

# EchoSpan® LU80-84

Ultrasonic Liquid Level Transmitter



## 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 its integral push button display module. This non-contact liquid level sensor is well suited for corrosive, ultrapure, sticky or waste liquids, and is selected for bulk storage, tanker truck and neutralization tank applications.



## Features

- Offered in 4 measurement ranges from 9.8' (3m) to 32.8' (10m)
- Configuration is simple via integral push button display module
- LCD display indicates level in inches, centimeters and percentages
- Narrow 2" or 3" beam width for applications with limited measurement space
- Fail-safe intelligence and diagnostic feedback for simple troubleshooting
- PVDF transducer and NEMA 4X polycarbonate enclosure for corrosive liquids
- Automatic temperature compensation for accurate measurement

## Success

Thermoelectric power plants use tens of millions gallons of water per day in their steam turbines and cooling towers. As such, most US plants are located in the Coastal or upper Midwest states with easy access to abundant ocean or lake resources. These facilities have lots of sumps that collect and pump transfer water into treatment for reuse or release to the environment. But the sumps capture much more than water including grease, oil and chemicals that coat everything in the pit. Here, an EchoSpan ultrasonic level transmitter is installed over the sump man-way. The patented digital signal processing technology features an industry leading 3" beam width that enables installation in close proximity to the ladder and side wall.



## Compatible Products



LI23

**DATALOOP™**

Level Indicator



LI55

**DATAVIEW™**

Level Controller

# EchoSpan® LU80-84

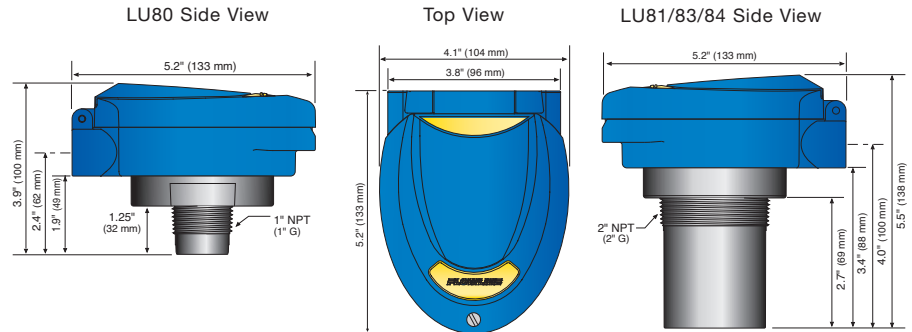
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## Specifications

<b>Range:</b>	LU80: 4" to 9.8' (10cm to 3m) LU81: 8" to 18.0' (20cm to 5.5m) LU83: 8" to 26.2' (20cm to 8m) LU84: 12" to 32.8' (30cm to 10m)
<b>Accuracy:</b>	± 0.2% of range
<b>Resolution:</b>	LU80: 0.019" (0.5mm) LU81/83: 0.039" (1mm) LU84: 0.078" (2mm)
<b>Dead band:</b>	LU80: 4" (10cm) LU81/83: 8" (20cm) LU84: 12" (30cm)
<b>Beam width:</b>	LU80: 2" (5cm) LU81/83/84: 3" (7.6cm)
<b>Configuration:</b>	Push button
<b>Memory:</b>	Non-volatile
<b>Display type:</b>	LCD, 6-digit
<b>Display units:</b>	Inch, cm and percent
<b>Supply voltage:</b>	12-28 VDC
<b>Loop resist.:</b>	500 Ohms @ 24 VDC
<b>Signal output:</b>	4-20 mA, two-wire
<b>Signal invert:</b>	4-20 mA, 20-4 mA
<b>Signal fail-safe:</b>	4mA, 20mA, 21mA, 22mA or hold last
<b>Process temp.:</b>	F: -7° to 140° C: -20° to 60°
<b>Temp. comp.:</b>	Automatic
<b>Ambient temp.:</b>	F: -40° to 160° C: -40° to 71°
<b>Pressure:</b>	MWP = 30 psi (2 bar)
<b>Enclosure rating:</b>	NEMA 4X (IP65)
<b>Encl. material:</b>	Polycarbonate
<b>Encl. hardware:</b>	Brass & stainless
<b>Enclosure vent:</b>	Water tight membrane
<b>Conduit entrance:</b>	Dual, 1/2" NPT
<b>Trans. material:</b>	PVDF
<b>Process mount:</b>	LU80: 1" NPT (1" G) LU81/83/84: 2" NPT (2" G)
<b>Mount gasket:</b>	Viton®
<b>Classification:</b>	General purpose
<b>Compliance:</b>	CE, RoHS

## Dimensions



## Fittings

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

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

## Ordering

### SENSOR RANGE

- 0** 3m (9.8')
- 1** 5.5m (18.0')
- 3** 8m (26.2')
- 4** 10m (32.8')

### PROCESS MOUNT (1)

- 0** NPT (US)
- 6** G (Metric)

LU8  -51  1

## NOTES

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