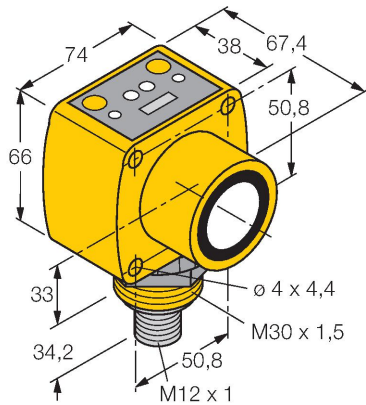


QT50ULBQ6

Ultrasonic Sensor – diffuse mode sensor With Analog Output



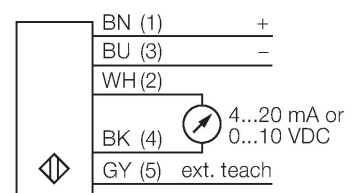
Technical data

Type	QT50ULBQ6
ID	3002728
Ultrasonic data	
Function	Proximity switch
Range	200...8000 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
Load resistance	≤ 500 Ω
Response time typical	< 100 ms
Readiness delay	≤ 1500 ms
Output function	Analog output
Current output	4...20 mA
Voltage output	0...10 V
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

Features

- LED indicates signal intensity
- Male connector, 5-pin, M12 × 1
- 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

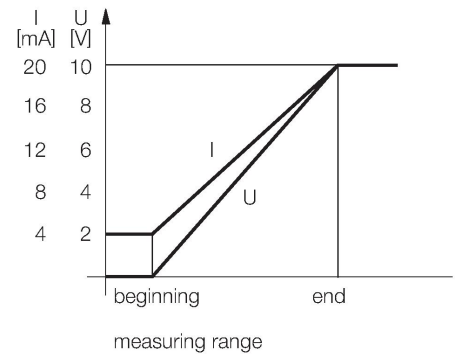


Functional principle

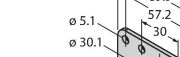
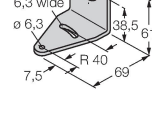
Ultrasonic sensors detect a multitude of objects contactless and wear-free with ultrasonic waves. Regardless of whether the object is transparent or opaque, metallic or non-metallic, liquid, solid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.

Technical data

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

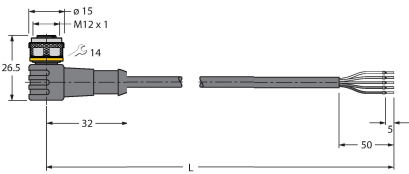


Accessories

SMB30A  Technical drawing of the SMB30A mounting bracket. It is a rectangular stainless steel bracket for sensors with a 30mm thread. Dimensions include a top width of 45, a bottom width of 69, a height of 61, and a mounting hole diameter of 30.5. There are also smaller holes with diameters of 6.3 and 6.3, and a radius of R 40.	3032723 Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread	SMB30MM  Technical drawing of the SMB30MM mounting bracket. It is a rectangular stainless steel bracket for sensors with a 30mm thread, featuring wide holes for accurate alignment. Dimensions include a top width of 69.9, a bottom width of 57.2, a height of 57.2, and a mounting hole diameter of 30.1. There are also smaller holes with diameters of 5.1, 6.4, and 7.2, and a radius of R 40.	3027162 Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment
SMB30SC  Technical drawing of the SMB30SC mounting bracket. It is a rectangular PBT black bracket for sensors with a 30 mm thread, which is rotatable. Dimensions include a top width of 66.5, a bottom width of 58.7, a height of 29, and a mounting hole diameter of 30. There are also smaller holes with diameters of 7 and 12.7, and a radius of R 40.	3052521 Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable		

Accessories

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

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
	RKS4.5T-2/TEL	6626361	Connection cable, M12 female connector, straight, 5-pin, cable length: 2 m, jacket material: PVC, black; shielded; cULus approval
	WKS4.5T-2/TEL	6626364	Connection cable, M12 female connector, angled, 5-pin, cable length: 2 m, jacket material: PVC, black; shielded; cULus approval