



EXS-12D0430A020

deTem

MULTIPLE LIGHT BEAM SAFETY DEVICES

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Number of beams	Beam separation	Scanning range	System part	Type	Part no.
4	300 mm	14.2 m	Sender	EXS-12D0430A020	1097723

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

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
Functional principle	Sender/receiver system
System part	Sender
Scanning range	14.2 m
Dimension of the light path	Typical 0.5 m ... 14.2 m
Number of beams	4
Beam separation	300 mm
Response time	20 ms
Synchronization	Optical synchronisation
Items supplied	Sender

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)	3×10^{-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.

Functions

Protective operation	✓
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Interfaces

System connection	Connecting cable, 30 m, flying lead, 5-wire
Display elements	LEDs
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 DC ... 28.8 V DC) ¹⁾
Residual ripple	≤ 10 % ²⁾
Power consumption	≤ 50 mA
Power consumption	≤ 1.44 W (DC)

¹⁾ 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.

²⁾ Within the limits of V_S.

Mechanical data

Dimensions	See dimensional drawing
Housing cross-section	161.8 mm x 142.1 mm
Material Housing	Aluminum extruded profile
Weight	45.88 kg (± 50 g)

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)

Other information

Type of light	Near-infrared (NIR), invisible
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Classifications

ECI@ss 5.0	27272703
ECI@ss 5.1.4	27272703

ECI@ss 6.0	27272703
ECI@ss 6.2	27272703
ECI@ss 7.0	27272703
ECI@ss 8.0	27272703
ECI@ss 8.1	27272703
ECI@ss 9.0	27272703
ECI@ss 10.0	27272703
ECI@ss 11.0	27272703
ETIM 5.0	EC001832
ETIM 6.0	EC001832
ETIM 7.0	EC001832
UNSPSC 16.0901	46171620

Recommended accessories

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

Brief description		Type	Part no.
Terminal and alignment brackets			
	2 pieces, alignment bracket for explosion-proof enclosure	BEF-1SHABRST2	2072525
Plug connectors and cables			
	Cable gland for the European market	Cable gland	5329001
		Cable gland	5329002

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:

Contacts and other locations –www.sick.com