



# L29S-3D3430, L29E-3P3430

## L29

SINGLE-BEAM PHOTOELECTRIC SAFETY SWITCHES

**SICK**  
Sensor Intelligence.



## Ordering information

System part	Type	Part no.
Sender	L29S-3D3430	2075831
Receiver	L29E-3P3430	2075833

Other models and accessories → [www.sick.com/L29](http://www.sick.com/L29)



## Detailed technical data

### Features

<b>Scanning range</b>	0 m ... 6 m
<b>Number of beams</b>	1
<b>Response time</b>	0.54 ms
<b>Response time</b>	0.54 ms + Test device response time (Flexi Classic)

### Safety-related parameters

<b>Type</b>	Type 2 (IEC 61496) <sup>1)</sup>
<b>Safety integrity level</b>	SIL1 (IEC 61508) <sup>1)</sup> SILCL1 (EN 62061) <sup>1)</sup>
<b>Category</b>	Category 2 (EN ISO 13849) <sup>1)</sup>
<b>Test rate (external test)</b>	100 /s (EN ISO 13849) <sup>2)</sup>
<b>Maximum demand rate</b>	≤ 60 min <sup>-1</sup> (EN ISO 13849) <sup>3)</sup>
<b>Performance level</b>	PL c (EN ISO 13849) <sup>1)</sup>
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	1.0 x 10 <sup>-6</sup> (EN ISO 13849) <sup>1)</sup>
<b>T<sub>M</sub> (mission time)</b>	20 years (EN ISO 13849)

<sup>1)</sup> Only in conjunction with Flexi Classic (UE410-MU).

<sup>2)</sup> The test rate shall not be exceeded.

<sup>3)</sup> Between two requirements on a safety-related response of the device, at least 100 internal or external tests must be carried out.

### Interfaces

<b>Connection type</b>	Cable with M12 male connector, 4-pin
<b>Diagnostic display</b>	LED

### Electrical data

	Sender	Receiver
<b>Protection class</b>	III (EN 50178)	

<sup>1)</sup> Short-circuit protected.

	Sender	Receiver
<b>Supply voltage <math>V_s</math></b>	24 V DC (19.2 V DC ... 30 V DC)	
<b>Power consumption</b>	≤ 30 mA	
<b>Switching outputs</b>		PNP, Q <sup>1)</sup>
<b>Switching current</b>		≤ 100 mA

<sup>1)</sup> Short-circuit protected.

#### Mechanical data

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

#### Ambient data

<b>Enclosure rating</b>	IP65, IP66, IP67, IP69K (EN 60529)
<b>Ambient operating temperature</b>	-40 °C ... +60 °C
<b>Storage temperature</b>	-40 °C ... +75 °C
<b>Air humidity</b>	15 % ... 95 %, Non-condensing
<b>Vibration resistance</b>	5 g, 10 Hz ... 55 Hz (IEC 60068-2-6)
<b>Shock resistance</b>	10 g, 16 ms (IEC 60068-2-29)

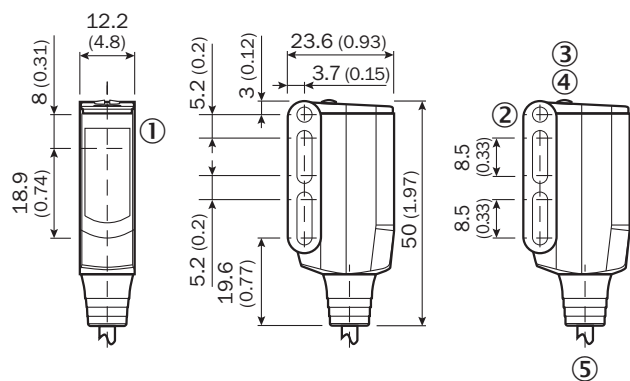
#### Other information

	Sender	Receiver
<b>Light source</b>	LED	
<b>Type of light</b>	Visible red light	
<b>Wave length</b>	650 nm	
<b>Light spot diameter (distance)</b>	25 mm (1 m)	
<b>Average service life (<math>T_A</math>)</b>	100,000 h (+25 °C)	
<b>Aperture angle/receiving angle</b>	± 5° / ± 5°	

#### Classifications

<b>ECl@ss 5.0</b>	27272701
<b>ECl@ss 5.1.4</b>	27272701
<b>ECl@ss 6.0</b>	27272701
<b>ECl@ss 6.2</b>	27272701
<b>ECl@ss 7.0</b>	27272701
<b>ECl@ss 8.0</b>	27272701
<b>ECl@ss 8.1</b>	27272701
<b>ECl@ss 9.0</b>	27272701
<b>ETIM 5.0</b>	EC001831
<b>ETIM 6.0</b>	EC001831
<b>UNSPSC 16.0901</b>	46171620


**Dimensional drawing** (Dimensions in mm (inch))



- ① Optical axis, sender and receiver
- ② Mounting hole  $\varnothing$  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

**Recommended accessories**

Other models and accessories → [www.sick.com/L29](http://www.sick.com/L29)

Brief description	Type	Part no.
Plug connectors and cables		
 Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-G05M	6009866

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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](http://www.sick.com)