

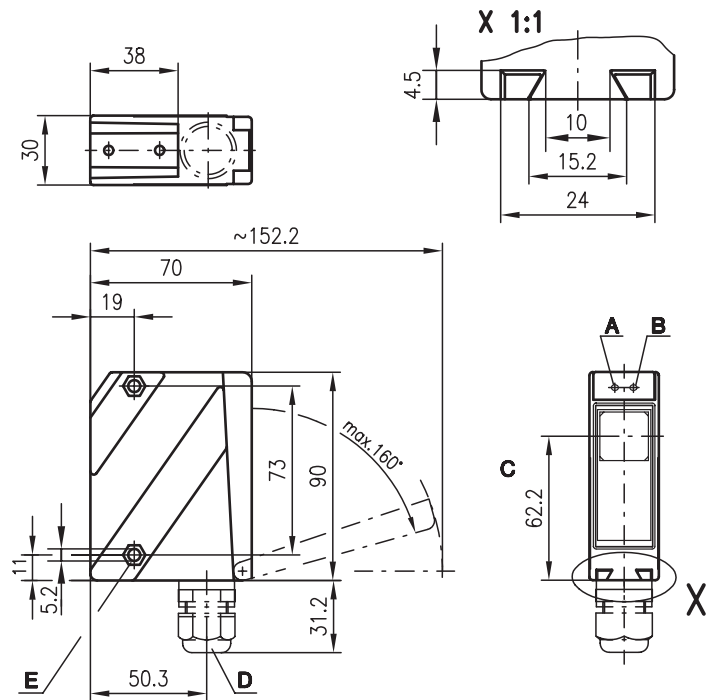


LS 96

Throughbeam photoelectric sensors



Dimensioned drawing

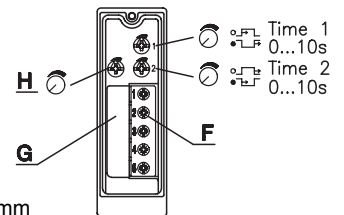


65m
150m

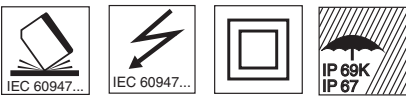
20-230 V
AC / DC



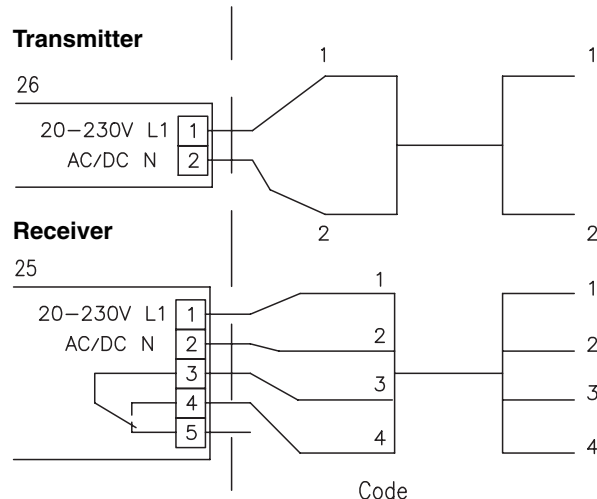
- Throughbeam photoelectric sensors with high performance reserve in infrared light
- Robust metal housing with glass cover or plastic housing, protection class IP 67/ IP 69K for industrial application
- All-mains design 20 ... 230VAC/DC
- Relay with change-over contact, sensitivity adjustment and delay before start-up for optimal adaptation to the application
- Connection via comfortable terminal compartment up to 1.5mm²
- Version with additional switching delay



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



Electrical connection (example)



We reserve the right to make changes • 96_a05e.fm

Accessories:

- (available separately)
- Mounting systems (BT 96, BT 96.1, UMS 96, BT 450.1-96)
 - Spark extinction
 - Alignment aid ARH 96

Specifications

Optical data

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

65m	150m
0 ... 65m	0 ... 150m
0 ... 50m	0 ... 120m
LED (modulated light)	
880nm (infrared)	

Timing

Switching frequency 20Hz
 Response time 25ms
 Delay before start-up ≤ 200ms

Electrical data

Operating voltage U_B 20 ... 230VAC, 50/60Hz
 20 ... 230VDC
 Power consumption ≤ 1.5VA
 Switching output ³⁾ relay, 1 change-over contact
 Function characteristics break-contact/make-contact
 Switching voltage, relay 250 VAC/DC
 Switching current, relay 250VAC, 3A/30V, 3A
 Bias current 750VA, cosφ=1
 Sensitivity adjustable

Indicators

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

Mechanical data

Housing	diecast zinc	plastic housing	polycarbonate
Optics cover	glass	plastic	
Weight	380g	150g	
Connection type	terminals	terminals	

Environmental data

Ambient temp. (operation/storage) -20°C ... +60°C/-40°C ... +70°C
 Protective circuit ⁴⁾ 1, 2, 3
 VDE safety class ⁵⁾ II, all-insulated
 Protection class IP 67, IP 69K ⁶⁾ IP 67
 LED class 1 (acc. to EN 60825-1)
 Standards applied IEC 60947-5-2

Options

Switching delay (slow oper./release) 0 ... 10s (separately adjustable)

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) Suitable spark extinction must be provided with inductive or capacitive loads
- 4) 1=transient protection, 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

Tables

65m models

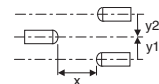
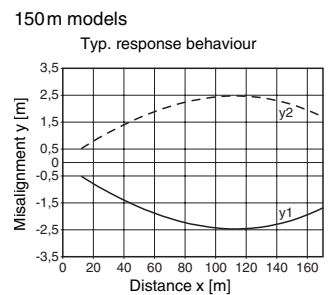
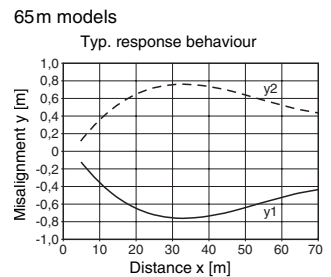
0	50	65
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150m models

0	120	150
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□ Operating range [m]
 ▒ Typ. operating range limit [m]

Diagrams



Remarks

- LS 96K/R-131P-2
 P = Reduction M16

Order guide

Selection table		Order code →					
Equipment ↓		LS 96K/R-1310-2 Part No. 500 25253 (Tr) Part No. 500 25257 (Re)	LS 96K/R-1320-2 Part No. 500 25253 (Tr) Part No. 500 25256 (Re)	LS 96M/R-1310-2 Part No. 500 80081 (Tr) Part No. 500 80080 (Re)	LS 96M/R-3310-2 Part No. 500 80081 (Tr) Part No. 500 31651 (Re)	LS 96K/R-131P-2 Part No. 500 30405 (Tr) Part No. 500 30406 (Re)	
Housing	metal			●	●		
	plastic	●	●			●	
Light source	infrared light (50m)	●	●	●		●	
	infrared light (120m)				●		
Connection	terminals	●	●	●	●	●	
Features	switching delay		●				
	UL homologation	●	●	●		●	

LS = Pair consisting of
 LSS = Transmitter
 LSE = Receiver

LS 96K/R-1310-2
 LSS 96K-1350-26
 LSE 96K/R-1310-25

LS 96K/R-1320-2
 LSS 96K-1350-26
 LSE 96K/R-1320-25

LS 96M/R-1310-2
 LSS 96M-1350-26
 LSE 96M/R-1310-25

LS 96M/R-3310-2
 LSS 96M-1350-26
 LSE 96M/R-3310-25

LS 96K/R-131P-2
 LSS 96K-135P-26
 LSE 96K/R-131P-25