

# ULTRASONIC LIQUID LEVEL SWITCHES

## LVU-230/ 260 Series



- ✓ 1000:1 Wet-to-Dry Ratio with 316 SS Machined Body Sensor
- ✓ Epoxy Painted Enclosure
- ✓ No Calibration or Special Installation Requirements
- ✓ AC or 9 to 36 Vdc Powered Models
- ✓ Standard 3/4 NPT Fittings

The LVU-230 and LVU-260 liquid level switches are the ideal solution to a host of liquid-level sensing and control applications. Their small size and standard 3/4 NPT fittings make them suitable for new or existing applications. The LVU-230 models have a relay output along with a 316 SS or PVDF sensor and an integral miniaturized, encapsulated electronic control unit mounted in a cast aluminum, explosion-proof, watertight enclosure. The LVU-260 is a 2-wire, 4 or 20 mA output system.

Both use an ultrasonic wave propagation sensor mounted in the liquid medium. The electronics generates a continuous wave ultrasonic signal that completely illuminates the liquid-sensing area. The absence of liquid in the sensing area causes the ultrasonic signal to dissipate, which the electronics senses as a "dry" condition (and provides a 4 mA output signal in the LVU-260). When liquid is present, the amplitude of the ultrasonic signal increases, indicating a "wet" condition. This signal is converted by the electronics and energizes the 10 A relay (LVU-230) or a 20 mA output signal (LVU-260). The LVU-230 electronics may be set to provide the control output to an alarm, pump, or other device on either a dry or wet condition.

### SPECIFICATIONS

**Repeatability:** 2 mm

(0.08") typical

**Delay (On):** 0.5 s

**Input Power:**

LVU-230: 115 Vac 50/60 Hz standard; 230 Vac 12 Vdc, or 24 Vdc (optional)

LVU-260: 9 to 36 Vdc

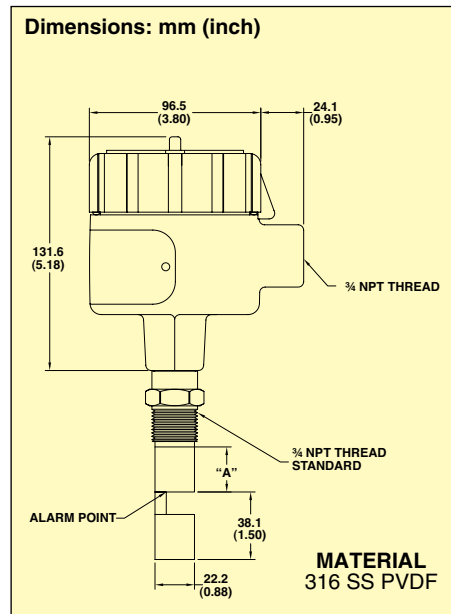
**Outputs:**

LVU-230: 10 A DPDT

LVU-260: Low-level fail-safe: 4 ±1 mA dry; 20 ±1 mA wet; high level: 20 ±1 dry, 4 ±1 wet



LVU-230S, shown smaller than actual size.



**Housing:** NEMA 4/NEMA 7 watertight, explosion-proof enclosure, cast aluminum Class I, Group C and D, Class II, Groups E, F and G; and Class III, Division I and 2

**Sensor Material:**

LVU-230S, LVU-260S: 316 L SS  
LVU-230K, LVU-260K: PVDF

**Temperature:**

Sensor: -40 to 149°C  
(-40 to 300°F)

Electronics: -29 to 77°C  
(-20 to 170°F)

**Operating Pressure:** Up to 1000 psig

**Mounting:** 3/4 NPT standard

**Weight:** 453 g (1 lb)

### To Order

115 Vac Power	9 to 30 Vdc Power	Immersion Length cm (inch) "A"
Model No.	Model No.	
<b>Stainless Steel</b>		
LVU-230S	LVU-260S	7.62 (3)
LVU-231S	LVU-261S	15.24 (6)
LVU-232S	LVU-262S	30.48 (12)
LVU-233S	LVU-263S	45.72 (18)
LVU-234S	LVU-264S	60.96 (24)
LVU-235S	LVU-265S	91.44 (36)
<b>PVDF</b>		
LVU-230K	LVU-260K	7.62 (3)
LVU-231K	LVU-261K	15.24 (6)
LVU-232K	LVU-262K	30.48 (12)
LVU-233K	LVU-263K	45.72 (18)
LVU-234K	LVU-264K	60.96 (24)
LVU-235K	LVU-265K	91.44 (36)

Comes complete with operator's manual. Other materials and lengths (up to 120") available. Consult OMEGA flow Engineering Department.

For 230 Vac operation, add suffix "-230V" to model number, for additional cost.

For 24 Vdc operation, add suffix "-24V" to model number, no additional cost.

For 12 Vdc operation, add suffix "-12V" to model number, for additional cost.

**Ordering Examples:** LVU-265S, 316 stainless steel, 2-wire, 4 to 20 mA output sensor, 91.44 cm (36") sensor immersion length.

LVU-230S, 316 SS sensor with 10 A relay.