids			
	Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!	AR60	1015741
Test and monitoring tools			
	30 mm diameter	Test rod 30 mm	2022602

	Brief description	Type	Part no.
Plug connectors and cables			
	Cable gland for the European market	Cable gland	5329002
		Cable gland	5329001

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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