

Specifications

Safety-relevant data

Type in accordance with IEC/EN 61496	type 2
Performance Level (PL) in accordance with EN ISO 13849-1:2008 ¹⁾	PL c
Category in accordance with EN ISO 13849:2008 ¹⁾	cat. 2
Mean time to dangerous failure (MTTFd)	400 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 4x0.21mm 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 a suitable safety relay in accordance with IEC 61496-1, e.g. MSI-TR1...
- 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.

SLS46CK2
Protective throughbeam photoelectric sensor
Order guide 1)

	Part no.	Designation	Operating range [m]	Connection	Transmitter light
Transmitter	50121909	SLS46C-40.K28-M12	40	M12	Visible red light
Receiver	50121917	SLE46C-40.K2/4P-M12			
Transmitter	50121907	SLS46C-70.K28-M12	70	M12	Visible red light
Receiver	50121915	SLE46C-70.K2/4P-M12			
Transmitter	50121913	SLS46CI-40.K28-M12	40	M12	Infrared light
Receiver	50121921	SLE46CI-40.K2/4P-M12			
Transmitter	50121911	SLS46CI-70.K28-M12	70	M12	Infrared light
Receiver	50121919	SLE46CI-70.K2/4P-M12			
Transmitter	50121910	SLS46C-40.K28	40	Cable, 2m	Visible red light
Receiver	50121918	SLE46C-40.K2/4P			
Transmitter	50121908	SLS46C-70.K28	70	Cable, 2m	Visible red light
Receiver	50121916	SLE46C-70.K2/4P			
Transmitter	50121914	SLS46CI-40.K28	40	Cable, 2m	Infrared light
Receiver	50121922	SLE46CI-40.K2/4P			
Transmitter	50121912	SLS46CI-70.K28	70	Cable, 2m	Infrared light
Receiver	50121920	SLE46CI-70.K2/4P			

1) Version 2010 A-Z

