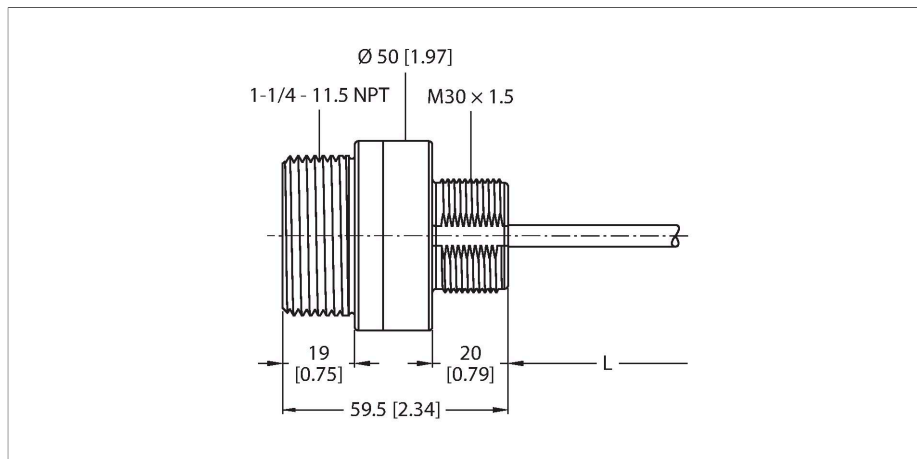


K50UX1CRA

Ultrasonic Sensor – diffuse mode sensor

With Serial Interface for Connection to a DX80 Radio Node



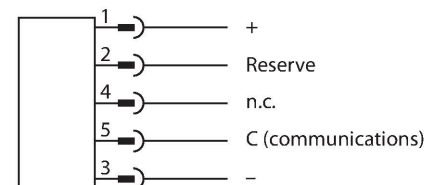
Technical data

Type	K50UX1CRA
ID	3094613
Ultrasonic data	
Function	Proximity switch
Range	300...3000 mm
Ultrasound frequency	114 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

Features

- Protection class IP67
- Operating temperature: -40...+70 °C
- 230 mm cable, PVC, with male connector, M12 × 1, 5-pin
- Range: 30...300 cm
- Sound frequency: 114 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

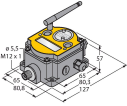
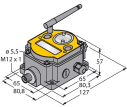
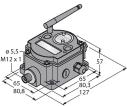
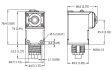
Tests/approvals

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)
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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