

Product Features

- *Continuous loop powered 4-20mA operation*
- *Microprocessor Based*
- *Accuracy 1 % of span for constant dielectric of material*
- *Non-interactive zero and span calibration*
- *Calibration accomplished with 4 push buttons*
- *Heavy duty industrial design*
- *NEMA rated aluminum, stainless, PVC and explosion proof housings available*
- *Standard fitting 3/4" NPT, flange and special fittings available*

Description

INTEMPCO LTX01 series 2-wire level transmitters are highly reliable microprocessor based sensors designed to measure tank levels of liquids and certain dry bulk media in metal tanks. LTX01 sensors measure the change in capacitance that occurs as the tank level changes and outputs a standard loop-powered 4-20mA signal. After calibration any change in level is recognized and converted to an analog 4-20mA signal. LTX01 sensors use very high frequency and very low amplitude sensing circuitry to greatly minimize the effects of coating on the sensing probe.

The LTX01 includes a standard 4-20mA loop powered LTX transmitter housed in a rugged enclosure, a 0.50 inch diameter rigid probe for ranges up to 20 feet and a mounting fitting. A remote mounted DIN Rail transmitter is also available when calibration at enclosure is not practical. Probe material is SS316, supplied bare or PFA Teflon jacketed. The LTX01 is designed for tanks which have fitting connections of 1/2 NPT or larger.

Application / Process Notes

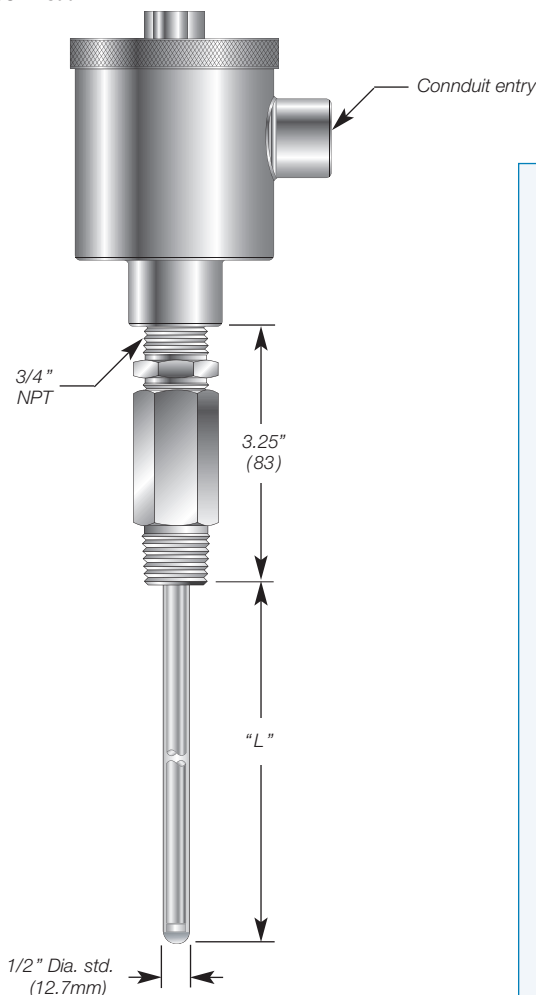
- *Water and water-based liquids.*
- *Jacketed probes required for conductive media*
- *Organic Acids*
- *Oils and fuels in some metallic tanks*
- *Use bare probes with non-conductive media*
- *Use cable probes where top side access is limited*
- *On-site calibration required*
- *Not recommended where material dielectric changes*
- *Tank must be conductive or grounding may be required or see other Intempco level probes.*



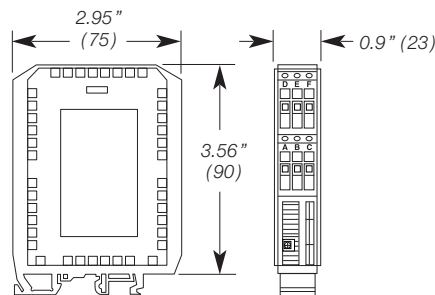
LTX01 LEVEL SENSORS

Continuous Capacitance Level Transmitter

Shown with
SS* Head



DIN Rail
Remote Transmitter



Electrical Specifications

Supply Voltage :	12 VDC - 30 VDC
Output :	4-20 mA, loop powered
Maximum Loop Res.:	[Vs - 10] / 0.02 (i.e. 700Ω @ 24 VDC)
Calibration :	Via 4 push-button switches non-interactive settings
Capacitance Range :	10 pF to 10000 pF
Accuracy :	± 1% of full span (constant dielectric)
Repeatability :	± 0.1 % of span
Damping Adjust :	0-30 sec.
Ambient Temperature :	-40 to 70 °C (-40 to 158 °F)

Mechanical Specifications

Enclosures	AH2 : Aluminum, lift cover type, NEMA 4 SS* : Machined Stainless 316, NEMA 4X CS3 : Machined Stainless 316, NEMA 4X XD* : Class I, Div 1 Gps. B,C & D, Class II, III Div 1 Gps. E,F & G, NEMA TYPE 4X (IP68)
	PV2 : PVC, 1/2" conduit, NEMA 4X PV9 : PVC, Pg9 Gland, NEMA 4X
Mounting Thread :	3/4" NPT standard, others available
Process Temperature:	200 °C max (392 °F)-consult factory for higher temperatures
Pressure Limits:	500 psi (34 bar) @ 25 °C (77 °F) 250 psi (17 bar) @ 150 °C (302 °F) 14.5 psi (1 bar) @ 200 °C (392 °F) <i>(PH Model only)</i>
Probe Mat'l :	PFA Teflon jacketed, or bare SS316

Custom Builder

MODEL 1 2 3 4 5

LTX01 - [] - [] - [] - [] - []

BOX1 CODE	Electronic Module
LP	4-20 mA, 2-wire output Module installed in enclosure
DN	4-20 mA, 2-wire output Remote mounted DIN Rail Module

BOX3 CODE	Fitting.
P**	NPT male, 3/4" std.
PH**	NPT male, 3/4" std., high pressure
F**	Flange SS316, RF 150lb.
FS**	Flange special, specify

BOX4 CODE	Probe Material
A	PFA Teflon® clad (for conductive & non-conductive liquids)
B	Stainless Steel 316 (for non-conductive liquids only)

BOX2 CODE	Enclosure
XD*	Aluminum Explosion Proof
AH2	Aluminum Flip-Cover
SS*	Machined Stainless Steel
CS3	Cast Stainless Steel
PV9	PVC (Pg9 Gland)
PV2	PVC with 1/2" conduit

** Fittings	** Flanges
12 1/2" NPT	15 1-1/2" Flange
34 3/4" NPT	20 2" Flange
44 1" NPT	25 2-1/2" Flange
54 1-1/4" NPT	30 3" Flange
64 1-1/2" NPT	40 4" Flange
84 2" NPT	50 5" Flange
	60 6" Flange

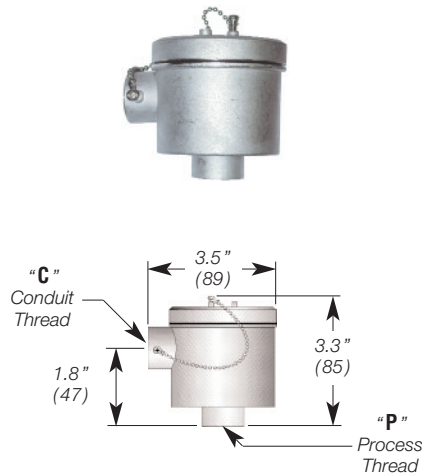
*2 = 1/2" NPT Conduit
*3 = 3/4" NPT Conduit
Note : See **Level Accessories Section** for Enclosure specifications and dimensions

BOX5 CODE	Probe Length " L "
---	In inches (20 ft max.) Ex.: 065 = 65" long

Note : *2 = 1/2" NPT Conduit
*3 = 3/4" NPT Conduit

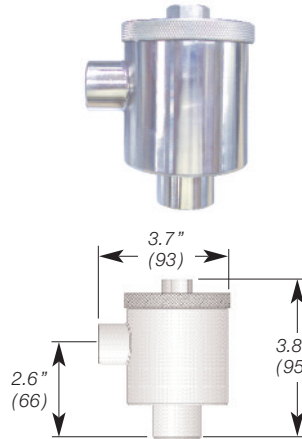
C=Conduit Thread
P=Process Thread

Stainless Steel Cast Type CS3



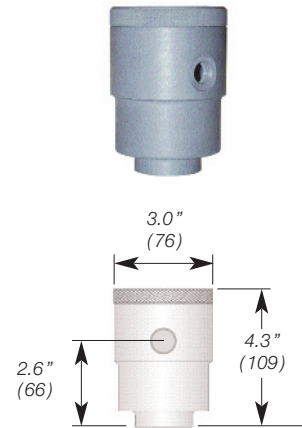
- Stainless 316 Cast Screw Cover Head
- General Purpose
- 3/4" NPT Conduit
- 1/2" or 3/4" NPT Process
- Indoor/Outdoor NEMA Type 4X
- Weight 26 oz (730 gm)
- Std. 33mm, 40mm & 46mm C-C Mounting (adapter plate)
- Max. space for transmitter 56mm x 33mm (2.18" x 1.3")

Stainless Steel Type SS*



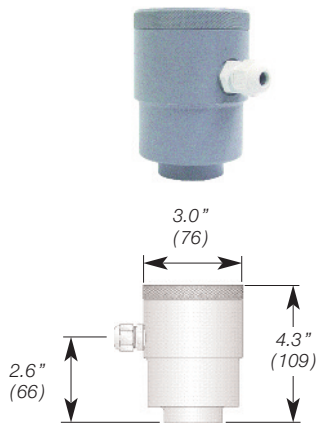
- Stainless Steel Machined Screw Cover Head
- General Purpose
- 1/2" or 3/4" NPT Conduit
- 1/2" or 3/4" NPT Process
- Indoor/Outdoor NEMA Type 4X
- Weight 42 oz (1200 gm)
- Std. 33mm, 40mm & 46mm C-C Mounting (adapter plate)
- Max. space for transmitter 56mm x 33mm (2.18" x 1.3")

PVC Type PV2



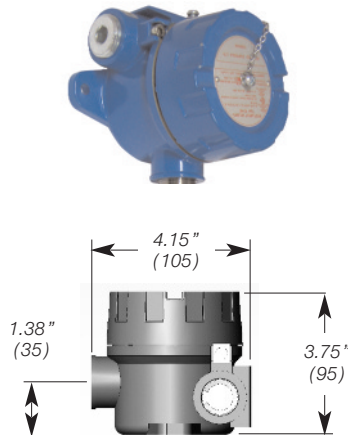
- PVC Machined Head
- General Purpose
- 1/2" NPT Conduit
- 1/2" or 3/4" NPT Process
- Indoor/Outdoor NEMA Type 4X
- Weight 16 oz (450 gm)
- Std. 33mm, 40mm C-C Mounting
- Max. space for transmitter 50mm x 33mm (2" x 1.3")

PVC Type PV9



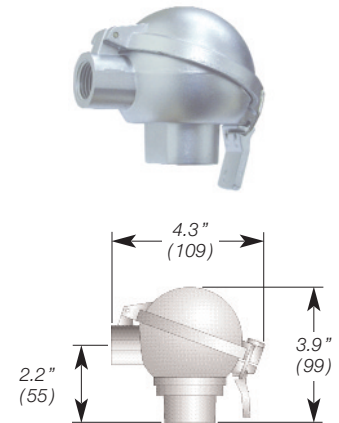
- PVC Machined Head
- General Purpose
- Pg9 or Pg11 Gland Conduit
- 1/2" or 3/4" NPT Process
- Indoor/Outdoor NEMA Type 4X
- Weight 16 oz (450 gm)
- Std. 33mm, 40mm C-C Mounting
- Max. space for transmitter 50mm x 33mm (2" x 1.3")

Aluminum Explosion Proof Type XD*



- Aluminum Sand Cast Head
- FM/CSA Explosion Proof
- CL I, Div. 1, Gps.A, B,C&D, CL II, Div1, Gps. E,F&G CL.III; Ex d IIC & IP66
- 1/2" or 3/4" NPT Ports
- Indoor/Outdoor NEMA Type 4X & IP66
- Weight 2.2 lbs (1000 gr.)
- Std. 33mm, 40mm & 46mm C-C Mounting (adapter plate)
- Max. space for transmitter 76mm x 50mm (3" x 2")

Aluminum Type AH2



- Aluminum Die Cast Flip Cover Head
- General Purpose
- 1/2" NPT Conduit Only
- 1/2" or 3/4" NPT Process Only
- Indoor/Outdoor NEMA Type 4
- Weight 10 oz (280 gm)
- Std. 46mm C-C Mounting
- Max. space for transmitter 58mm x 20mm (2.25" x .75")