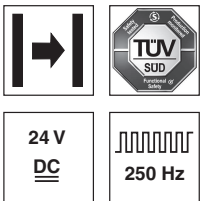


SLS46CK4

Protective throughbeam photoelectric sensor

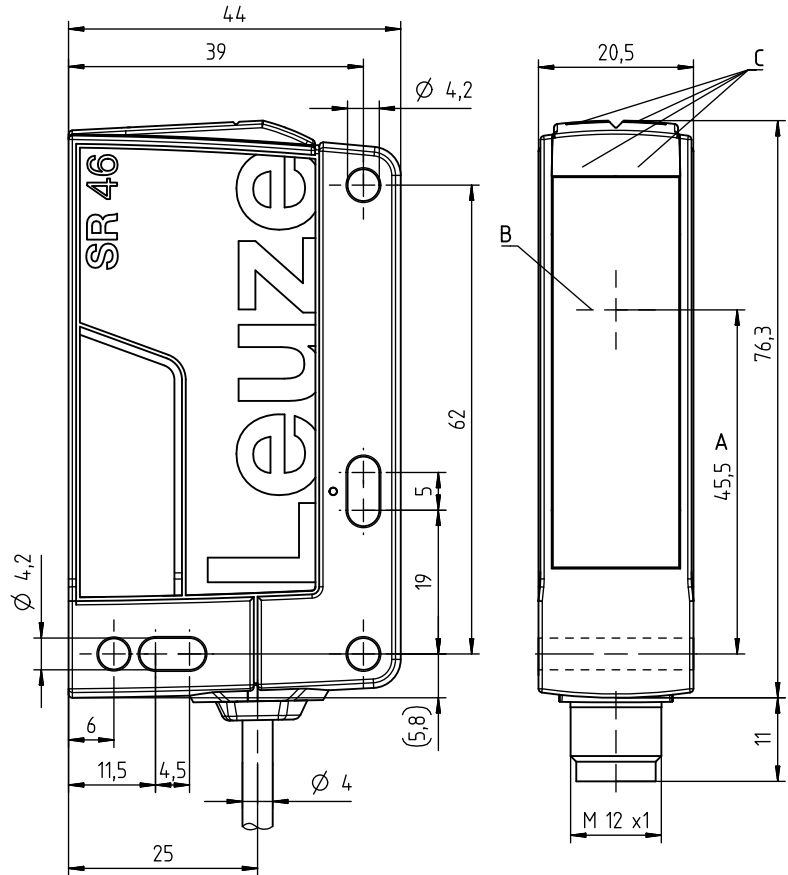
en 01-2015/01 50127541



0.5 ... 48m
5 ... 80m

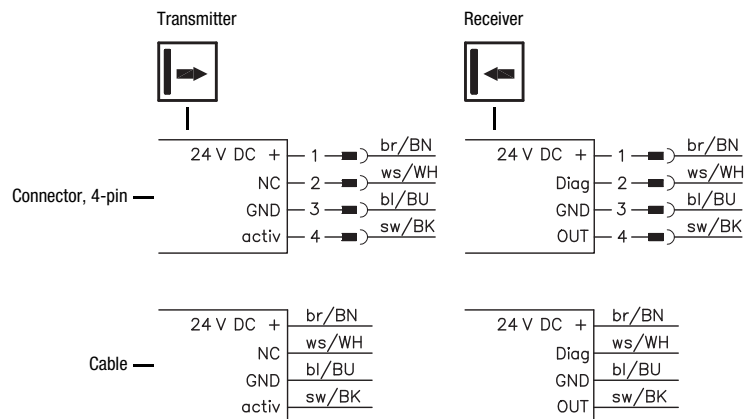
- Protective throughbeam photoelectric sensor with visible red light or infrared light (for multi-axis operation), up to category 4 in accordance with EN ISO 13849-1:2008
- Two operating ranges: 0.5 ... 40m and 5 ... 70m
- Small and compact construction with robust plastic housing, degree of protection IP 67/IP 69K for industrial application
- Fast alignment through *brightVision*®
- LED display featuring excellent visibility for alignment control

Dimensioned drawing



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

Electrical connection



Accessories:

(available separately)

- Mounting systems (BT 46, BTU 300M, BTU 900M)
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Safety relays MSI-TRMB-01, MSI-TRMB-02
- Sensorscope SAT 5 (alignment control, part no. 50109545)

We reserve the right to make changes • DS_SLS46CK4_en_50127541.fm



Specifications

Safety-relevant data

Type in accordance with IEC/EN 61496	Type 4
Performance Level (PL) in accordance with EN ISO 13849-1:2008 ¹⁾	PL e
Category in accordance with EN ISO 13849:2008 ¹⁾	Cat. 4
Mean time to dangerous failure (MTTFd)	900 years
Service life (TM)	20 years

Optical data

Typ. operating range limit ²⁾	range 1:	0.5 ... 48m
	range 2:	5 ... 80m
Operating range ³⁾	range 1:	0.5 ... 40m
	range 2:	5 ... 70m
Light source ⁴⁾	LED (modulated light)	
Wavelength	visible red light:	630nm
	infrared light:	940nm

Timing

Switching frequency	250Hz
Response time	≤ 2.5ms
Delay before start-up	≤ 300ms

Electrical data

Operating voltage U_B ⁵⁾	24VDC ±20% (incl. residual ripple)
Residual ripple	≤ 10% of U_B
Open-circuit current	transmitter: ≤ 40mA
	receiver: ≤ 15mA
Switching output/function	pin 2: diagnostic output Diag , PNP dark switching
	pin 4: switching output OUT , PNP light switching
Signal voltage high/low	≥ ($U_B - 2V$) / ≤ 2V
Output current	max. 100mA

Indicators

Transmitter	
Green LED	ready
Yellow LED	transmitter active
Receiver	
Green LED	ready
Yellow LED	light path free

Mechanical data

Housing	plastic (PC-PBT)
Optics cover	plastic (PMMA)
Weight (plug/cable)	100g/200g per pair
Connection type	M12 connector (4-pin) or cable, length 2m (cross section 4x0.21 mm ²)

Environmental data

Ambient temp. (operation/storage)	-30°C ... +60°C / -30°C ... +70°C
Protective circuit ⁶⁾	2, 3
VDE safety class ⁷⁾	III
Degree of protection	IP 67, IP 69K
Environmentally tested acc. to	ECOLAB
Light source	exempt group (in acc. with EN 62471)
Standards applied	IEC 60947-5-2, IEC/EN 61496
Certifications	UL 508, C22.2 No.14-13 ^{5) 8)}

Activation input activ

Transmitter active/not active	≥ 8V / ≤ 1.5V
Activation/disable delay	≤ 1ms / ≤ 1ms
Input resistance	10KΩ ± 30%

- 1) In combination with safety relay MSI-TRMB-01 or MSI-TRMB-02
- 2) Typ. operating range limit: max. attainable range without performance reserve
- 3) Operating range: recommended range with performance reserve
- 4) Average life expectancy 100,000h at an ambient temperature of 25°C
- 5) For UL applications: for use in class 2 circuits only
- 6) 2=polarity reversal protection, 3=short-circuit protection for all transistor outputs
- 7) Rating voltage 50V
- 8) 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)

Tables

Operating range 1:

0.5	40	48
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Operating range 2:

5	70	80
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<input type="checkbox"/>	Operating range [m]
<input type="checkbox"/>	Typ. operating range limit [m]

Remarks

Operate in accordance with intended use!

- ↪ The product may only be put into operation by competent persons.
- ↪ Only use the product in accordance with the 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.

SLS46CK4
Protective throughbeam photoelectric sensor
Order guide 1)

	Part no.	Designation	Operating range [m]	Connection	Transmitter light
Transmitter	50126546	SLS46C-40.K48-M12	40	M12	Visible red light
Receiver	50126328	SLE46C-40.K4/4P-M12			
Transmitter	50126548	SLS46C-70.K48-M12	70	M12	Visible red light
Receiver	50126330	SLE46C-70.K4/4P-M12			
Transmitter	50126550	SLS46CI-40.K48-M12	40	M12	Infrared light
Receiver	50126332	SLE46CI-40.K4/4P-M12			
Transmitter	50126552	SLS46CI-70.K48-M12	70	M12	Infrared light
Receiver	50126334	SLE46CI-70.K4/4P-M12			
Transmitter	50126545	SLS46C-40.K48	40	Cable, 2m	Visible red light
Receiver	50126327	SLE46C-40.K4/4P			
Transmitter	50126547	SLS46C-70.K48	70	Cable, 2m	Visible red light
Receiver	50126329	SLE46C-70.K4/4P			
Transmitter	50126549	SLS46CI-40.K48	40	Cable, 2m	Infrared light
Receiver	50126331	SLE46CI-40.K4/4P			
Transmitter	50126551	SLS46CI-70.K48	70	Cable, 2m	Infrared light
Receiver	50126333	SLE46CI-70.K4/4P			

1) Version 2010 A-Z

