

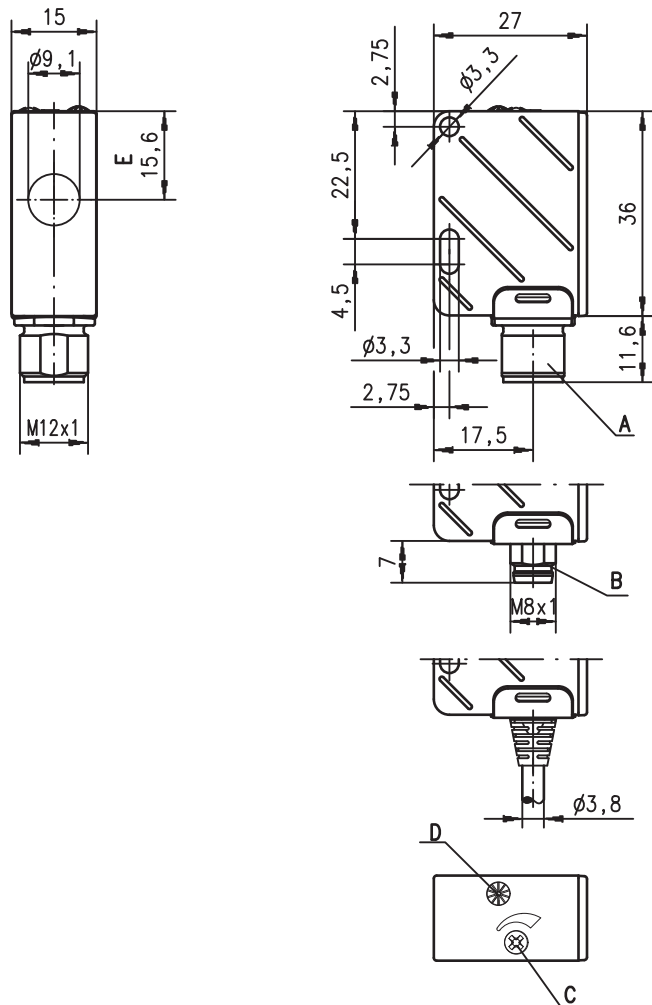
**PRK 25**

**Retro-reflective photoelectric sensors**

Part No. 501 08920



**Dimensioned drawing**

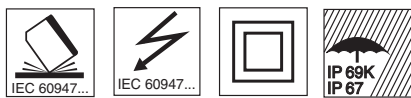
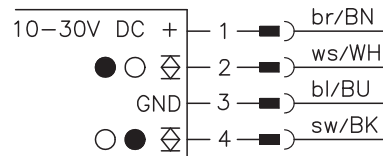


- A M12 connector
- B M8 connector
- C Operating range adjustment
- D Indicator diode
- E Optical axis

**0 ... 2m**  
**500 Hz**  
**10 - 30 V DC**  
**A<sup>2</sup>LS**

- Polarised retro-reflective photoelectric sensors for safe detection of transparent media (e.g. clear glass or PE bottles)
- The autocollimation principle used ensures that the device functions reliably over the entire range (0 ... max.)
- A<sup>2</sup>LS - Active Ambient Light Suppression
- Push-pull switching outputs
- Operating range adjustment

**Electrical connection**



**Accessories:**

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

We reserve the right to make changes • 25\_b04gb.fm

## Specifications

### Optical data

Typ. operating range limit (TK(S) 100x100) <sup>1)</sup> 0 ... 2m  
 Operating range <sup>2)</sup> see tables  
 Light source LED (modulated light)  
 Wavelength 620nm (visible red light)

### Timing

Switching frequency 500Hz  
 Response time 1ms  
 Delay before start-up ≤ 100ms

### Electrical data

Operating voltage  $U_B$  10 ... 30VDC (incl. residual ripple)  
 Residual ripple ≤ 15% of  $U_B$   
 Bias current ≤ 20mA  
 Switching output/function /66 ... 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 multiturn potentiometer

Signal voltage high/low  
 Output current  
 Operating range

### Indicators

Yellow LED light path free

### Mechanical data

Housing plastic  
 Optics cover plastic  
 Weight (plug/cable) 15g/55g  
 Connection type M8 and M12 connector, 4-pin, or cable: 2.000mm, 4x0.2mm<sup>2</sup>

### Environmental data

Ambient temp. (operation/storage) -20°C ... +55°C/-40°C ... +70°C  
 Protective circuit <sup>4)</sup> 2, 3  
 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

- 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) 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 25/66.41-S12	501 01457
With M8 connector	PRK 25/66.41-S8	501 01978
With 2m cable	PRK 25/66.41	501 01977
Cable with M12 connector, cable length: 150mm	PRK 25/66.41, 150-S12	501 08049

## Tables

Reflectors			Operating range
1	TK(S)	100x100	0 ... 1.7m
2	MTK(S)	50x50	0 ... 1.2m
3	TK(S)	30x50	0 ... 0.9m
4	TK(S)	20x40	0 ... 0.7m
5	Tape 2	100x100	0 ... 0.2m

1	0	1,7	2
2	0	1,2	1,4
3	0	0,9	1,1
4	0	0,7	0,8
5	0	0,2	0,25

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

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

## Diagrams

## Remarks

- Preferably use MTK(S) ...
- **Approved purpose:**  
 The photoelectric sensors are optical electronic sensors for optical, contactless detection of objects.