



ILS 95

Throughbeam photoelectric sensors

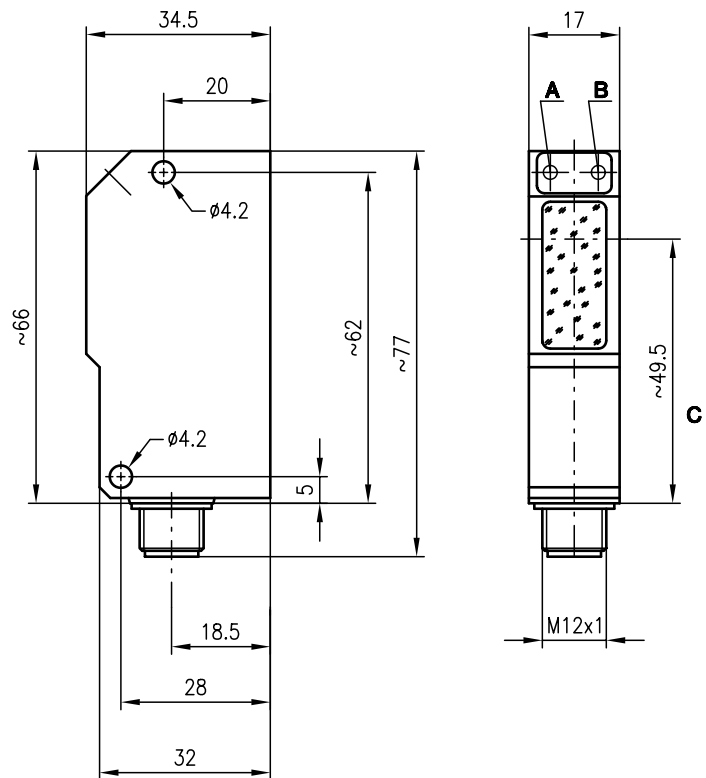


0 ... 20m



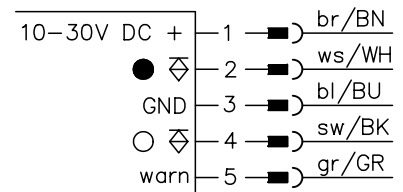
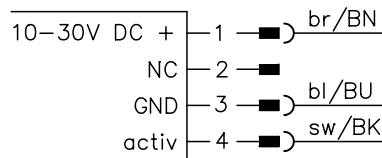
- Throughbeam photoelectric sensor with high performance reserve using visible red light or infrared light
- High switching frequency for detection of fast events
- Small construction with glass cover and robust zinc diecast housing, protection class IP 67/IP 69K for industrial application
- Complementary switching outputs for light/dark switching or as a control function

Dimensioned drawing



- A Switching indicator yellow
- B Operation indicator green
- C Optical axis

Electrical connection



Accessories:

(available separately)

- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)

We reserve the right to make changes • 95\_a01e.fm



## Specifications

### Optical data

Typ. operating range limit <sup>1)</sup>  
 Operating range <sup>2)</sup>  
 Light source  
 Wavelength

### ILS 95/44.8 L.1 Infrared light

0 ... 20m  
 0 ... 12m  
 LED (modulated light)  
 880nm

### ILSR 95/44.8 L Red light

0 ... 20m  
 0 ... 12m  
 LED (modulated light)  
 660nm

### Timing

Switching frequency  
 Response time  
 Delay before start-up

1000Hz  
 0.5ms  
 ≤ 100ms

### Electrical data

Operating voltage  $U_B$   
 Residual ripple  
 Bias current  
 Switching output  
 Function characteristics  
 Signal voltage high/low  
 Output current

10 ... 30VDC (incl. residual ripple)  
 ≤ 15% of  $U_B$   
 ≤ 35mA  
 2 PNP transistor outputs, complementary  
 light/dark switching  
 $\geq (U_B - 2V) / \leq 2V$   
 max. 100mA

### Indicators

LED green  
 LED yellow  
 LED yellow flashing

ready  
 light path free  
 light path free, no performance reserve

### Mechanical data

Housing  
 Optics cover  
 Weight  
 Connection type

diecast zinc  
 glass  
 90g  
 M12 connector, stainless steel  
 receiver 5-pin, transmitter 4-pin

### Environmental data

Ambient temp. (operation/storage)<sup>3)</sup>  
 Protective circuit <sup>4)</sup>  
 VDE safety class <sup>5)</sup>  
 Protection class  
 LED class  
 Standards applied

-25°C (-30°C) ... +60°C/-40°C ... +70°C  
 2, 3  
 II, all-insulated  
 IP 67, IP 69K <sup>6)</sup>  
 1 (acc. to EN 60825-1)  
 IEC 60947-5-2

### Options

**Activation input** activ  
 Transmitter active/not active  
 Activation/disable delay  
 Input resistance

≥ 8V/≤ 2V or not connected  
 ≤ 1ms  
 4.7kΩ ± 10%

**Warning output autoControl** warn  
 Signal voltage high/low  
 Output current

PNP transistor, counting principle  
 $\geq (U_B - 2V) / \leq 2V$   
 max. 100mA

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) -30°C with operating voltage continuously applied
- 4) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 5) Rating voltage 250 VAC
- 6) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

## Order guide

	Designation	Part No.
<b>Infrared light</b>		
Transmitter and receiver	ILS 95/44.8 L.1	
Transmitter	LS 95/2.8 SE-L.1	500 26835
Receiver	ILS 95/44 E-L.1	500 26836
<b>Red light</b>		
Transmitter and receiver	ILSR 95/44.8 L	
Transmitter	LSR 95/2.8 SE-L	500 25606
Receiver	ILSR 95/44 E-L	500 25608

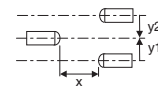
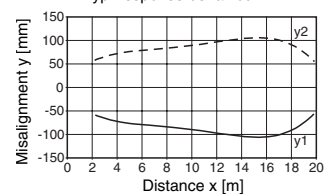
## Tables

0	12	20
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Operating range [m]  
 Typ. operating range limit [m]

## Diagrams

Typ. response behaviour



## Remarks

- The throughbeam photoelectric sensor using visible red light is also available with integrated AS-i chip for direct connection to the AS-i system.