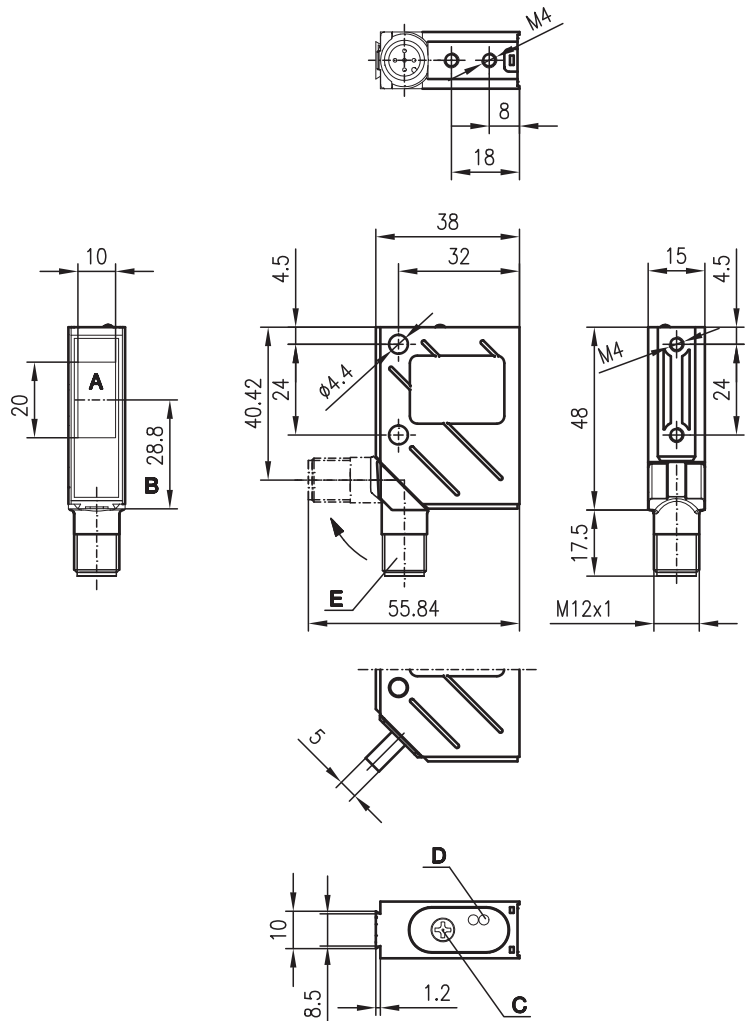


## PRK 8

## Retro-reflective photoelectric sensors

### Dimensioned drawing



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

### Electrical connection

PRK 8/66.41-S12

10-30VDC+	1	br/BN
● ○	2	ws/WH
GND	3	bl/BU
○ ●	4	sw/BK
L/D	5	gr/GR



0 ... 2.4m

10 - 30 V  
DC

- 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

## Specifications

### Optical data

Typ. operating range limit (TK(S) 100x100) <sup>1)</sup> 0 ... 2.4m  
 Operating range <sup>2)</sup> 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 <sup>3)</sup>  
 pin 2: PNP dark switching, NPN light switching  
 pin 4: PNP light switching, NPN dark switching  
 $\geq (U_B - 2V) / \leq 2V$   
 max. 100mA  
 adjustable with 12-turn potentiometer

Signal voltage high/low  
 Output current  
 Sensitivity

### Indicators

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

LED yellow flashing

### 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 <sup>4)</sup> 2, 3  
 VDE safety class <sup>5)</sup> II, all-insulated  
 Protection class <sup>6)</sup> IP 67, IP 69K <sup>7)</sup>  
 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