

the sensor people





Figure can vary

Part no.: 50126545 SLS46C-40.K48 Single beam safety device transmitter













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### **Technical data**

Basic data			
Series	46C		
Characteristic parameters			
Туре	4, IEC/EN 61496		
MTTFd	900 years, EN ISO 13849-1		
Mission time T <sub>M</sub>	20 years, EN ISO 13849-1		
Optical data			
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 protection class	1		
Timing			
Switching frequency	250 Hz		
Response time	2.5 ms		
Readiness delay	300 ms		
Electrical data			
Protective circuit	Short circuit protected, Polarity reversal protection		
Performance data			
Supply voltage			
Cappiy Voltage	24 V, DC, -20 20 %, Incl. residual ripple		
Residual ripple	24 V, DC, -20 20 %, Incl. residual ripple 10 %, From U <sub>B</sub>		
Residual ripple	10 %, From U <sub>B</sub>		
Residual ripple Open-circuit current	10 %, From U <sub>B</sub>		
Residual ripple Open-circuit current Inputs	10 %, From U <sub>B</sub> 0 40 mA		
Residual ripple Open-circuit current Inputs Number of activation inputs	10 %, From U <sub>B</sub> 0 40 mA		
Residual ripple Open-circuit current Inputs Number of activation inputs Activation inputs	10 %, From U <sub>B</sub> 0 40 mA 1 Piece(s)		
Residual ripple Open-circuit current Inputs Number of activation inputs Activation inputs Voltage type	10 %, From U <sub>B</sub> 0 40 mA 1 Piece(s) DC		
Residual ripple Open-circuit current  Inputs Number of activation inputs  Activation inputs  Voltage type Switching voltage	10 %, From U <sub>B</sub> 0 40 mA  1 Piece(s)  DC  low: ≤1.5V, high: ≥8V		
Residual ripple  Open-circuit current  Inputs  Number of activation inputs  Activation inputs  Voltage type  Switching voltage  Switching voltage high, min.	10 %, From U <sub>B</sub> 0 40 mA  1 Piece(s)  DC  low: ≤1.5V, high: ≥8V 8 V		
Residual ripple  Open-circuit current  Inputs  Number of activation inputs  Activation inputs  Voltage type  Switching voltage  Switching voltage high, min.  Switching voltage low, max.	10 %, From U <sub>B</sub> 0 40 mA  1 Piece(s)  DC  low: ≤1.5V, high: ≥8V  8 V  1.5 V		
Residual ripple  Open-circuit current  Inputs  Number of activation inputs  Activation inputs  Voltage type  Switching voltage  Switching voltage high, min.  Switching voltage low, max.  Activation/disable delay	10 %, From U <sub>B</sub> 0 40 mA  1 Piece(s)  DC  low: ≤1.5V, high: ≥8V  8 V  1.5 V  1 ms		
Residual ripple  Open-circuit current  Inputs  Number of activation inputs  Activation inputs  Voltage type  Switching voltage  Switching voltage high, min.  Switching voltage low, max.  Activation/disable delay  Input resistance	10 %, From U <sub>B</sub> 0 40 mA  1 Piece(s)  DC  low: ≤1.5V, high: ≥8V  8 V  1.5 V  1 ms		
Residual ripple  Open-circuit current  Inputs  Number of activation inputs  Activation inputs  Voltage type  Switching voltage  Switching voltage high, min.  Switching voltage low, max.  Activation/disable delay  Input resistance  Activation input 1	10 %, From U <sub>B</sub> 0 40 mA  1 Piece(s)  DC  low: ≤1.5V, high: ≥8V  8 V  1.5 V  1 ms  10.000 Ω, -30 30 %		
Residual ripple  Open-circuit current  Inputs  Number of activation inputs  Activation inputs  Voltage type  Switching voltage  Switching voltage high, min.  Switching voltage low, max.  Activation/disable delay  Input resistance  Activation input 1  Assignment	10 %, From U <sub>B</sub> 0 40 mA  1 Piece(s)  DC  low: ≤1.5V, high: ≥8V  8 V  1.5 V  1 ms  10.000 Ω, -30 30 %  Connection 1, conductor 4		
Residual ripple  Open-circuit current  Inputs  Number of activation inputs  Activation inputs  Voltage type  Switching voltage  Switching voltage high, min.  Switching voltage low, max.  Activation/disable delay  Input resistance  Activation input 1  Assignment	10 %, From U <sub>B</sub> 0 40 mA  1 Piece(s)  DC  low: ≤1.5V, high: ≥8V  8 V  1.5 V  1 ms  10.000 Ω, -30 30 %  Connection 1, conductor 4		



Connection 1		
Type of connection	Cable	
Function	Signal IN, Voltage supply	
Cable length	2.000 mm	
Sheathing material	PUR	
Number of conductors	4 -wire	
Core cross section	0.21 mm²	

Cubic	
20.5 mm x 76.3 mm x 44 mm	
Plastic, PC-PBT	
Plastic (PMMA)	
100 g	
Yellow	
Through-hole mounting	
-	20.5 mm x 76.3 mm x 44 mm  Plastic, PC-PBT  Plastic (PMMA)  100 g  Yellow

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	
Environmental test	ECOLAB	

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

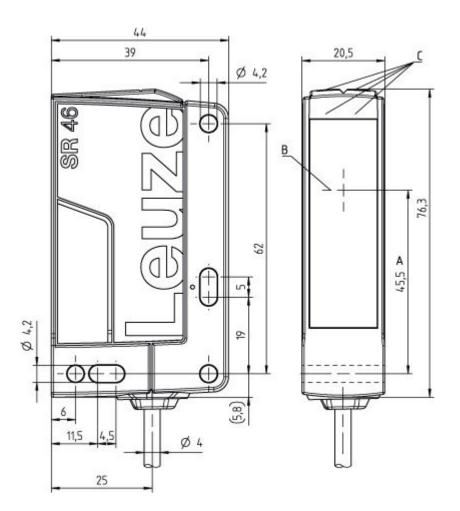
Functions		
Functions	Activation input	

Classification		
eCl@ss 8.0	27272701	
eCl@ss 9.0	27272701	
ETIM 5.0	EC001831	

## **Dimensioned drawings**

All dimensions in millimeters





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

### **Electrical connection**

Connection 1	
Type of connection	Cable
Function	Signal IN, Voltage supply
Cable length	2.000 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	4 -wire
Core cross section	0.21 mm²

Conductor color	Conductor assignment
Brown	+24V
White	n.c.
Blue	GND
Black	Active



### **Operation and display**

#### **LEDs**

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

#### **Accessories**

## Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
E 13	50105315	BT 46		Design of mounting device: Angle, L-shape Mounting bracket, 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
50117253	BTU 300M-D10	Mounting system	Contains: 2x M4 x 25 screw, 2x M4 x 20 screw, 4x position washers Design of mounting device: Mounting system Mounting bracket, at system: For 10 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
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 Mounting bracket, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
50117251	BTU 300M-D14	Mounting system	Contains: 2x M4 x 25 screw, 2x M4 x 20 screw, 4x position washers Design of mounting device: Mounting system Mounting bracket, at system: For 14 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
50120425	BTU 300M.5-D12	Mounting system	Contains: 2x M4 x 25 screw, 2x M4 x 20 screw, 2x position washers, 2x M4 mounting nut Design of mounting device: Mounting system Mounting bracket, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Stainless steel
50119332	BTU 900M-D10	Mounting system	Contains: 2x M4 x 10 screw, 2x position washers Design of mounting device: Mounting system Mounting bracket, at system: For 10 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Turning, 360°, Swiveling Material: Metal



	Part no.	Designation	Article	Description
	50119331	BTU 900M-D12	Mounting system	Contains: 2x position washers, 2x M4 x 10 screw Design of mounting device: Mounting system Mounting bracket, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Turning, 360°, Swiveling Material: Metal
T.	50119330	BTU 900M-D14	Mounting system	Contains: 2x position washers, 2x M4 x 10 screw Design of mounting device: Mounting system Mounting bracket, at system: For 14 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Turning, 360°, Swiveling Material: Metal

### Alignment aids

Part no.	Designation	Article	Description
50109545	SAT 5	Alignment aid	Housing material: Metal

#### **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.

#### Attention!

- · The SLS46CK4 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.

#### 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
- Average life expectancy 100,000 h at an ambient temperature of 25 °C

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