

DISCRIMINATING CONTAINMENT SUMP SENSOR

Cable Not
Included

Shown Smaller
Than Actual Size

LVLK300 Series



- ✓ **Conductive Polymer Discriminates Between Hydrocarbons and Other Liquids**
- ✓ **Hydrocarbons Detected at Any Point Along the Sensor Length—Even When Floating on Water**
- ✓ **Reusable After Exposure to Hydrocarbons**
- ✓ **Quick Disconnect Eases Change Out**

Model LVLK300 discriminating sensors provide reliable and accurate monitoring of containment sumps, dispenser pans, and other critical liquid collection sumps. They combine magnetic float and reed switch liquid level switches with an innovative polymer strip that reacts to hydrocarbons. Within a system, they trigger independent alarms or annunciators for water or fuel accumulation. Their rugged construction makes them ideal for harsh environments. Both versions of LVLK300 sensors detect liquid level at 1.5 inch from their base; the high level switch is actuated at the 8 inch or 11 inch mark, depending on the mode selected. Hydrocarbons are sensed anywhere along the length of the sensor, even if floating on top of water.

LVLK300 discriminating containment sump sensors are reusable after exposure. Detection and recovery times vary depending on the type of fuel. For example, response time for diesel is up to one hour. (Heavier hydrocarbons can take up to several hours.) A quick disconnect cable enables operators to make quick sensor exchange in the event of a hydrocarbon alarm condition.

To detect liquid hydrocarbons, LVLK300 sensors incorporate an innovative polymer strip that continuously conducts electricity when voltage is applied. Mounted vertically within the sensor's housing, the polymer strip physically swells on contact with liquid hydrocarbons anywhere along its length. The swelling causes a dramatic increase in the electrical resistance of the polymer, and may be used as a switch when incorporated with associated system electronics. When allowed to recover, outside the sump, the polymer reverts to its normal conductive state for reuse. In absence of hydrocarbons, the polymer has a base resistance of 0.8 to 3.0 kΩ/ft.

SPECIFICATIONS

Wetted Materials: Polyester, Nitrile, Epoxy, Silicone and 18-8 SS

Operating Temperature: -40 to 65.5°C (-40 to 150°F)

Switch Rating: 20 VA, 120-240 Vac Pilot Duty; 20 W, 50-240 Vdc Resistive

Polymer Base Resistance: 0.8 to 3.0 kΩ/Ft.

Approvals: UL for Class I, Group D Hazardous Locations When Powered OMEGA P/N by an Intrinsically Safe (I.S.) Relay. (SBG22445)

Weight: LVLK302: 567 g (1.25 lb)

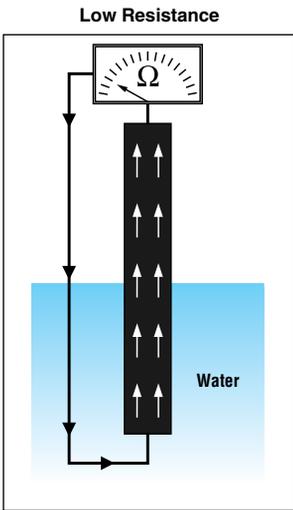
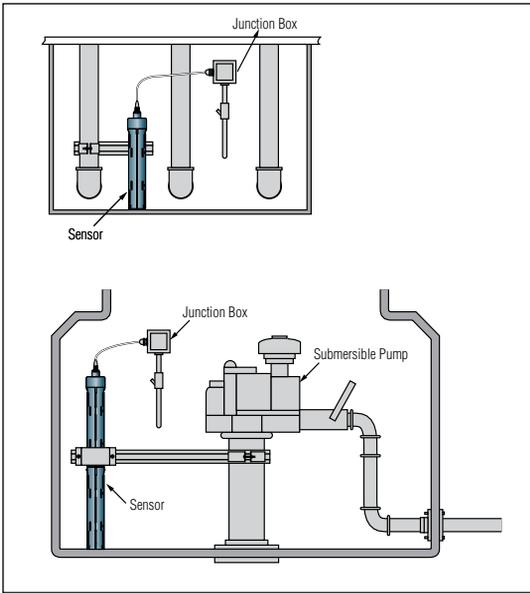
To Order	
Model No.	Cable
LVLK302	Turbine sump sensor
LVLK-CB	4' PVC jacketed cable with mating Brad Harrison connector

Comes with complete operator's manual.
Ordering Example: LVLK302 turbine sump sensor.
 See next page for dimensional drawing.

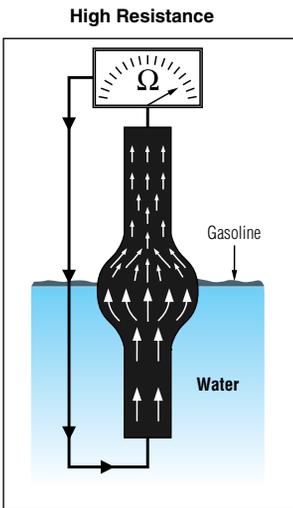


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Pans, Turbine Sumps, Containment Sumps, and Piping Sumps Applications



Low Resistance
Electrical resistance is unaffected by non-hydrocarbon liquid.



High Resistance
Hydrocarbon based liquids swell strip and increase electrical resistance.

Note: The LVLK300 sensor is a non-voltage-producing device and does not contain energy storing components. However, since primary use is in hazardous locations, an appropriate intrinsically safe (I.S.) interface device is required for its use.

TURBINE SUMP

