

# LOOP POWERED AND FOUR-WIRE ULTRASONIC LEVEL TRANSMITTERS



LVU1501  
Starts at  
**\$850**



LVU1506-LP, \$850,  
shown smaller than  
actual size.

- ✓ **0.3 to 7.6 m (1 to 25') Range**
- ✓ **Exclusive VSS Sensor Sense™ with 3/4 NPT Mounting**
- ✓ **Programmable Zero and Span Through BCD Switches**
- ✓ **Direct Replacement of Capacitance System**
- ✓ **Intrinsically Safe and Explosion Proof Rating with 316LSS Sensor, PTFE, Sensors**
- ✓ **STD Near Zone Varies from 152.4 to 305 mm (6 to 12")**

The LVU1500-LP Series Two-Wire ("Four-Wire" for four wire unit), non-contact continuous level transmitter, is easy to program, can be used in hazardous locations, and offers unique stainless steel and 3/4 NPT sensors. It is a great choice for sanitary, hazardous, dirty, corrosive or high purity processes. The 4 to 20 mA output is compatible with all control systems and updates quickly making the LVU1500 Series the right choice for fast filling processes.

LVU1507-LP, \$1100,  
shown smaller than  
actual size.

The LVU1500 Series is plug-and-play. Digital signal processing, and automatic temperature compensation eliminates all adjustment except zero and span. Zero and span calibration is set directly in inches using digital switches and requires no power. The rugged epoxy coated aluminum enclosure survives where plastic enclosures fail.

#### Operation

The sensor is mounted on the top of the tank. The electronics generate an electronic signal that is converted by the sensor to ultrasonic pulses that are transmitted through air space.

At the liquid/air interface, the pulses are reflected back to the sensor. These echoes are received by the microprocessor in the electronics, which samples the echoes and calculates the level in the tank.

A continuous output of 4 to 20 mA (isolated) adjustable in increments of 1"/0.1" over entire span is provided to satisfy a number of applications. Programming is done through a pair of BCD switches.

#### SPECIFICATIONS

**Range:** 0.3 to 7.6 m (1 to 25')

**Output Accuracy:** 0.25% of full scale

**Repeatability:**

**Four Wire:** 3.2 mm (1/8") typical

**Loop Power:**  
± 0.13 mm (± 0.005") typical

**Input Power:**

**Four Wire:** 24 Vdc

**Loop Power:** 18 Vdc to 36 Vdc

**Two Wire:** Loop Power

**Output Signal:**

**Four Wire:** 4 to 20 mA DC (isolated), 2 to 10 Vdc

**Loop Power:** 4 to 20 mA DC (isolated)

**Lost Echo Indicator:**

**Four Wire:** LED Flashes

**Two Wire:** LED Flashes and output at 22.0 mA

**Temperature Compensation:**

Automatic over full range of sensor operating temperature

**Controls:** Programmable zero and span, height & distance-mode through BCD switches increments of 25 mm (1") up to 7.6 m (300"), increments of 2.5 mm (0.1") up to 2.5 m (99.9")

**Temperature Range:**

**Sensor:** -29 to 82°C (-20 to 180°F),  
**Electronics:** -29 to 77°C (-20 to 170°F)

**Sensor Pressure Rating:**

**316LSS:** 17.2 bar (100 psig)  
**ETFE:** 6.9 bar (40 psig)

**Sensor Construction:**

ETFE or 316 LSS or PTFE

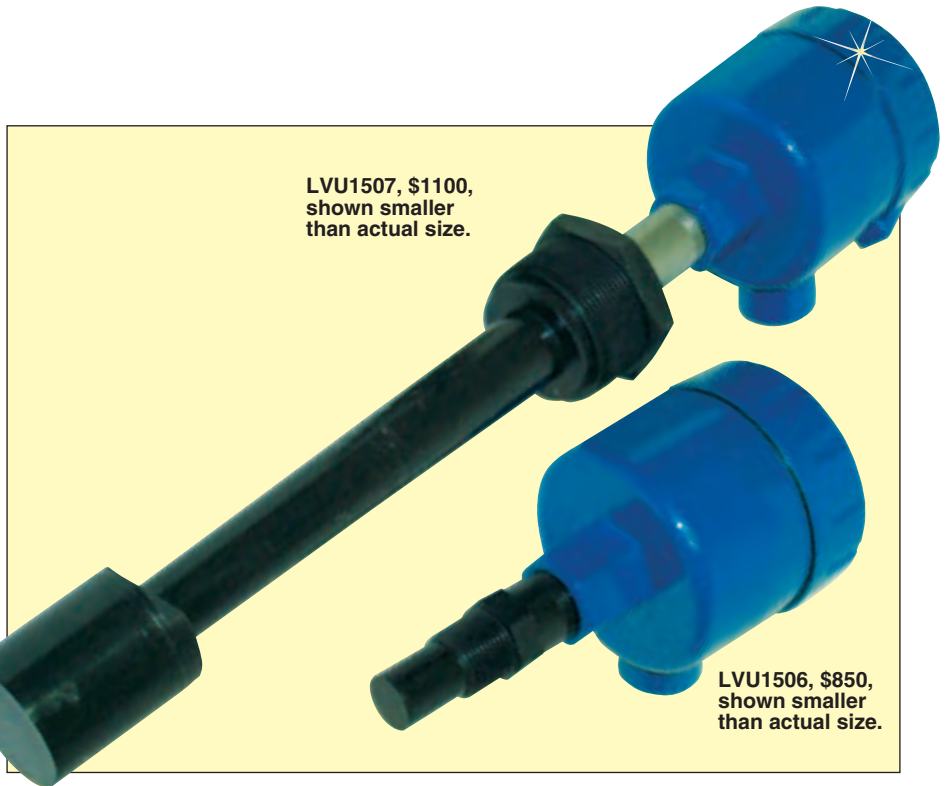
**Electronics Enclosures:**

**NEMA-4/7 Explosion-Proof:**

Class I, Divisions 1 or 2 Groups B, C & D, Class II, Divisions 1 and 2, Groups E, F & G, Class III Cenelec

**Mounting:** 3/4"

**NPT and Sanitary:** Up to 3 m (10')  
**2 NPT:** Up to 6 m (20')



LVU1507, \$1100, shown smaller than actual size.

LVU1506, \$850, shown smaller than actual size.

**MOST POPULAR MODELS HIGHLIGHTED!**

To Order (Specify Model Number)					
Model No.	Price	Liquid Range mm (in)	Sensor Length mm (in)	Sensor	Mounting
<b>Loop Powered</b>					
LVU1501-LP	\$850	0.15 to 3 (6 to 120)	254 (10)	316LSS	3/4 NPT
LVU1502-LP	1100	0.15 to 3 (6 to 120)	254 (10)	316LSS	Sanitary 1"
LVU1503-LP	1100	0.15 to 3 (6 to 120)	254 (10)	316LSS	Sanitary 1 1/2"
LVU1504-LP	1350	0.15 to 3 (6 to 120)	50.8 (2)	PTFE	3/4 NPT
LVU1505-LP	1450	0.15 to 3 (6 to 120)	50.8 (2)	PTFE	Sanitary 1"
LVU1506-LP	850	0.15 to 3 (6 to 120)	25.4 (1)	ETFE	3/4 NPT
LVU1507-LP	1100	0.3 to 7.6 (12 to 300)	254 (10)	ETFE	2 NPT
LVU1508-LP	1100	0.3 to 7.6 (12 to 300)	254 (10)	316LSS	2 NPT
<b>Four Wire</b>					
LVU1501	\$850	0.15 to 3 (6 to 120)	254 (10)	316LSS	3/4 NPT
LVU1502	1100	0.15 to 3 (6 to 120)	254 (10)	316LSS	Sanitary 1"
LVU1504	1350	0.15 to 3 (6 to 120)	50.8 (2)	PTFE	3/4 NPT
LVU1505	1450	0.15 to 3 (6 to 120)	50.8 (2)	PTFE	Sanitary 1"
LVU1506	850	0.15 to 3 (6 to 120)	25.4 (1)	ETFE	3/4 NPT
LVU1507	1100	0.3 to 7.6 (12 to 300)	254 (10)	ETFE	2 NPT
LVU1508	1100	0.3 to 7.6 (12 to 300)	254 (10)	316LSS	2 NPT

**Accessories**

Model No.	Price	Description
CNi3233	\$195	1/32 DIN controller, see page M-41 for details
DPI32	150	1/32 DIN panel meter, see page M-37 for details
70A-1	18	Continuous tone alarm
PSR-24S	60	24 Vdc regulated power supply, 90 to 264 Vac supply
MA-1509	220	Reference Book: Ultrasonics Fundamentals, Technology, Applications

Comes complete with operator's manual.

**Ordering Examples:** LVU1502-LP, loop powered transmitter with 1" sanitary fitting, \$1100.

LVU1507, four wire transmitter with 2 NPT fitting, \$1100.



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