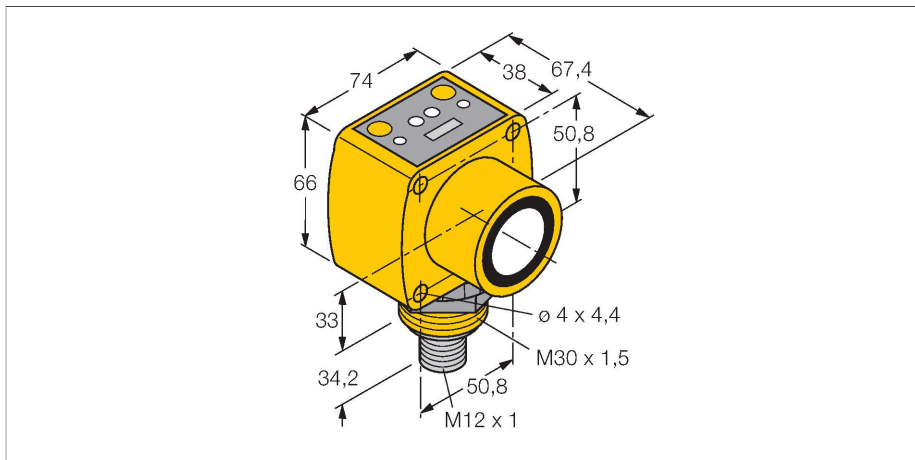


QT50UDBQ6-CRFV

Ultrasonic sensor – diffuse mode sensor



Features

- LED indicates signal intensity
- Male connector, 5-pin, M12 × 1
- Temperature compensation selectable via DIP switch

Functional principle

Ultrasonic sensors detect a multitude of objects contactless and wear-free with ultrasonic waves. Regardless of whether the object is transparent or opaque, metallic or non-metallic, liquid, solid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.

Technical data

| | |
|--------------------------------------|-----------------------------------|
| Type | QT50UDBQ6-CRFV |
| ID | 3077351 |
| Ultrasonic data | |
| Function | Proximity switch |
| Range | 200...6000 mm |
| Ultrasound frequency | 75 kHz |
| Repeatability | ≤ ± 1 mm |
| Temperature drift | ≤ 0.02 % of full scale/K |
| Edge lengths of the nominal actuator | 500 mm |
| Electrical data | |
| Operating voltage | 10...30 VDC |
| Response time typical | < 100 ms |
| Readiness delay | ≤ 1500 ms |
| Output function | 2 normally open contact, PNP |
| Switching frequency | ≤ 5 Hz |
| Short-circuit protection | yes |
| Mechanical data | |
| Design | Rectangular, QT50U |
| Radiation direction | straight |
| Dimensions | 67.4 x 74 x 100.2 mm |
| Housing material | Plastic, PBT |
| Transducer material | Plastic, Epoxyd resin and PU foam |
| Electrical connection | Connector, M12 × 1, PVC |
| Ambient temperature | -20...+70 °C |
| Storage temperature | -40...+90 °C |
| Relative humidity | 100 % |

Technical data

| | |
|------------------------|---|
| Protection class | IP67 |
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |
| Object detected | LED, Red |
| Tests/approvals | |
| MTTF | 131 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals | CE |

Accessories

| | | | |
|-----------------------|---|-----------------------|---|
| <p>SMB30A</p> | <p>3032723</p> <p>Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread</p> | <p>SMB30MM</p> | <p>3027162</p> <p>Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment</p> |
| <p>SMB30SC</p> | <p>3052521</p> <p>Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable</p> | | |

Accessories

| Dimension drawing | Type | ID | |
|-------------------|---------------|---------|--|
| | WKC4.5T-2/TEL | 6625028 | Connection cable, female M12, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com |
| | RKC4.5T-2/TEL | 6625016 | Connection cable, female M12, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com |