



## PRK 96

## Retro-reflective photoelectric sensors with polarisation filter



0 ... 1.85m

20-230 V  
AC / DC

- Retro-reflective photoelectric sensor for safe detection of transparent media (e.g. clear glass, PE, foil)
- Reliable detection of the smallest gaps between transparent objects
- User controlled sensitivity adjustment with high resolution
- The autocollimation principle used ensures that the device functions reliably over the entire range (0 ... max.)
- All-mains design 20 ... 230 VAC/DC with relay output
- Connection via comfortable terminal compartment up to 1.5 mm<sup>2</sup>

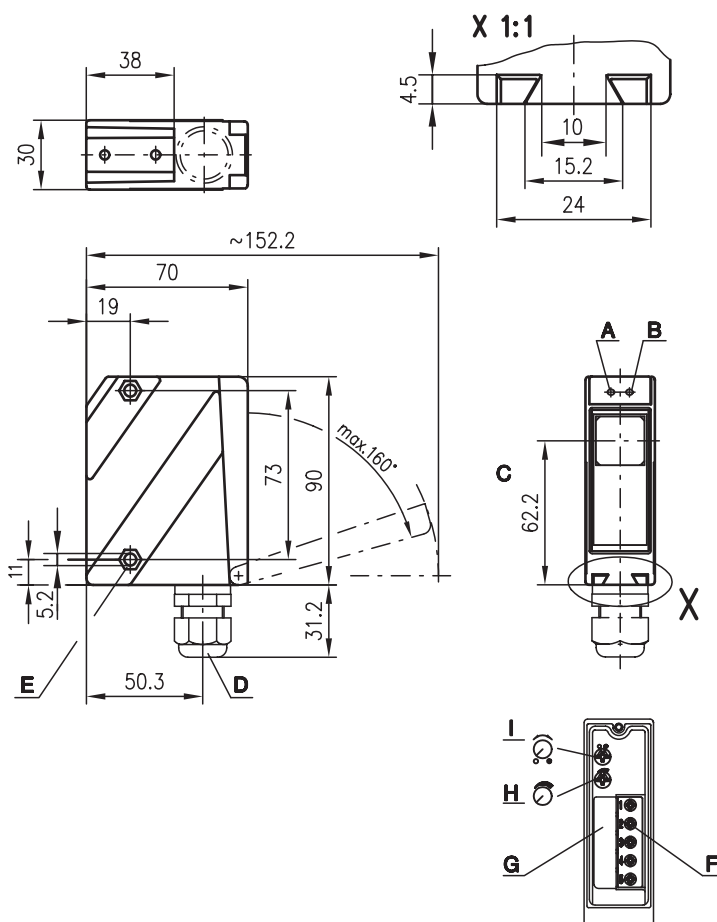


### Accessories:

(available separately)

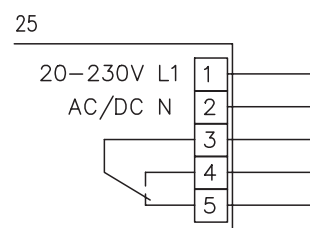
- Mounting systems (BT 96, BT 96.1, UMS 96, BT 450.1-96)
- Spark extinction
- Reflectors
- Reflective tapes
- Alignment aid ARH 96

### Dimensioned drawing



- 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
- I Light/dark switching

### Electrical connection





## Specifications

### Optical data

Typ. operating range limit (TK(S) 50x50) <sup>1)</sup>	0 ... 1.85 m
Operating range <sup>2)</sup>	0 ... 1.5 m
Light source	LED (modulated light)
Wavelength	660 nm (visible red light/polarised)

### Timing

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

### Electrical data

Operating voltage $U_B$	20 ... 230 VAC, 50/60 Hz 20 ... 230 VDC ±10%
Power consumption	≤ 1.5 VA
Switching output <sup>3)</sup>	relay, 1 change-over contact
Function characteristics	light/dark switching (reversible)
Switching voltage, relay	250 VAC/DC
Switching current, relay	250 VAC, 3 A/30 VDC, 3 A
Switching power, relay	750 VA, $\cos \varphi=1$
Sensitivity	adjustable with 10-turn potentiometer

### Indicators

LED green	ready
LED yellow	<b>clear glass</b> - adjustment range 1 transition from quickly flashing to slowly flashing <b>coloured glass</b> - adjustment range 2 transition from cont. illuminated to quickly flashing <b>other</b> - adjustment range 3 continuously illuminated

### Mechanical data

Housing	diecast zinc
Optics cover	glass
Weight	380 g
Connection type	terminals

### Environmental data

Ambient temp. (operation/storage)	-20 °C ... +55 °C / -40 °C ... +55 °C
Protective circuit <sup>4)</sup>	1, 4
VDE safety class <sup>5)</sup>	II, all-insulated
Protection class	IP 67, IP 69K <sup>6)</sup>
LED class	1 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2

### Options

Switching delay (slow oper./release)	0 ... 10 s (separately adjustable)
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- 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, 4=interference blanking
- 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

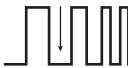

Designation	Part No.
PRK 96M/R-1850-25	500 80470

## Tables

## Diagrams

## Remarks

- Integrated slit diaphragm: 3.7x20 mm

Objects	Adjustment (indicator LED yellow)
Clear glass, PE, foil	Range 1 Operating pt. 1 
Coloured glass	Range 2 Operating pt. 2 
Other	Range 3 