BAILIFF ENTERPRISES INC.

ULTRASONIC LEVEL SENSOR & DISPLAY

Know how much is in your tank without climbing up, opening a lid or reading a float backwards. The EchoSonic® II ultrasonic sensor mounts in a 2" top fitting and measures the liquid surface with sound. It sends a continuous 4–20 mA level signal.

Add the optional DataView™ LI55 display to read gallons, inches or percent full right at the tank. Or wire the signal to your PLC or SCADA system. Nothing touches the liquid.

18 ft	±0.2%	4–20 mA	Non-contact
Max. range	Accuracy	Output	No wetted parts



LU23-01 Sensor — LI55-1211 Display

WHY CUSTOMERS CHOOSE IT

- **Non-contact measurement**
  Reads from above the liquid. No floats, ropes or moving parts to stick or wear.
- **Reads in gallons**
  32-point linearization converts level to true volume, even in domed tanks.
- **One power connection**
  The display runs on 85–265 VAC and supplies 24 VDC to the sensor.
- **Built for corrosive chemicals**
  PVDF transducer, Viton® gasket and a sealed Type 6P housing.
- **Alarms and pump control**
  Two relays for high/low alarms or auto fill, plus a 4–20 mA repeater output.
- **More usable capacity**
  An 8" dead band and narrow 3" beam measure nearly to the top of the tank.

THE LEVEL PACKAGE

SENSOR
LU23-01
EchoSonic® II transmitter. 18 ft range, 2" NPT mount, 10 ft cable, USB calibration fob included.

DISPLAY · OPTIONAL
LI55-1211
DataView™ controller. 6-digit LED display, 85–265 VAC, 2 relays and 4–20 mA repeater.

ENCLOSURE · OPTIONAL
LM92-1002
NEMA 4X polycarbonate windowed box. Mounts the display on the tank, a stand or a wall.

Ideal for: bulk chemical, water and wastewater storage and process tanks with a calm liquid surface, and remote reading to a PLC or SCADA system.

Ask us first if your liquid foams heavily, gives off dense fumes, or is stored above 140°F. We will recommend the right level option.

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ULTRASONIC SPECIFICATIONS

SENSOR · LU23-01

EchoSonic® II Ultrasonic Level Transmitter

Range	8" to 18.0' (20 cm to 5.5 m)
Accuracy	±0.2% of range
Resolution	0.039" (1 mm)
Dead band	8" (20 cm)
Beam width	3" (7.6 cm)
Signal output	4–20 mA, two-wire
Fail-safe	4, 20, 21, 22 mA or hold last
Supply	24 VDC loop, 0.5 W
Process temp.	-4° to 140°F (-20° to 60°C)
Ambient temp.	-31° to 140°F (-35° to 60°C)
Max. pressure	30 psi (2 bar)
Enclosure	Type 6P, encapsulated, submersible
Materials	Polycarbonate housing, PVDF transducer, Viton® gasket
Cable	10' (3 m), 4-conductor shielded
Process mount	2" NPT
Configuration	WebCal® software; LI99-1001 USB fob included
Approvals	cFMus, CE, RoHS

DISPLAY · LI55-1211

DataView™ Level Controller (optional)

Display	LED, 6-digit
Digit height	Main 0.6", secondary 0.46"
Units	Gallons, liters, in., ft., m or %
Linearization	2–32 point (level to volume)
Sensor input	(1) 4–20 mA
Supply voltage	85–265 VAC, 50/60 Hz
Consumption	20 W max.
Sensor supply	24 VDC @ 200 mA (powers the sensor)
Relays	(2) SPDT, 3 A @ 30 VDC / 250 VAC
Repeater output	Isolated 4–20 mA to PLC/SCADA
Setup	Front push buttons, password protected
Memory	Non-volatile
Ambient temp.	-40° to 149°F (-40° to 65°C)
Enclosure	1/8 DIN, polycarbonate
Faceplate rating	NEMA 4X (IP65)
Approvals	UL, cULus, CE

ENCLOSURE · LM92-1002 (OPTIONAL)



Single-indicator windowed box for one LI55 display. NEMA 4X polycarbonate with a clear cover for outdoor, on-tank or wall mounting.

Size: approx. 7.9" W × 7.9" H × 6.3" D **Includes:** mounting plate, stand-offs, #8-32 screws and washers.

INSTALLATION NOTES

- Mount the sensor vertically in a 2" top fitting, away from the fill inlet, sidewall and obstructions.
- Wire the sensor to the LI55's 24 VDC sensor supply. The display powers the loop.
- Keep the highest liquid level at least 8" below the sensor face.
- Enter tank height and capacity so the display reads in gallons.

Specifications from Flowline datasheets DS300610 and DS301033. EchoSonic, DataView and WebCal are trademarks of Flowline, Inc. Specifications subject to change.

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