

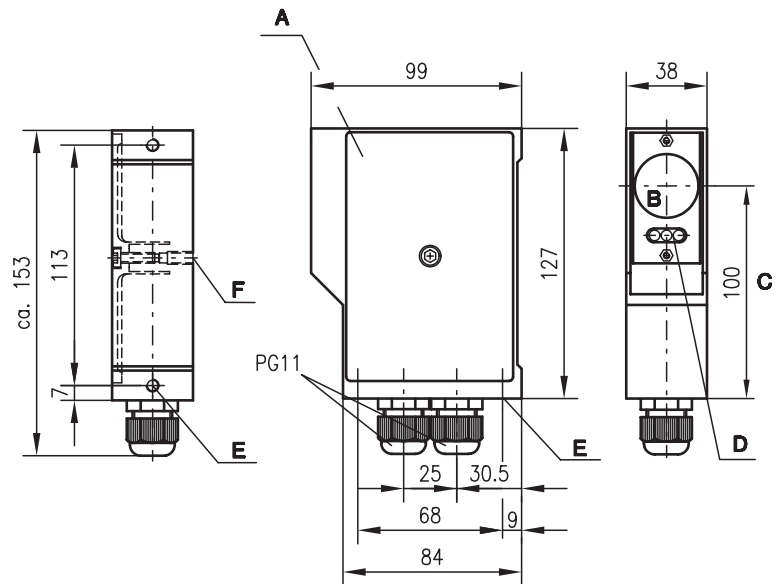


## SLS 78

## Protective throughbeam photoelectric sensors



### Dimensioned drawing



- A Removable lid • cheese head screw DIN 6912 M5x16 (machined)
- B Transmitter/receiver
- C Optical axis
- D Indicator diodes
- E Device fixture M6x9
- F Device fixture M6x12



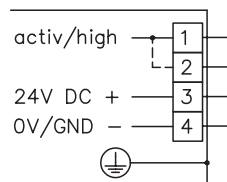
0 ... 150m



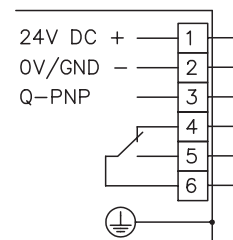
- Robust metal housing with glass lens, protection class IP 65 for industrial application
- Additional relay output with switching delay (slow release) without security function
- Integrated optics heating

### Electrical connection

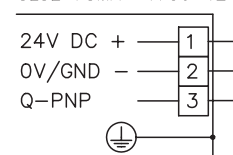
SLSS 78M-1720-T2-24



SLSE 78M/PR-1741-T2-29



SLSE 78M/P-1730-T2-21



### Accessories:

(available separately)

- Mounting systems (BT 16, UMS 78)
- Alignment aid ARH 2
- 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)

We reserve the right to make changes • 78\_a04e.fm



## Specifications

### Optical data

Typ. operating range limit <sup>1)</sup>	0 ... 150m
Operating range <sup>2)</sup>	0 ... 120m
Light source	LED (modulated light)
Wavelength	880nm

### Timing

Switching frequency	200Hz
Response time	2.5ms
Delay before start-up	≤ 200ms
Input pulse	min. 2ms

### Electrical data

Operating voltage $U_B$	24VDC ± 20%
Residual ripple	≤ 15% of $U_B$
Bias current	receiver ≤ 55mA transmitter ≤ 70mA
Switching output	PNP transistor output
Function characteristics	light switching
Signal voltage high/low	$\geq (U_B - 2V) / \leq 2V$
Output current	max. 200mA
Relay output	slow release 0 ... 10s without security function

### 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
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### Mechanical data

Housing	diecast aluminium
Optics	glass, eff. angle of radiation ± 4° acc. to prEN 50100-2 (edition 08/94)
Weight	463g
Connection type	terminals, max. 2.5mm <sup>2</sup>

### Environmental data

Ambient temp. (operation/storage)	-25°C ... +60°C/-30°C ... +70°C
VDE safety class	III
Protective circuit <sup>3)</sup>	1, 2, 3
Protection class	IP 65
Standards applied	IEC 60947-5-2

### Options

Activation input activ	
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) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection

## Order guide

	Designation	Part No.
Transmitter and receiver	SLS 78M/P-1750-T2-2	
Transmitter	SLSS 78M-1720-T2-24	500 24730
Receiver	SLSE 78 M/P-1730-T2-21	500 24731
Transmitter and receiver	SLS 78M/PR-1761-T2-2	
Transmitter	SLSS 78M-1720-T2-24	500 24730
Receiver	SLSE 78 M/PR-1741-T2-29	500 24732

## 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).

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.