

Technical data sheet

Single beam safety device transmitter

Part no.: 50134014

SLS518L1-K48-M12

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Operation and display
- Notes
- Further information



Figure can vary



Technical data

Basic data

Series	518
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Special design

Special design	Activation input
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Characteristic parameters

Type	4, IEC/EN 61496, in combination with a suitable test monitoring unit, e.g. MSI-TR1B
SIL	3, IEC 61508, in combination with a suitable test monitoring unit, e.g. MSI-TR1B
SILCL	3, IEC/EN 62061, in combination with a suitable test monitoring unit, e.g. MSI-TR1B
Performance Level (PL)	e, EN ISO 13849-1
MTTF _d	900 years, EN ISO 13849-1
Mission time T _M	20 years, EN ISO 13849-1
Category	4, EN ISO 13849, In combination with MSI-TRMB safety relay

Optical data

Operating range	0 ... 40 m
Operating range limit	0 ... 40 m
Light source	Laser, Red
Laser light wavelength	650 nm
Laser class	1, EN 60825-1:2014, (2, EN 60825-1:2007)
Max. laser power	0.001 W
Transmitted-signal shape	Pulsed
Pulse duration	5 µs
Opening angle, max.	-2.5 ... 2.5 °

Electrical data

Protective circuit	Polarity reversal protection Short circuit protected
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Performance data

Supply voltage U _B	24 V, DC, -15 ... 15 %, Incl. residual ripple
Open-circuit current	35 mA

Inputs

Number of activation inputs	1 Piece(s)
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Activation inputs

Voltage type	DC
Switching voltage	high: ≥8V low: ≤1.5V
Switching voltage high, min.	8 V
Switching voltage low, max.	1.5 V
Activation/disable delay	1 ms
Input resistance	10,000 Ω, -30 ... 30 %

Activation input 1

Assignment	Connection 1, pin 4
Active switching state	High

Timing

Switching frequency	500 Hz
Response time	1 ms
Readiness delay	300 ms

Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Activation input Voltage supply
Type of connection	Connector
Thread size	M12
Material	Plastic
No. of pins	4 -pin

Mechanical data

Design	Cylindrical
Thread size	M18
Dimension (Ø x L)	22 mm x 86 mm
Housing material	Plastic, ABS, UL 94-V0
Lens cover material	Plastic / PMMA
Net weight	30 g
Housing color	Black
Type of fastening	Screw type

Operation and display

Type of display	LED
Number of LEDs	1 Piece(s)

Environmental data

Ambient temperature, operation	-10 ... 50 °C
Ambient temperature, storage	-25 ... 70 °C

Certifications

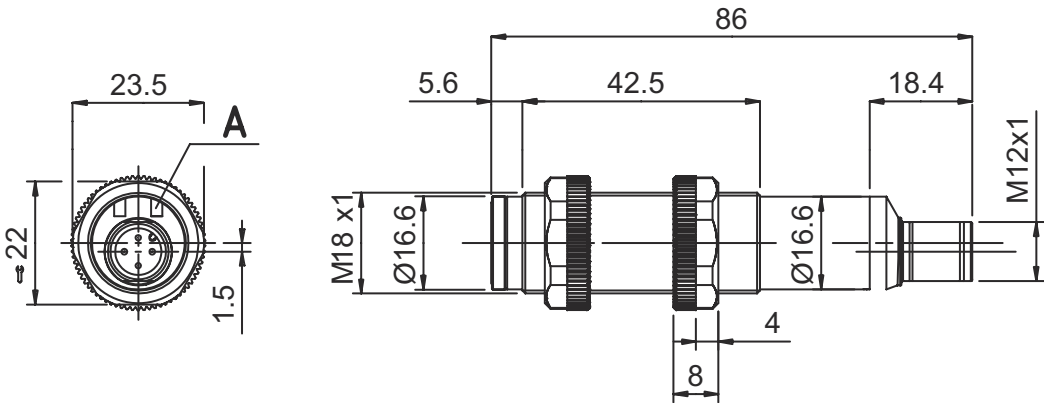
Degree of protection	IP 67
Certifications	TÜV Süd UL US
Standards applied	IEC 60947-5-2, IEC/EN 61496

Classification

Customs tariff number	85365019
eCl@ss 8.0	27272701
eCl@ss 9.0	27272701
ETIM 5.0	EC001831
ETIM 6.0	EC001831

Dimensioned drawings

All dimensions in millimeters



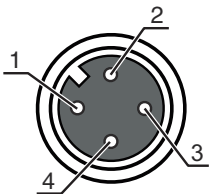
A Green LED

Electrical connection

Connection 1

Function	Activation input
	Voltage supply
Type of connection	Connector
Thread size	M12
Type	Female
Material	Plastic
No. of pins	4 -pin
Encoding	A-coded

Pin	Pin assignment	Conductor color
1	+24V	Brown
2	n.c.	White
3	GND	Blue
4	Active	Black



Operation and display

LED	Display	Meaning
1	Green, continuous light	Ready

Notes

 Observe intended use!		
	⚠ The product may only be put into operation by competent persons.	
	⚠ Only use the product in accordance with its intended use.	

Notes

For UL applications:



⚡ Only for use in "class 2" circuits

ATTENTION!



- ⚡ The SLS518 K4 safety sensors are a type 4 AOPD only in combination with the MSI-TRM safety relays.
- ⚡ For mounting, electrical connection and operation, the operating instructions of the MSI-TRM safety relays are to be observed.

WARNING! LASER RADIATION – CLASS 1 LASER PRODUCT



- ⚡ The device satisfies the requirements of IEC 60825-1:2007 (EN 60825-1:2007) safety regulations for a product of **laser class 1 as well as the U.S. 21 CFR 1040.10 regulations with deviations corresponding to "Laser Notice No. 50" from June 24, 2007.**
- ⚡ Observe the applicable statutory and local laser protection regulations.
- ⚡ The device must not be tampered with and must not be changed in any way.
- ⚡ There are no user-serviceable parts inside the device.
- ⚡ Repairs must only be performed by Leuze electronic GmbH + Co. KG.

Further information

- Typ. operating range limit: max. attainable range without function reserve
- Operating range: recommended range with function reserve