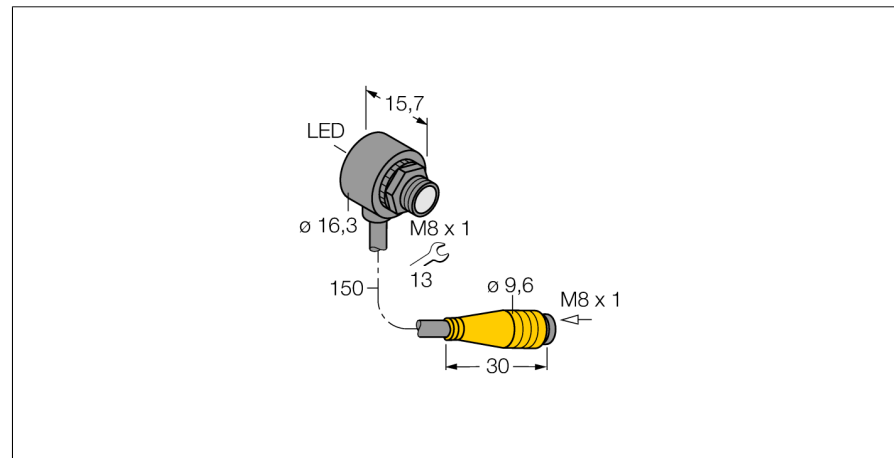
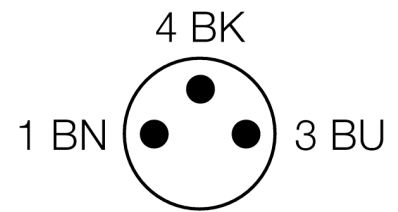
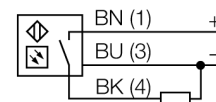


**Photoelectric sensor
diffuse mode sensor
miniature sensor
T8AP6D100Q**



- Cable with male end, PVC, M8 x 1, 150 mm
- Protection class IP67
- Ambient temperature: -20...+55 °C
- Ideal for confined spaces
- Operating voltage: 10...30 VDC
- PNP switching output, light operation

Wiring diagram



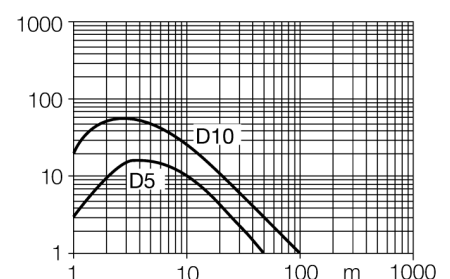
| | |
|--------------------------------|------------------------------|
| Type code | T8AP6D100Q |
| Ident no. | 3068689 |
| Operating mode | diffuse mode sensor |
| Light type | red |
| Wavelength | 680 nm |
| Range | 0...100 mm |
| Ambient temperature | -20...+55 °C |
| Operating voltage | 10...30VDC |
| Residual ripple | < 10 % U _s |
| DC rated operational current | ≤ 50 mA |
| No-load current I ₀ | ≤ 25 mA |
| Short-circuit protection | yes |
| Reverse polarity protection | yes |
| Output function | NO, light operation, PNP |
| Switching frequency | ≤ 500 Hz |
| Readiness delay | ≤ 150 ms |
| Design | threaded barrel, T8 |
| Dimensions | 15.8 mm |
| Housing diameter | 16.3 mm |
| Housing material | plastic, ABS, black |
| Lens | plastic, acrylic |
| Connection | cable with connector, M8 x 1 |
| Cable cross section | 3 x 0.1 mm ² |
| Protection class | IP67 |
| Power-on indication | LED green |
| Switching state | LED red |
| Error indication | LED green flashing |
| Alarm display | LED red flashing |

Functional principle

Identical to retro-reflective sensors, emitter and receiver circuitry are incorporated in the same housing of the diffuse mode sensors. However, diffuse mode sensors do not detect the interruption of the light beam but the reflection of the target. A target is detected if it reflects a sufficient amount of light back to the receiver. The switching distance of diffuse mode sensors thus largely depends on the reflectivity of the target. This type of sensor is especially suited for detection of transparent objects (diffuse mode sensor with or without background suppression or convergent mode sensors).

Excess gain curve

Excess gain in relation to the distance



Photoelectric sensor
diffuse mode sensor
miniature sensor
T8AP6D100Q

Accessories

| Type code | Ident no. | Description | Dimension drawing |
|-----------|-----------|--|-------------------|
| SMB8MM | 3067363 | Mounting bracket, material VA 1.4401, for T8 or T8L series | |

Wiring accessories

| Type code | Ident no. | Description | Dimension drawing |
|-------------|-----------|---|-------------------|
| PKG3M-2/TEL | 6625058 | Connection cable, female M8, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com | |
| PKW3M-2/TEL | 6625064 | Connection cable, female M8, angled, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com | |