



## SLS 46

## Protective throughbeam photoelectric sensors



36 m

10 - 30 V  
DC

BWS  
Typ 2



- Protective throughbeam photoelectric sensors 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

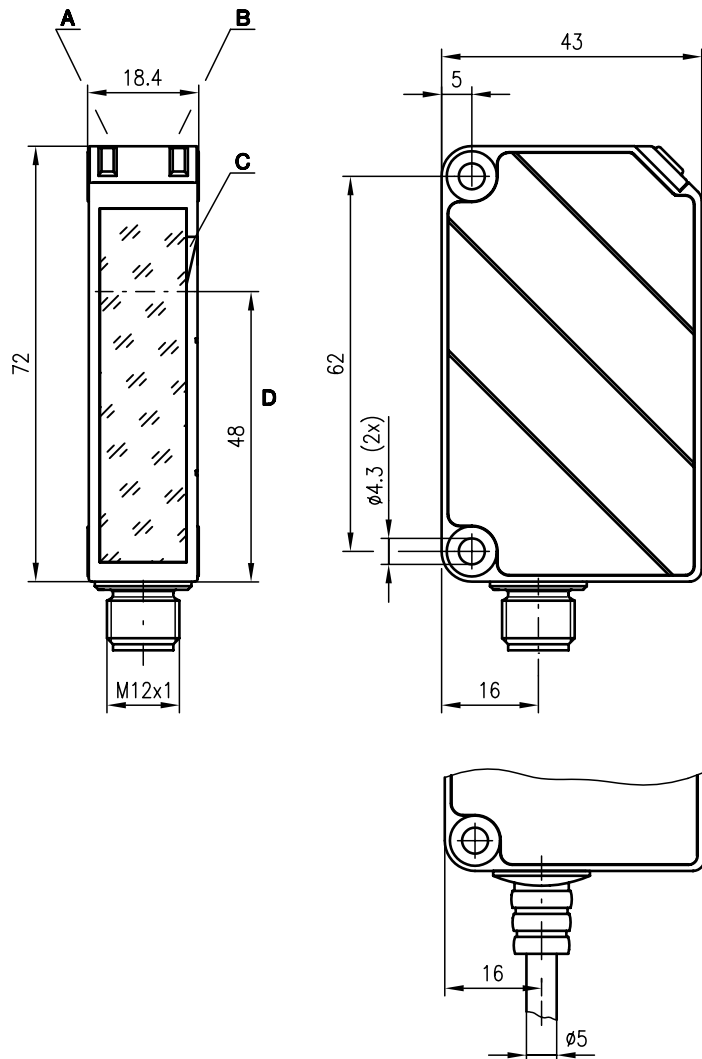


### Accessories:

(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)
  - TMC 66 (Part No. 500 82121)

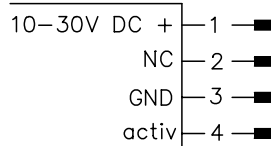
### Dimensioned drawing



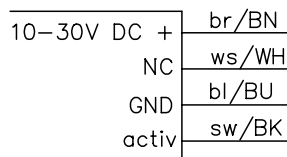
- A** Indicator diode green
- B** Indicator diode yellow
- C** Marker
- D** Optical axis

### Electrical connection

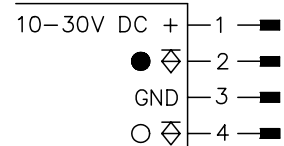
SLSS 46.8-S12



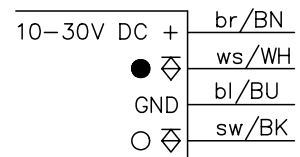
SLSS 46.8, 2000



SLSE 46/44-S12



SLSE 46/44, 2000



We reserve the right to make changes • 46\_a03e.fm



## Specifications

### Optical data

Typ. operating range limit <sup>1)</sup>	0 ... 36m
Operating range <sup>2)</sup>	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	M 12 connector, or cable, cable length: 2000mm, PVC

### Environmental data

Ambient temp. (operation/storage)	-20°C ... +60°C/-40°C ... +70°C
Protective circuit <sup>3)</sup>	2, 3
VDE safety class <sup>4)</sup>	II, all-insulated
Protection class	IP 67
Standards applied	IEC 60947-5-2

### Options

Activation input activ	
Transmitter active/not active	≥ 8V/≤ 2V
Activation/disable delay	≤ 1ms/≤ 2ms
Input resistance	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 250VAC

## Order guide

	Designation	Part No.
<b>with M12 connector</b>		
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
<b>with 2m cable</b>		
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

## Tables

## Diagrams

## Remarks

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: Ø22mm. At the device, the tip of the marker indicates the location of the optical axis.