



ILS 95

Throughbeam photoelectric sensors

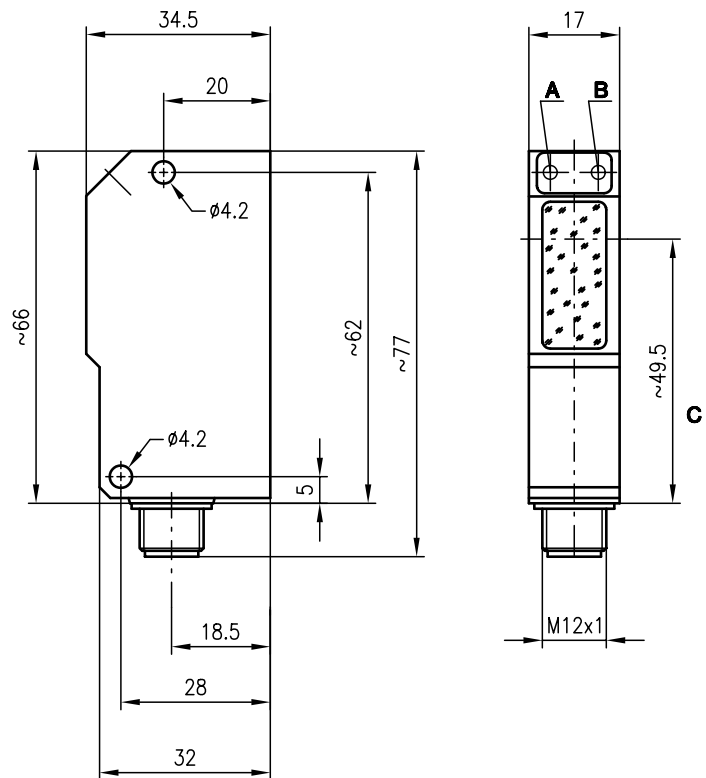


0 ... 20m



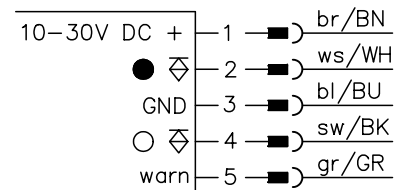
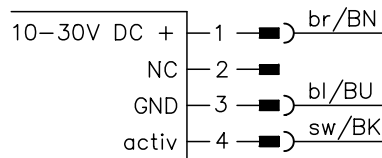
- Throughbeam photoelectric sensor with high performance reserve using visible red light or infrared light
- High switching frequency for detection of fast events
- Small construction with glass cover and robust zinc diecast housing, protection class IP 67/IP 69K for industrial application
- Complementary 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 ¹⁾
 Operating range ²⁾
 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 1000Hz
 Response time 0.5ms
 Delay before start-up ≤ 100ms

Electrical data

Operating voltage U_B 10 ... 30VDC (incl. residual ripple)
 Residual ripple ≤ 15% of U_B
 Bias current ≤ 35mA
 Switching output 2 PNP transistor outputs, complementary
 Function characteristics light/dark switching
 Signal voltage high/low ≥ ($U_B - 2V$) / ≤ 2V
 Output current max. 100mA

Indicators

LED green ready
 LED yellow light path free
 LED yellow flashing light path free, no performance reserve

Mechanical data

Housing diecast zinc
 Optics cover glass
 Weight 90g
 Connection type M12 connector, stainless steel
 receiver 5-pin, transmitter 4-pin

Environmental data

Ambient temp. (operation/storage)³⁾ -25°C (-30°C) ... +60°C/-40°C ... +70°C
 Protective circuit ⁴⁾ 2, 3
 VDE safety class ⁵⁾ II, all-insulated
 Protection class IP 67, IP 69K ⁶⁾
 LED class 1 (acc. to EN 60825-1)
 Standards applied IEC 60947-5-2

Options

Activation input activ
 Transmitter active/not active ≥ 8V/≤ 2V or not connected
 Activation/disable delay ≤ 1ms
 Input resistance 4.7kΩ ± 10%
Warning output autoControl warn
 Signal voltage high/low PNP transistor, counting principle
 Output current ≥ ($U_B - 2V$) / ≤ 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.
Infrared light		
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
Red light		
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

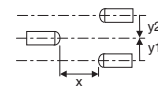
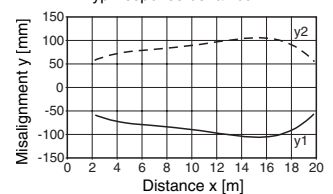
Tables

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.