



HAZARDOUS LOCATIONS

FLOWLINE INTRINSICALLY SAFE ULTRASONIC LEVEL TRANSMITTER ELP

DESCRIPTION

The Flowline Model ELP Echo Touch is an industrial-grade ultrasonic liquid-level transmitter with automatic temperature compensation. Liquid conductivity, clarity, foam, or suspended solids do not affect the highly accurate 4-20 mA output since no contact is made with the material being measured. When coupled with Model MTL7706 intrinsic safety barrier, the intrinsically safe design and NEMA 4X(IP65) housing allow use in nearly all atmospheres containing hazardous gases, dusts, or fibers.

FEATURES

- Class I, Division 1, Groups A, B, C, D; Class II, Division 1, Groups E, F, G; Class III, Division 1
- Continuous level measurement with 4-20 mA output
- Narrow (eight-degree) beam for use in tight locations
- Simple pushbutton calibration
- Automatic temperature compensation
- NEMA 4X (IP65) housing
- Suitable for a wide variety of liquids
- Not affected by foam, dirty liquids, etc.
- 0.5" to 18' range (0.15 to 5.5m)



ELP



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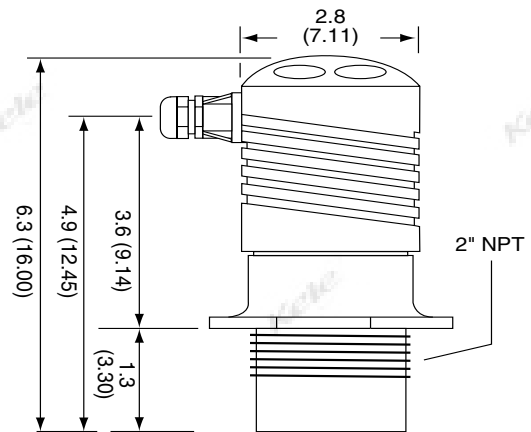
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SPECIFICATIONS

Supply Voltage	12-32 VDC
Accuracy	0.25% of span
Signal Output	4-20 mA @ 600Ω
Resolution	0.125" (0.3 cm)
Range	.5" to 18' (15 cm to 5.5 m)
Pulse Rate	Two per second
Operating Temperature	-40° to 140°F (-40° to 60°C)
Temperature Compensation	Automatic over entire range
Pressure Rating	30 psig (207 kPa) @ 77°F (25°C) derated 0.93 psig per °F (11.6 kPa per °C) above 77°F (25°C)
Enclosure Rating	NEMA 4X (IP65)
Mounting	2" NPT threads
Conduit Connection	1/2" NPT
Area	Intrinsically safe Class I, Division 1, Groups A, B, C, D; Class II, Division 1, Groups E, F, G; Class III, Division 1
Entity Parameters	V _{max} = 32V, I _{max} = 130 mA, C _i = 0 μF, L _i = 0 mH
Weight	
ELP	3.0 lb (1.4 Kg)
ELP-B	3.6 lb (1.6 Kg)
Approvals	CSA, CE
Warranty	1 year

DIMENSIONS

in
(cm)



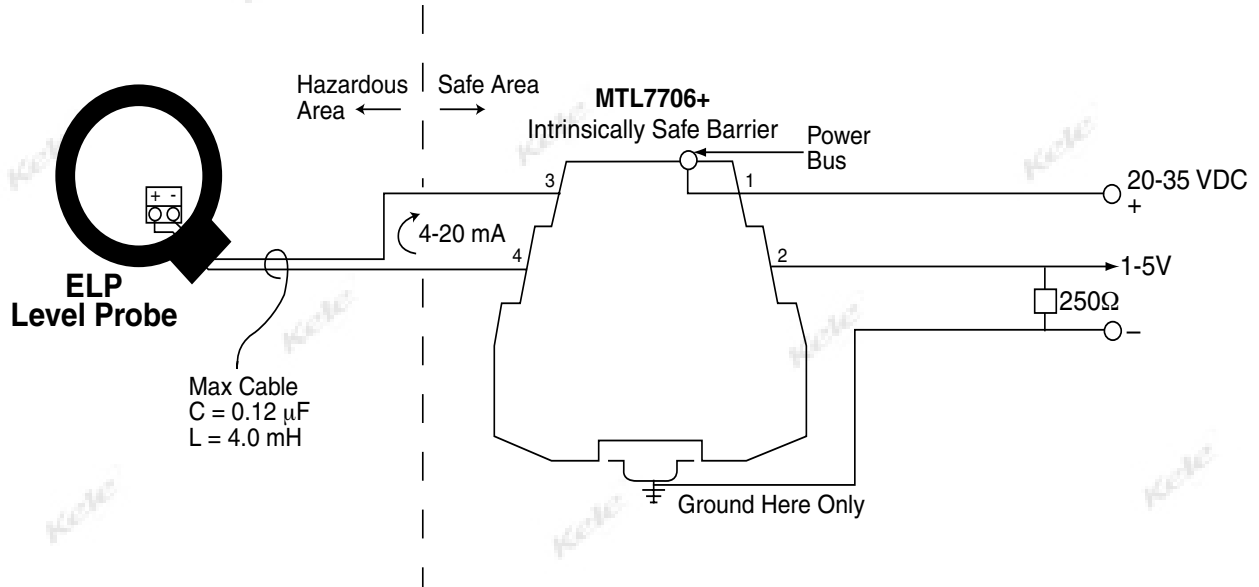
CAUTION: Intrinsically safe devices require the use of an intrinsic safety barrier when applied in hazardous locations. Provide wiring and grounding strictly in accordance with manufacturer's instructions. When the Model ELP transmitter is combined with the Model MTL7706+ intrinsic safety barrier, total cable capacitance between the two must be limited to 0.12 μF, and total cable inductance must be limited to 4.0 mH (equivalent to 2700'/823m maximum Belden™ #8760 18/2 shielded twisted pair cable 0.18 μH/FT, 44 pF/F).

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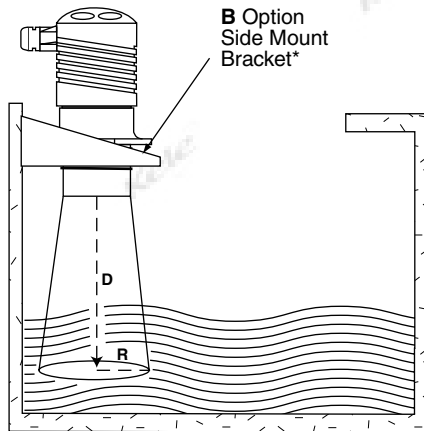


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INSTALLATION



MOUNTING



The **ELP** can be mounted through any threaded (2" NPT) opening in a tank top or with the optional side-mount bracket. Care should be taken to locate the **ELP** far enough from tank walls to avoid interference with the beam. Avoid locations near motors or other sources of vibration.

* For depths (D) greater than 5' (1.5m), the side-mount bracket must be extended away from the tank wall according to Table 1. The side-mount bracket provides 4.5" (11.4 cm) clearance from the wall only.

TABLE 1. BEAM RADIUS

	DEPTH		RADIUS	
	feet	meters	inches	cm
1		0.3	1.2	3.1
2		0.61	2.1	5.2
3		0.91	2.9	7.3
4		1.22	3.7	9.5
5		1.5	4.6	11.6
6		1.8	5.4	13.7
7		2.1	6.2	15.9
8		2.4	7.1	18.0
9		2.7	7.9	20.1
10		3.0	8.8	22.3
11		3.4	9.6	24.4
12		3.7	10.4	26.5
13		4.0	11.3	28.7
14		4.3	12.1	30.8
15		4.6	13.0	32.9
16		4.9	13.8	35.1
17		5.2	14.6	37.2
18		5.5	15.5	39.3

ORDERING INFORMATION

MODEL
ELP
ELP-B

DESCRIPTION

Intrinsically-safe ultrasonic level transmitter
Intrinsically-safe ultrasonic level transmitter with side-mount bracket

RELATED PRODUCTS

250R-3-1
DGP-1.5-W
MTL7706+

250 OHM 3 WATT 1% Resistor Long Leads
Power supply, 24 VAC IN to 24 VDC OUT
Intrinsic safety barrier, 4-20 mA two-wire transmitters