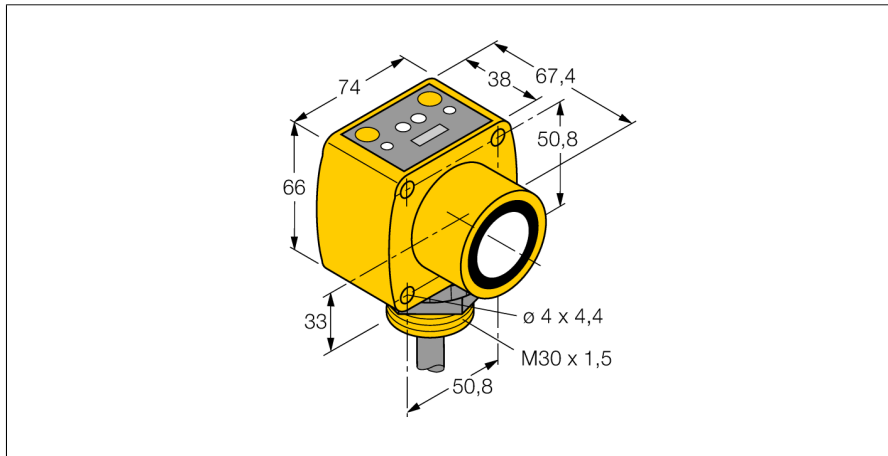
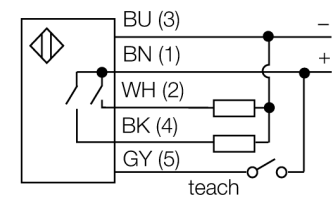


# Ultrasonic sensor diffuse mode sensor QT50UDB



- LED indicates signal intensity
- Temperature compensation selectable via DIP switch
- 2 switching ranges independently adjustable via teach-in
- Pump function adjustable via DIP switch

### Wiring diagram



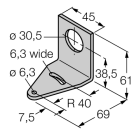
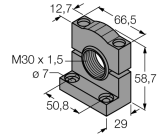
### Functional principle

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.

<b>Type code</b>	QT50UDB
Ident no.	3002722
<b>Design</b>	rectangular, QT50U
Housing material	plastic, ABS
Connection	cable, 2
Protection class	IP67
Ambient temperature	-20...+70 °C
MTTF	131 years
MTTF note	acc. to SN 29500 (Ed. 99) 40 °C
<b>Power-on indication</b>	LED
Switching state	LED yellow
<b>Operating voltage</b>	10...30VDC
Output function	2x NO, PNP
Switching frequency	5 Hz
Hysteresis	≤ 5 mm
Short-circuit protection	yes
<b>Operating mode</b>	diffuse mode ultrasonic sensor
Range	20...800 cm
Ultrasound frequency	75 kHz
Repeatability	≥ ± 1 mm
Edge lengths of the nominal actuator	500 mm

**Ultrasonic sensor  
diffuse mode sensor  
QT50UDB**

**Accessories**

Type code	Ident no.	Description	Dimension drawing
SMB30A	3032723	Mounting bracket, stainless steel, for sensors with 30 mm thread	 <p>Technical drawing of the SMB30A mounting bracket. Dimensions include: top width 45, hole diameter <math>\varnothing 30,5</math>, hole width 6,3, bottom hole diameter <math>\varnothing 6,3</math>, bottom hole width 7,5, total height 61, and a radius of R 40.</p>
SMB30MM	3027162	Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment	 <p>Technical drawing of the SMB30MM and SMB30SC mounting brackets. Dimensions include: top width 66,5, hole diameter <math>\varnothing 30</math>, hole width 12,7, bottom hole diameter <math>\varnothing 7</math>, bottom hole width 50,8, total height 56,7, and a width of 29. The drawing also indicates an M30 x 1,5 thread.</p>
SMB30SC	3052521	Mounting bracket, PBT black; for 30 mm thread; with 4 screws M5 x 0.8	