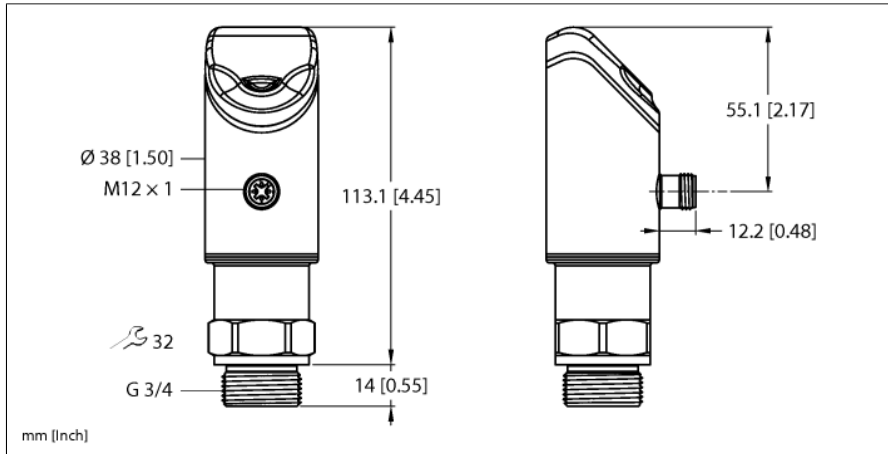


# Ultrasonic Sensor Level Control LUS211-130-51-2UPN8-H1141

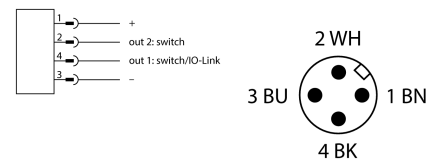


Type	LUS211-130-51-2UPN8-H1141
ID	100003165
<b>Ultrasonic data</b>	
Function	Proximity
Range	130...1300 mm
Resolution	1 mm
Minimum switching range	10 mm
Ultrasound frequency	200 kHz
Temperature drift	$\pm 1.5\%$ of full scale%
Edge lengths of the nominal actuator	100 mm
Approach speed	$\leq 10$ m/s
Pass speed	$\leq 2$ m/s
<b>Electrical data</b>	
Operating voltage	18...33 VDC
No-load current $I_0$	$\leq 150$ mA
Load resistance	$\leq 1000 \Omega$
Residual current	$\leq 0.1$ mA
Response time typical	$< 90$ ms
Readiness delay	$\leq 300$ ms
Communication protocol	IO-Link
Output function	NO/NC, PNP
Output 1	Switching output or IO-Link mode
Output 2	Switching output
Switching frequency	$\leq 6.5$ Hz
Hysteresis	$\leq 10$ mm
Voltage drop at $I_L$	$\leq 2.5$ V
Short-circuit protection	yes
Reverse polarity protection	yes
Setting option	Capacitive Sensor IO-Link



- 4-digit, 2-colored, 12-segment display, rotatable by 180°
- Housing is rotatable after mounting the process connection
- G3/4" process connection
- Sealing ring included in delivery (stainless steel ring with NBR seal)
- Blind zone: 13 cm
- Range: 130 cm
- Resolution: 1 mm
- Aperture angle of sonic cone:  $\pm 16^\circ$
- 2 x switching outputs, PNP/NPN
- NO/NC programmable
- Transmission of process value and parametrization via IO-Link

## Wiring Diagram



## Functional principle

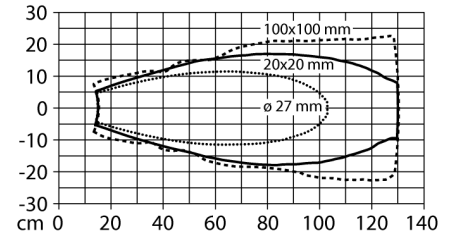
Ultrasonic sensors capture a multitude of objects contactlessly and wear-free with ultrasonic waves. It does not matter whether the object is transparent or opaque, metallic or non-metallic, firm, liquid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.

The sonic cone diagram indicates the detection range of the sensor. In accordance with standard EN 60947-5-2, quadratic targets in a range of sizes (20 x 20 mm, 100 x 100 mm) and a round rod with a diameter of 27 mm are used.

<b>IO-Link</b>	
IO-Link specification	V 1.1
IO-Link port type	Class A
Communication mode	COM 2 (38.4 kBaud)
Process data width	32 bit
Measured value information	15 bit
Switchpoint information	4 bit
Frame type	2.2
Minimum cycle time	5 ms
Function pin 4	IO-Link
Function Pin 2	DI
Maximum cable length	20 m
Profile support	Smart Sensor Profil
Included in the SIDI GSDML	Yes

Important: The detection ranges for other targets may differ from those for standard targets due to the different reflection properties and geometries.

### Sonic Cone



<b>Mechanical data</b>	
Design	Smooth barrel, LUS
Radiation direction	straight
Dimensions	Ø 38 x 127.1 mm
Housing material	Stainless-steel/Plastic, 1.4404 (AISI 316L)/Grilamid TR90 UV
Transducer material	Plastic, Epoxyd resin and PU foam
Electrical connection	Connector, M12 × 1, 4-wire
Process connection	G 3/4"
Ambient temperature	-25...+70 °C
Pressure resistance	0.5...5 bar
Protection class	IP67 IP69K
	Not assessed by UL

<b>Tests/approvals</b>	
Declaration of conformity EN ISO/IEC	EN 60947-5-2
Approvals	CE cULus