EchoSafe® XP88/89 Ultrasonic Level Transmitter

FLOWLINE®

Application

FM approved for hazardous environments, the explosion proof ultrasonic level transmitter provides continuous level measurement up to 32.8' (10m) with a 4-20 mA signal output, and is configured via the integral push button display module. This non-contact liquid level sensor is ideally suited for corrosive, ultrapure, sticky or dirty liquids, and is widely selected for bulk storage, day tank, lift station and process tank level applications located in a classified area.

RoHS Compliant   CE   FM APPROVED

Features

☑ Explosion proof level transmitter for use in hazardous areas

☑ Offered in 2 measurement ranges from 24.6' (7.5m) to 32.8' (10m)

☑ Configuration is simple via integral push button display module

☑ Type 4X aluminum XP windowed enclosure with dual conduit ports

☑ LCD display indicates level in inches, centimeters or percent of span

☑ Narrow 3" beam width for applications with limited measurement space

☑ Rugged PVDF transducer and process mounting plug for corrosive liquids

☑ Automatic temperature compensation for accurate measurement

Success

Refined chemicals are the building blocks of modern products from plastic to aspirin, paint to fertilizer and clothing to detergent. Worldwide there are more than 2900 petrochemical plants in 4300 locations that manufacture refined chemicals from petroleum and hydrocarbon based material. The majority of these manufacturers are located in North America and Europe, but new production facilities are shifting to Austral Asia. Chemical plants are hazardous environments that require explosion proof or intrinsically safe certified instrumentation. Here, an EchoSafe explosion proof ultrasonic level transmitter is installed on the man-way cover of an underground wastewater bulk storage tank. The patented digital signal processing technology features an industry leading 3" beam width that enables installation in close proximity to the 6" suction pipe.

Compatible Products

FluidWell™ Level Indicator

300400

Application

CSA approved explosion proof for hazardous environments, the loop powered level indicator displays engineering units connected in series with one 4-20 mA continuous level transmitter. Select this level indicator for hazardous applications with an explosion proof level sensor. The windowed field enclosure is wall mounted.

Specifications

Range:	XP88: 8" to 26.2' (20cm to 8m)
	XP89: 8" to 32.8' (20cm to 10m)
Accuracy:	± 0.2% of range
Resolution:	0.079" (2mm)
Dead band:	8" (20cm)
Beam width:	3" (7.6cm)
Configuration:	Push button
Memory:	Non-volatile
Display type:	LCD, 6-digit
Display units:	Inch, cm, percent, feet or meter
Supply voltage:	18-28 VDC (loop)
Loop resist.:	250 Ohms max @ 24 VDC
Signal output:	4-20 mA, two-wire
Signal invert:	4-20 mA or 20-4 mA
Signal fail-safe:	4 mA, 20mA, 21 mA, 22 mA or hold last
Process temp.:	F: -4° to 140°
	C: -20° to 60°
Temp. comp.:	Automatic
Electronics temp.:	F: -40° to 160°
	C: -40° to 71°
Pressure:	MWP = 30 psi (2 bar)
Enclosure rating:	Type 4X
Encl. material:	Aluminum
Window material:	Glass
Conduit entrance:	Dual, 1/2" NPT
Trans. material:	PVDF
Process mount:	2" NPT
Mount gasket:	Viton®
Classification:	Explosion proof
Compliance:	CE, RoHS
Approvals:	FM: Class I, Div I Groups A, B, C, D Class II/III, Div I, Groups E, F, G

Dimensions

4.44" (11.3 cm) · 1/2" NPT · 6.06" (15.4 cm) · 3.89" (9.9 cm) · 2" NPT · 4.00" (10.2 cm) · 6.06" 15.4 cm · 4.00" (10.2 cm)
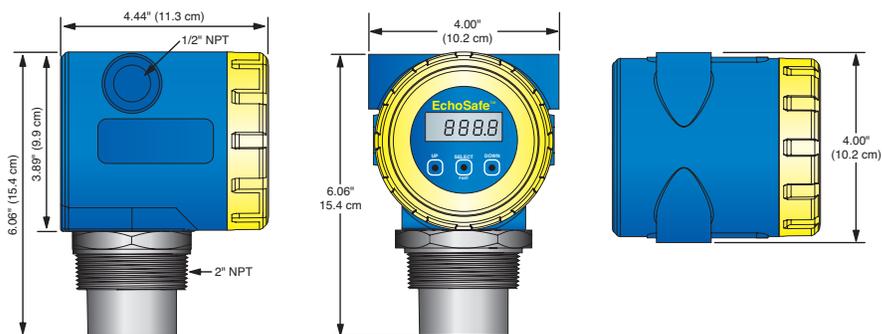
Fittings

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

P/N	Description
LM52-2400	3" NPT x 2" NPT (Sch. 40)
LM52-2800	3" NPT x 2" NPT (Sch. 80)
LM52-3800	4" NPT x 2" NPT (Sch. 80)
LM52-2410	3" Socket x 2" NPT (Sch. 40)
LM52-3410	4" Socket x 2" NPT (Sch. 40)
LM52-2810	3" Socket x 2" NPT (Sch. 80)
LM52-3810	4" Socket x 2" NPT (Sch. 80)
LM52-2890	2" NPT Bulkhead Fitting, PVC
LM52-2850	2" NPT Flange - 150# (Sch. 80)
LM50-1001	2" NPT Bracket, Polypropylene

Ordering

$XP8\boxed{}-0$

Sensor range (1) (2)
8   8m (26.2')
9   10m (32.8')

Notes
1) Install the level sensor using Flowline installation fittings or equivalents.
2) For explosion proof level indication, package the level sensor with the FluidWell indicator.