

# ULTRASONIC NON-CONTACT LEVEL TRANSMITTER

For 0.3 to 18.3 m (1 to 60')



- ✓ RS232 or RS485 Communications Available
- ✓ Programmable
- ✓ Pushbutton Calibration
- ✓ Elimination of Unwanted Echoes
- ✓ Temperature Compensated
- ✓ Field/Bench Calibration
- ✓ Self-Cleaning Sensor Face
- ✓ Non-Volatile Memory (Batteries Not Required)

The LVU40 Series consists of advanced ultrasonic level measurement sensors for liquids. These products continue to prove useful in demanding applications.

The microprocessor-based circuits provide a temperature-compensated signal for improved accuracy. All models have the ability to filter false echoes produced by peripheral obstructions.

These transmitters can perform continuous level measurement in a range of 0.3 to 18.3 m (1.0 to 60'), with several power and programmability options. Point level can also be obtained by using a PLC (programmable logic controller) or one of TRODEX's CNI Series process controllers.

## SPECIFICATIONS

**Accuracy:**  $\pm 0.25\%$  of maximum range (in air)

**Range:** 0.3 to 18.3 m (1 to 60')

**Resolution:** 6.9 mm (0.270")

**Frequency:** 45 kHz

**Dead Zone Range:** 0.3 m (1')

**Operating Temperature Range:** -40 to 60°C (-40 to 140°F)

**Pressure:** 1 bar (15 psig maximum)

**Mounting:** 3 NPT

**Beam Angle:** 6 to 12° at -3 dB (model dependent)

**Loss of Echo Hold:**

30 seconds, 22 mA output



LVU41-RS232 shown smaller than actual size.

### Power Options:

**AC:** 115 Vac, 60 Hz or 230 Vac, 50 Hz ( $\pm 20\%$ ) 1.7 VA

**DC:** 12 to 30 Vdc @ 0.07 A, @ 24 Vdc R load =  $(V_s - 6)/24$  mA

**Output:** 4 to 20 mA or 20 to 4 mA, 6.1  $\mu$ A resolution; 750  $\Omega$  (isolated on 4-wire models only)

**Optional:** RS232 or RS485 communications port

**Fuse:** 0.125 A/250 V type

### Temperature Compensation:

Onboard the sensor

**Calibration:** Pushbutton or optional programmable

**Diagnostics (Echo Profile):**

Via optional programmable port

**Approval:** Entela, CE

**Conduit Entry:** 1/2 NPT hole (PVC only)

**Enclosure:** Aluminum with PVC antenna ingress protection [NEMA 4X (IP66)]

**Housing Dimensions:**

101.6 x 226.1 mm (4 x 8.9")

**Sensor Diameter:** 76.2 mm (3")

## To Order

Model No.	Description
LVU41-RS232	3-wire 12 to 30 Vdc ultrasonic level transmitter with RS232 communications and Windows software
LVU41-RS485	3-wire 12 to 30 Vdc ultrasonic level transmitter with RS485 communications and Windows software
LVU42-RS232	4-wire 115 Vac ultrasonic level transmitter with RS232 communications and Windows software
LVU42-RS485	4-wire 115 Vac ultrasonic level transmitter with RS485 communications and Windows software

## Accessories

Model No.	Description
CNI3233	1/32 DIN controller with relays
DPI32	1/32 DIN panel meter
PSR-24S	Regulated power supply, 90 to 264 Vac input, 24 Vdc output, 400 mA, screw terminals, UL
PSR-24L	Regulated power supply, 90 to 264 Vac input, 24 Vdc output, 400 mA, stripped leads, UL
PSR-24L-230	Regulated power supply, 230 Vac input, 24 Vdc output, 400 mA, stripped leads, CE

Comes complete with software and operator's manual.

**Ordering Examples:** LVU42-RS485, 4-wire ultrasonic transmitter with RS485.

LVU41-RS232, 3-wire ultrasonic level transmitter with RS232.