EchoSonic® LU23-29
Ultrasonic Level Transmitter

FLOWLINE™
LEVEL BEST

Application

The general purpose ultrasonic transmitter provides continuous level measurement up to 32.8' (10m) with a 4-20 mA signal output, and is configured via our free WebCal® software. This non-contact liquid level sensor is ideally suited for corrosive, sticky or waste liquids, and is selected for bulk storage, tanker truck, day tank, process tank, waste sump, neutralization tank, open channel, chemical feed and clarifier applications.

RoHS Compliant

FM APPROVED

CE

LU23/28/29

LU27

Features

- Offered in 4 measurement ranges from 9.8' (3m) to 32.8' (10m)

- Configuration is fast and easy via WebCal software and USB adapter

- Narrow 2" or 3" beam width for applications with limited measurement space

- Short 4" or 8" dead band maximizes the measurable filling capacity of the tank

- PVDF transducer and 6P polycarbonate enclosure for corrosive liquids

- Automatic temperature compensation for accurate measurement

Success

Ultrasonic sensors are often used to measure open channel water flow that's discharged from rivers, streams, creeks, lakes or ponds. Here an EchoSonic level sensor is installed on the upstream side of a weir. The non-contact sensor measures the gravity-fed, liquid surface height as it passes through the V-notch weir, and provides a continuous 4-20 mA signal output. The PLC converts level height into flow volume with rate, totalization and data-logging functions for environmental reporting.

Compatible Products

LI25-1
DATALOOP™
Level Indicator

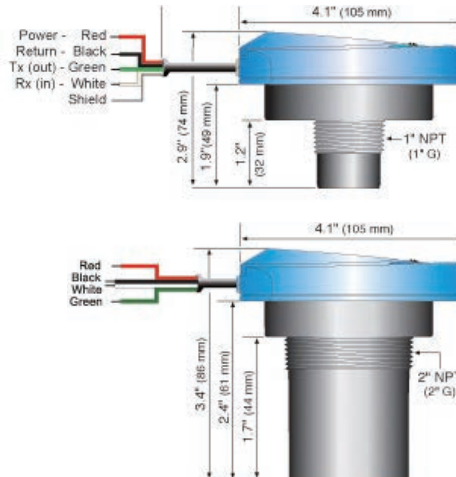**LI55**
DATAVIEW™
Level Controller

EchoSonic® LU23-29
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Specifications

Range:	LU27: 4" to 9.8' (10cm to 3m)
	LU23: 8" to 18.0' (20cm to 5.5m)
	LU28: 8" to 26.2' (20cm to 8m)
	LU29: 8" to 32.8' (20cm to 10m)
Accuracy:	± 0.2% of range
Resolution:	LU27: 0.019" (0.5mm)
	LU23: 0.039" (1mm)
	LU28/29: 0.079" (2mm)
Dead band:	LU27: 4" (10cm)
	LU23/28/29: 8" (20cm)
Beam width:	LU27: 2" (5cm)
	LU23/28/29: 3" (7.6cm)
Configuration:	WebCal® PC
	Windows® USB 2.0
Memory:	Non-volatile
Supply voltage:	24 VDC (loop)
Consumption:	0.5W
Loop resistance:	500 ohms @ 24 VDC
Signal output:	4-20 mA, two-wire
Signal invert:	4-20 mA or 20-4 mA
Signal fail-safe:	4 mA, 20 mA, 21 mA,
	22 mA or hold last
Process temp.:	F: -4° to 140°
	C: -20° to 60°
Temp. comp.:	Automatic
Ambient temp.:	F: -31° to 140°
	C: -35° to 60°
Pressure:	MWP = 30 PSI (2 bar)
Enclosure rating:	Type 6P, encapsulated,
	corrosion resistant &
	submersible
Encl. material:	Polycarbonate
Trans. material:	PVDF
Cable jacket mat:	Polyurethane
Cable type:	4-conductor, shielded
Cable length:	10' (3m)
Process mount:	LU27: 1" NPT (1" G)
	LU23/28/29: 2" NPT (2" G)
Mount gasket:	Viton®
Classification:	General purpose
Compliance:	CE, RoHS
Approvals:	cFMus

Dimensions

Configuration

LI99-1001

The level sensor is configurable via our free WebCal PC software and Fob USB adapter. The sensors are offered with and without Fobs. Fobs are universal and can be used to configure any WebCal compatible product. Download your free copy of WebCal in English or Chinese.

Fittings

	P/N	DESCRIPTION
	LM52-1400	2" NPT x 1" NPT, PVC, schedule 40
	LM52-2400	3" NPT x 2" NPT, PVC, schedule 40
	LM52-2800	3" NPT x 2" NPT, PVC, schedule 80
	LM52-3800	4" NPT x 2" NPT, PVC, schedule 80
	LM52-1410	2" socket x 1" NPT, PVC, schedule 40
	LM52-2410	3" socket x 2" NPT, PVC, schedule 40
	LM52-3410	4" socket x 2" NPT, PVC, schedule 40
	LM52-2810	3" socket x 2" NPT, PVC, schedule 80
	LM52-3810	4" socket x 2" NPT, PVC, schedule 80
	LM52-2890	2" NPT bulkhead fitting, PVC
	LM50-1001-1	1" NPT side mount bracket, PP
	LM50-1001	2" NPT side mount bracket, PP

Ordering

LU2 ☐ - ☐ ☐

SENSOR RANGE
7	3m (9.8')
3	5.5m (18.0')
8	8m (26.2)
9	10m (32.8')

PROCESS MOUNT (1)
0	NPT (US)
1	G (Metric)

FOB USB ADAPTER (2)
0	Without Fob
1	With Fob

NOTES

1) Install the level sensor using Flowline installation fittings or equivalents.

2) The level sensor is configured via our WebCal software and one LI99-1001 Fob USB adapter. The level sensor is offered with and without a Fob. Fobs are universal and can be used to configure any WebCal compatible product. WebCal is a free downlotad from our website.