

ULTRASONIC NON-CONTACT LEVEL TRANSMITTER

For 0.3 to 18.3 m (1 to 60')

Lvu41



- ✓ 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 OMEGA's CNI Series process controllers.

SPECIFICATIONS

Accuracy: ±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

CNi833 shown smaller than actual size, available online.



LVU41-RS232 shown smaller than actual size.



Power Options:

AC: 115 Vac, 60 Hz or 230 Vac, 50 Hz (±20%) 1.7 VA

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

Output: 4 to 20 mA or 20 to 4 mA, 6.1 µA resolution; 750 Ω (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: ½ NPT hole (PVC only)

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

Housing Dimensions:

101.6 x 226.1 m (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	½ DIN controller with relays
DPI32	½ 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.