

# ULTRASONIC LEVEL SENSORS

## LVU-150-R Series

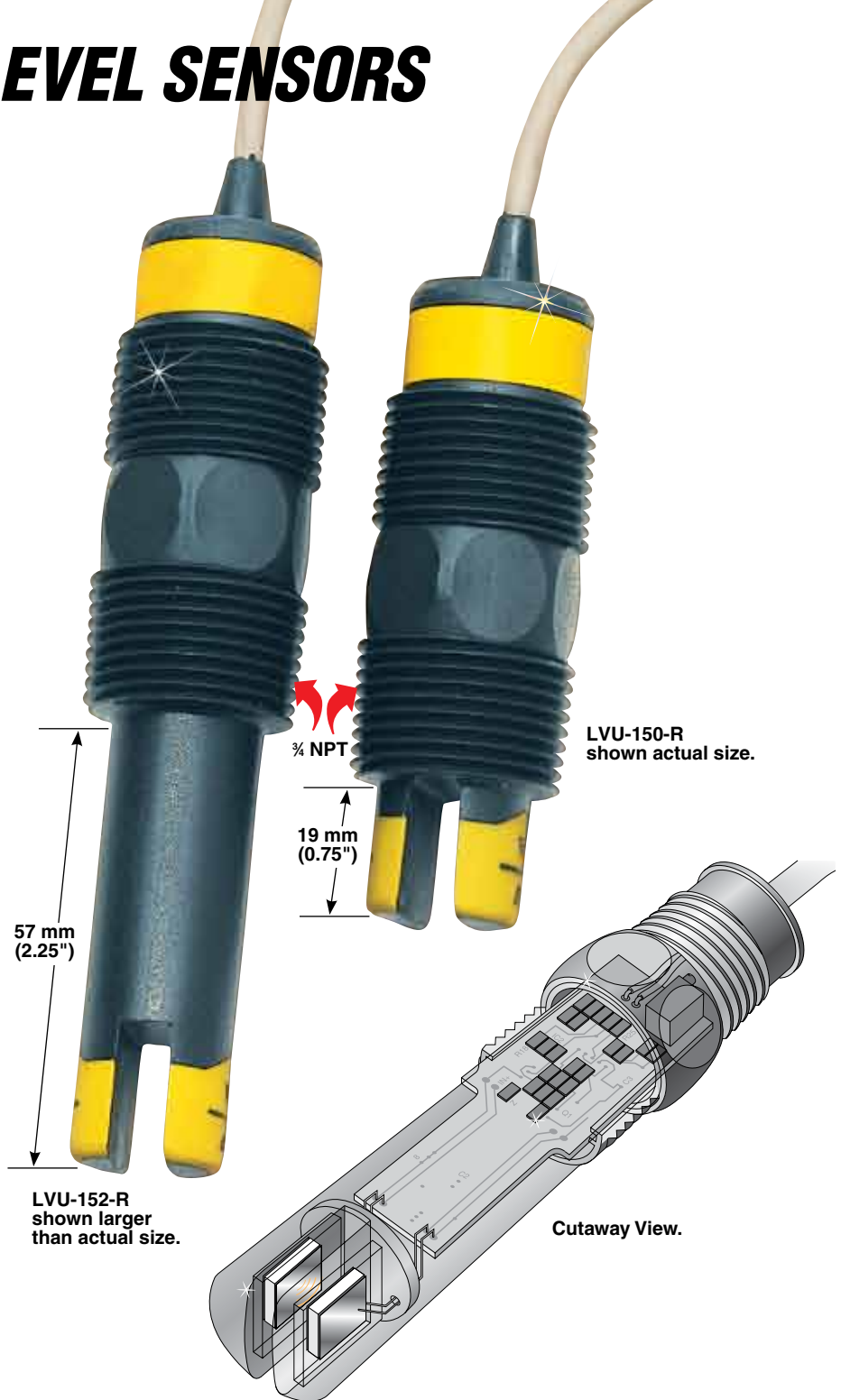


- ✓ Not Sensitive to Changes In Viscosity, Density, or Conductivity
- ✓ SPST Relay Standard
- ✓ Resists Vapor and Turbulence
- ✓ NEMA 6 (IP68) Submersible Sensor and Cable

OMEGA's ultrasonic sensors deliver accurate and reliable liquid level detection with an SPST mechanical relay output. The technology provides a high level of ultrasonic sensitivity, including resistance to vapor and turbulence. The ultrasonic sensor utilizes a fork-shaped sensor which contains two piezoelectric crystals, one of which acts as the ultrasonic transmitter, and the other as a receiver. If the air gap between the points of the fork fills with liquid, the sonic wave passes from one crystal to the other.

### SPECIFICATIONS

**Accuracy:** ±1 mm (0.04") in water  
**Repeatability:** ±0.5 mm (0.02") in water  
**Dead Band Hysteresis:** 1 mm in water  
**Voltage Input:** 12 to 36 Vdc  
**Current Output:** 25 mA maximum  
**Relay:**  
 GP: 120 Vac/Vdc @ 1 A  
 CE: 60 Vac/Vdc @ 1 A  
**Switch Mode:**  
 Selectable, NO or NC states  
**Wetted Materials:** Polypropylene (PP) or Perfluoroalkoxy (PFA)  
**Temperature Rating:** -40 to 80°C (-40 to 176°F)  
**Maximum Pressure Rating:** PP:150 psi @ 25°C (76°F) derated @ 1.667 psi per °C above 25°C (76°F)  
**Loop Resistance:** 600 Ω @ 24 Vdc  
**Standard Cable Length:** 3 m (10')  
**Maximum Cable Length:** 305 m (1000')  
**Dimensions:**  
 76.2 or 114.3 L x 26.7 mm Dia. (3.0 or 4.5 x 1.05") (¾ NPT)  
**Enclosure Rating:** NEMA 6 (IP68) submersible sensor and cable



LVU-152-R shown larger than actual size.

LVU-150-R shown actual size.

Cutaway View.

| To Order  |                   |          |             |
|-----------|-------------------|----------|-------------|
| Model No. | Description       | Material | Size (inch) |
| LVU-150-R | Ultrasonic sensor | PP       | 3 x ¾ NPT   |
| LVU-151-R | Ultrasonic sensor | PFA      | 3 x ¾ NPT   |
| LVU-152-R | Ultrasonic sensor | PP       | 4.5 x ¾ NPT |
| LVU-153-R | Ultrasonic sensor | PFA      | 4.5 x ¾ NPT |

Comes complete with operator's manual and 3 m (10') cable.

Two extended cable lengths available. For 7.62 m (25') add suffix "-25" to model number, for PP models, or PFA models, for additional cost. For 15.24 m (50') add suffix "-50" to model number for PP models, or PFA models, for additional cost.

**Ordering Examples:** LVU-150-R, polypropylene ultrasonic sensor, 3 x ¾ NPT  
 LVU-153-R, PFA ultrasonic sensor, 4.5 x ¾ NPT.