

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: $\varnothing 30\text{mm}$.

Accessories

(available separately)

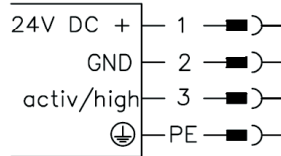
- Fastening and adjustment angle BT 85
- M12 connection cable (KB ...)
- M12 connectors – with screw terminals (KD ...)
- Laser alignment aid ARH 78
- Test-monitoring units:
 - TNT 35 (Art. no. 500 33058)
 - TMC 66 (Art. no. 500 82121)

Features

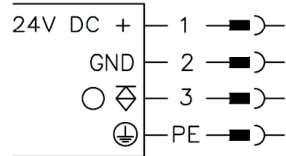
- Activation input for testing and interlinking
- LED indicator in transmitter and receiver
- Connection via M12 connector or standard plug with screw connector up to 1.5mm²
- Integrated optics heating

Electrical Connection

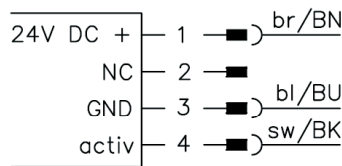
83 Transmitter



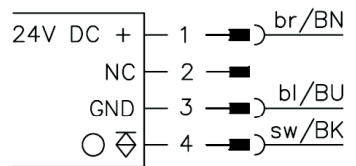
81 Receiver



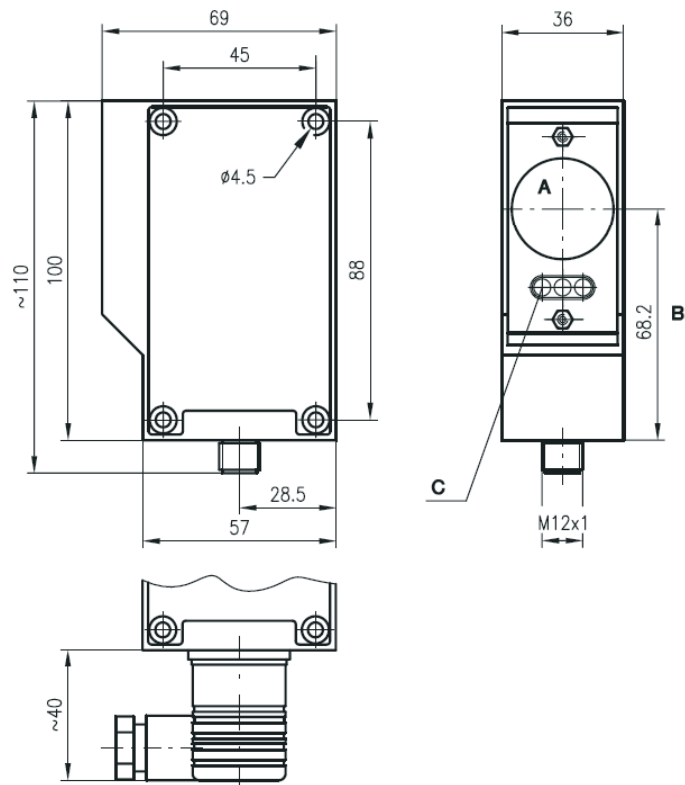
45 Transmitter



41 Receiver



Dimensional Drawing



- A** Transmitter/receiver
- B** Optical axis
- C** Indicator diode

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Technical Data

Optical data	
Typ. operating range limit ¹⁾	0 ... 78m
Operating range ²⁾	0 ... 63m
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 _B	24 VDC ± 15%
Residual ripple	≤ 15%
Bias current	receiver ≤ 35mA transmitter ≤ 60mA
Switching output ³⁾	PNP transistor output
Function characteristics	light switching (complementary)
Signal voltage high/low	≥(U _B -2V) / ≤ 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	
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 ²
Environmental data	
Ambient temp. (operating/storage)	-25°C ... +60°C/-30°C ... +70°C
VDE safety class	I for SLS... - 83/81
VDE safety class ⁴⁾	II for SLS... - 41/45
Protection circuit ⁵⁾	1, 2, 3
Protection class	IP 65
Standards applied	IEC 60947-5-2
Options	
Activation input active	
Transmitter active/not active	≥ 8V/ ≤ 2V or not connected
Activation/disable delay	≤ 400μs
Input resistance	4.7kΩ ± 10%

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

2) Operating range: recommended range with performance reserve

3) 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

	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 ¹⁾		
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