



SLS 46



Protective throughbeam photoelectric sensor



Safety note:

- The protective throughbeam photoelectric sensor is a contactless active protective device only in connection with a safety-relevant control system, in which the cyclical testing of transmitter and receiver is carried out according to EN 61496-1, category 2 (testing). Minimum blackening object: $\varnothing 22\text{mm}$.
- At the device, the tip of the marker indicates the location of the optical axis.

Accessories

(available separately)

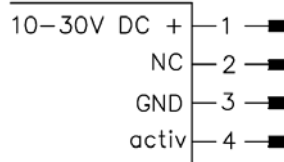
- Mounting systems (BT 46.1, BT 46.1.5, BT 46.2)
- M12 connectors (KD ...)
- Ready-made cables (KB ...)
- Test-monitoring units:
 - TNT 32 (Part No. 500 20476)
 - TNT 33 (Part No. 500 28158)
 - TNT 34 (Part No. 500 81023)
 - TNT 35 (Part No. 500 33058)
 - TNT 66 (Part No. 500 82121)

Features

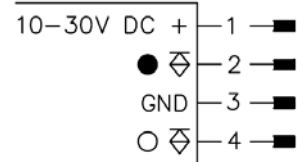
- Protective throughbeam photoelectric sensor with high performance reserve in infrared light
- Solid plastic housing, protection class IP 67 for industrial application
- Wide voltage range 10 ... 30V with PNP switching output for PLC applications
- Activation input for testing and interlinking

Electrical Connection

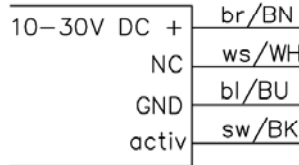
SLSS 46.8-S12



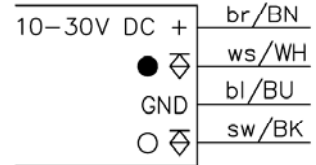
SLSE 46/44-S12



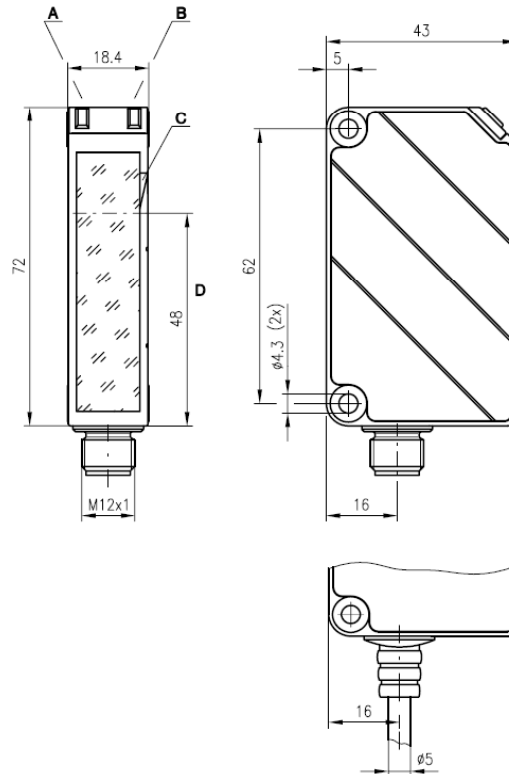
SLSS 46.8, 2000



SLSE 46/44, 2000



Dimensional Drawing



- A Indicator diode green
- B Indicator diode yellow
- C Marker
- D Optical axis





Technical Data

Optical data	
Typ. operating range limit ¹⁾	0 ... 36m
Operating range ²⁾	0 ... 30m
Light source	LED (modulated light)
Wavelength	880nm
Timing	
Switching frequency	200Hz
Response time	2.5ms
Delay before start-up	≤ 100ms
Electrical data	
Operating voltage U _B	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U _B
Bias current	≤ 30mA
Switching output	PNP-transistor
Function characteristics	light/dark switching (complementary)
Signal voltage high/low	≥(U _B -2V) / ≤ 2V
Output current	max. 100mA
Indicators	
Receiver	
LED green	ready
LED yellow	light path free
LED yellow flashing	light path free, no performance reserve
Transmitter	
LED green	ready
LED yellow	transmitter active
Mechanical data	
Housing	plastic
Optics cover	plastic
Weight	100g
Connection type	cable with M12 connector or cable, cable length: 2000mm, PVC
Environmental data	
Ambient temp. (operating/storage)	-20°C ... +60°C/-40°C ... +70°C
Protective circuit ³⁾	2, 3
VDE safety class ⁴⁾	II, all-insulated
Protection class	IP 67
Standards applied	IEC 60947-5-2
Options	
Activation input active	
Transmitter active/not active	≥ 8V/ ≤ 2V
Input resistance	≤ 1ms/ ≤ 2ms
Testing time	10kΩ ± 10%

1) Operating range limit: max. attainable range without performance reserve

2) Operating range: recommended range with performance reserve

3 2= polarity reversal protection, 3= short circuit protection for all outputs

4) Rating voltage 250 VAC

Order guide

	Designation	Part No.
with M12 connector		
Transmitter and receiver	SLS 46/44.8-S12	
Transmitter with activation input	SLSS 46.8-S12	500 60935
Receiver	SLSE 46/44-S12	500 60936
with 2m cable		
Transmitter and receiver	SLS 46/44.8, 2000	
Transmitter with activation input	SLSS 46.8, 2000	500 60939
Receiver	SLSE 46/44, 2000	500 60940



SLS 46/44.8, 300-S12



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Accessories

(available separately)

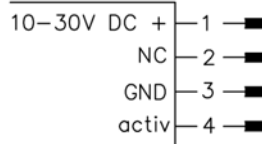
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Features

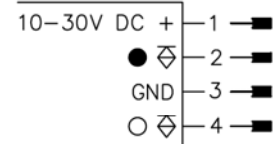
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- Solid plastic housing, protection class IP 67 for industrial application
- Wide voltage range 10 ... 30V with PNP switching output for PLC applications
- Activation input for testing and interlinking

Electrical Connection

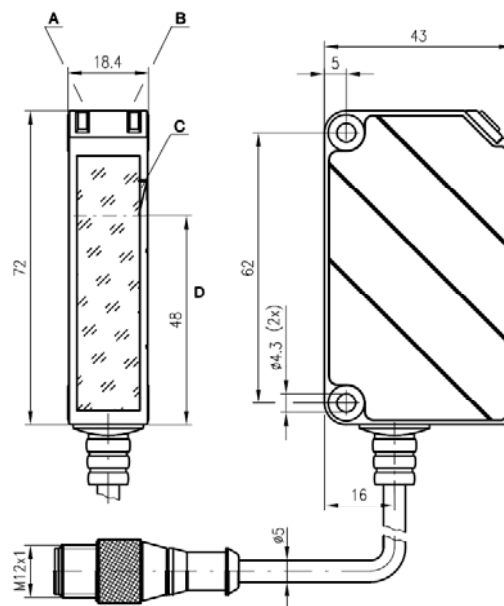
SLSS 46.8, 300-S12



SLSE 46/44, 300-S12



Dimensional Drawing



- A Indicator diode green
- B Indicator diode yellow
- C Marker
- D Optical axis

Order guide

	Designation	Part No.
with M12 connector		
Transmitter and receiver	SLS 46/44.8, 300-S12	
Transmitter with activation input	SLSS 46.8, 300-S12	500 60937
Receiver	SLSE 46/44, 300-S12	500 60938





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Light source	LED (modulated light)
Wavelength	880nm
Timing	
Switching frequency	200Hz
Response time	2.5ms
Delay before start-up	≤ 100ms
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Operating voltage U _B	10 ... 30V DC (incl. residual ripple)
Residual ripple	≤ 15% of U _B
Bias current	≤ 30mA
Switching output	PNP transistor
Function characteristics	light/dark switching (complementary)
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Output current	max. 100mA
Indicators	
Receiver	
LED green	ready
LED yellow	light path free
LED yellow flashing	light path free, no performance reserve
Transmitter	
LED green	ready
LED yellow	transmitter active
Mechanical data	
Housing	plastic
Optics cover	plastic
Weight	100g
Connection type	cable with M12 connector, cable length: 300mm
Environmental data	
Ambient temp. (operating/storage)	-20°C ... +60°C/-40°C ... +70°C
Protective circuit ³⁾	2, 3
VDE safety class ⁴⁾	II, all-insulated
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