

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

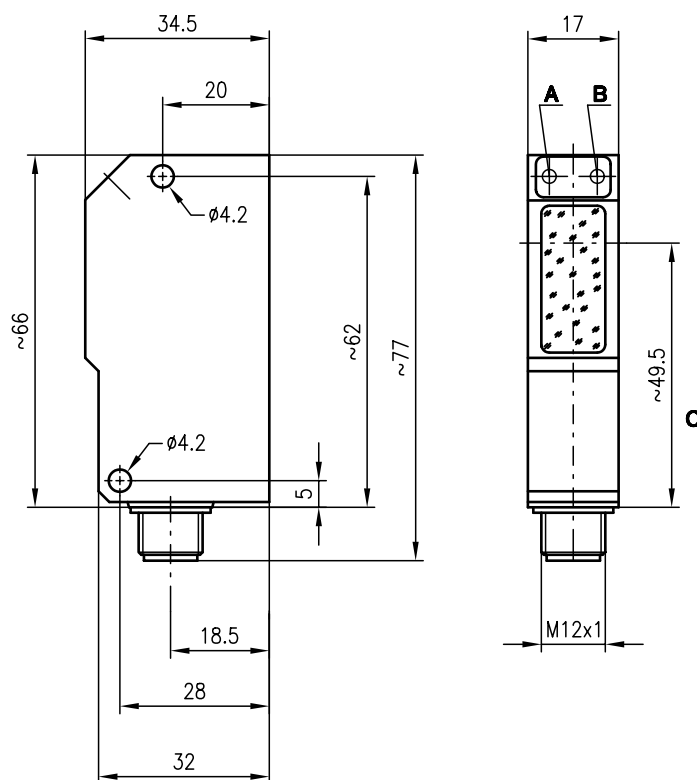


Accessories:

(available separately)

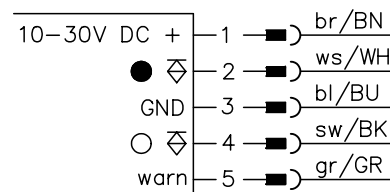
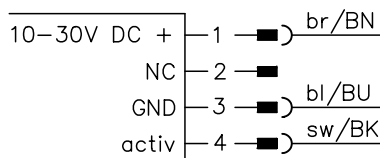
- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)

Dimensioned drawing



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

Electrical connection



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
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) ³⁾
Protective circuit ⁴⁾
VDE safety class ⁵⁾
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 ⁶⁾
1 (acc. to EN 60825-1)
IEC 60947-5-2

Options

Activation input activ
Transmitter active/not active
Activation/disable delay
Input resistance
Warning output autoControl warn
Signal voltage high/low
Output current

≥ 8V/≤ 2V or not connected
≤ 1ms
4.7kΩ ± 10%
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 250VAC
- 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

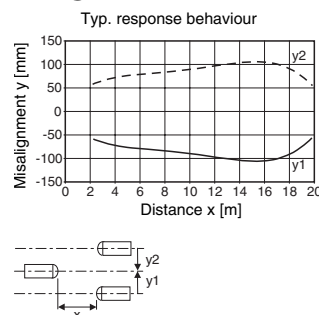
Order guide

	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
Operating range [m]		
Typ. operating range limit [m]		

Diagrams



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.