The LVU30A Series of CE and RoHS compliant low-cost ultrasonic sensors produce detection ranges from as close as 178 mm (7") to greater than 4 m (13'). Incorporating enhanced state-of-the-art ultrasonic technology, the sensors provide precision non-contact distance measurement for factory automation or industrial process control. The LVU30A series of sensors standout over all other systems because of their affordability, extraordinary ease of operation, genuinely user-friendly software, versatility in user-controlled 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.

### SPECIFICATIONS
(Typical at 24 Vdc, 22°C, 24 Vdc and 50% RH)

- **Ultrasonic Frequency:**
  - LVU32A: 150 kHz
  - LVU33A: 95 kHz nominal

- **System Beam Angle:** 8 degrees conical

- **Range:**
  - LVU32A: 178 mm to 2.2 m (7" to 7')
  - LVU32A-E/I: 178 mm to 2.7 m (7" to 9')
  - LVU33A: 305 mm to 4.0 m (1 to 13')
  - LVU33A-E/I: 200 mm to 5.5 m (1" to 18')

- **Resolution:** 0.25 mm (0.01")

- **Echo Detection Sensitivity:** User selectable

- **Power Required:** 12 to 24 Vdc (reverse polarity protected), 30 mA, typical with power spike protection

- **Output Impedance:** 100 Ω 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) 4 to 20 mA (“I” models)
  - **Loss of Echo Voltage:** Programmable from 0 to 10.25 Vdc (default: 10.25 Vdc)
  - **Zero to Span Current:** 4 to 20 mA (“I” models)
  - **Response Time:** 60 ms
  - **Resolution:** 1-bit
  - **Setpoint Voltages:** 0 or 10.25 Vdc
  - **Setpoint Hysteresis** (Programmable): 0 to 75%
  - **Response Time:** < 1 ms
  - **Sampling Rate (Programmable):** 0.1 to 20 Hz in 0.1 Hz increments (default: 10 Hz)
  - **Target Distance Averaging**
  - **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:** Shielded 5 conductor, PVC jacket, 22 AWG, 800 mm (72") pigtail [user-extendable for RS485 communication to 1500 m (5000')]

- **Operating Temperature:** -40 to 70°C (-40 to 158°F)

- **Storage Temperature:** -40 to 85°C (-40 to 185°F)

- **Relative Humidity:** 0 to 95%, non-condensing

- **Enclosure Rating:** NEMA 6 (IP68)

- **Programming Requirements**
  - **Communications Converter:** RS232 (or USB)/RS485 with automatic send data control (Windows 10, 8, 7 Vista and XP SP3)

### To Order

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVU32A</td>
<td>Ultrasonic sensor 2.13 m (7&quot;) span, 150 kHz V out</td>
</tr>
<tr>
<td>LVU32A-E</td>
<td>Enhanced ultrasonic sensor 2.7 m (9&quot;) span, 150 kHz V O</td>
</tr>
<tr>
<td>LVU32A-E/I</td>
<td>Enhanced ultrasonic sensor 2.7 m (9&quot;) span, 150 kHz V I</td>
</tr>
<tr>
<td>LVU33A</td>
<td>Ultrasonic sensor 4 m (13&quot;) span, 95 kHz V out</td>
</tr>
<tr>
<td>LVU33A-E</td>
<td>Enhanced ultrasonic sensor 5.5 m (18&quot;) span, 95 kHz V O</td>
</tr>
<tr>
<td>LVU33A-E/I</td>
<td>Enhanced ultrasonic sensor 5.5 m (18&quot;) span, 95 kHz V I</td>
</tr>
<tr>
<td>LVU30-MB</td>
<td>Optional mounting bracket</td>
</tr>
<tr>
<td>LVU30-SW</td>
<td>Programming software available free from OMEGA</td>
</tr>
<tr>
<td>OM-CONV-USB</td>
<td>RS232 to USB interface converter</td>
</tr>
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</table>

Comes complete with operator’s manual and lock nut.

Ordering Examples: LVU32A, ultrasonic level transmitter/switch, LVU30-MB, mounting bracket. LVU33A, ultrasonic level transmitter/switch.