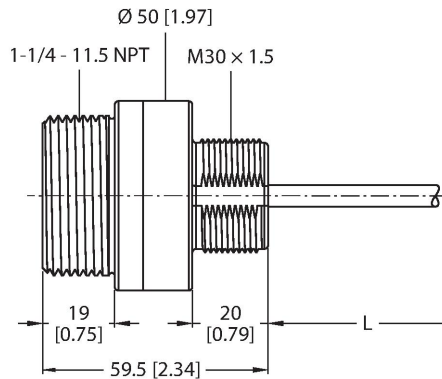


K50UX1ARA

Ultrasonic Sensor – diffuse mode sensor

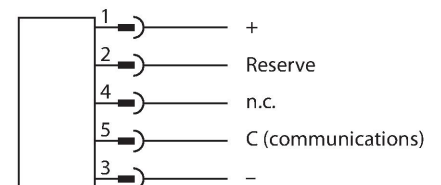
With Serial Interface for Connection to a DX80 Radio Node



Features

- Protection class IP67
- Operating temperature: -40...+70 °C
- 230 mm cable, PVC, with male connector, M12 × 1, 5-pin
- Range: 10...100 cm
- Sound frequency: 224 kHz
- Resolution > 1 mm
- Operating voltage: 3.5...5.5 VDC or 10...30 VDC
- 1-Wire Serial Interface
- For connection to DX80 nodes DX80N2X1S-P6 and DX80N2Q45U

Wiring diagram



Functional principle

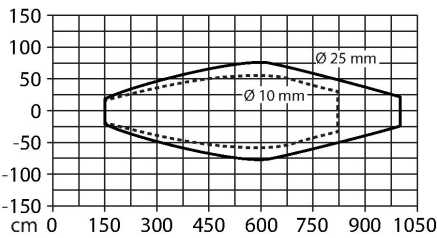
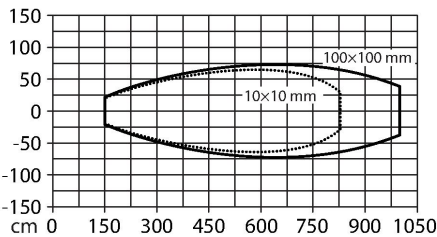
Ultrasonic sensors detect a multitude of objects contactless and wear-free with ultrasonic waves. Regardless of whether the object is transparent or opaque, metallic or non-metallic, liquid, solid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.

Technical data

Type	K50UX1ARA
ID	3804556
Ultrasonic data	
Function	Proximity switch
Range	100...1000 mm
Ultrasound frequency	224 kHz
Repeatability	≤ ± 1 mm
Electrical data	
Operating voltage U_B	3.5...5.5 VDC
DC rated operating current I_o	≤ 0.18 mA
Readiness delay	≤ 10000 ms
Communication protocol	1-wire-serial
Reverse polarity protection	yes
Wire breakage protection	yes
Mechanical data	
Design	Tube, K50UX
Dimensions	Ø 50 x 59.5 mm
Housing material	Plastic, PBT
Transducer material	Plastic, Epoxy-resin
Electrical connection	Cable with connector, M12 × 1, 5-wire, 0.23 m, PVC
Ambient temperature	-40...+70 °C
Storage temperature	-40...+70 °C
Relative humidity	95 %
Protection class	IP67
Power-on indication	LED, Yellow

Technical data

Tests/approvals	
Vibration resistance	MIL-STD-202F, method 201A (vibration: 10 Hz to 60 Hz maximum, 0.06 inch [1.52 mm] double amplitude, 10 G maximum acceleration). IEC 60947-5-2 (shock: 30 G 11 ms duration, half sine wave)



Accessories

BWA-BK-006	3800834
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Accessories

Dimension drawing	Type	ID	
	DX80N2X6S-P6	3095667	DX80 nodes, 10...30 DC power supply, external antenna, protection class IP67, serial interface to connect a sensor
	DX80N2X1S-P6	3018657	DX80 FlexPower nodes, internal battery supply, external antenna, protection class IP67, serial interface to connect a sensor
	DX80DR2M-H6	3014392	DX80 Data Radio, internal battery supply, external antenna, protection class IP67, serial interface to connect a sensor, RS485 interface to communicate via Modbus RTU
	DX80N2Q45U	3800203	Q45 wireless sensor, internal battery supply, protection class IP67, serial interface to connect various sensors