

Echotouch™ Ultrasonic Level Transmitter



Description

Offered in CSA and Cenelec approved intrinsically safe or general purpose configurations, the two-wire ultrasonic transmitter provides non-contact level measurement up to 18' or 5.4m, and is ideally suited for challenging corrosive, slurry or waste liquids. The transmitter is typically selected for atmospheric bulk storage, day tank and waste sump applications located within a classified hazardous area. Media examples include diesel fuel and hydrochloric acid. The transmitter is calibrated in less than a minute using the LCD display, 4-button interface and intuitive calibration menu. All user set points are held in non-volatile memory. In the event of acoustic signal loss, the transmitter will hold the current output at the user designated safe state.

Specifications

Range:	0.5' to 18' (15 cm to 5.4m)
Accuracy:	± 0.25% of span in air
Resolution:	0.125" (3 mm)
Beam width:	8° conical
Dead band:	0.5' (15 cm)
Display type:	LCD, 4-digit
Display units:	Inch or cm
Memory:	Non-volatile
Supply voltage:	12-32 VDC
Loop resist.:	600 Ohms @ 24 VDC
Signal output:	4-20 mA, two-wire
Signal invert:	4-20 or 20-4 mA
Calibration:	Digital, push button
Fail-safety:	Reverts to safe state during echo-loss
Process temp.:	F: -40° to 140° C: -40° to 60°
Temp. comp.:	Automatic
Electronics temp.:	F: -4° to 140° C: -20° to 60°

Pressure:	30 psi (2 bar) @ 25° C., derated @ 1.667 psi (.113 bar) per °C. above 25° C.
Enclosure rating:	NEMA 4X (IP65)
Installed height:	5.1" (13 cm) above tank process mount
Encl. material:	PP, UL94VO
Trans. material:	PVDF Kynar®
Process mount:	2" NPT (2" G)
Mount. gasket:	Viton® (G version only)
Conduit entrance:	Single, 1/2" NPT
Classification:	Intrinsically safe
Approvals:	CSA: Class I, Groups A, B, C & D; Class II, Groups E, F and G; Class III; T3C
Parameters:	CSA: Vmax < 32.0 V; Imax < 130 mA; Ca = 0 µF; La = 0 µH
Certificates:	CSA: LR 79326
CE compliance:	EN 50082-2 immunity EN 55011 emission

Features

- ✓ LCD digital display indicates level in inches or centimeters
- ✓ PP enclosure rated NEMA 4X with rugged Kynar® transducer
- ✓ EasyCal simple push button calibration for all user set points
- ✓ Adjustable dead band and range filters eliminate false echo returns

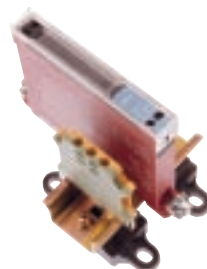
Echotouch Ordering

LU20-50 1-15

Process mount (1) (2) (3)

0 2" NPT (US)
6 2" G (Metric)

LM50
Shown



LB10
Shown

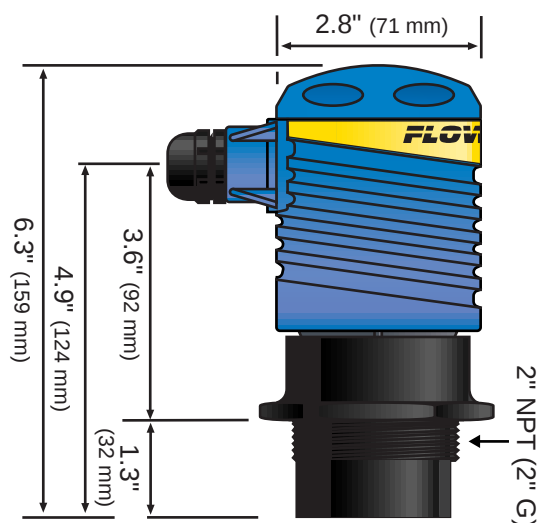


Ordering Notes

- 1) The straight G thread version seals with an included Viton® mounting gasket.
- 2) For installation on open tanks, order the LM50-1001 (2" NPT) or LM50-1061 (2" G) side mount bracket. Locate the bracket far enough inboard from the side wall to avoid sensor beam width conflicts.
- 3) To order the general purpose transmitter, do not specify the last two digits (ie: LU20-5001).
- 4) To complete your IS transmitter, add the LB10-1001 intrinsic safety barrier.

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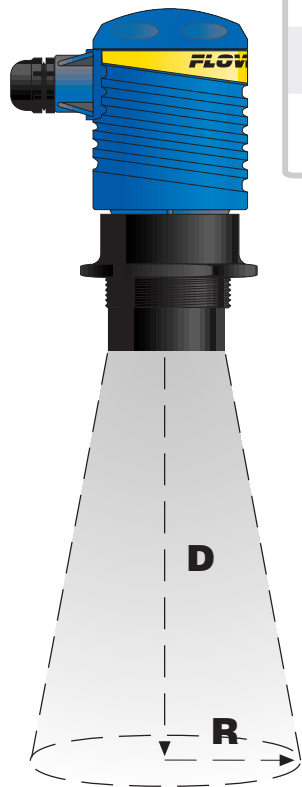
Dimensions



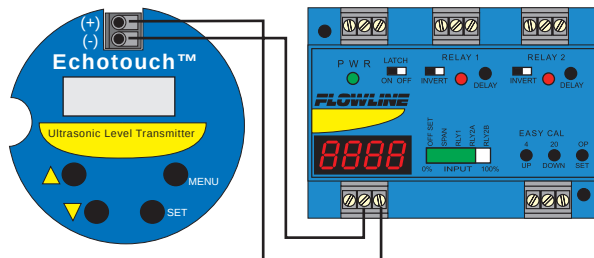
Specifications are subject to change without notice.

Beam Cone Data

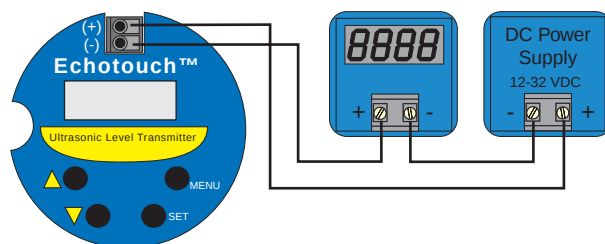
Depth (Feet)	Radius (Inches)	Radius (cm)
1	1.2	3.1
3	2.9	7.3
5	4.6	11.6
7	6.2	15.9
9	7.9	20.1
11	9.6	24.4
13	11.3	28.7
15	13.0	32.9
17	14.6	37.2
19	16.3	41.3



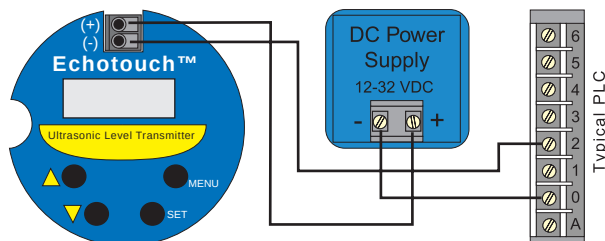
To LC52 Relay Controller



To Loop Powered Indicator



To PLC



To LI1_ Universal Panel Meter

