



Figure can vary

Part no.: 50121909  
**SLS46C-40.K28-M12**  
Single beam safety device transmitter



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- Technical data
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- Operation and display
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## Technical data

<b>Basic data</b>	
Series	46C
<b>Functions</b>	
Functions	Activation input
<b>Characteristic parameters</b>	
Type	2 , IEC/EN 61496, in combination with a suitable test monitoring unit, e.g. MSI-TR1B
SIL	1 , IEC 61508, in combination with a suitable test monitoring unit, e.g. MSI-TR1B
SILCL	1 , IEC/EN 62061, in combination with a suitable test monitoring unit, e.g. MSI-TR1B
Performance Level (PL)	c , EN ISO 13849-1:2008 , In combination with MSI-TRMB safety relay
MTTF <sub>d</sub>	400 years , EN ISO 13849-1
PFH <sub>D</sub>	3E-10 per hour
Mission time T <sub>M</sub>	20 years , EN ISO 13849-1
Category	2 , EN ISO 13849 , In combination with a suitable test monitoring unit, e.g. MSI-TR1B
<b>Optical data</b>	
Operating range	0.5 ... 40 m
Operating range limit	0.5 ... 48 m
Light source	LED , Red
LED light wavelength	630 nm
Transmitted-signal shape	Pulsed
LED group	1
Opening angle, max.	-5 ... 5 °
<b>Electrical data</b>	
Protective circuit	Polarity reversal protection Short circuit protected
<b>Performance data</b>	
Supply voltage U <sub>B</sub>	24 V , DC , -20 ... 20 % , Incl. residual ripple
Residual ripple	10 % , From U <sub>B</sub>
Open-circuit current	0 ... 40 mA
<b>Inputs</b>	
Number of activation inputs	1 Piece(s)
<b>Activation inputs</b>	
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 %
<b>Activation input 1</b>	
Assignment	Connection 1, pin 4
Active switching state	High

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**Timing**

Switching frequency	250 Hz
Response time	2.5 ms
Readiness delay	300 ms

**Connection**

Number of connections	1 Piece(s)
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**Connection 1**

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

**Mechanical data**

Design	Cubic
Dimension (W x H x L)	20.5 mm x 76.3 mm x 44 mm
Housing material	Plastic , PC-PBT
Lens cover material	Plastic / PMMA
Net weight	50 g
Housing color	Red
Type of fastening	Through-hole mounting
Compatibility of materials	ECOLAB

**Operation and display**

Type of display	LED
Number of LEDs	2 Piece(s)

**Environmental data**

Ambient temperature, operation	-30 ... 60 °C
Ambient temperature, storage	-30 ... 70 °C

**Certifications**

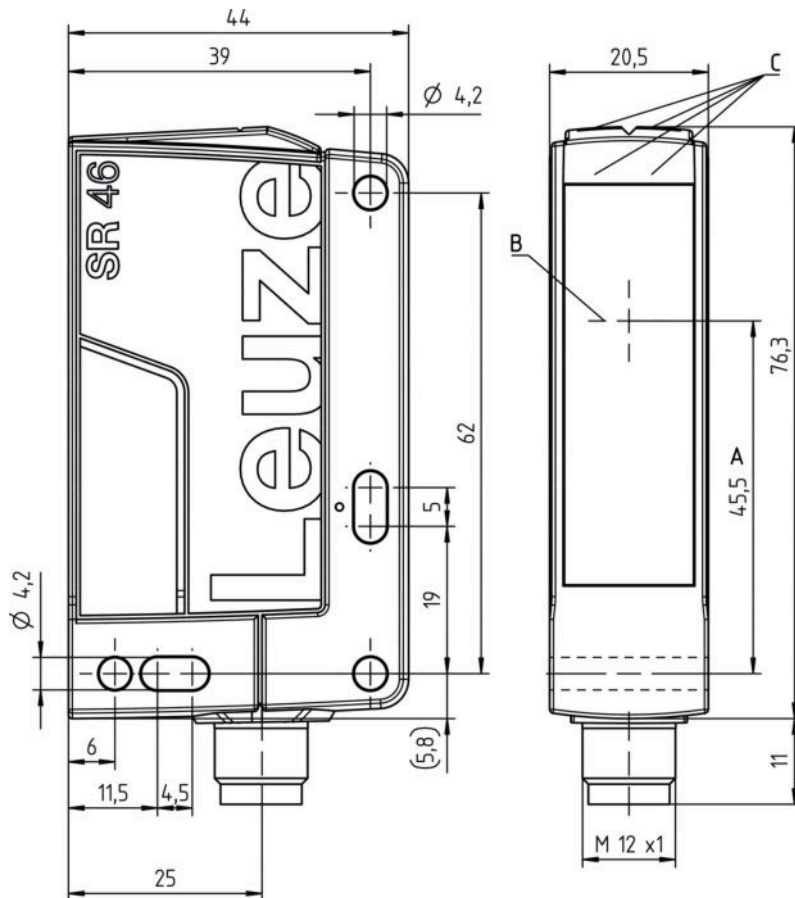
Degree of protection	IP 67 IP 69K
Protection class	III , Rating voltage 50 V
Certifications	c TÜV NRTL US c UL US TÜV Süd
Standards applied	IEC 60947-5-2, IEC/EN 61496

**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

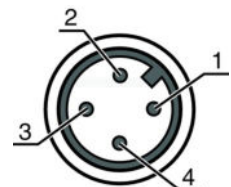


A Optical axis  
 B Transmitter and receiver  
 C Green/yellow indicator diodes

## Electrical connection

Connection 1	
Type of connection	Connector
Function	Signal IN Voltage supply
Thread size	M12
Type	Male
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

### LEDs

LED	Display	Meaning
1	Green, continuous light	Ready
2	Yellow, continuous light	Transmitter activated

## Suitable receivers

	Part no.	Designation	Article	Description
	50121917	SLE46C-40.K2/ 4P-M12	Single beam safety device receiver	Response time: 2.5 ms Connection: Connector, M12, Plastic, 4 -pin

## 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.

### For UL applications:



- Certification: UL 508, C22.2 No.14-13
- Only for use in "class 2" circuits
- These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV/CYJV7 or PVVA/PVVA7)

- Typ. operating range limit: max. attainable range without function reserve
- Operating range: recommended range with function reserve
- Light source: Average life expectancy 100,000 h at an ambient temperature of 25 °C


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## Accessories


### Connection technology - Connection unit

	Part no.	Designation	Article	Description
	547958	MSI-TR1B-01	Safety relay	
	547959	MSI-TR1B-02	Safety relay	


### Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50130690	KD U-M12-4W-V1-050	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

### Mounting technology - Mounting brackets


	Part no.	Designation	Article	Description
	50105315	BT 46	Mounting device	Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid Material: Metal

### Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
	50122797	BTU 346M-D12	Mounting system	Contains: 2x M4 x 25 screw, 2x position washers Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Turning, 360°, Clampable, Adjustable Material: Metal

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## Muting - Mounting systems

	Part no.	Designation	Article	Description
	50117252	BTU 300M-D12	Mounting system	Contains: 2x M4 x 25 screw, 2x M4 x 20 screw, 4x position washers Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type, Suited for M4 screws Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal

### Note

A list with all available accessories can be found on the Leuze electronic website in the Download tab of the article detailed page.