

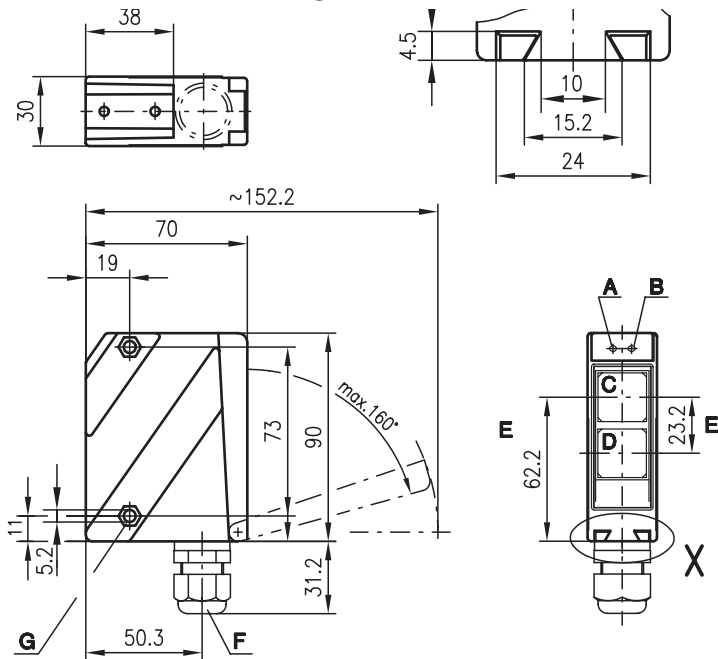


PRK 96

Retro-reflective photoelectric sensors with polarisation filter



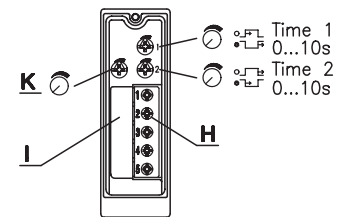
Dimensioned drawing



10m  
18m



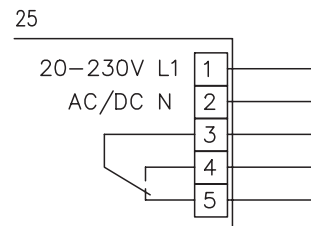
- Polarised retro-reflective photoelectric sensor with large operating range in visible red light
- Robust metal housing with glass cover or plastic housing, protection class IP 67/ IP 69K for industrial application
- All-mains design 20 ... 230VAC/DC with relay output
- Relay with change-over contact, sensitivity adjustment, delay before start-up and various options for optimal adaptation to the application
- Connection via comfortable terminal compartment up to 1.5mm<sup>2</sup>



- A Indicator diode green
- B Indicator diode yellow
- C Receiver
- D Transmitter
- E Optical axis
- F Screwed cable gland M 16x1.5 for Ø 5 ... 10mm
- G Countersinking for SK nut M5, 4.2 deep
- H Connection terminals
- I Cable entry
- K Sensitivity adjustment



Electrical connection



Accessories:

(available separately)

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

We reserve the right to make changes • 96\_b05e.fm

### Specifications

#### Optical data

Typ. operating range limit (TK(S) 100x100) <sup>1)</sup>	10m/18m
Operating range <sup>2)</sup>	see tables
Light spot diameter	approx. 130mm at 6m
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 <sub>B</sub>	20 ... 230VAC, 50/60Hz 20 ... 230VDC ± 10%
Power consumption	≤ 1.5VA
Switching output <sup>3)</sup>	relay, 1 change-over contact
Function characteristics	break-contact/make-contact
Switching voltage, relay	250VAC/DC
Switching current, relay	250VAC, 3A/30VDC, 3A
Switching power, relay	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
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)
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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

Selection table		Order code →					
Equipment ↓		PRK 96M/R-3420-25 Part No. 500 82066	PRK 96M/R-3430-25 Part No. 500 61111				
Housing	metal	●	●				
	plastic						
Light source	red light (8m)						
	red light (15m)	●	●				
	red light (20m)						
Connection	terminals	●	●				
	M12 connector						
Features	optics heating/low temperature						
	switching delay		●				

### Tables

#### 10m models

Reflectors	Operating range
1 TK(S) 100x100	0.3 ... 8m
2 MTK(S) 50x50	0.3 ... 7m
3 TK(S) 30x50	0.3 ... 4.5m
4 TK(S) 20x40	0.3 ... 3m
5 TK(S) 82	0.3 ... 6m
6 Tape 2 100x100	0.3 ... 4m

1 0.1	8	10
2 0.1	7	8.5
3 0.1	4.5	5
4 0.1	3	4
5 0.1	6	7.5
6 0.1	4	5.5

#### 18m models

Reflectors	Operating range
1 TK(S) 100x100	0.3 ... 15m
2 MTK(S) 50x50	0.3 ... 11m
3 TK(S) 30x50	0.3 ... 6m
4 TK(S) 20x40	0.3 ... 5m
5 TK(S) 82	0.3 ... 11m
6 Tape 2 100x100	0.3 ... 6m

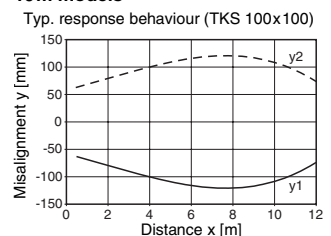
  

1 0.1	15	18
2 0.1	11	12
3 0.1	6	7.5
4 0.1	5	6
5 0.1	11	11.5
6 0.1	6	7.5

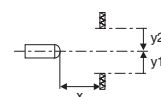
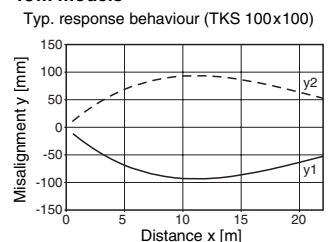
Operating range [m]  
 Typ. operating range limit [m]

### Diagrams

#### 10m models



#### 18m models



### Remarks