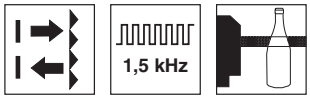
PRK 8

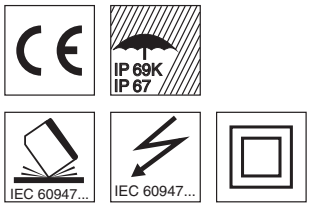
Retro-reflective photoelectric sensors

en 06-2014/04 50125970





- Detection of transparent media (e. g. clear glass, PE, foil)
- The autocollimation principle used ensures that the device functions reliably over the entire range (0 … max.)
- Push-pull switching outputs
- M12 turning connector
- Visible red light
- Square light spot

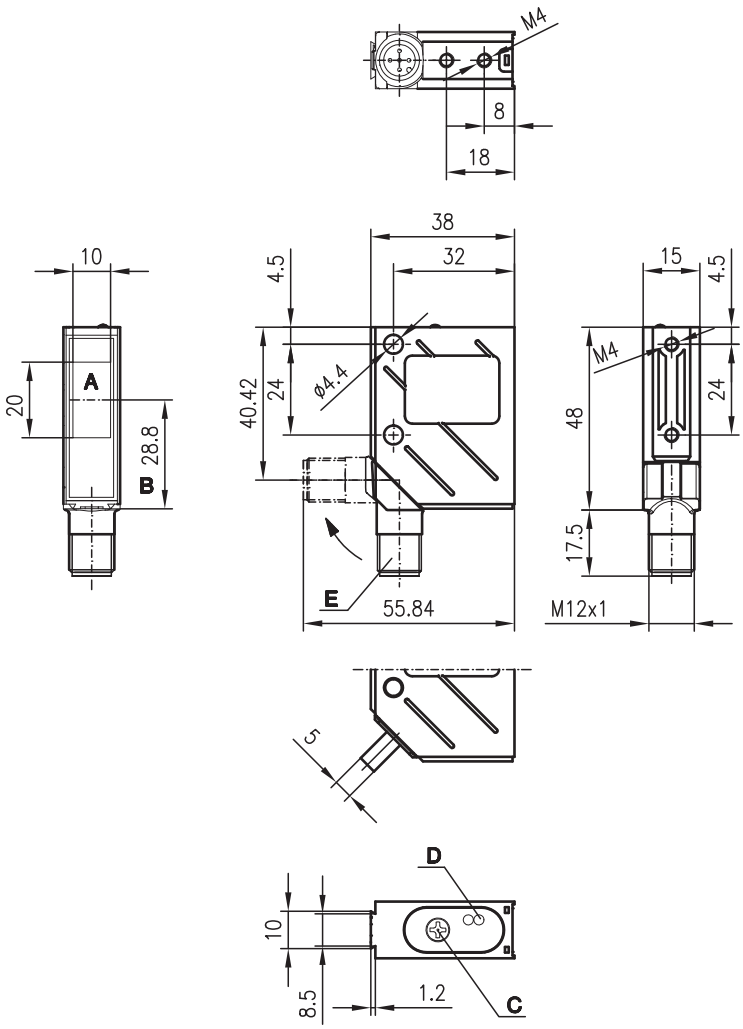


Accessories:

(available separately)

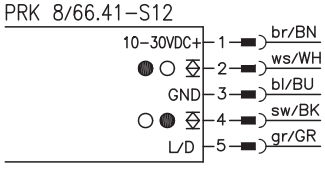
- M12 connectors (KD …)
- Ready-made cables (K-D …)
- Mounting systems
- Reflectors
- Reflective tapes
- Control guard

Dimensioned drawing



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

Electrical connection



We reserve the right to make changes • DS_PRK8_6641_en_50125970.fm

Specifications

Optical data

Typ. operating range limit (TK(S) 100x100) [1]	0 … 2.4m
Operating range [2]	see tables
Recommended reflector	MTK(S) 50x50
Light source	LED (modulated light)
Wavelength	660nm (visible red light)
Light spot	square, focussed at 200mm

Timing

Switching frequency	1500Hz
Response time	0.33ms
Delay before start-up	≤ 650ms

Electrical data

Operating voltage U_B	10 … 30VDC
Residual ripple	≤ 15% of U_B
Bias current	≤ 35mA
Switching output/function	2 push-pull switching outputs [3] pin 2: PNP dark switching, NPN light switching pin 4: PNP light switching, NPN dark switching
Signal voltage high/low	≥ (U_B-2V)/≤ 2V
Output current	max. 100mA
Sensitivity	adjustable with 12-turn potentiometer

Indicators

LED yellow	light path free operating point of tape, PE – transition from flashing to continuous light
LED yellow flashing	light path free, no performance reserve

Mechanical data

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

Environmental data

Ambient temp. (operation/storage)	-40°C … +60°C/-40°C … +70°C
Protective circuit [4]	2, 3
VDE safety class [5]	II, all-insulated
Protection class [6]	IP 67, IP 69K [7]
Light source	free group (in acc. with EN 62471)
Standards applied	IEC 60947-5-2

Options

L/D input

Dark switching/light switching	U_B/0V or not connected
L/D delay	< 0.5ms

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

Order guide

	Designation	Part No.
With M12 connector	PRK 8/66.41-S12	50037134

Tables

Reflectors			Operating range
1	TK(S)	100x100	0 … 2.0m
2	MTK(S)	50x50.1	0 … 1.5m
3	TK(S)	30x50	0 … 0.6m
4	TK(S)	20x40	0 … 0.6m
5	Tape 6	50x50	0 … 1.0m

1	0			2.0	2.4
2	0			1.5	1.8
3	0	0.6	0.8		
4	0	0.6	0.8		
5	0		1.0	1.2	

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

*) For sensitivity set to operating point 3

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

Diagrams

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.
- **Reflectors**:
  The light spot may not extend beyond the reflector. Preferably use MTK(S) reflectors or reflective tape 6.
- Note the light spot geometry and installation conditions