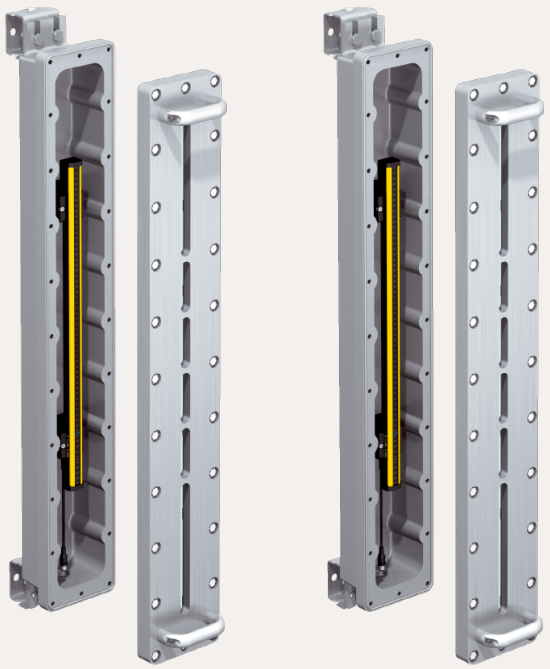
SICK.COM



DATA SHEET

EXS-06D0250A020, EX-E-06D0250A020

deTem
Safety multibeam sensors

SICK Sensor Intelligence

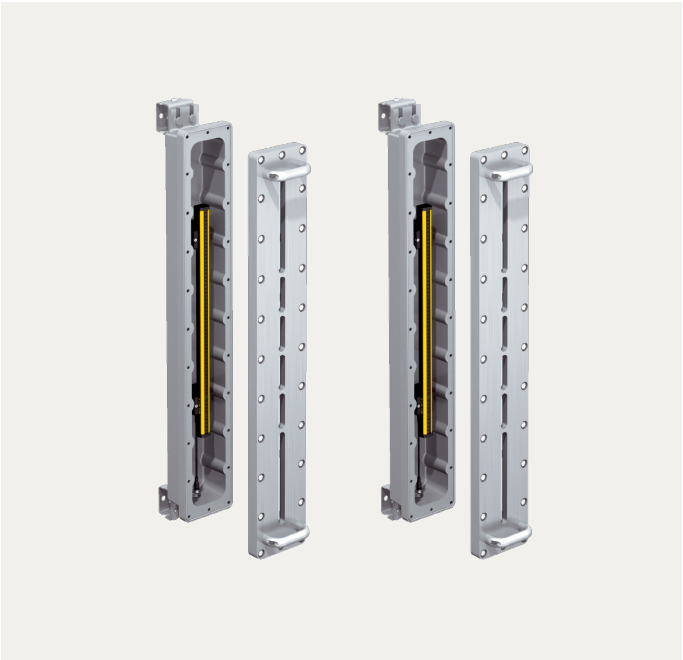


Illustration may differ

SAFETY MULTIBEAM SENSORS

EXS-06D0250A020, EXE-06D0250A020

ORDERING INFORMATION

System part	Type	part no.
sender	EXS-06D0250A020	1097717
receiver	EXE-06D0250A020	1097716

Further device versions and accessories at www.sick.com/deTem

DETAILED TECHNICAL DATA

FEATURES

Product version	deTem4 Core Ex
Application	Explosive areas
Ex-approvals	ATEX for gas: II 2 G Ex db IIB T6 Gb 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 part	Pair
Scanning range	14.2 m
Dimension of the light path Typical	 0.5 m ... 14.2 m
Number of beams	2
Beam separation	500 mm
Response time	20 ms
Synchronization	Optical synchronization
Items supplied	Sender in explosion-proof enclosure with connecting cable, 30 m Receiver in explosion-proof enclosure with connecting cable, 30 m 4 handles including screws Test rod with 30 mm diameter Safety instruction Mounting instructions Operating instructions on USB stick Depending on national regulations and requirements, a cable gland may have to be installed. The cable gland is available as an accessory.

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)	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.

INTERFACES

System connection	Connecting cable, 5-wire
Length of cable	30 m
Cable diameter	5 mm
Conductor cross section	0.34 mm²
Display elements	LEDs

ELECTRONICS

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]
Output signal switching devices (OSSDs)	2 PNP semiconductors, short-circuit protected, cross-circuit monitored [3]
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	≤ 300 mA

[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.

[3] Applies to the voltage range between –30 V and +30 V.

MECHANICS

Dimensions	See dimensional drawing
Housing cross-section	161.8 mm x 142.1 mm
Material	
Housing	Aluminum extruded profile
Weight	± 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 ... 150 Hz, 3,5 mm / 1 g (EN 60068-2-6)
Shock resistance	15 g / 6 ms (EN 60068-2-27)
Class	3M4 (IEC TR 60721-4-3)

OTHER INFORMATION

Type of light	Near-infrared (NIR), invisible

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1097717



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WALDKIRCH
GERMANY
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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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