## **SLS 85**



### 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).
- The power supply unit used to operate the photoelectric sensor has to be able to compensate for changes and interruptions of the supply voltage acc. to EN 61496-1. Minimum blackening object: Ø30mm.

### Accessories

(available separately)

- Fastening and adjustment angle BT 85
- M12 connection cable (KB ...)
- M12 connectors with screw terminals (KD ...)
- Laser alignment aid ARH 78
- Test-monitoring units:
  - TNT 35 (Art. no. 500 33058)
  - TMC 66 (Art. no. 500 82121)

CE

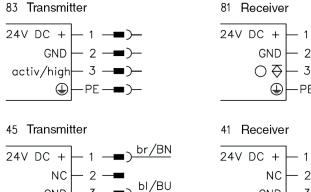
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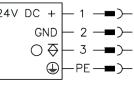
### Features

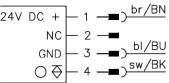
- Activation input for testing and interlinking .
- LED indicator in transmitter and receiver •
- Connection via M12 connector or standard plug with screw connector up to 1.5mm<sup>2</sup> •
- Integrated optics heating •

### **Electrical Connection**



∎<u>) sw/BK</u>





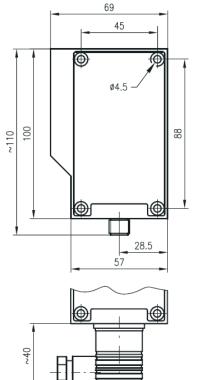
### **Dimensional Drawing**

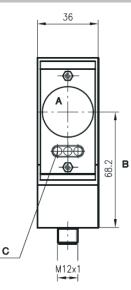
GND

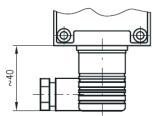
activ

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A Transmitter/receiver

- **B** Optical axis
- C Indicator diode

Technical Data		
Optical data		
Typ. operating range limit <sup>1)</sup>	0 78m	
Operating range <sup>2)</sup>	0 6Bm	
Light source	LED (modulated light)	
Wavelength	880nm	
Timing		
Switching frequency	300Hz	
Response time	min. 1.7ms	
Delay before start-up	≤ 5ms	
Electrical data		
Operating voltage U <sub>R</sub>	24 VDC ± 15%	
Residual ripple	≤ 15%	
Bias current	receiver ≤ 35mA	
	transmitter $\leq 60$ mA	
Switching output <sup>3)</sup>	PNP transistor output	
Function characteristics	light switching (complementary)	
Signal voltage high/low	$\geq$ (U <sub>R</sub> -2V) / $\leq$ 2V	
Output current	max. 200mA	
Indicators		
Receiver		
LED red	light path interrupted	
LED green	light path free	
LED green flashing	light path free, no performance reserve	
Transmitter	<u> </u>	
LED yellow	transmitter ON	
Mechanical data		
Housing	diecast aluminium	
Optics cover	glass	
Weight	280g	
Connection type	M12 connector or standard plug with screw connector up	
	to 1.5mm <sup>2</sup>	
Environmental data		
Ambient temp. (operating/storage)	-25°C +60°C/-30°C +70°C	
	l for SLS 83/81	
VDE safety class VDE safety class <sup>4)</sup>	II for SLS 41/45	
Protection circuit <sup>5)</sup>	1, 2, 3	
Protection class	IP 65	
Standards applied	IEC 60947-5-2	
Options		
Activation input active		
Transmitter active/not active	$\geq$ 8V/ $\leq$ 2V or not connected	
Activation/disable delay	$\leq 400 \mu s$	
Input resistance	$4.7 \text{k}\Omega \pm 10\%$	

1) Typ. operating range limit: max. attainable range without performance reserve

Operating range: recommended range with performance reserve
Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)

4) Rating voltage 250 VAC 5) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection

### Order guide

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	Designation	Art. no.
with standard plug		
Transmitter and receiver	SLS 85M/P-1750-T2-8	
Transmitter	SLSS 85M-1720-T2-83	500 24733
Receiver	SLSE 85M/P-1730-T2-81	500 24734
with M 12 connector <sup>1)</sup>		
Transmitter and receiver	SLS 85M/P-1750-T2-4	
Transmitter	SLSS 85M-1720-T2-45	500 26255
Receiver	SLSE 85M/P-1730-T2-41	500 26267
1) not part of the delivery contents		