



SLS 96

Protective throughbeam photoelectric sensors



65 m
39 m



- Protective throughbeam photoelectric sensor cat. 2 (testing) with high performance reserve in visible red light or infrared light
- Robust metal housing with glass cover or plastic housing, protection class IP 67 for industrial application
- 2 indicators each at the transmitter and receiver for displaying their status when commissioning and in operation
- Optics heating for use with low temperatures
- Connection via M12 connector or terminal compartment



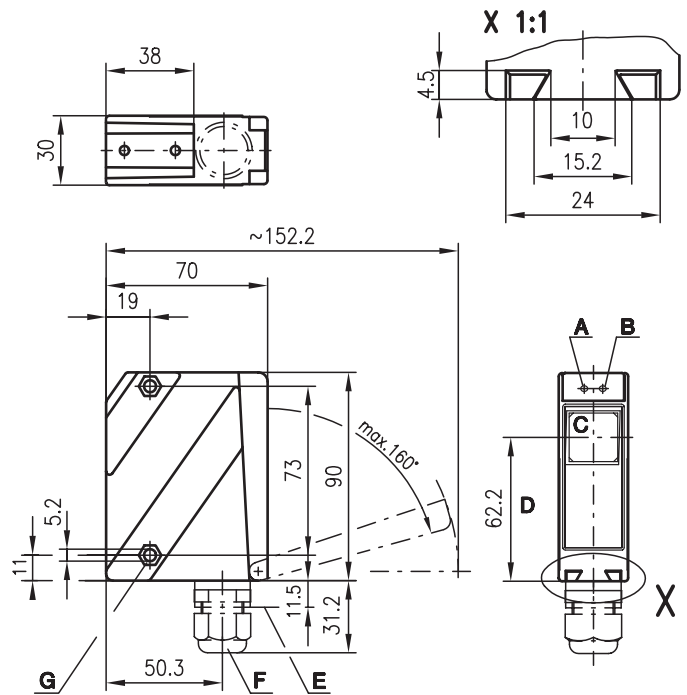
We reserve the right to make changes • 96_a12e.fm

Accessories:

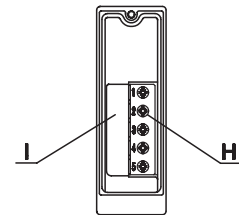
(available separately)

- Mounting systems (BT 96, BT 96.1, UMS 96, BT 450.1-96)
- M12 connectors (KD ...)
- Alignment aid ARH 96
- 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)

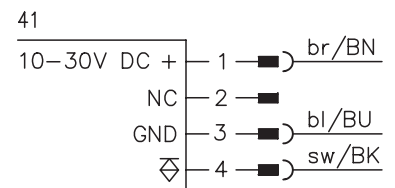
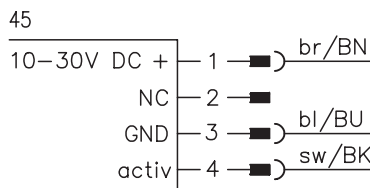
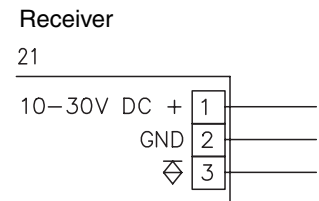
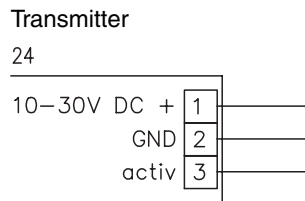
Dimensioned drawing



- A Indicator diode green
- B Indicator diode yellow
- C Transmitter/receiver
- D Optical axis
- E Device plug M12x1
- F Screwed cable gland M16x1.5 for Ø 5 ... 10mm
- G Countersinking for SK nut M5, 4.2mm deep
- H Connection terminals
- I Cable entry



Electrical connection





Specifications

Optical data

Typ. operating range limit ¹⁾
 Operating range ²⁾
 Light source
 Wavelength

Infrared light

0 ... 65m
 0 ... 50m
 LED (modulated light)
 880nm

Red light

0 ... 39m
 0 ... 30m
 LED (modulated light)
 660nm

Timing

Sensor switching frequency 500Hz
 Sensor response time 1ms
 Delay before start-up ≤ 200ms

Electrical data

Operating voltage U_B 10 ... 30VDC (incl. residual ripple)
 Residual ripple ≤ 15% of U_B
 Bias current ≤ 50mA
 Switching output PNP transistor
 Function characteristics light switching
 Signal voltage high/low ≥ (U_B-2V)/≤ 2V
 Output current max. 100mA

Indicators

LED green ready

Receiver

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

Transmitter

LED yellow transmitter active

Mechanical data

Housing polycarbonate
 Optics cover plastic
 Weight 150g
 Connection type terminals or M12 connector

Environmental data

Ambient temp. (operation/storage) -20°C ... +60°C/-40°C ... +70°C
 Protective circuit ³⁾ 1, 2, 3
 VDE safety class ⁴⁾ II, all-insulated
 Protection class IP 67
 Standards applied IEC 60947-5-2

Options

Optics heating for temperature changes, prevents fogging
 Low temperature to -35°C
 Activation input activ ≥ 8V/≤ 2V
 Transmitter active/not active ≤ 1ms
 Activation/disable delay 10KΩ ± 10%
 Input resistance

- 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 for all outputs
- 4) Rating voltage 250VAC

Tables

Remarks

- The protective through-beam 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: Ø 28mm.

Order guide

Selection table		Order code →					
Equipment ↓		SLS 96K/P-1070-T2-2 Part No. 500 81292 (Tr) Part No. 500 81293 (Re)	SLS 96K/P-1070-T2-4 Part No. 500 31559 (Tr) Part No. 500 31561 (Re)	SLS 96K/P-1200-T2-2 Part No. 500 28009 (Tr) Part No. 500 28010 (Re)	SLS 96K/P-1200-T2-4 Part No. 500 28011 (Tr) Part No. 500 28012 (Re)	SLS 96K/P-1207-T2-2 Part No. 500 28009 (Tr) Part No. 500 35078 (Re)	
Housing	metal						
	plastic	●	●	●	●	●	
Light source	red light (30m)			●	●	●	
	infrared light (50m)	●	●				
Connection	terminals	●		●		●	
	M12 connector		●		●		
Features	optics heating/low temp.						
	activation input	●	●	●	●	●	
	filter for multi-axis operation					●	

SLS = Pair consisting of
 SLSS = Transmitter
 SLSE = Receiver

SLS 96K/P-1070-T2-2
 SLSS 96K-1080-T2-24
 SLSE 96K/P-1070-T2-21

SLS 96K/P-1070-T2-4
 SLSS 96K-1080-T2-45
 SLSE 96K/P-1070-T2-41

SLS 96K/P-1200-T2-2
 SLSS 96K-1210-T2-24
 SLSE 96K/P-1200-T2-21

SLS 96K/P-1200-T2-4
 SLSS 96K-1210-T2-45
 SLSE 96K/P-1200-T2-41

SLS 96K/P-1207-T2-2
 SLSS 96K-1210-T2-24
 SLSE 96K/P-1207-T2-21