

# PROCESS LEVEL CONTROLLER WITH MULTICOLORED BAR GRAPH

LVCN-301



- NEMA 4 (IP66) and Optional NEMA 4 (IP66) Fiberglass Enclosure
- Multi-Color Bar Graph Process for Zooming in on Critical Range
- Large Numeric Display
- 4 to 20 mA Process Input
- Easy Front Panel Programming

The LVCN-300 Series is designed from an operator's point of view, making any process and alarm points visible on the multi-colored display graph. They get everything they need at a glance! The LVCN-300 Series provides reliability with very flexible design options and a friendly face to tell you exactly what is going on inside your tank no matter where it is located. Everyone can easily see it from a distance or while walking the plant floor. It's this simple to understand—if the green vertical bar (level) is between the orange and yellow line everything's just fine. If it's above or below the red marks, something is wrong. That is all there is to it. The LVCN-300 Series accepts all types of 4 to 20 mA sensors, such as pressure, ultrasonic, float type liquid level transmitters and capacitive transmitters. The sensor input is isolated and loop powered up to 24 Vdc, allowing data gathering devices to easily interface. Two models are available, the LVCN-301 or LVCN-302. The LVCN-301 is for Make Up applications and the LVCN-302 is for sump applications. A typical Make Up application is when the liquid in a tank is "lost" because it is being used in a manufacturing process or lost by evaporation and has to periodically be refilled or "made up". To accomplish a Make Up operation the LVCN-301 controller uses a differential relay that is activated by a FALLING level in the tank. The same relay is going to turn the pump or valve ON and OFF. First you need to program the Make Up ON level where you want to begin

refilling the tank with liquid. When the level FALLS or DECREASES to this point, the controller will CLOSE or activate the relay and turn ON a pump or valve and begin refilling the tank. The LVCN-301 controller has internally "latched" the relay closed and will continue holding it closed until the Make Up OFF level that was programmed is reached and the tank stops filling. A typical Sump application is when the liquid in a tank is being collected and has to periodically be transferred or pumped out to prevent an overflow. A basement with a sump pump is doing the same type of operation. To accomplish this Sump Operation the LVCN-302 controller uses a differential relay that is activated by a RISING level in the tank. The same relay is going to turn the pump or valve ON and OFF. First you need to program the SUMP ON level where you want to begin draining the liquid in the tank. When the level RISES or INCREASES to this level the controller will CLOSE or activate the relay and turn on a pump or valve and begin draining the tank. The LVCN-302 controller has internally "latched" the relay closed and will continue holding it closed until the Sump OFF level you programmed is reached and the tank stops draining.

## SPECIFICATIONS

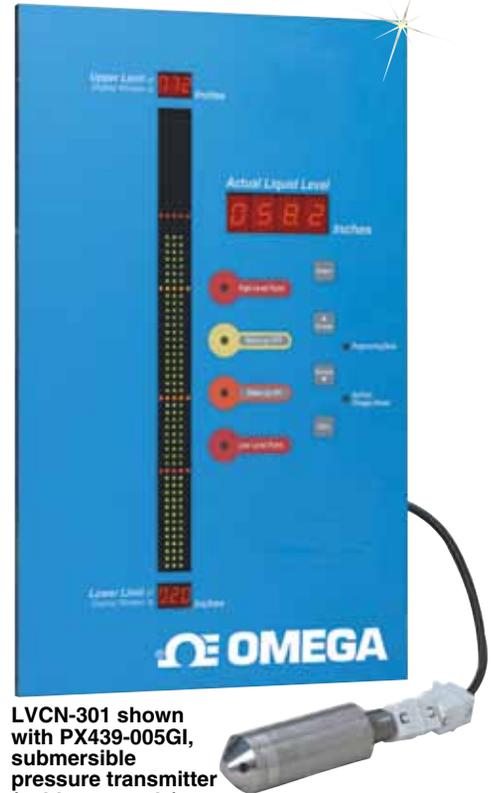
**Sensor Input:** Isolated input accepts any type of 4 to 20 mA process signal. Loop power available up to 24 Vdc @ 500µA for 2 wire device

**Input Power:** 120 Vac/500mA; 24 Vdc or 24 Vac unregulated (optional) 750 mA

**Security Levels:**

3 levels of access protect data changes with DIP switch on back

**Control Circuits:** Four Form C relays, 10.0 amp 125 Vac (noninductive)



LVCN-301 shown with PX439-005GI, submersible pressure transmitter (sold separately), shown smaller than actual size. Visit us online for more details.

**Switching Mode:** Selectable, NO or NC states

**Output & Input Connections:** Terminal Connections are quick disconnect Phoenix type

**Programmed Memory:** EEPROM-Loss of power will not affect existing programmed data

**Mounting Format:** Flush mounted anodized steel enclosure with eight (8) 10/32 studs and sealing gasket; NEMA 4 (IP66) graphic front panel; steel back pan housing. Optional fiberglass enclosure is also rated NEMA 4 (IP66).

**Overall Dimensions:** 425 L x 250 W x 57 mm D (16.75 x 10.25 x 2.25")

**Weight:** 4.5 kg (10 lb)

## To Order

| Model No.      | Description  |
|----------------|--|
| LVCN-301       | Make-up model  |
| LVCN-301-NEMA4 | LVCN-301 in NEMA 4 fiberglass enclosure 16 x 20 x 8" |
| LVCN-302       | Sump model   |
| LVCN-302-NEMA4 | LVCN-302 in NEMA 4 fiberglass enclosure 16 x 20 x 8" |
| LVR31          | Float transmitter, 0.3 m (1') length                 |
| PX439-005GI    | Submersible pressure transmitter                     |

Comes with complete operator's manual. For 24 Vdc power, add "-24VDC" to model number. For 24 Vac power, add "-24VAC" to model number. No additional charge.  
**Ordering Example:** LVCN-301, make up model, PX439-005GI, submersible pressure sensor, LVCN-302-NEMA4, sump model with NEMA 4 (IP66) enclosure.