

CAPACITANCE LEVEL SWITCHES

LVCN4300 Series



- ✓ Can Operate at High Temperatures and Pressure
- ✓ Unaffected by Coating Media or Aggressive Products
- ✓ Accurate and Reliable Switching
- ✓ Easy Economical Installation
- ✓ Rugged Construction
- ✓ No Moving Parts
- ✓ Functions on Conductive as Well as Non-Conductive Medias
- ✓ Wide Range of Applications/Industries (i.e. Water, Oils, Corrosives, etc.)

The LVCN4300 Series level switches are flexible, as well as cost effective, level solutions for a great variety of applications. Rods can be encased in PTFE tubing as an option.

The wide range of applications for RF level measurement switches include liquids and paste. To cater to all applications, OMEGA's capacitance probes are offered with different designs and features.

Housings must also be compatible with the requirements for hazardous, wash-down, wet, and/or dusty environments. Explosion-proof environments may require the housing to be certified. In addition, the active probe might need to be intrinsically safe or have an intrinsic safety barrier.

The LVCN4300 series point level switch probe works as a remote probe and is compatible with the LVCN400 series relay. This combination allows the electrode to be used in temperatures up to 177°C (350°F). The LVCN4300 is a very compact 316 SS switch.

SPECIFICATIONS

Power Supply for LVCN401: 24 Vdc ±10%
Power Supply for LVCN402: 115 Vac (50/60 Hz)
Power Supply for LVCN403: 230 Vac (50/60 Hz)
Current Consumption: Maximum 2 VA
Adjustment: Potentiometer switch point
Range of Sensitivity: 0.1 to 5 pF
Output: 5A SPDT Relay (250 Vac maximum)
Process Connection: ¼, ½, 1½ NPT, 1½" Tri-Grip™ (Tri-Clamp® compatible) or 2" flange



LVCN4321-12 shown smaller than actual size.

LVCN4300: 16 mm ($\frac{5}{8}$ ") diameter
Electrode Length: 100 to 1800 mm (0.33 to 6') for water; 100 to 600 mm (0.33 to 2') for other materials
Enclosure Material: Glass filled nylon standard
Dimensions: 89 W x 64 mm H ($3\frac{1}{2}$ x $2\frac{1}{2}$ ")
Aluminum Diecast Temperature Range: -10 to 120°C (-14 to 248°F)
"-HT" Units: 177°C (350°F)
Maximum Pressure: 290 psi (20 bar)
Level Indication: LED Status on/off
Protection Class for LVCN400: IP40
LVCN4300:
PTFE: 177°C (350°F)
Weight: Sensor 1 kg (2.2 lb) for 24" L
LVCN400: Approx. 227 g (0.5 lb)



LVCN4321-24-PTFE
shown smaller than actual size.

To Order

Model No.	Description of Capacitance Switch
LVCN4321-12	1 rod, requires LVCN400 Series remote electronics, ¾ NPT, 12" L, maximum temperature 177°C (350°F), approx. 680 g (1.5 lb)
LVCN4321-12-PTFE	1 rod, requires LVCN400 Series remote electronics, ¾ NPT, 12" L, PTFE tubed, maximum temperature 177°C (350°F), approx. 680 g (1.5 lb)
LVCN4321-24-PTFE	Point level switch, 1 rod, requires LVCN400 Series remote electronics, ¾ NPT, 24" L, PTFE tubed, max temp 177°C (350°F), approx. 1.4 kg (3.0 lb)
LVCN401	24 Vdc relay electronics for LVCN4300 Series, 83 H x 44 W x 111 D mm (3.25 x 1.75 x 4.37")
LVCN402	115 Vac relay electronics for LVCN4300 Series, 83 H x 44 W x 111 D mm (3.25 x 1.75 x 4.37")
LVCN403	230 Vac relay electronics for LVCN4300 Series, 83 H x 44 W x 111 D mm (3.25 x 1.75 x 4.37")

Accessories

Model No.	Description
TX4-100	30 m (100') spool of 4 conductor wire
PSU-93	Unregulated 24 Vdc power supply

Model No.	Description
LVCN43(A)(B)-(C)	Custom capacitance level switch; order LVCN400 series remote electronics separately; select process connection (A), enclosure (B), and rod length in inches (C)

Ordering Options

Ordering Suffix	Description
A-Process Connection	
1	¾ NPT thread
2	1 NPT thread
3	1½ NPT thread
4	1.5" Tri-Grip™, sanitary
5	2" flange, ANSI, 15016 316 SS
others	Consult Engineering with details
B-Enclosure	
1	Glass filled Nylon with ½ NPT conduit with cable gland
2	Aluminum die cast with ½ NPT conduit entry
3	Aluminum die cast with cable gland entry
C-Rod Length	
C	Rod length (inch); 72" maximum for water; 24" maximum for other media
Other Options	
-SH(D)	Sheath length [D, (inch)], to render portion of probe inactive
-HT	High temperature, 177°C (350°F)
-PTFE	PTFE probe tubing

Comes complete with operator's manual.

Ordering Examples: LVCN4321-12, custom capacitance system with single fixed rod, 12" length, 1 NPT thread connection, glass filled nylon with ½ NPT conduit with cable gland, and with LVCN401 electronics with 115 Vac power.

LVCN4321-24-PTFE, capacitance system with single fixed PTFE tubed rod, 24" length, 1 NPT thread connection, glass filled nylon with ½ NPT conduit with cable gland, and with LVCN401 electronics with 115 Vac power.