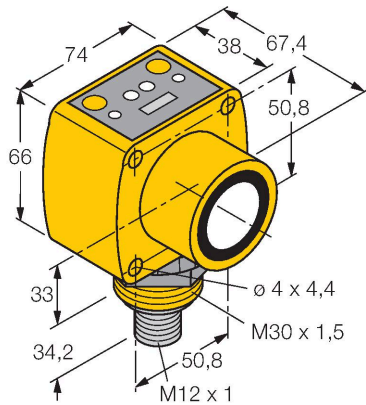


# QT50UDBQ6-CRFV

## Ultrasonic Sensor – diffuse mode sensor With Switching Outputs



### 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 U <sub>B</sub>     | 10...30 VDC                       |
| Response time typical                | < 100 ms                          |
| Readiness delay                      | ≤ 1500 ms                         |
| Output function                      | 2 x NO 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                      |

### Features

- LED indicates signal intensity
- Male connector, 5-pin, M12 × 1
- Temperature compensation selectable via DIP switch
- Blind zone: 20 cm
- Range: 800 cm

### 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.

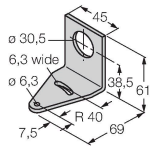
Technical data

|                     |                                           |
|---------------------|-------------------------------------------|
| Relative humidity   | 100 %                                     |
| 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

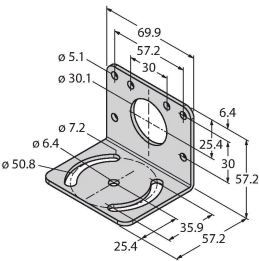
|        |         |
|--------|---------|
| SMB30A | 3032723 |
|--------|---------|

Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread



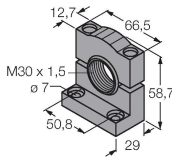
|         |         |
|---------|---------|
| SMB30MM | 3027162 |
|---------|---------|

Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment



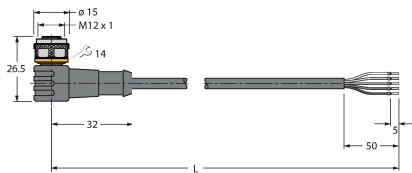
|         |         |
|---------|---------|
| SMB30SC | 3052521 |
|---------|---------|

Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable



Accessories

| Dimension drawing | Type          | ID      |                                                                                                                       |
|-------------------|---------------|---------|-----------------------------------------------------------------------------------------------------------------------|
|                   | WKC4.5T-2/TEL | 6625028 | Connection cable, M12 female connector, angled, 5-pin, cable length: 2 m, jacket material: PVC, black; cULus approval |



| Dimension drawing | Type          | ID      |                                                                                                                         |
|-------------------|---------------|---------|-------------------------------------------------------------------------------------------------------------------------|
|                   | RKC4.5T-2/TEL | 6625016 | Connection cable, M12 female connector, straight, 5-pin, cable length: 2 m, jacket material: PVC, black; cULus approval |

