



PRK 96

Retro-reflective photoelectric sensors with polarisation filter



0 ... 8.5m

20-230 V
AC / DC

- 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 ... 230 VAC/DC with relay output
- Connection via comfortable terminal compartment up to 1.5mm²

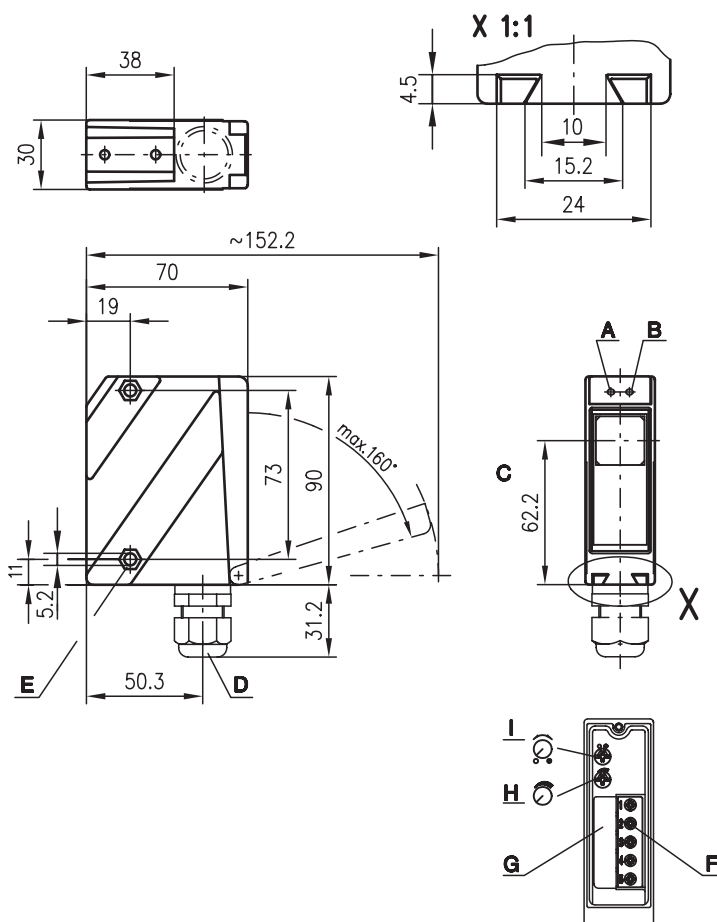


Accessories:

(available separately)

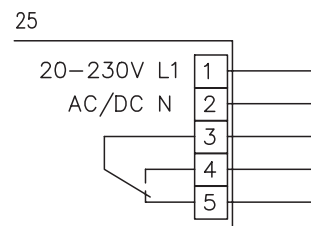
- Mounting systems (BT 96, BT 96.1, UMS 96, BT 450.1-96)
- Spark extinction
- Reflectors
- Reflective tapes
- Alignment aid ARH 96

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) ¹⁾	0 ... 8.5m
Operating range ²⁾	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 ³⁾	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, cosφ=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 ⁴⁾	1, 4
VDE safety class ⁵⁾	II, all-insulated
Protection class	IP 67, IP 69K ⁶⁾
LED class	1 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2

Options

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

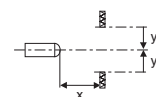
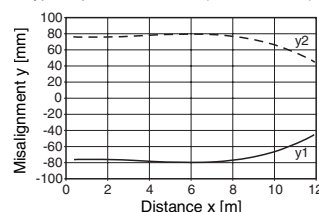
1	0.1	7	8.5
2	0.1	6	7.5
3	0.1	4	5
4	0.1	3.5	4
5	0.1	5	6
6	0.1	3	3.5

☐ 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