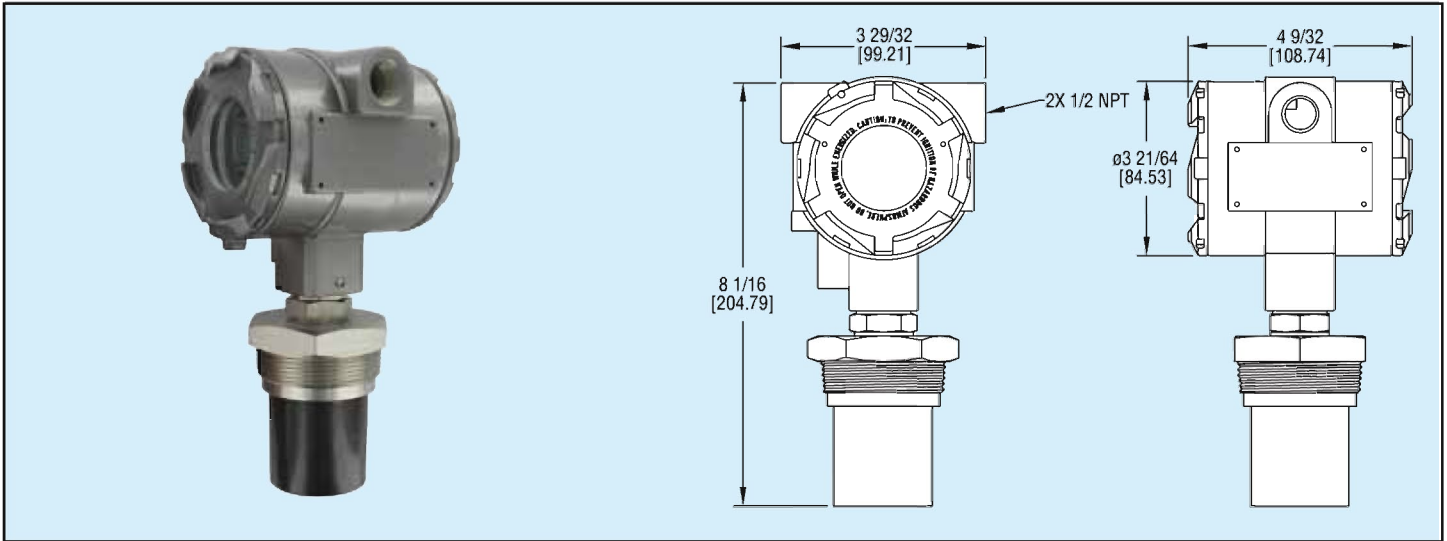


Process Instrumentation

# The BULLET

## Ultrasonic Level Transmitter

Smart Mapping & Explosion Proof



**ECHO's newest product THE BULLET** provides reliable, accurate, noncontact measurement of liquid levels. Ultrasonic non-contact technology offers no moving parts to wear, jam, corrode, or get coated like contact technologies. Mapping software makes effective measuring surface only a 3" diameter column. No concerns with ladders, pipes, or other tank intrusions in the remaining sound cone. Unit is FM approved explosion-proof making it ideal for use in hazardous locations. The unit features easy programming with 6 digit LCD display and simple menu structure. Output range is adjustable with choices of inputting tank dimensions or just fill and empty the tank while calibrating and it automatically scales to levels it senses. Window cover allows early viewing of display. Failsafe output options and diagnostic capabilities makes the unit a good choice for critical applications.

### SPECIFICATIONS

- Service:** Compatible fluids. Not for use with powder and bulk solids.
- Wetted Materials:** Sensor: PVDF; process connection: 303 SS.
- Ranges:** 24.6' (7.5 m), 32.8' (10 m).
- Accuracy:** ±0.2% of maximum range.
- Resolution:** 0.079" (2 mm).
- Blind Zone:** Under 8" (20 cm).
- Beam Width:** 3" (7.6 cm) diameter.
- Temperature Limits:** Ambient: -40 to 140°F (-40 to 60°C), Process: -4 to 140°F (-20 to 60°C).
- Temperature Compensation:** -40 to 140°F (-40 to 60°C)
- Pressure Limits:** 30 psi (2 bar) up to 25°C (77°C). Above 25°C (77°F), rating decreases 1.667 psi per 1°C increase. See chart.
- Power Requirement:** 18 to 28 VDC (2 wire).
- Output Signal:** 4 to 20 mA or 20 to 4 mA (Two-wire).
- Max. Loop Resistance:** 250 Ohms at 24 VDC.
- Electrical Connections:** Screw terminal.
- Conduit Connection:** 1/2" NPT female (two) or optional M20.
- Process Connection:** 2" NPT male or optional BSPT.
- Enclosure Rating:** Weather-proof meets NEMA 4X, explosion-proof rated Class I, Div. 1, Groups B, C, D; Class II/III, Div. 1, Groups E, F, G.
- Mounting Orientation:** Vertical.
- Failsafe:** On lost echo after 30 seconds, user selectable to 4, 20, 21, 22 mA or last signal.
- Memory:** Non-volatile.
- Display:** 6 character LCD.
- Units:** In, cm, ft, m, percent.
- Memory:** Non-volatile.
- Programming:** 4 button.
- Weight:** 4.0 lb (1.8 kg)
- Agency Approvals:** CE, FM.



## The Bullet

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