## EchoPump

### Ultrasonic Level Pump Controller

#### Description

The general purpose ultrasonic controller provides non-contact level measurement up to 33' or 10m with advanced display, tank shape linearization and control functions with 5 relays. Each relay can be configured as a single set point alarm, two latched set points for automatic fill or empty control or two independent set points for out of bounds alarming. Additionally, latched relay pairs can be configured for alternating, lead-lag and duplexing pump control. The sensor is ideally suited for challenging corrosive, slurry or waste liquids and is typically selected for large atmospheric bulk storage and waste pump transfer applications. Media examples include sodium hypochlorite and wastewater.

#### **Features**

- LCD digital display indicates level in distance or volumetric units
- ✓ Isolated 4-20 mA repeater output for integration with remote PLC
- Digital signal with standard cable between sensor and controller
- PC NEMA 4X enclosure with rugged PVDF transducer
- 16-point linearization function for volumetric tank measurement
- Fail-safe intelligence and relay logic for maximum process safety
- Automatic temperature compensation over entire range

**EchoPump** 

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Process mount (1) (2)

2" NPT (US)

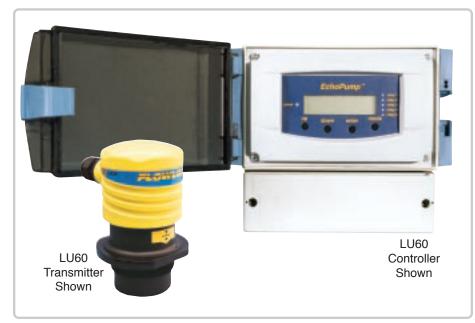
2" G (Metric)

#### Ordering

LU60-10

- Ordering Notes
- 1) The straight G thread version seals with an included Viton<sup>®</sup> mounting gasket.
- 2) For installation on open tanks, order the LM50-1001 (2" NPT) or LM50-1061 (2" G) side mount bracket. Locate the bracket far enough inboard from the side wall to avoid sensor beam width conflicts.

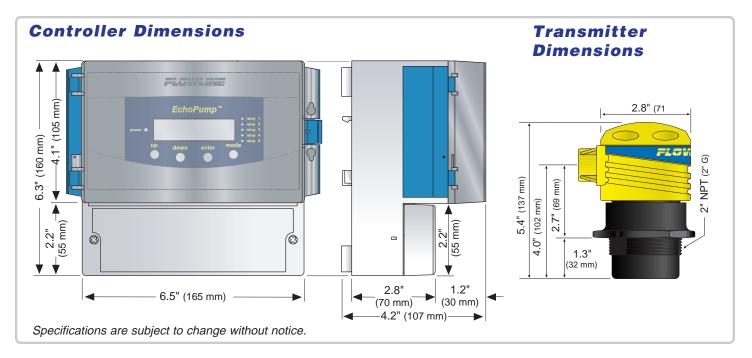
Spec Tech Industrial 203 Vest Ave. Valley Park, MO 63088 Phone: 888 SPECTECH E-mail: sales@spectechind.com www.spectechind.com

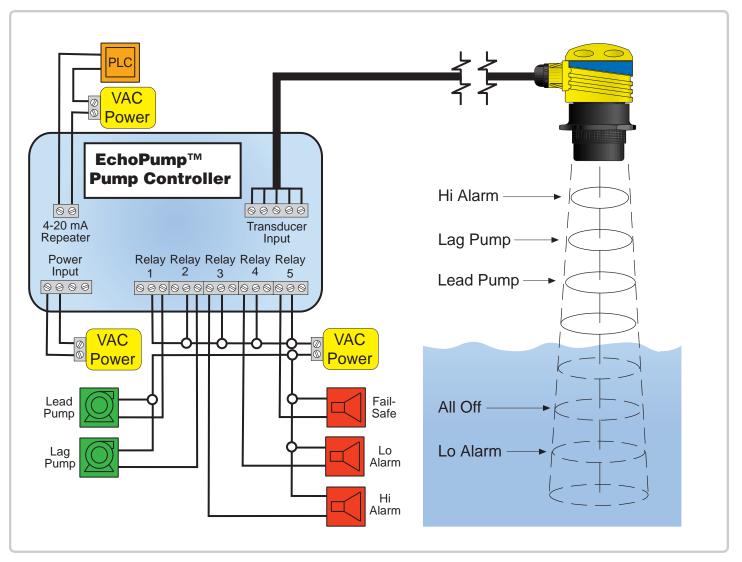


### **Specifications**

SensorControllerRange:0.5' to 33' (15 cm to 10m)Display type:2-line LCD, 16-digitAccuracy:± 0.25% of span in airDisplay units:Distance: inch/cmResolution:0.125" (3 mm)Memory:Non-volatileBeam width:8° conicalSupply voltage:120/240 VACDead band:0.5' (15 cm)@ 50-60 Hz.Process temp.:F: -40° to 140° C: -40° to 60°Signal output:4-20 mA, two-wireTemp. comp.:AutomaticSignal invert:4-20 or 20-4 mAElectronics temp:F: -20° to 140° C: -4° to 60°Signal invert:4-20 or 20-4 mAPressure:30 psi (2 bar) @ 25° C., derated @ 1.667 psi (.113 bar) per °C. above 25° C.Contact type:(5) SPDT relay, latchingRec. cable:(5) conductor, shieldedLED indication:Power & relay statusCable length:150' (48m) max.Electronics temp:F: -40° to 140° C: -40° to 60°Installed height:4.1" (10.4 cm)Enclosure:NEMA 4X (IP65)Installed height:PP, UL94VOEnclosure:NEMA 4X (IP65)Encl. material:PVDF Kynar®Conduit entrance:1/2" knock outs				
Image: Control of	Sensor		Controller	
Accuracy:± 0.25% of span in airResolution:0.125" (3 mm)Beam width:8° conicalDead band:0.5' (15 cm)Process temp.:F: -40° to 140°C: -40° to 60°Signal output:Temp. comp.:AutomaticBectronics temp.:F: -20° to 140°C: -4° to 60°Signal invert:Process temp.:F: -20° to 140°C: -4° to 60°Linearization:Pressure:30 psi (2 bar) @ 25°C., derated @ 1.667Contact type:psi (.113 bar) per °C.Soorductor, shieldedCable length:150' (48m) max.Enclosure rating:NEMA 4X (IP65)Installed height:4.1" (10.4 cm)Encl. material:PP, UL94VO	Range:	0.5' to 33'	Display type:	2-line LCD, 16-digit
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above 25° C.state during echo-lossRec. cable:(5) conductor, shieldedLED indication:Power & relay statusCable length:150' (48m) max.Electronics temp:F: -40° to 140°Enclosure rating:NEMA 4X (IP65)C: -40° to 60°C: -40° to 60°Installed height:4.1" (10.4 cm)Enclosure:NEMA 4X (IP65)Encl. material:PP, UL94VOEncl. material:Polycarbonate		C., derated @ 1.667	Contact rating:	250 VAC @ 10A
Rec. cable:(5) conductor, shieldedLED indication:Power & relay statusCable length:150' (48m) max.Electronics temp:F: -40° to 140°Enclosure rating:NEMA 4X (IP65)C: -40° to 60°Installed height:4.1" (10.4 cm)Enclosure:NEMA 4X (IP65)Encl. material:PP, UL94VOEncl. material:Polycarbonate		psi (.113 bar) per °C.	Contact fail-safety:	Reverts to de-energized
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	Installed height:	4.1" (10.4 cm)	Enclosure:	NEMA 4X (IP65)
Trans. material: PVDF Kynar <sup>®</sup> Conduit entrance: 1/2" knock outs	Encl. material:	PP, UL94VO	Encl. material:	Polycarbonate
	Trans. material:	PVDF Kynar®	Conduit entrance:	1/2" knock outs
Mount. threads: 2" NPT (2" G) Classification: General purpose	Mount. threads:	2" NPT (2" G)	Classification:	General purpose
Mount. gasket: Viton <sup>®</sup> (G version only) CE compliance: EN 61326 EMC	Mount. gasket:	Viton <sup>®</sup> (G version only)	CE compliance:	EN 61326 EMC
Conduit entrance: Single, 1/2" NPT (pending) EN 61010-1 safety	Conduit entrance:	Single, 1/2" NPT	(pending)	EN 61010-1 safety

# **EchoPump**<sup>TM</sup> Ultrasonic Level Pump Controller





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