



RK 96

Retro-reflective photoelectric sensors



18m



- Retro-reflective photoelectric sensor with a large operating range
- Robust plastic housing, protection class IP 67 for industrial application
- All-mains design 20 ... 230VAC/DC with relay output
- 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

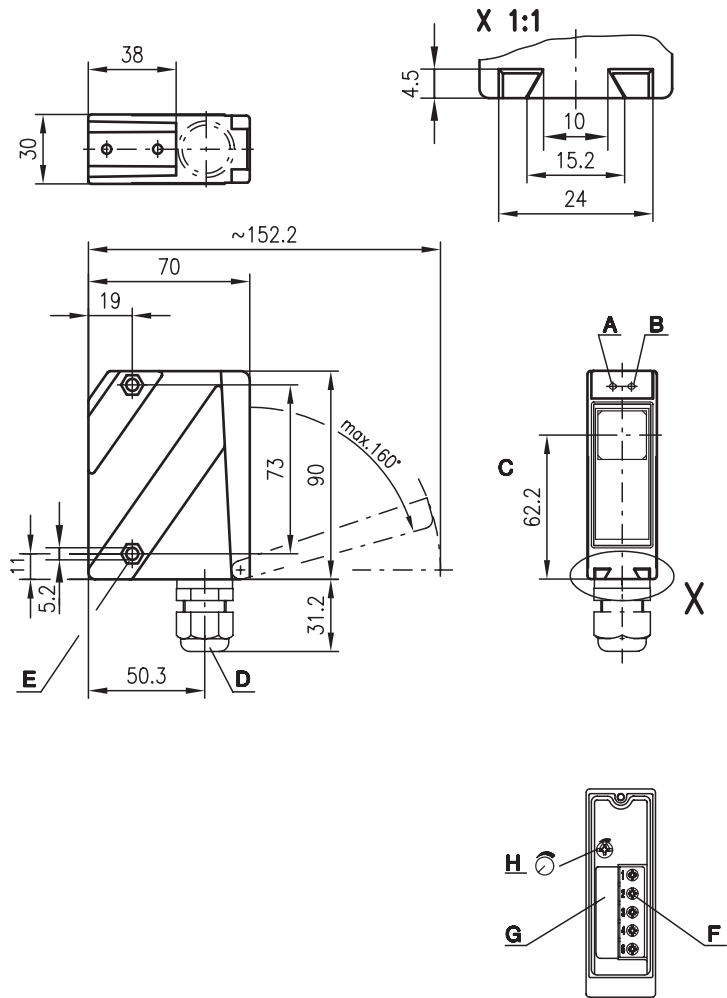


Accessories:

(available separately)

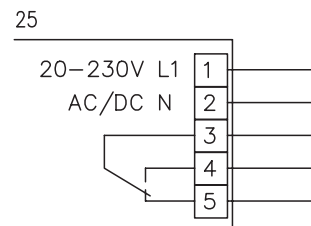
- Mounting systems (BT 96, UMS 96, BT 450.1-96)
- Spark extinction
- Reflectors
- Reflective tapes

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

Electrical connection



We reserve the right to make changes • 96_b02e.fm

Specifications

Optical data

Typ. operating range limit (TK(S) 100x100) ¹⁾	18 m
Operating range ²⁾	see tables
Light source	LED (modulated light)
Wavelength	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	250 VAC, 3A/30VDC, 3A
Switching power, relay	750 VA, $\cos\phi=1$
Sensitivity	adjustable

Indicators

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

Mechanical data

Housing	polycarbonate
Optics cover	plastic
Weight	150g
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
LED class	1 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2

- 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

Order guide

Designation	Part No.
RK 96K/R-1560-25	500 80484
RK 96K/R-156P-25	500 30404

Tables

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

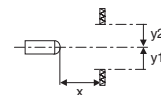
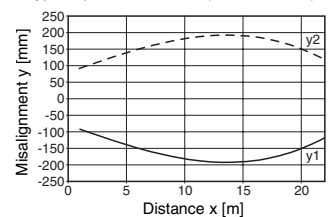
1	0.1	15	18
2	0.1	11	12
3	0.1	6	7.1
4	0.1	5	6
5	0.1	11	12
6	0.1	6	8

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

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

Diagrams

Typ. response behaviour (TKS 100x100)



Remarks

- PRK 96 K/R-156P-25
P = Reduction M16