

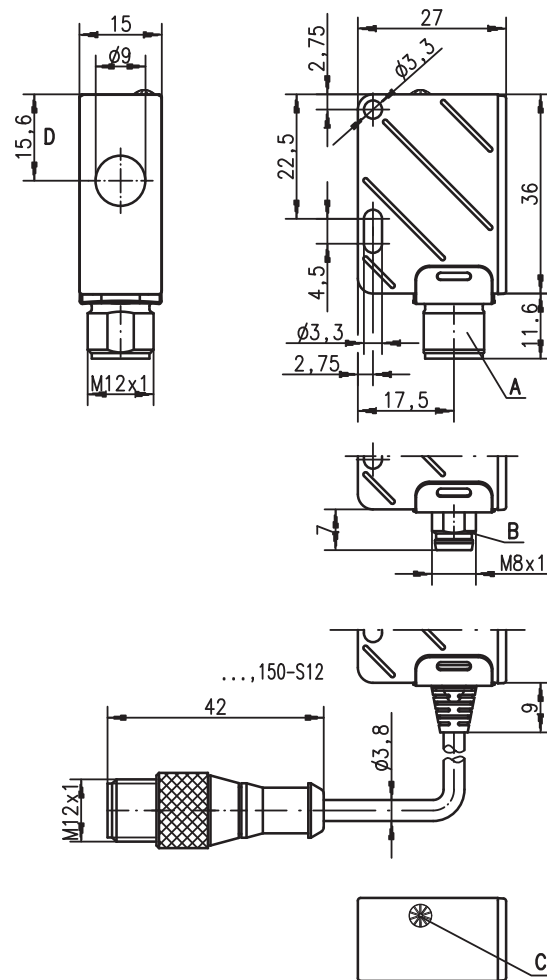
PRK 25

Retro-reflective photoelectric sensors

Part No. 501 08918



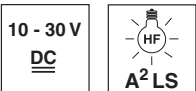
Dimensioned drawing



- A M12 connector
- B M8 connector
- C Indicator diode
- D Optical axis

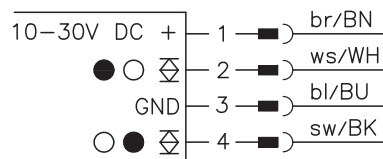


0 ... 5m



- Polarised retro-reflective photoelectric sensor using visible red light
- A²LS - Active Ambient Light Suppression
- Push-pull switching outputs
- Reliable function over the entire range (0 ... max.) due to the autocollimation principle used

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_b05gb.fm

Specifications

Optical data

Typ. operating range limit (TK(S) 100x100) ¹⁾ 0 ... 5m
 Operating range ²⁾ 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 2 push-pull switching outputs ³⁾
 pin 2: PNP dark switching, NPN light switching
 pin 4: PNP light switching, NPN dark switching
 $\geq (U_B - 2V) / \leq 2V$
 max. 100mA

Signal voltage high/low
 Output current

Indicators

Yellow LED light path free
 Yellow LED, flashing light path free, no performance reserve

Mechanical data

Housing plastic
 Optics cover plastic
 Weight (plug/cable) 15g/55g
 Connection type M8 or M12 connector, 4-pin, or cable with M12 connector, cable length: 150mm

Environmental data

Ambient temp. (operation/storage) -20°C ... +55°C/-40°C ... +70°C
 Protective circuit ⁴⁾ 2, 3
 VDE safety class ⁵⁾ II, all-insulated
 Protection class IP 67, IP 69K ⁶⁾
 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

Tables

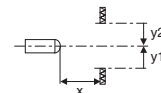
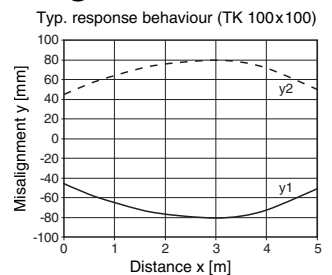
| Reflectors | | | Operating range |
|------------|--------|---------|-----------------|
| 1 | TK(S) | 100x100 | 0 ... 4.5m |
| 2 | MTK(S) | 50x50 | 0 ... 3.0m |
| 3 | TK(S) | 30x50 | 0 ... 1.7m |
| 4 | TK(S) | 20x40 | 0 ... 1.5m |
| 5 | Tape 4 | 100x100 | 0 ... 0.7m |
| 6 | TK(S) | 50x100 | 0 ... 3.0m |
| 7 | TK(S) | 82.2 | 0 ... 2.5m |

| | | | |
|---|---|-----|-----|
| 1 | 0 | 4,5 | 5,0 |
| 2 | 0 | 3,0 | 3,5 |
| 3 | 0 | 1,7 | 2,0 |
| 4 | 0 | 1,5 | 1,7 |
| 5 | 0 | 0,7 | 0,9 |
| 6 | 0 | 3,0 | 3,5 |
| 7 | 0 | 2,5 | 3,0 |

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

TK ... = adhesive
 TKS ... = screw type
 Tape 4 = adhesive

Diagrams



Order guide

| | Designation | Part No. |
|-----------------------------------------------|---------------------|-----------|
| With M12 connector | PRK 25/66.2-S12 | 500 41395 |
| With M8 connector | PRK 25/66.2-S8 | 500 41394 |
| Cable with M12 connector, cable length: 150mm | PRK 25/66.2-150-S12 | 500 41396 |
| With 2m cable | PRK 25/66.2 | 501 04202 |

Remarks

- **Approved purpose:**
 The photoelectric sensors are optical electronic sensors for optical, contactless detection of objects.