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DATA SHEET

L29S-3D3430, L29E-3P3430

L29
Safety single-beam sensors

SICK Sensor Intelligence



SAFETY SINGLE-BEAM SENSORS

L29S-3D3430, L29E-3P3430

ORDERING INFORMATION

System part	Type	part no.
sender	L29S-3D3430	2075831
receiver	L29E-3P3430	2075833

Further device versions and accessories at www.sick.com/L29

DETAILED TECHNICAL DATA

FEATURES

Scanning range	6 m
Number of beams	1
Response time	0.54 ms
Response time	0.54 ms + Test device response time (Flexi Classic)

SAFETY-RELATED PARAMETERS

Type	Type 2 (IEC 61496-1) [1]
Safety integrity level	SIL 1 (IEC 61508) [1]
Category	Category 2 (EN ISO 13849) [1]
Test rate (external test)	100 /s (EN ISO 13849) [2]
Maximum demand rate	60 min^{-1} (EN ISO 13849) [3]
Performance level	PL c (EN ISO 13849) [1]
PFH_D (mean probability of a dangerous failure per hour)	1.0 x 10^{-6} (EN ISO 13849) [1]
T_M (mission time)	20 years (EN ISO 13849)

[1] Only in conjunction with Flexi Classic (UE410-MU).

[2] The test rate shall not be exceeded.

[3] Between two requirements on a safety-related response of the device, at least 100 internal or external tests must be carried out.

INTERFACES

Connection type	Male connector M12, 4-pin
Length of cable	120 mm
Permitted cable length	≤ 30 m
Display elements	LED

ELECTRONICS

Protection class	III (IEC 61140)
Supply voltage V_S	24 V DC (19.2 V DC ... 30 V DC)
Power consumption	≤ 30 mA
Switching outputs	PNP, Q [1]
Current loading	≤ 100 mA

[1] Short-circuit protected.

MECHANICS

Design	Rectangular
Dimensions (W x H x D)	12.2 mm x 50 mm x 23.6 mm
Housing material	VISTAL®
Weight	+ 80 g

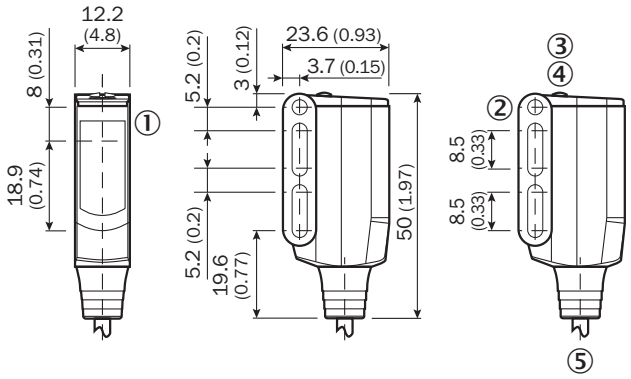
AMBIENT DATA

Enclosure rating	IP65 (IEC 60529) IP66 (IEC 60529) IP67 (IEC 60529) IP69K (ISO 20653)
Ambient operating temperature	–40 °C ... +60 °C
Storage temperature	–40 °C ... +75 °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

Light spot diameter (distance)	25 mm (1 m)
Average service life (T_A)	100,000 h (+25 °C)
Aperture angle/receiving angle	± 5° / ± 5°

DIMENSIONAL DRAWING



Dimensions in mm (inch)
① Optical axis, sender and receiver
② mounting hole ø 3.1 mm
③ LED indicator yellow: Status of received light beam
④ LED indicator green: Supply voltage active
⑤ Cable with M12 male connector, 4-pin

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/2075831

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SICK AT A GLANCE

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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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