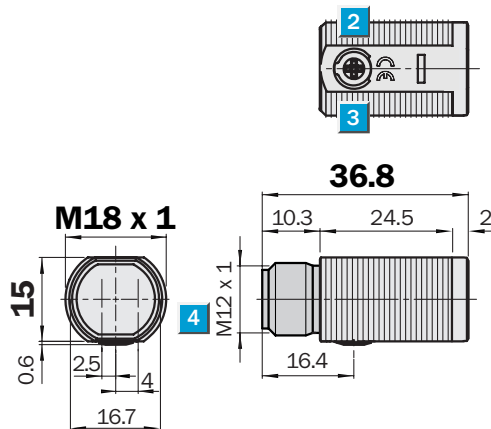

Scanning distance
23.5 mm

Contrast scanners

- Light source white: for a wide range of application
- Easy mounting thanks to accessories
- LED indicator: Switching output active and operation reserve
- Light or dark switching

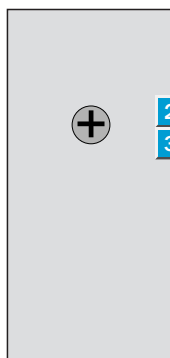
Dimensional drawing



Adjustments possible

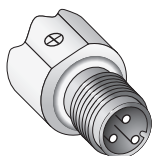
All types

- 1 M12 plug, 3-pin
- 2 Sensitivity control 270°
- 3 Yellow LED indicator

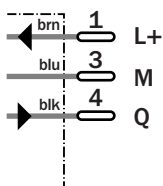


Connection type

- KT1M-P1
- KT1M-P2
- KT1M-N1
- KT1M-N2



3-pin, M12



See chapter accessories

- Cables and connectors
- Mounting systems

| Technical data | | KT1M- | P1 | P2 | N1 | N2 | | | | | | |
|--|---|-------|----|----|----|----|--|--|--|--|--|--|
| Scanning distance | 23.5 mm | | | | | | | | | | | |
| Scanning distance tolerance | ± 1.5 mm | | | | | | | | | | | |
| Light spot diameter | Approx. core 2 mm (5 mm) | | | | | | | | | | | |
| Light source ¹⁾ ; Light type; | LED; white; | | | | | | | | | | | |
| wavelength (nm) | 450 ... 650 | | | | | | | | | | | |
| Threshold setting | Potentiometer 270°, manually | | | | | | | | | | | |
| Light reception indicator | Yellow LED | | | | | | | | | | | |
| Supply voltage V _s | 10 ... 30 V DC ²⁾ | | | | | | | | | | | |
| Residual ripple ³⁾ | ≤ 5 V _{pp} | | | | | | | | | | | |
| Current consumption ⁴⁾ | ≤ 20 mA | | | | | | | | | | | |
| Switching outputs | PNP: HIGH = V _s - 2.9 V/LOW = 0 V NPN: HIGH = V _s /LOW = 2.9 V | | | | | | | | | | | |
| Switching mode | Light-switching | | | | | | | | | | | |
| | Dark-switching | | | | | | | | | | | |
| Output current I _A max. | ≤ 100 mA | | | | | | | | | | | |
| Response time ⁵⁾ | 1.25 ms | | | | | | | | | | | |
| Switching frequency ⁶⁾ | 400/s | | | | | | | | | | | |
| Connecting type | Plug M12, 3-pin | | | | | | | | | | | |
| VDE protection class ⁷⁾ | □ | | | | | | | | | | | |
| Enclosure rating | IP 67 | | | | | | | | | | | |
| Circuit protection ⁸⁾ | A, B, C | | | | | | | | | | | |
| Ambient temperature T _A | Operation -10 °C ... +55 °C Storage -25 °C ... +70 °C | | | | | | | | | | | |
| Weight | Approx. 7 g | | | | | | | | | | | |
| Housing material | Housing: ABS Optic: PMMA | | | | | | | | | | | |

¹⁾ Average service life 100,000 h at T_A = +25 °C
²⁾ Limit values

³⁾ May not exceed or fall short of V_s tolerances
⁴⁾ Without load

⁵⁾ Signal transit time with resistive load
⁶⁾ With light/dark ratio 1:1
⁷⁾ Reference voltage 50 V DC

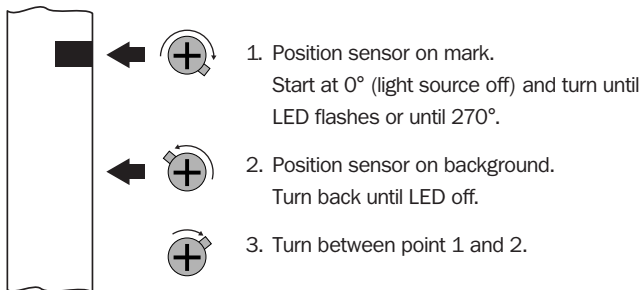
⁸⁾ A = V_s connections reverse-polarity protected
B = Interference pulse suppression
C = Outputs overcurrent and short-circuit protected

Teach-in, dark operation (D.ON)

Truth table

| Light remission | Output | LED indicator |
|------------------|----------|---------------|
| Yes (background) | inactive | on or blinks |
| No (mark) | active | off |

Threshold setting

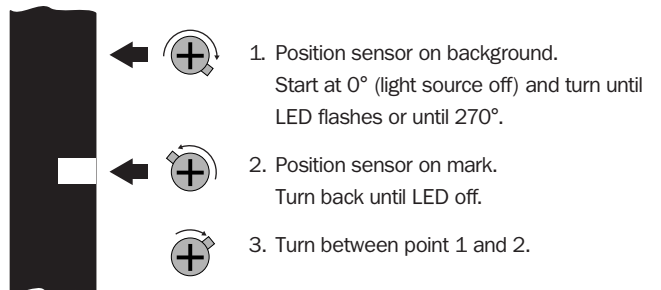


Teach-in, light operation (L.ON)

Truth table

| Light remission | Output | LED indicator |
|-----------------|----------|---------------|
| Yes (mark) | active | on or blinks |
| No (background) | inactive | off |

Threshold setting



Order information

| Type | Order no. |
|---------|-----------|
| KT1M-P1 | 1 027 306 |
| KT1M-P2 | 1 027 307 |
| KT1M-N1 | 1 027 304 |
| KT1M-N2 | 1 027 305 |