

ULTRASONIC LEVEL TRANSMITTER

LVU-2001 Series



- ✓ **Accurate and Reliable Level Measurement From 15.2 cm to 3.7 m (0.5 to 12')**
- ✓ **Fixed Range—No Programming Required**
- ✓ **Low-Cost Solution for OEM and Process Applications**
- ✓ **Compact Size and 5 cm (2") Transducer for Small Tanks**
- ✓ **PP Enclosure Rated NEMA 4X (IP65) with PVDF Transducer**
- ✓ **Fail-Safe Intelligence Provides Maximum Process Safety**

The two-wire, bulk tank ultrasonic level transmitter is mounted through the top wall of the tank and provides non-contact measurement up to 3.7 m (12'). The range is fixed: 4 mA = 144" or 12' (distance from sensor) and 20 mA = 6" or 0.5'. No programming is required. With non-contact technology, the transmitter is an excellent choice for applications with dirty, coating, corrosive type liquids. The compact design is the perfect size for small tank applications.

A high-frequency ultrasonic sound wave is pulsed three times per second from the base of the transducer. The sound wave reflects against the

LVU-2001 shown smaller than actual size.

process medium below and returns to the transducer. The microprocessor-based electronics measure the time of flight between the sound generation and receipt, and translates this figure into the distance between the transmitter and process medium below.

APPLICATION VARIABLES

Variable	Yes No	
	✓	✓
General Purpose	✓	✓
Conductive	✓	✓
Non-conductive	✓	✓
Δ Conductivity	✓	✓
Contact	✓	✓
Non-contact	✓	✓
Clean	✓	✓
Dirty	✓	✓
Coating	✓	✓
Non-coating	✓	✓
Vapors	✓	✓
Δ Gas Density	✓	✓
Vacuum	✓	✓
Ambient Pressure	✓	✓
Low Pressure	✓	✓
Medium Pressure	✓	✓
Intrinsically Safe	✓	✓
Integral Relay	✓	✓
Foam	✓	✓

SPECIFICATIONS

Range: 15.2 cm to 3.7 m (0.5 to 12')
Accuracy: ±0.25% of span in air
Resolution: 3 mm (0.125")
Frequency: 50 kHz
Pulse Rate: 3 per second
Beam Width: 8° conical
Dead Band: 15.2 cm (0.5') min. standard conditions
Supply Voltage: 12 to 36 Vdc
Loop Resistance: 600 Ω @ 36 Vdc
Signal Output: 4 to 20 mA

Fail-Safe Diag.: Reverts to 22 mA
LED Indication: Power and fail-safety
Temp. Rating: -40 to 60°C (-40 to 140°F)
Temp. Comp.: Over entire range
Pressure Rating: 2 bar (30 psig) @ 25°C, derated @ .113 bar (1.667 psig) per °C above 25°C
Enclosure Rating: NEMA 4X (IP65)
Enclosure Mat'l: PP (U.L. 94 VO)
Transducer Mat'l: PVDF
Mounting Threads: 2 NPT or 2 G
Conduit Conn.: ½ NPT
Mounting Gasket: FKM for LVU-2002

To Order

Model No.	Description
LVU-2001	Ultrasonic level transmitter, 2 NPT
LVU-2002	Ultrasonic level transmitter, 2 G
LVCN-51	Controller with LED display

Comes with complete operator's manual.

Ordering Examples: LVU-2001, ultrasonic level transmitter with LVCN-51 controller, LVU-2001, ultrasonic transmitter.