

Product Features

- For fuel and oil tanks
- Compact 3/4" NPT concentric tube design
- Accuracy 1% of span for constant dielectric of material
- Tube and inner probe SS316
- For use with metallic and non-metallic tanks
- OEM applications, low cost
- Continuous loop powered 4-20mA operation
- Non-interactive zero and span calibration
- Explosion Proof US/ICNL and CSA

Description

The Intempco LTX20 capacitance fuel level transmitters are designed to measure level of fuels and oils in metallic and non-metallic tanks. The probe measures level by measuring the change in capacitance as level changes in the tank. The micro-processor based electronics converts this capacitance change into a linear, highly accurate 4-20mA signal.

The LTX20 includes a standard 4-20mA loop powered LTX transmitter mounted in an explosion proof head, a 3/4" NPT fitting and a concentric probe for measuring ranges of up to 10 feet. Probe material is SS316.

An excellent application for the LTX20 are stationary or mobile generators. This level sensor is shock resistant and very rugged. There are no moving parts. To isolate for ground loops, a non-conductive reducer (such as PVC) can be used between the tank and the 3/4" NPT process connection.

Applications

- | | |
|---------------------------------|------------------|
| • Diesel fuels | • Engine oils |
| • MEK and other solvents | • Methanol |
| • Transmission oils | • Ethanol |
| • Steering and hydraulic fluids | • Vegetable oils |

Fuel, Oil or BioFuel Level Sensor



Do Not use with

- Materials corrosive to SS316
- Heavy oils

LTX20 Probe Types

Probe Type	Typical Application	Standard Construction	Standard Mounting	Temperature Pressure Limits
C1	Non-conductive liquids such as oils and diesel fuels, low viscosity, in metallic and non-metallic tanks	Concentric tube and bare rod, stainless 316 rod, 3/4" OD	3/4", 1" NPT	500 PSI (34 bar) @ 25°C (77°F), 250 PSI (17 bar) @ 100°C (212°F), 14.5 PSI (1 bar) @ 200°C (392°F)
D1	Water-based conductive liquids and semi-conductive liquids, low viscosity, in metallic and non-metallic tanks	Concentric stainless 316 tube and PFA covered SS rod, 3/4" OD	3/4", 1" NPT	500 PSI (34 bar) @ 25°C (77°F), 250 PSI (17 bar) @ 100°C (212°F), 14.5 PSI (1 bar) @ 200°C (392°F)

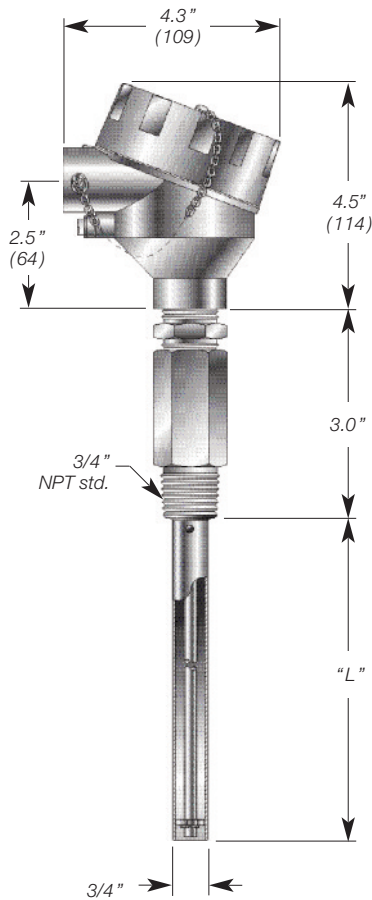
LTX20 EX Fuel/Oil

Capacitance Level Transmitter
w/ 4-20 mA Output



TECHNICAL SPECIFICATIONS

Dimensions



Supply Voltage :	12 VDC - 30 VDC
Output :	4-20 mA, loop powered
Maximum Loop Resistance :	$[(V_{supply} - 10) / 0.02]$ (i.e. 700 ohms @ 24 VDC)
Supply Voltage Effect :	Less than 0.1% of output at maximum span from 12 to 30 VDC
Capacitance Range :	10 pF to 10,000 pF
Calibration :	Via 4 push-button switches, non-interactive Zero & Span
Accuracy :	$\pm 0.5\%$ of full span (see note 1)
Response time :	Less than 2-3 sec. with no damping time, 2-30 sec. with adjustable damping time
Display (optional):	Integral 4-digit LCD
Damping Adjust :	0-30 sec.
Enclosure :	Aluminum coated with chemically resistant paint, Type 4x, IP66 Stainless steel, Type 4x, IP66
Area Classifications :	The entire sensor assembly is suitable for use in Class I, Division 2, Groups A, B, C, and D, or non-hazardous locations only when powered from an approved source and without intrinsic safety barriers.
Ambient Temperature :	-40°C to 70°C (-40 to 158°F)
Approvals :	USL/CNL and CSA - Class I, Division 2, Groups A, B, C, and D, Hazardous locations only

1. Accuracy includes the combined effects of linearity, hysteresis and repeatability. It refers to transmitter only and is measured at reference conditions of 25°C $\pm 1^\circ\text{C}$, 10 - 55% R.H. and 24 Vdc ± 1 Vdc, using an capacitance standard (applied to transmitter sensor terminals) in place of the sensor.

Custom Builder

MODEL 1 2 3 4 5 6 7

LTX20 - [] - [] - [] - [] - [] - [] - []

BOX1 CODE	Electronic Module
A	LTX1A continous RF 4-20mA output loop-powered

BOX2 CODE	Housing
A2	Aluminum housing, model AD with 1/2" NPT conduit
A3	Aluminum housing, model AD with 3/4" NPT conduit

BOX3 CODE	Certificates of Compliance
X	None, for non-hazardous areas
U	USL/CNL - Class I, Division 2 Groups A, B, C and D Hazardous Locations
A	CSA - Class I, Division 2 Groups A, B, C and D Hazardous Locations
B	CE Mark -EMC Dirrective EN 61236-1:2006 EN 61236-2-3:2006

BOX4 CODE	Process Connection
P3	3/4" NPT

BOX5 CODE	Process Connection Material
S	Stainless 316L (low carbon)

BOX6 CODE	Probe Type
C1	Concentric shield 0.75" OD w/non-insulated rod, all Stainless 316L (LTX-C005)
D1	Concentric shield 0.75" OD Stainless 316L w/PFA fully insulated rod (LTX-C006)

BOX7 CODE	Probe Length " L "
[] [] []	In inches, Ex.: 065 = 65" long