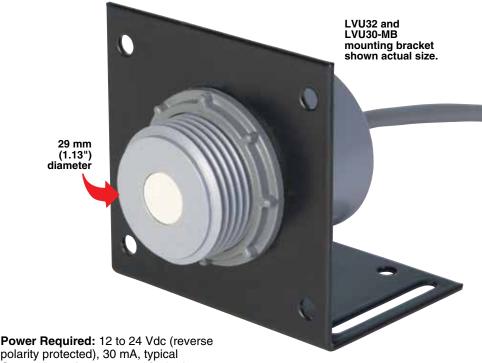
NON-CONTACT ULTRASONIC LEVEL TRANSMITTER/SWITCH

LVU30 Series



- ✓ Low-Cost
- Analog or Setpoint **Switched Output**
- Plug and Play Setup— No Targets Needed
- ✓ Easy Setup Software for Windows® (Included)
- Built-In Temperature/ Sound Speed Compensation
- ✓ Up to 32 Sensors on **RS485 Multi-Drop Loop**

The LVU30 Series of RoHS Compliant low-cost ultrasonic sensors that produce detection ranges from as close as 100 mm (7") to greater than 4 m (13'). Incorporating state-of-the-art ultrasonic technology, the sensors provide precision noncontact distance measurement for factory automation or industrial process control. The LVU30 series of sensors stand out over all other systems because of their affordability, extraordinary ease of operation, genuinely user-friendly software, versatility in usercontrolled outputs, and the ability to be set up without using a target. They transmit narrow beam sound pulses at a user-selected rate (software triggered), the process returns echoes, and various outputs depending on the position of the target and programming parameters.



polarity protected), 30 mA, typical Output Impedance: 100Ω for both

modes of operation **Proportional Mode** (Analog Output) Zero and Span Voltages:

Programmable from 0 to 10.25 Vdc

(default: 0 to 10.0 Vdc)

Loss of Echo Voltage: Programmable from 0 to 10.25 Vdc (default: 10.25 Vdc)

Response Time: 60 ms Resolution: 10-bit Switch Mode Setpoint Voltages: 0 or 10.25 Vdc

Setpoint Hysteresis (Programmable): 0 to 75% Response Time: < 1 ms

Sampling Rate (Programmable): 0.1 to 100 Hz in 0.1 Hz increments

(default: 10 Hz)

Target Distance Averaging Rolling Average:

From 1 to 32 samples

Boxcar Average: From 1 to 1024 samples (default: 1 sample)

Loss-of-Echo Time-Out:

From 1 to 254 consecutive samples missed before time-out (factory default: 1 sample) **Housing Material: PVC** Connection: 1 NPT

Transducer Surface: Custom PPA Cable: 5 conductor, PVC jacket, 22 AWG, 200 mm (18") pigtail [user-extendable for RS485 communication to 1500 m (5000')]

Operating Temperature: -20 to 65°C (-4 to 149°F)

Storage Temperature: -40 to 85°C

(-40 to 185°F)

Relative Humidity: 0 to 95%,

non-condensing

Enclosure Rating: NEMA 6 (IP67) Programming Requirements

Communications Converter:

RS232 (or USB)/RS485 with automatic

send data control

SPECIFICATIONS

(Typical at 24 Vdc, 22°C, 24 Vdc and 50% RH) **Ultrasonic Frequency:** LVU32: 150 kHz LVU33: 95 kHz nominal System Beam Angle:

8 degrees conical Range:

LVU32: 178 mm to 2.4 m (7" to 8') LVU33: 305 mm to 4.0 m (1 to 13') **Resolution:** 0.25 mm (0.01")

Echo Detection Sensitivity:

User selectable

To Order	
Model No.	Description
LVU32	Ultrasonic level transmitter/switch 2.4 m (8') range
LVU33	Ultrasonic level transmitter/switch 4 m (13') range
LVU30-MB	Optional mounting bracket
LVU30-SW	Programming software available free from TRODEX
OM-CONV-USB	RS232 to USB interface converter

Comes complete with operator's manual and lock nut.

Ordering Examples: LVU32, ultrasonic level transmitter/switch, LVU30-MB, mounting bracket. LVU33, ultrasonic level transmitter/switch.