



## Single-beam photoelectric safety switch L28

L28E-3P2431, L28S-3D2431



**Receiver**

Model Name > L28E-3P2431  
Part No. > 2044516



**Sender**

Model Name > L28S-3D2431  
Part No. > 2044515



**At a glance**

- Universal use up to Type 2, with safety controller solutions from SICK
- Compact size with ranges up to 18 m
- Plastic housing, ABS
- Temperature range from -40 °C ... + 55 °C
- Enclosure rating IP 67

**Your benefits**

- Easy integration due to small, compact versions with maximum range
- Directly connect to a safety controller - without a separate evaluation unit, reducing costs
- Flexible device integration makes it possible to set up individual protective fields
- Well suited to withstand extreme ambient conditions such as heat, cold or moisture



**Applications**

Access protection (vertical): 1

**Technical Data-Sender**

Typical range: 0 m ... 12 m  
 Maximum scanning range: 0 m ... 18 m  
 Number of beams: 1  
 Light spot diameter (distance): 300 mm (10 m)  
 Aperture angle/receiving angle: according to type 2 (IEC 61496-2)  
 Light sender/type of light: LED/visible red light  
 Wave length: 660 nm  
 Average service life (TA): 100,000 h (25 °C)  
 Protection class: II  
 Enclosure rating: IP 67

Type:	Type 2 (EN 61496) <sup>1)</sup>
Safety integrity level:	SIL1 (IEC 61508) SILCL1 (IEC 62061) <sup>2)</sup>
Category:	category 2 (EN ISO 13849) <sup>3)</sup>
Test rate (external test):	100 /s (EN ISO 13849) <sup>4)</sup>
Maximum demand rate:	60 /min (EN ISO 13849) <sup>5)</sup>
Performance level:	PL c (EN ISO 13849) <sup>6)</sup>
PFHd:	1.0 * 1E-06 <sup>7)</sup>
TM (mission time):	20 a
Supply voltage typical, from, to:	24 V DC, 16.8 V DC, 28.8 V DC <sup>8)</sup>
Maximum power consumption:	≤ 35 mA
Diagnostic display:	LED
Design:	Rectangular
Dimensions (W x H x D):	75.5 mm x 17.6 mm x 33.5 mm
Connection type:	plug M12 x 4
Housing material:	ABS
Ambient operating temperature from ... to:	-40 °C ... 60 °C
Storage temperature from ... to:	-40 °C ... 75 °C
Weight:	40 g

1) 2) 3) 6) 7) Only in conjunction with suitable testing device, e.g., Flexi Classic, DeviceNet Safety <sup>4)</sup> The test rate shall not be exceeded <sup>5)</sup> Between two demands on a safety-related response of the device, at least 100 internal or external tests must be carried out. <sup>8)</sup> Reverse polarity protected

## Technical Data-Receiver

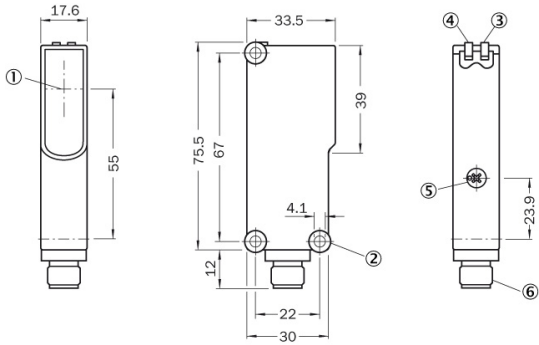
Typical range:	0 m ... 12 m
Maximum scanning range:	0 m ... 18 m
Number of beams:	1
Light spot diameter (distance):	300 mm (10 m)
Aperture angle/receiving angle:	according to type 2 (IEC 61496-2)
Protection class:	II
Enclosure rating:	IP 67
Type:	Type 2 (EN 61496) <sup>1)</sup>
Safety integrity level:	SIL1 (IEC 61508) SILCL1 (IEC 62061) <sup>2)</sup>
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Performance level:	PL c (EN ISO 13849) <sup>6)</sup>
PFHd:	1.0 * 1E-06 <sup>7)</sup>
TM (mission time):	20 a
Supply voltage typical, from, to:	24 V DC, 16.8 V DC, 28.8 V DC <sup>8)</sup>
Switching outputs:	PNP, Q and Q not <sup>9)</sup>
Maximum switching sequence:	1,000 Hz
Maximum switching current:	100 mA
Maximum power consumption:	≤ 25 mA
Diagnostic display:	LED
Design:	Rectangular
Dimensions (W x H x D):	75.5 mm x 17.6 mm x 33.5 mm
Connection type:	plug M12 x 4
Housing material:	ABS
Ambient operating temperature from ... to:	-40 °C ... 60 °C
Storage temperature from ... to:	-40 °C ... 75 °C

Weight:

40 g

1) 2) 3) 6) 7) Only in conjunction with suitable testing device, e.g., Flexi Classic, DeviceNet Safety 4) The test rate shall not be exceeded 5) Between two demands on a safety-related response of the device, at least 100 internal or external tests must be carried out. 8) Reverse polarity protected 9) Short-circuit protected, interference suppression

**Dimensional drawing**



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