EchoSonic™Two-Wire Ultrasonic Level Transmitter



APPLICATION

The general purpose two-wire ultrasonic transmitter provides non-contact level measurement up to 26' or 8m, and is well suited for challenging ultrapure, corrosive, slurry or waste liquids. The transmitter is broadly selected for atmospheric bulk storage, day tank, waste sump, process vessel, IBC tote, 55-gallon drum and waste sump applications. Media examples include acetic acid and resin.

CALIBRATION

The 4-20 span set points are easily calibrated with the Cal-wire, a DC power supply and flat reflective target. To configure the 4 mA set point, attach the Cal-wire to the return side of the power supply, hold the transmitter at the desired set point range and turn power on until the logo plate illuminates. It's level made simple!

FEATURES

- Simple compact sensor with target calibration and LED status indicator
- Offered in four measurement ranges up to 8m with 1" and 2" transducers
- 5 cm minimum beam width for applications with restricted space
- 5 cm miniature dead band optimizes the filling capacity of small vessels
- PC/ABS enclosure rated NEMA 6 or NEMA 4X with PVDF transducer
- Fail-safe intelligence with diagnostic feedback for easy troubleshooting



SPECIFICATIONS

Range:	LU05: 2" to 4' (5 cm to 1.2m) LU12: 4" to 9.8' (10 cm to 3m) LU11: 4" to 16.4' (10 cm to 5m)
Accuracy:	LU13: 8" to 26.2' (20 cm to 8m) LU05: 0.125" (3 mm) LU11/12/13: ± 0.2% of span in air
Resolution:	LU05/12: 0.019" (0.5 mm) LU11/13: 0.039" (1 mm)
Beam width:	LU05/12: 2" (5 cm) dia. LU11/13: 3" (7.6 cm) dia.
Dead band:	LU05: 2" (5 cm) LU11/12: 4" (10 cm) LU13: 8" (20 cm)
LED indication:	Power, calibration and diagnostics
Memory: Supply voltage:	Non-volatile 12-28 VDC
Loop resist.: Signal output:	500 Ohms @ 24 VDC 4-20 mA, two-wire
Signal invert: Calibration: Fail-safety:	4-20 mA or 20-4 mA Target, calibration wire Reverts to 22 mA
Process temp.:	F: -4° to 140° C: -20° to 60°
Temp. comp.:	Automatic
Electronics temp.:	F: -40° to 160° C: -40° to 71°
Pressure:	30 psi (2 bar) @ 25° C., derated @ 1.667 psi (.113 bar) per °C. above 25° C.
Enclosure rating:	50_1: NEMA 6 (IP67) 51_1: NEMA 4X (IP65)
Encl. material:	PC/ABS FR
Trans. material:	PVDF
Cable jacket mat.:	50_1: PP
Cable type:	50_1: 3-cond., shielded
Cable length:	50_1: 10' (3m)
Conduit entrance: Process mount:	51_1: Dual, 1/2" NPT LU05/12: 1" NPT (1" G) LU11/13: 2" NPT (2" G)
Mount. gasket:	Viton®
Classification:	General purpose
CE compliance:	EN 61326 EMC

The optional battery powered LU96-1001 target calibrator puts field calibration in the palm of your hand.

LU96 Shown



DIAGNOSTICS

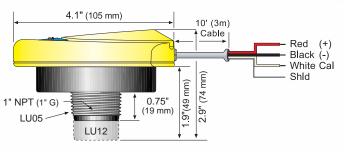
The transmitter features advanced self-test diagnostics that continuously sweep the applied performance of the product. In the event of low acoustic confidence, the analog signal will hold at 22 mA and the blue LED logo plate will turn on until such time that the level is acquired.



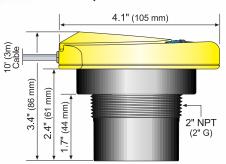


DIMENSIONS

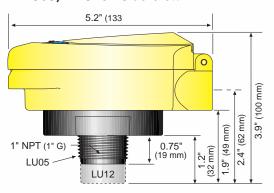
LU05/12-5001 Side View



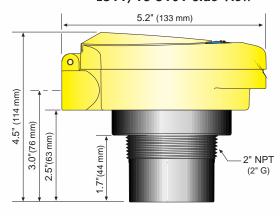
LU11/13-5001 Side View



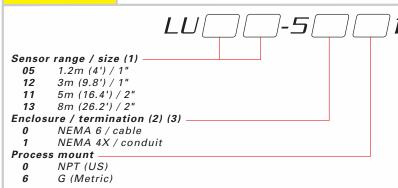
LU05/12-5101 Side View



LU11/13-5101 Side View



EchoSonic ORDER



Ordering Notes

- 1) For 18V battery powered target calibration with 4-20 mA span indication, order the LU96-1001 calibrator.
- 2) The NEMA 6 includes a standard 10' (3m) cable. To special order a 25' (7.6m) or 50' (15.2m) cable, place the cable length at the end of the part number (ie: LU12-5001-25).
- 3) The NEMA 4X enclosure has a flip-lid with dual conduit ports and a terminal strip.