EchoTouch™ LU30 3-Wire Ultrasonic Level Transmitter

FLOWLINE®

Application

The general purpose 3-wire ultrasonic level transmitter provides continuous level measurement up to 24.5' (7.4m) with a 4-20 mA signal output, and is configured via the integral push button display module. The level sensor has one 10A relay which can be configured on a single set point (high level alarm or low level alarm) or latched on two set points for automatic fill or empty with fail-safe logic. This non-contact liquid level sensor is well suited for corrosive, ultrapure, sticky or dirty liquids, and is widely selected for bulk storage and day tank level applications.

CE IP65

Features

- [✓] Level measurement up to 24.5' (7.4m) with 1 programmable relay

- [✓] Configuration is simple via integral push button display module

- [✓] LED digital display indicates level in inches or centimeters

- [✓] Programmable relay for alarm or automatic fill-empty control

- [✓] Polypropylene enclosure rated NEMA 4X with rugged PVDF transducer

Success

Millions of gallons of waste oil are collected, stored, transported and recycled each year. The EPA defines waste oil as any petroleum, synthetic or seed based oil which has become impure through use. The largest waste oil producers are in the automotive, industrial, transportation and food industries. Recycled oil demand has grown steadily over the past decade, driven by rising petroleum and transportation costs. Non-contact ultrasonic is the ideal level measurement solution for dirty, viscous waste oil. Here, an EchoTouch ultrasonic level transmitter is installed on each waste oil storage tank.

Compatible Products

DataLoop™
Level Indicator

LI25

DataView™
Level Controller

LI55

Commander™
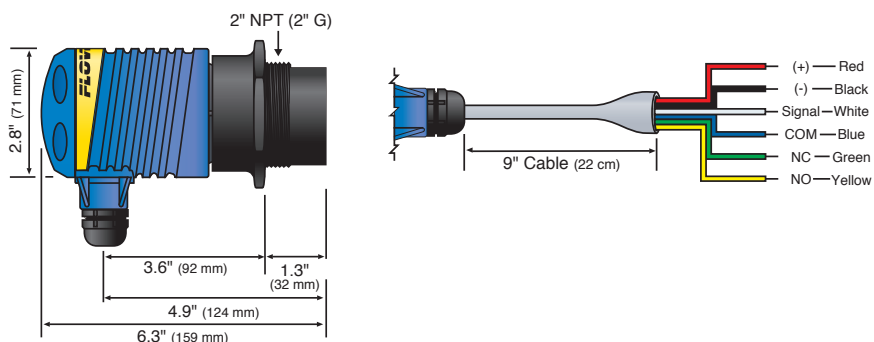Multi-Tank Level Controller

LI90

DataPoint™
Level Controller

LC52

Specifications

Range:	6" to 24.5' (15cm to 7.4m)
Accuracy:	±0.25% of range
Resolution:	0.125" (3mm)
Dead band:	6" (15cm)
Beam width:	8° conical
Configuration:	Push button
Memory:	Non-volatile
Display type:	LED, 4-digit
Display units:	Inch or cm
LED indication:	Relay status
Supply voltage:	14-36 VDC
Consumption:	200mA max.
Signal output:	4-20 mA, three-wire
Signal invert:	4-20 mA, 20-4 mA
Current flow:	Sourcing or sinking
Contact type:	(1) SPDT relay, latching
Contact rating:	250 VAC @ 10A
Contact logic:	Single point: alarm
	Two point: latching
Contact fail-safe:	Reverts to safe state
	during echo-loss
Process temp.:	F: -20° to 140°, C: -4° to 60°
Temp. comp.:	Automatic
Ambient temp.:	F: -40° to 140°, C: -40° 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)
Encl. material:	PP, UL94VO
Conduit entrance:	Single, 1/2" NPT
Cable length:	9" (22cm)
Cable type:	Power & signal: 3-conductor
	Relay: 3-conductor
Cable jacket mat:	Vinyl
Trans. material:	PVDF
Process mount:	2" NPT (2" G)
Mount gasket:	Viton®
Classification:	General purpose
Compliance:	CE

Dimensions

Fittings

For optimum performance, install the level sensor using the below recommended or direct equivalent fittings.

P/N	Description
LM52-2890	2" NPT Bulkhead Fitting, PVC
LM52-2850	2" NPT Flange - 150# (Sch. 80)
LM50-1001	2" NPT Bracket, Polypropylene

Ordering

LU30-50 ☐☐

Process mount (1)
- 0   NPT (US)
- 6   G (Metric)

Signal output (2) (3) (4)
- 3   4-20 mA, sourcing
- 4   4-20 mA, sinking

Notes

1) Install the level sensor using Flowline installation fittings or equivalents.
2) The three-wire level sensor is offered with sourcing and sinking signal outputs. Sourcing uses the negative of the power supply as common, and provides internal excitation for use with sinking devices. Sinking uses the positive of the power supply as common, and requires external excitation for use with sourcing devices.
3) For level sensor power, order the LC95-1001 AC-DC power supply.
4) To special order cable, place the cable length (feet/m) at the end of the part number (i.e. LU30-5003S-10'). Add $16 per foot of cable.