LTX10 LEVEL SENSORS

Sanitary Capacitance Level Transmitter
4-20 mA, Loop Powered

Product Features

- *High quality sanitary design*
- *Continuous loop powered 4-20 mA operation*
- *Microprocessor Based*
- *Accuracy 1% of span for constant dielectric of material*
- *Non-interactive zero and span calibration*
- *Calibration accomplished with 4 push buttons*
- *Stainless and PVC housings available*
- *Tri-Clamp sanitary fitting standard, others available*
- *PFA Teflon coated or bare SS316 probes available*

Description

The INTEMPCO LTX10 Sanitary series are highly reliable and microprocessor based RF level sensors designed to measure tank levels of conductive and non-conductive liquids in metal tanks. LTX10 sensors measure the change in capacitance that occurs as the tank level changes and outputs a standard loop-powered 4-20 mA signal. After calibration any change in level is recognized and converted to an analog 4-20 mA signal. LTX10 sensors use very high frequency and very low amplitude sensing circuitry to greatly minimize the effects of coating on the sensing probe.

The LTX10 includes a standard 4-20 mA loop powered LTX transmitter housed in a rugged enclosure, a 1/2 inch diameter rigid probe for ranges up to 20 feet and a polished stainless Tri-Clamp. Probe material is SS316, supplied bare or PFA jacketed. The LTX10 is designed for tanks which have available Tri-Clamp connection. Other sanitary fittings are available. Consult factory.

LTX10 can be used in many tough sanitary applications. This level sensor is shock resistant and very rugged. There are no moving parts. PFA jacketed probe can withstand temperatures of up to 200 °C and pressures to 500 psi. The stainless steel enclosure is very rugged and NEMA 4X rated. Caustic washdown is not a problem.

Optional, remote mounted DIN Rail transmitter is available, which can be connected to the level sensor via a 3-conductor cable up to 1000 ft (300 m) long. The calibration is accomplished via four push buttons, located on the transmitter.

Applications

- *Pharmaceutical plants, food processing plats*
- *PFA jacketed probes required for conductive media, such as water and water-based liquids*
- *PFA jacketed probes for organic Acids*
- *PFA maximum temperature 200 °C*
- *Use bare probes with non-conductive media such as oils and fuels in some metalic tanks*
- *On-site calibration required*
- *Not recommended where material dielectric changes*
- *Tanks must be conductive or special grounding may be required*

Shown with SS head*

Shown with PV9 head

DIN Rail Remote Transmitter 4/20 mA output

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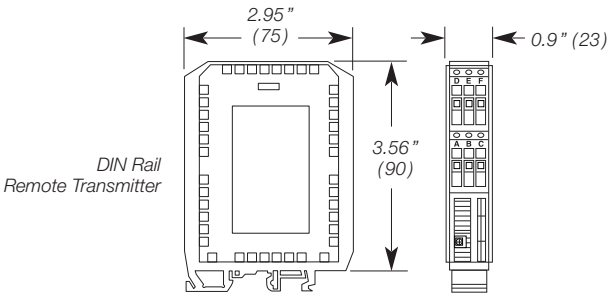

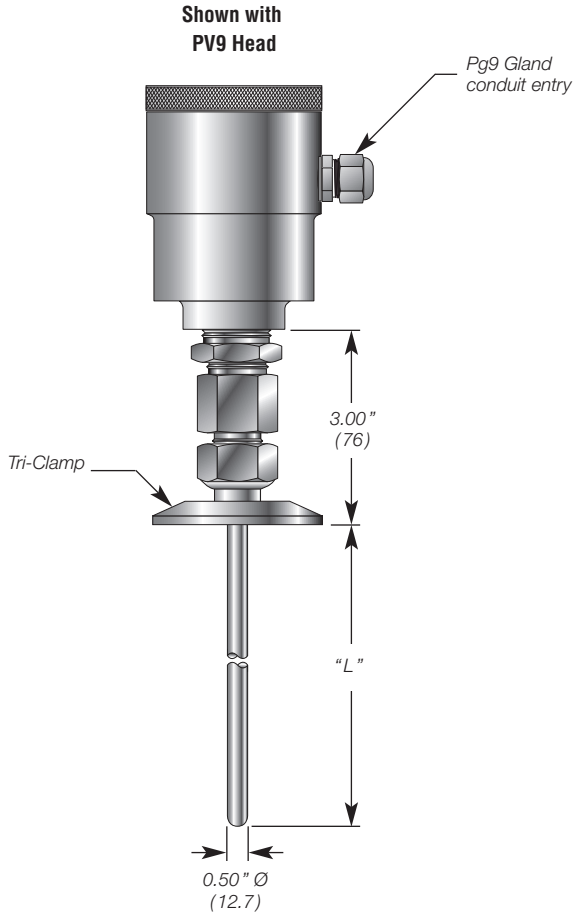

Electrical Specifications

Supply Voltage :	12 - 36 VDC
Output :	4-20 mA, loop powered
Maximum Loop Res.:	[Vs - 10] / 0.02 (i.e. 700 Ω @ 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	**CS*** : Cast Stainless 316, NEMA 4X **SS*** : Machined Stainless 316, NEMA 4X **PV*** : PVC, 1/2 "conduit, NEMA 4X **PV9** : PVC, Pg9 Gland, NEMA 4X
Mounting Fitting :	Tri-Clamp standard, others available, mat'l SS 316
Process Temperature:	200 °C max (392 °F)-consult factory for higher temperatures
Pressure Limits:	250 psi (34 bar) @ 25 °C (77 °F) 100 psi (17 bar) @ 100 °C (302 °F) 14.5 psi (1 bar) @ 200 °C (392 °F)
Probe Insulation Mat'l :	PFA Teflon jacketed or bare SS 316, 1/2 " (12.7) Ø

Custom Builder

MODEL	1		2		3		4		5		6
LTX10	-	__	-	___	-	___	-	_	-	___	-	_

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

BOX2 CODE	Enclosure
SS*	Machined Stainless Steel 316 Screw Cover, NEMA 4X
CS*	Cast Stainless Steel 316 Screw Cover, NEMA 4X
PV9	PVC Screw Cover (Pg9 Gland)
PV*	PVC Screw Cover

BOX3 CODE	Fitting
T15	1-1/2 " Tri-Clamp
T20	2 " Tri-Clamp
T25	2-1/2 " Tri-Clamp
T30	3 " Tri-Clamp
Other Tri-Clamp sizes and Types of sanitary fittings available. Consult factory.	

BOX4 CODE	Probe Material
A	Teflon jacketed solid probe
B	SS 316 Bare solid probe

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

BOX6 CODE	Options
N	None
S	Specify

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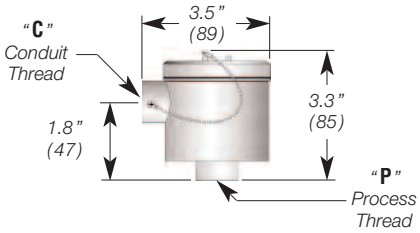
Note : ***2** = 1/2" NPT Conduit
***3** = 3/4" NPT Conduit

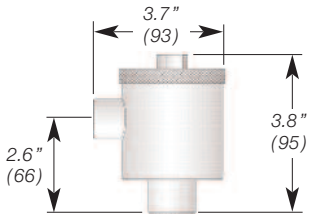
C = Conduit Thread
P = Process Thread

Stainless Steel Cast Type CS3



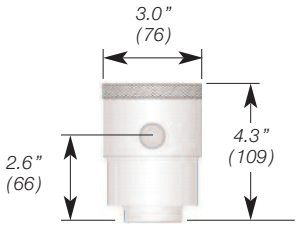
- Stainless 316 Cast Screw Cover Head
- General Purpose
- 3/4" NPT Conduit
- 1/2 " or 3/4" NPT Process
- Indoor/Outdoor NEMA Type 4X
- Weight 26 oz (730 gm)
- Std. 33mm, 40mm & 46mm C-C Mounting (adapter plate)
- Max. space for transmitter 56mm x 33mm (2.18" x 1.3")

Stainless Steel Type SS*



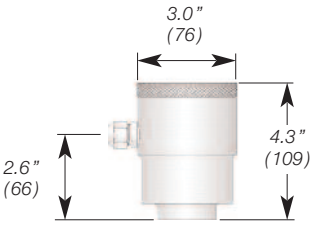
- Stainless Steel Machined Screw Cover Head
- General Purpose
- 1/2" or 3/4 NPT Conduit
- 1/2" or 3/4" NPT Process
- Indoor/Outdoor NEMA Type 4X
- Weight 42 oz (1200 gm)
- Std. 33mm, 40mm & 46mm C-C Mounting (adapter plate)
- Max. space for transmitter 56mm x 33mm (2.18" x 1.3")

PVC Type PV2



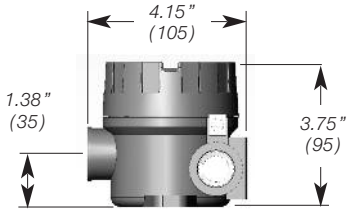
- PVC Machined Head
- General Purpose
- 1/2" NPT Conduit
- 1/2"or 3/4" NPT Process
- Indoor/Outdoor NEMA Type 4X
- Weight 16 oz (450 gm)
- Std. 33mm, 40mm C-C Mounting
- Max. space for transmitter 50mm x 33mm (2" x 1.3")

PVC Type PV9



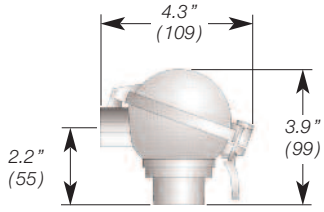
- PVC Machined Head
- General Purpose
- Pg9 or Pg11 Gland Conduit
- 1/2"or 3/4" NPT Process
- Indoor/Outdoor NEMA Type 4X
- Weight 16 oz (450 gm)
- Std. 33mm, 40mm C-C Mounting
- Max. space for transmitter 50mm x 33mm (2" x 1.3")

Aluminum Explosion Proof Type XD*



- Aluminum Sand Cast Head
- FM/CSA Explosion Proof CL. I, Dic. 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/Ourdoor 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/Ourdoor NEMA Type 4
- Weight 10 oz (280 gm)
- Std. 46mm C-C Mounting
- Max. space for transmitter 58mm x 20mm (2.25" x .75")