

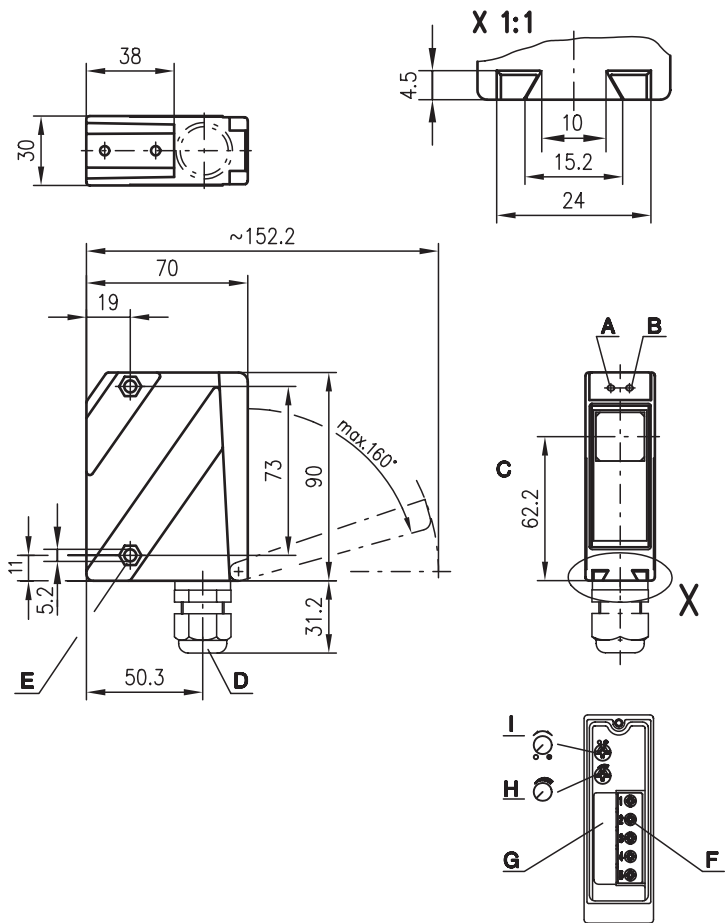


PRK 96

Retro-reflective photoelectric sensors with polarisation filter



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

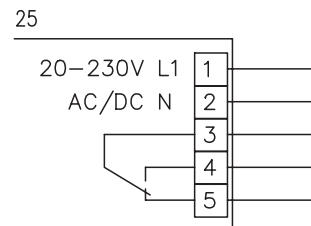


0 ... 8.5m



- Retro-reflective photoelectric sensor for safe detection of transparent media (e.g. clear glass, PE, foil)
- 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 ... 230VAC/DC with relay output
- Connection via comfortable terminal compartment up to 1.5mm<sup>2</sup>

Electrical connection



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

We reserve the right to make changes • 96\_b09e.fm

### Specifications

#### Optical data

Typ. operating range limit (TK(S) 50x50) <sup>1)</sup> 0 ... 8.5m  
 Operating range <sup>2)</sup> see tables  
 Light source LED (modulated light)  
 Wavelength 660nm (visible red light/polarised)

#### Timing

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

#### Electrical data

Operating voltage  $U_B$  20 ... 230VAC; 50/60Hz  
 20 ... 230VDC ± 10%  
 Power consumption ≤ 1.5VA  
 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, 3A/30VDC, 3A  
 Switching power, relay 750 VA,  $\cos\phi=1$   
 Sensitivity adjustable with 10-turn potentiometer

#### Indicators

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

#### Mechanical data

Housing diecast zinc  
 Optics cover glass  
 Weight 380g  
 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 ... 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, 4=interference blanking
- 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.
PRK 96M/R-1858-25	500 29881

### Tables

Reflectors	Operating range
1 TK(S) 100x100	0 ... 7m
2 MTK(S) 50x50	0 ... 6m
3 TK(S) 30x50	0 ... 4m
4 TK(S) 20x40	0 ... 3.5m
5 TK(S) 82	0 ... 5m
6 Tape 2 100x100	0 ... 3m

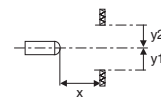
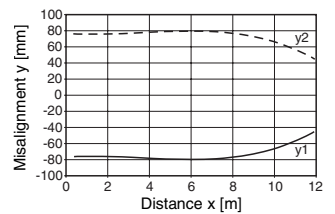
1	0.1	7	8.5
2	0.1	6	7.5
3	0.1	4	5
4	0.1	3.5	4
5	0.1	5	6
6	0.1	3	3.5

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

TK ... = adhesive  
 TKS ... = screw type  
 Tape 2 = adhesive

### Diagrams

Typ. response behaviour (TKS 100x100)



### Remarks

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