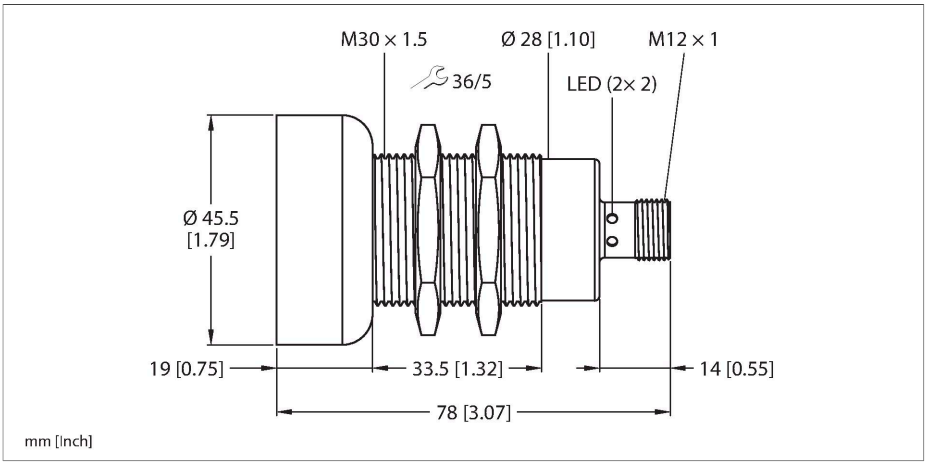
RU600D-M30M-UPN8X2-H1141
Ultrasonic Sensor – Diffuse Mode Sensor



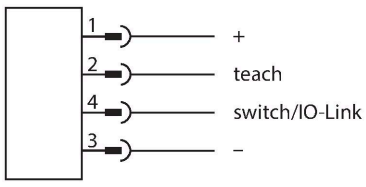
Technical data

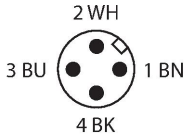
Type	RU600D-M30M-UPN8X2-H1141
ID	100039014
Ultrasonic data	
Function	Proximity switch
Range	600…6000 mm
Resolution	1 mm
Minimum switching range	10 mm
Ultrasound frequency	80 kHz
Repeat accuracy	≤ 0.15 % of full scale
Temperature drift	± 1.5 % of full scale
Linearity error	≤ ± 0.5 %
Edge lengths of the nominal actuator	200 mm
Electrical data	
Operating voltage U_B	18…30 VDC
Residual ripple	10 % U_{ss}
DC rated operating current I_e	≤ 150 mA
No-load current	≤ 45 mA
Load resistance	≤ 1000 Ω
Residual current	≤ 0.1 mA
Readiness delay	≤ 300 ms
Communication protocol	IO-Link
Output function	NO/NC, PNP/NPN
Output 1	Switching output or IO-Link mode
Switching frequency	≤ 2 Hz
Hysteresis	≤ 5 mm
Voltage drop at I_e	≤ 2.5 V
Short-circuit protection	yes/Cyclic

Features

- Smooth sonic transducer face
- M30 cylindrical design, potted
- Connection via M12 × 1 male connector
- Measuring range adjustable via teach-in
- Temperature compensation
- Blind zone: 60 cm
- Range: 600 cm
- Resolution: 1 mm
- Adjustable switching hysteresis
- Aperture angle of sonic cone: ± 5 °
- Switching output, push-pull (PNP/NPN)
- NO/NC programmable
- IO-Link

Wiring diagram





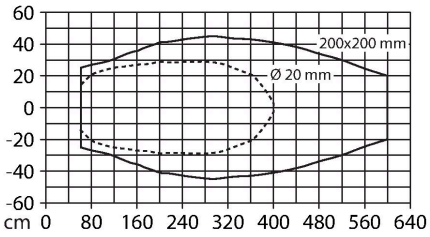
Functional principle

Ultrasonic sensors detect a multitude of objects contactlessly and wear free with ultrasonic waves. It does not matter whether the object is transparent or opaque, metallic or non-metallic, firm, liquid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.

Technical data

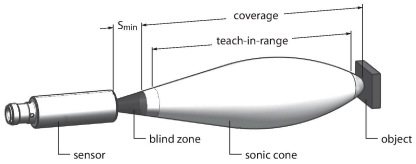
Reverse polarity protection	yes
Wire breakage protection	yes
Setting option	Remote Teach IO-Link
IO-Link	
IO-Link specification	V 1.1
IO-Link port type	Class A
Communication mode	COM 2 (38.4 kBaud)
Process data width	16 bit
Measured value information	15 bit
Switchpoint information	1 bit
Frame type	2.2
Minimum cycle time	2 ms
Function pin 4	IO-Link
Function Pin 2	DI
Maximum cable length	20 m
Profile support	Smart Sensor Profile
Mechanical data	
Design	Threaded barrel, M30
Radiation direction	straight
Dimensions	Ø 45.5 x 78 mm
Housing material	Metal, CuZn, Nickel Plated
Max. tightening torque of housing nut	75 Nm
Transducer material	Plastic, Epoxyd resin and PU foam
Electrical connection	Connector, M12 × 1, 4-wire
Ambient temperature	-25…+70 °C
Storage temperature	-40…+80 °C
Pressure resistance	0.5…5 bar
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Object detected	LED, Yellow
Tests/approvals	
MTTF	633 years acc. to SN 29500 (Ed. 99) 40 °C
Declaration of conformity EN ISO/IEC	EN 60947-5-2
Approvals	CE cULus

Sonic Cone



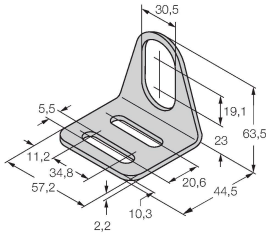
Mounting instructions

Mounting instructions/Description



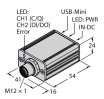
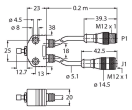
Accessories

MW30	6945005



Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

Accessories

Dimension drawing	Type	ID	
	TBEN-S2-4IOL	6814024	Compact multiprotocol I/O module, 4 IO-Link Master 1.1 Class A, 4 universal PNP digital channels 0.5 A
	USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port
	VB2-SP1	A3501-29	Teach adapter