

the sensor people





Part no.: 50126550 SLS46CI-40.K48-M12 Single beam safety device transmitter













Figure can vary

# **Contents**

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- Dimensioned drawings
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### **Technical data**

Basic data			
Series	46C		
Functions			
Functions	Activation input		
Characteristic parameters			
Туре	4, IEC/EN 61496		
MTTF <sub>d</sub>	900 years, EN ISO 13849-1		
Mission time T <sub>M</sub>	20 years, EN ISO 13849-1		
Optical data			
Operating range	0.25 40 m		
Operating range limit	0.25 48 m		
Light source	LED, Infrared		
LED light wavelength	940 nm		
Transmitted-signal shape	Pulsed		
LED protection class	1		
Opening angle, max.	-2.5 2.5 °		
Electrical data			
Performance data			
Supply voltage	24 V, DC, -20 20 %, Incl. residual ripple		
Residual ripple	10 %, From U <sub>B</sub>		
Open-circuit current	0 40 mA		
Inputs			
Number of activation inputs	1 Piece(s)		
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	250 Hz		
Response time	2.5 ms		
Readiness delay	300 ms		
0			
Connection	4 Pinar(a)		
Number of connections	1 Piece(s)		



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

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

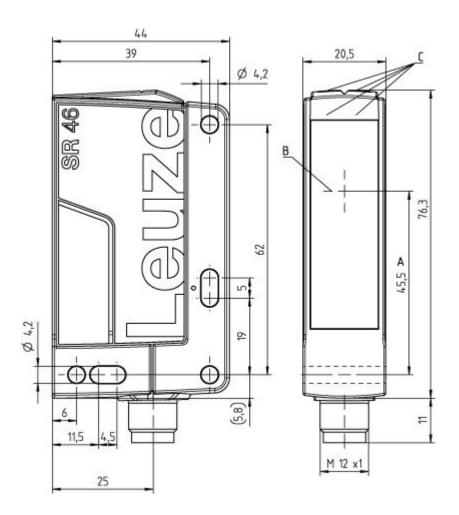
### Suitable receivers

Part	no. Designation	Part no.	Article	Description
501263	SLE46CI-40.K4/ 4P-M12	50126332		Response time: 2.5 ms Connection: Connector, M12, Plastic, 4 -pin



### **Dimensioned drawings**

All dimensions in millimeters



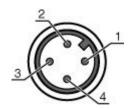
- Optical axis
- Transmitter and receiver
- A B C Green/yellow indicator diodes

### **Electrical connection**

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

### **Accessories**

## Connection technology - Connection cables

Part no.	Designation	Article	Description
50130654	KD U-M12-4A- P1-020	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PUR
50130657	KD U-M12-4A- P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PUR
50130658	KD U-M12-4A- P1-100	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 10,000 mm Sheathing material: PUR
50130648	KD U-M12-4A- V1-020	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PVC
50130652	KD U-M12-4A- V1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC



	Part no.	Designation	Article	Description
W	50130653	KD U-M12-4A- V1-100	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 10,000 mm Sheathing material: PVC
W/	50132431	KD U-M12-4A- V1-200	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 20,000 mm Sheathing material: PVC
W	50132430	KD U-M12-4A- V1-300	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 30,000 mm Sheathing material: PVC
W	50130692	KD U-M12-4W- P1-020	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PUR
W	50130694	KD U-M12-4W- P1-050	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: PUR
W	50130695	KD U-M12-4W- P1-100	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 10,000 mm Sheathing material: PUR
W	50130688	KD U-M12-4W- V1-020	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PVC
W	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
W	50130691	KD U-M12-4W- V1-100	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 10,000 mm Sheathing material: PVC
W	50132641	KD U-M12-4W- V1-200	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 20,000 mm Sheathing material: PVC



## Mounting technology - Mounting brackets

Part no.	Designation	Article	Description
50118543	BT 300M.5	Mounting bracket	Design of mounting device: Angle, L-shape Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Adjustable Material: Stainless steel
50105315	BT 46	Mounting device	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
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



Part no.	Designation	Article	Description
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

## Mounting technology - Other

Part no.	Designation	Article	Description
50136665	BTX 046M	Mounting plate	Contains: 2x M4 x 30 screw, 1 M4 x 12 screw Design of mounting device: Mounting plate Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Screw type 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
- Light source: Average life expectancy 100,000 h at an ambient temperature of 25 °C