

## LS 763/4.8, L8



### 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 must be able to compensate for changes and interruptions of the supply voltage acc. to EN 61496-1.  
Minimum blackening object:  $\varnothing 8\text{mm}$ .

### Accessories

(available separately)

- Mounting system (B 763)
- Connection cable 5m
  - axial BK7 KB-003-5000-3A
  - angled BK7 KB-003-5000-3
- 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)

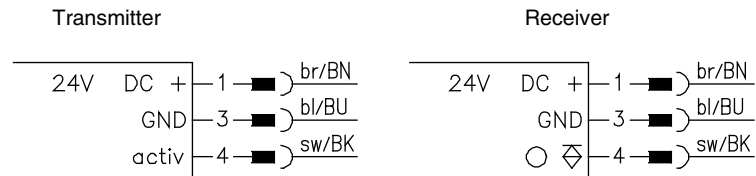


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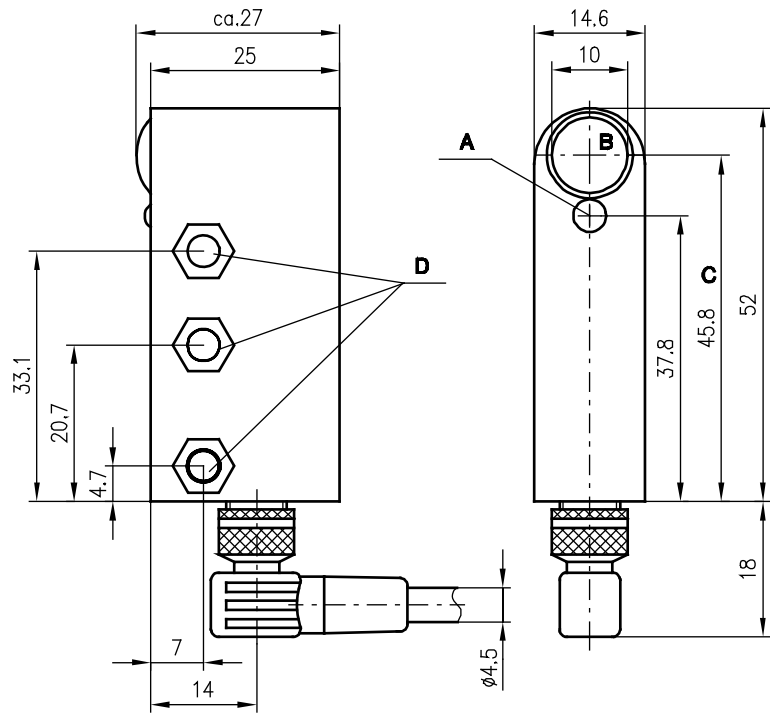
### Features

- Protective throughbeam photoelectric sensor with high performance reserve in infrared light
- Activation input for testing and interlinking
- Compact construction with shock-resistant metal housing and glass optics
- LED indicator in transmitter and receiver for function monitoring
- PNP transistor output for PLC applications
- Connection via M8 connector

### Electrical Connection



### Dimensional Drawing



- A Indicator diode
- B Transmitter/receiver
- C Optical axis
- D Flat nut M4 for insertion

### Order guide

	Designation	Part No.
Transmitter and receiver	LS 763/4.8, L8	
Transmitter	LS 763/2.8 Se, L8	500 81024
Receiver	LS 763/4 E, L8	500 81025

## Technical Data

<b>Optical data</b>	
Typ. operating range limit <sup>1)</sup>	0 ... 8m
Operating range <sup>2)</sup>	0 ... 6m
Light source	LED (modulated light)
Wavelength	880nm
Optics diameter	10mm
Shadowing item	8mm
Eff. angle of radiation	max. $\pm 4^\circ$ acc. to prEN50100-2 (edition 08/94)
<b>Timing</b>	
Switching frequency	100Hz
Response time	min. 5ms
<b>Electrical data</b>	
Operating voltage $U_B$ <sup>3)</sup>	24VDC $\pm$ 15%
Residual ripple	$\leq 10\%$ of $U_B$ (peak/peak)
Bias current	receiver $\leq 15$ mA transmitter $\leq 20$ mA
Switching output	PNP transistor output
Function characteristics	light switching
Signal voltage high/low	$\geq (U_B - 2V) / \leq 2V$
Output current	max. 100mA
<b>Indicators</b>	
<b>Receiver</b>	
LED red	light path interrupted
LED green	light path free
<b>Transmitter</b>	
LED yellow	transmitter ON
<b>Mechanical data</b>	
Housing	diecast zinc, electroplated
Optics	mineral glass
Weight	130g
Connection type	M8 connector
<b>Environmental data</b>	
Ambient temp. (operation/storage)	$-20^\circ\text{C} \dots +60^\circ\text{C} / -30^\circ\text{C} \dots +70^\circ\text{C}$
Protective circuit <sup>4)</sup>	2,3
Protection class	IP 65
Standards applied	IEC 90647-5-2
<b>Options</b>	
<b>Activation input active</b>	
Transmitter active/not active	$\geq 20V / \leq 2V$ or not connected
Activation/disable delay	$\leq 0.5$ ms
Input resistance	$10k\Omega \pm 10\%$

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) 2=polarity reversal protection, 3=short circuit protection