

Product Features

- *Simple push-button calibration*
- *Output 4-20 mA / 20-4 mA*
(isolated on 4 wire model's only)
- *Optional RS232 or RS485 communications with calibration, diagnostics and data logging software*
- *Built-in temperature compensation*
- *PLC compatible*
- *3-wire DC or 4-wire isolated AC operation*
- *Self cleaning operation of sensor face*

Description

The new LTU30 series ultrasonic transducers, featuring very high efficiency narrow beams and wide frequency bandwidth, work in many conditions over wide temperature range. They are insensitive to mountings, and with help of the transceiver and smart signal processing, eliminate unwanted echoes from tank walls, standpipes and many other buildups. LTU series transducers provide a self-cleaning operation, so their faces eliminate almost any buildup and condensation. The ultrasonic probes adapt to most environmental conditions as their power and receiver sensitivity adjust automatically to any distance and reflecting object thus keeping the same echo amplitude over the operating range.

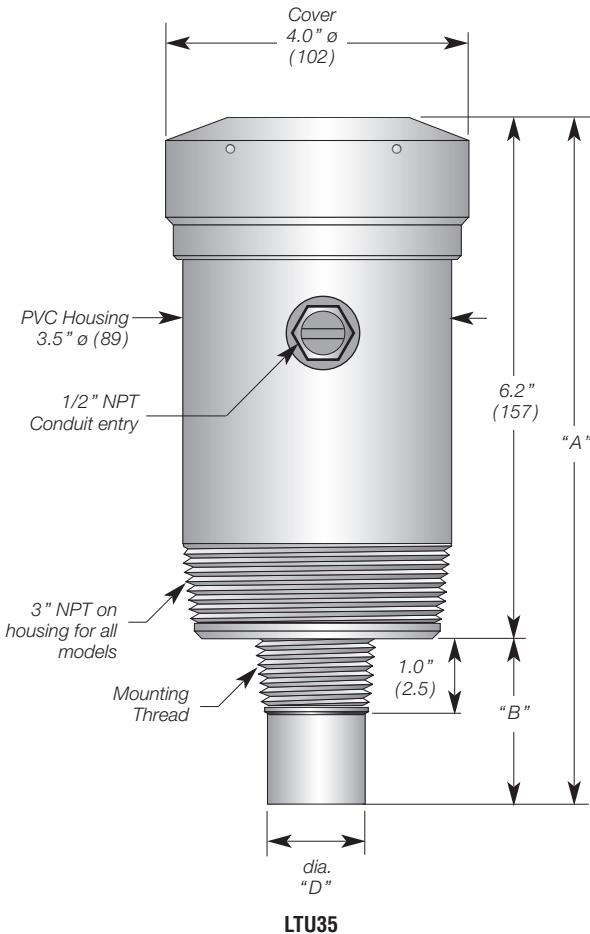
LTU's can be calibrated, in process or outside process, with simple push-button calibration. With built in communication with PC, it allows for simple calibration via PC and storage of the current output and temperature in a data logger.

The data logger is linked with Microsoft Excel. The ultrasonic probes can be connected in network using RS485 with Intempco's protocol and Modbus RTU. In connection with a PC, one can have a full diagnostic (loss of echo, temperature sensor failure, noise error, etc.). A user can also see on the computer screen the echo profiles and echo stability chart. Through the communications, some parameters can be changed and also a set point and programmable calibrations can be done.

Applications

- *Food and beverages*
- *Water / Wastewater*
- *Chemicals*
- *Oils*
- *Solids (Max range may be reduced, consult factory)*





Supply Voltage : 12 to 30 VDC , 0.07 A max @ 24 Vdc
R load = (Vs - 6)/24 mA
115 VAC 60 Hz
230 VAC 50 Hz (±20%), 1.7 VA
R load = 750 ohms max.

Output : 4-20 mA output 6.1 uA resolution
3-wire with 12-30VDC power
4-wire isolated with AC power

Communication : Optional RS232 or RS485 communications

Accuracy : ±0.25% of max. target range (in air)

Beam Angle : 6-12 degrees at -3dB

Loss of ech hold : 30 secondes, 22 mA output

Ambient Temperature : -40 to 60 °C (-40 to 140 °F)

Calibration : Push-button or programmable via optional communication

Temp. Compensation : In transducer

Diagnostics : Via communications

Optional Loop Powered Display

Display : 4½ Digit LCD ½" high

Voltage Drop : 0.95V @ 20mA

Accuracy : Reading ± 0.5%

Humidity : 0-95 % Non-condensing

Range: 3.5 mA to 22 mA
22 mA and above = LOE (Loss Of Echo)

Enclosures PVC-94V0, Aluminum

Conduit Entry : 1/2" NPT F

Pressure : 1 bar

Ingress Protection : NEMA 6 (IP67)

Model	Operating Frequency	Dimension "A"	Dimension "B"	Dimension "D"
LTU30	45 KHz	8.9" (226mm)	3.0" (76mm)	3.0" (76mm)
LTU31	52 KHz	9.3" (236mm)	3.05" (77mm)	2.2" (56mm)
LTU32	70 KHz	8.5" (216mm)	2.25" (57mm)	1.8" (46mm)
LTU33	80 KHz	8.5" (216mm)	2.25" (57mm)	1.8" (46mm)
LTU34	81 KHz	8.4" (213mm)	2.1" (53mm)	1.5" (38mm)
LTU35	148 KHz	8.25" (209mm)	2.0" (51mm)	1.1" (28mm)

Ordering Information :

MODEL BOX1 BOX2 BOX3

_____ - _____ - _____ - _____

Model	Range	Resolution
LTU30	1.0 - 60ft (0.30 - 18.2m)	0.27" (6.8mm)
LTU31	0.9 - 50ft (0.27 - 15.2m)	0.23" (5.7mm)
LTU32	0.8 - 30ft (0.24 - 9.1m)	0.13" (3.4mm)
LTU33	0.7 - 20ft (0.21 - 6.1m)	0.088" (2.2mm)
LTU34	0.6 - 16ft (0.18 - 4.9m)	0.07" (1.8mm)
LTU35	0.4 - 9ft (0.12 - 2.7m)	0.04" (0.98mm)

BOX1 CODE	Supply Voltage
AC	115 VAC 60Hz , 1.7VA. 4-wire isolated
DC	12 to 30 VDC, 0.07 A max. @ 24VDC, 3-wire

Model	BOX2 CODE	Enclosure Material	Mounting Thread	Fitting Material
LTU30	P30P	PVC	3" NPT	PVC
	A30P	Aluminum	3" NPT	PVC
LTU31	P20P	PVC	2" NPT	PVC
	A20P	Aluminum	2" NPT	PVC
LTU32	P20P	PVC	2" NPT	PVC
	A20P	Aluminum	2" NPT	PVC
LTU33	P20P	PVC	2" NPT	PVC
	A20P	Aluminum	2" NPT	PVC
LTU34	P15P	PVC	1.5" NPT	PVC
	A15P	Aluminum	1.5" NPT	PVC
LTU35	A10P	PVC	1" NPT	PVC
	P10P	Aluminum	1" NPT	PVC

Note: Std. material for fitting/sensor is PVC. Other materials available, consult factory.
Ex.: P20T = fitting/sensor in Teflon

BOX3 CODE	Options
0	None
D1	Head Mounted LCD Display
2	RS232
4	RS485