

# CAPACITIVE (RF) POINT LEVEL SWITCHES

LVCN6000/7000



All models shown smaller than actual size.



LVCN7214



LVCN7212



LVCN6242

- ✓ **Separate Metal Reference Not Required**
- ✓ **Used for Liquids, Solids, Grains and Pastes**
- ✓ **Immune to Most Product Build-Up**
- ✓ **Programmable Time Delay and Sensitivity Adjustment**

The LVCN6000/7000 Series is a capacitance switch ideal for low and high level detection for both liquid and solids. The LVCN6000/7000 Series can also detect level without being in contact with the product through a sight glass. Unlike other capacitance probes, the LVCN6000/7000 series can detect

any type of conductive, non-conductive or low dielectric materials with extremely accurate performance, almost complete immunity from build up, temperature changes or condensation. In applications with plastic or concrete tanks this series does not require an external reference.

The sensor operates in a manner that is similar to a simple capacitor. A high frequency oscillator is located within the tip of the probe. When the tip of the probe comes in contact with the medium, the frequency of the oscillation reaches a preset point and the detection circuit signals the switch to change state.

The LVCN6000/7000 series is a compact switch that can be made with many types of process connections, such as threaded flange or sanitary. The LVCN6000/7000 series is made with rigid rod or cable and both can be supplied in extended versions. The rigid rod is available in PVC or PTFE. Probes are available in 24 Vdc (LVCN7000) or 85 to 240 Vac (LVCN6000) powered versions.

**Note:** These switches are not designed for use with mediums with high dielectrics such as mayonnaise or shampoo with high salt content.

## SPECIFICATIONS

**Application:** Level switch for liquids solids and granular

**Operating Voltage:**

**LVCN7000:** 12 to 30 Vdc

**LVCN6000:** 85 to 240 Vac

**Current Consumption:**

2 VA (LVCN7000), 4 VA (LVCN6000)

**Output:** Relay (SPDT) 5A maximum (250 Vac)

**Adjustment:** Potentiometer switch point

**Time Delay:** 1 to 20 seconds adjustable

**Frequency Oscillation:** 5 MHz

**Indication:** Led status on/off

**Electrical Connection:** Cable gland

½ NPT conduit (dual ports on large enclosures)

**Process Connection:** ¾ NPT standard, (BSP, NPT, flange or sanitary mounting optional)

**Sensor Tip:** PVC or PTFE

**Enclosure Material:**

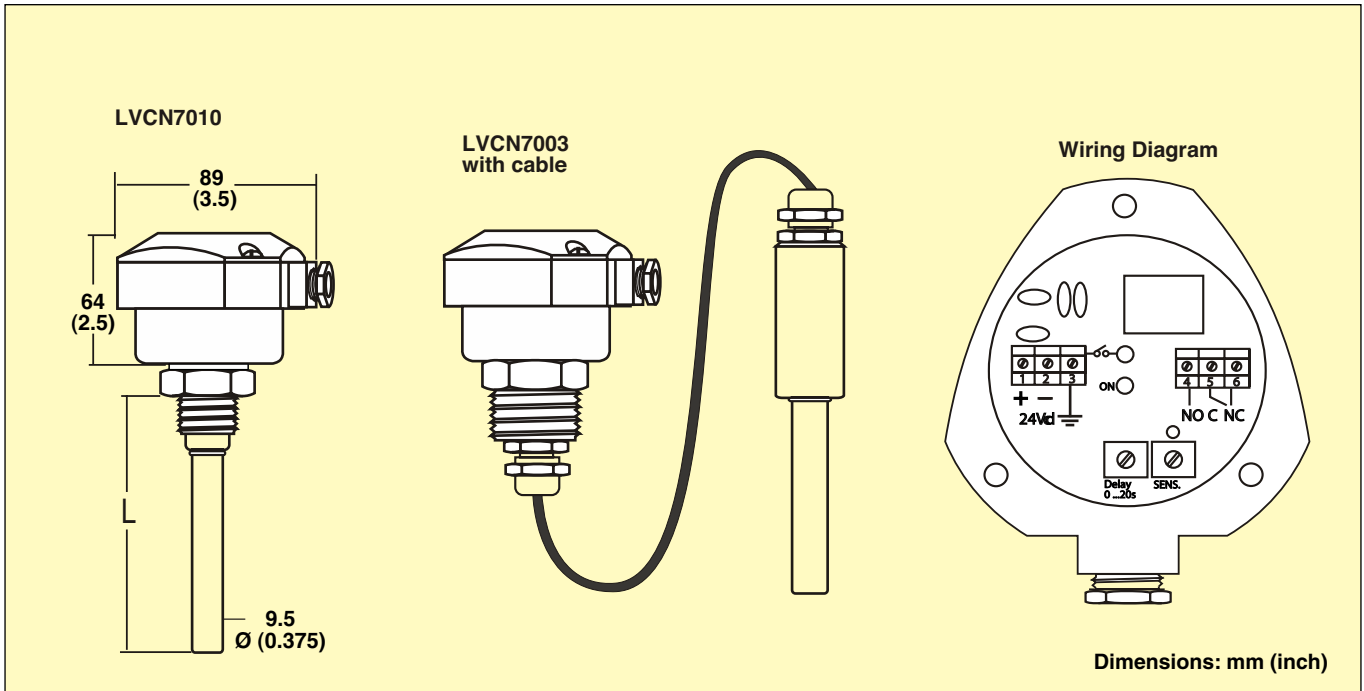
**LVCN7000:** Nylon

**LVCN6000:** Aluminum

**Maximum Pressure:** 145 psi (10 bar)

**Operating Temperature:** -10 to 80°C (14 to 176°F)

**Class Protection:** NEMA 4 (IP65)



## Cable and Custom Built Assemblies

Cable and Custom Ordering Guide LVCN6XYZ (85 to 240 Vac) or LVCN7XYZ (24 Vdc)						
X	Mounting	Y	Enclosure	Z	Construction	LENGTH (L)
1	¾ BSP	1	Small nylon (LVCN7000)	-	-	Standard length is 121 mm 4.75" unless otherwise specified maximum rigid probe length is 25 m (8')
2	¾ NPT					
3	1 BSP	2	Large nylon (LVCN6000)	2	316 SS rod PTFE tip	
4	1 NPT					
5	2" Tri-Grip™	3	Small aluminum (LVCN7000)	3	cable PTFE tip	
6	2" 150# SS ANSI					
7	2" 150# PVC ANSI	4	Large aluminum (LVCN6000)	4	PVC rod and tip	

To Order				
Model No.	Description	Power	Enclosure	Connection
LVCN6242	Level switch 316 SS rod/PTFE tip	85 to 240 Vac	Large aluminum	¾ NPT
LVCN6244	Level switch PVC rod and tip	85 to 240 Vac	Large aluminum	¾ NPT
LVCN7212	Level switch 316 SS rod/PTFE tip	24 Vdc	Small nylon	¾ NPT
LVCN7214	Level switch PVC rod and tip	24 Vdc	Small nylon	¾ NPT

Comes complete with operator's manual.

**Ordering Examples:** LVCN6122, level switch, 85 to 240 Vac power, ¾BSP mounting, large nylon enclosure with 316 SS rod and PTFE tip. LVCN7734, level switch, 24 Vdc power, 150# PVC flange mount, small aluminum enclosure with PVC rod and tip.