

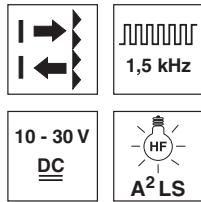
PRK 8

Retro-reflective photoelectric sensors with autocollimation

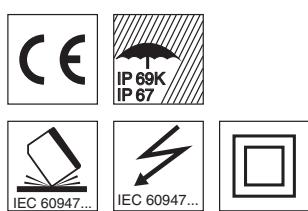
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0 ... 7m



- The autocollimation principle used ensures that the device functions reliably over the entire range (0 ... max.)
- A²LS - active suppression of extraneous light
- Push-pull switching outputs
- M12 turning connector or cable connection
- Visible red light

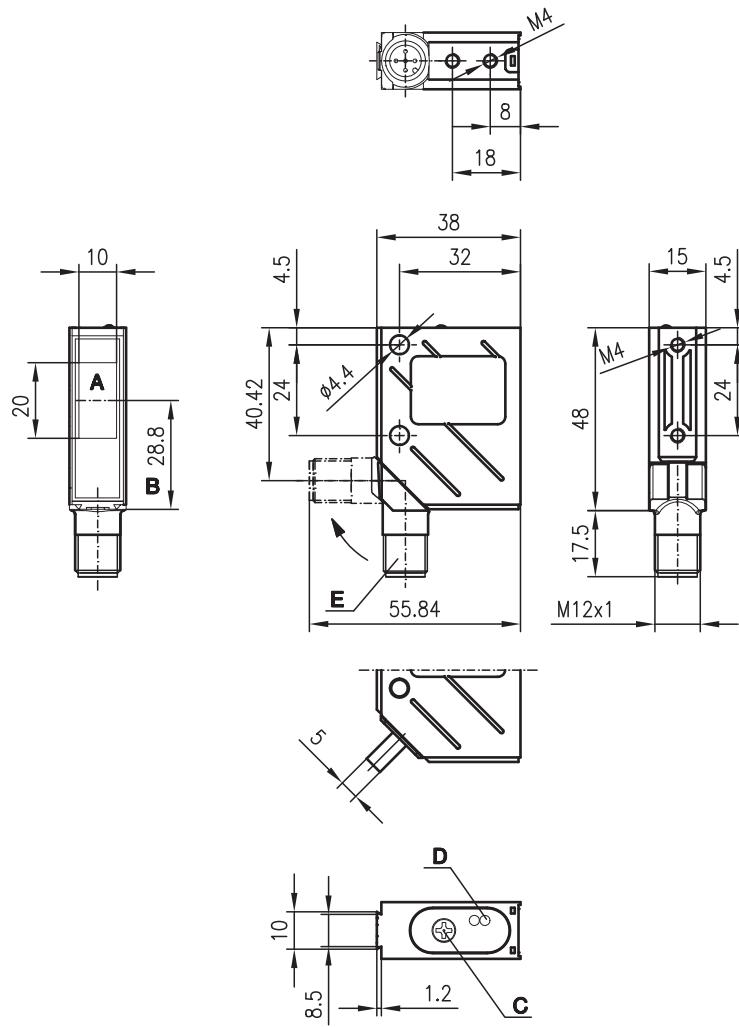


Accessories:

(available separately)

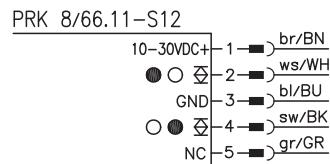
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting systems
- Reflectors
- Reflective tapes
- Control guard

Dimensioned drawing



A Transmitter/receiver
B Optical axis
C Operational control
D LED yellow
E 90° turning connector

Electrical connection



Specifications

Optical data

Typ. operating range limit (TK(S) 100x100)¹⁾ 0 ... 7 m
 Operating range²⁾ see tables
 Light source LED (modulated light)
 Wavelength 660nm (visible red light)

Timing

Switching frequency 1500Hz
 Response time 0.33ms
 Delay before start-up $\leq 100\text{ms}$

Electrical data

Operating voltage U_B 10 ... 30VDC
 Residual ripple $\leq 15\%$ of U_B
 Bias current $\leq 35\text{mA}$
 Switching output/function 2 push-pull switching outputs³⁾
 pin 2: PNP dark switching, NPN light switching
 pin 4: PNP light switching, NPN dark switching
 $\geq (U_B - 2\text{V}) / 2\text{V}$
 max. 100mA
 adjustable with 12-turn potentiometer

Indicators

LED yellow
 LED yellow flashing

Mechanical data

Housing metal
 Optics cover glass
 Weight (plug/cable) 70g/140g
 Connection type M12 connector, 5-pin (turning)

Environmental data

Ambient temp. (operation/storage) -40°C ... +60°C/-40°C ... +70°C
 Protective circuit⁴⁾ 2, 3
 VDE safety class⁵⁾ II, all-insulated
 Protection class⁶⁾ IP 67, IP 69K⁷⁾
 Light source free group (in acc. with EN 62471)
 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) The push-pull switching outputs must not be connected in parallel

4) 2=polarity reversal protection, 3=short-circuit protection for all outputs

5) Rating voltage 250VAC

6) In stop position of the turning connector (turning connector locked)

7) 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

Tables

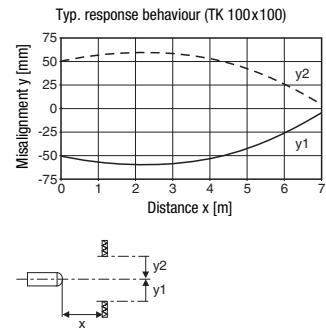
Reflectors	Operating range
1 TK(S)	100x100 0 ... 5.0m
2 MTK(S)	50x50.1 0 ... 3.0m
3 TK(S)	30x50 0 ... 2.0m
4 TK(S)	20x40 0 ... 1.5m
5 Tape 6	50x50 0 ... 2.0m

1 0	5.0	7.0
2 0	3.0	3.6
3 0	2.0	2.4
4 0	1.5	2.0
5 0	2.0	2.4

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

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

Diagrams



Order guide

	Designation	Part No.
With M12 connector	PRK 8/66.11-S12	50037133

Remarks

● Approved purpose:

This product may only be used by qualified personnel and must only be used for the approved purpose. This sensor is not a safety sensor and is not to be used for the protection of persons.