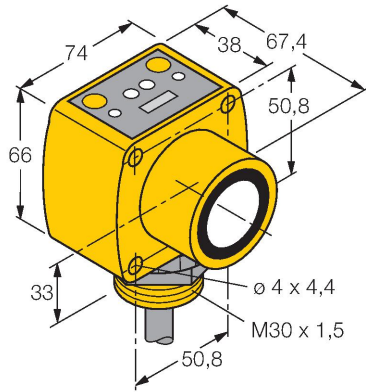


# QT50ULB

## Ultrasonic Sensor – diffuse mode sensor

### With Analog Output



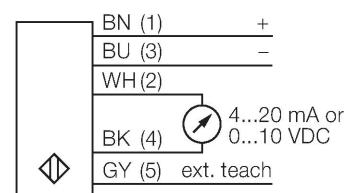
#### Technical data

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| Type                                 | QT50ULB                           |
| ID                                   | 3002726                           |
| Ultrasonic data                      |                                   |
| Function                             | Proximity switch                  |
| Range                                | 200...8000 mm                     |
| Ultrasound frequency                 | 75 kHz                            |
| Repeatability                        | $\leq \pm 1$ mm                   |
| Temperature drift                    | $\leq 0.02$ % of full scale/K     |
| Edge lengths of the nominal actuator | 500 mm                            |
| Electrical data                      |                                   |
| Operating voltage $U_B$              | 10...30 VDC                       |
| Load resistance                      | $\leq 500 \Omega$                 |
| Response time typical                | < 100 ms                          |
| Readiness delay                      | $\leq 1500$ ms                    |
| Output function                      | Analog output                     |
| Current output                       | 4...20 mA                         |
| Voltage output                       | 0...10 V                          |
| Hysteresis                           | $\leq 5$ mm                       |
| Short-circuit protection             | yes                               |
| Mechanical data                      |                                   |
| Design                               | Rectangular, QT50U                |
| Radiation direction                  | straight                          |
| Dimensions                           | 67.4 x 74 x 84.2 mm               |
| Housing material                     | Plastic, PBT                      |
| Transducer material                  | Plastic, Epoxyd resin and PU foam |

#### Features

- LED indicates signal intensity
- Cable, PVC, 2 m, 5-wire
- Temperature compensation selectable via DIP switch
- Current or voltage output selectable via DIP switch
- Response time between 100 ms and 2300 ms, adjustable via DIP switch
- Blind zone: 20 cm
- Range: 800 cm

#### Wiring diagram

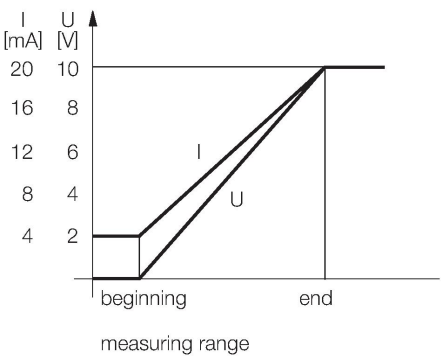


#### Functional principle

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

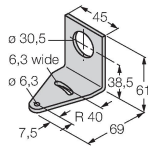
|                       |                                           |
|-----------------------|-------------------------------------------|
| Electrical connection | Cable, 2 m, PVC                           |
| Ambient temperature   | -20...+70 °C                              |
| Storage temperature   | -40...+90 °C                              |
| Relative humidity     | 100 %                                     |
| Protection class      | IP67                                      |
| Power-on indication   | LED, Green                                |
| Switching state       | LED                                       |
| Object detected       | LED, Red                                  |
| Tests/approvals       |                                           |
| MTTF                  | 131 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals             | CE                                        |



Accessories

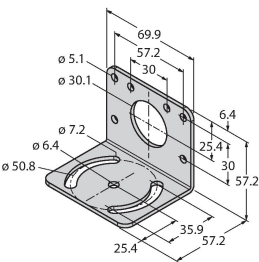
SMB30A 3032723

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

