

FLOWLINE



INTRUSIVE CAPACITANCE LEVEL SWITCH



- The switch solution for conductive, non-coating or scaling liquids
- Offered in both general purpose or intrinsically safe configurations
- All plastic construction with PP or PFA materials for corrosive environments
- Sensor and cable rated IP68 for submersible operation in tanks or sumps
- Relay or FET switch output for interface with PLC, SCADA or alarms
- Available in two probe lengths for maximum installation flexibility
- Selectable normally open or normally closed switch states



The intrusive capacitance switch detects the presence of liquids or air by measuring the conductive or dielectric values which are present in all materials. An electrical capacitor is formed between the level switch and its environment, air or liquid. As liquid comes into contact with the probe tip, the capacitance effect is greatly increased and the switch changes state.

SPECIFICATIONS

Accuracy: ± 1 mm in water
 Repeatability: ± .5 mm in water
 Dielectric range: >20 constants
 Conductive range: >100 micromhos
 Supply voltage: 12-36 VDC
 Consumption: Relay: 25mA
 FET: 5mA (dry)
 19mA (wet)
 Relay rating: 60 VAC/VDC @ 1A
 FET rating: 36 VDC @ 100 mA
 Switch output: Selectable NO or NC states
 Temp. rating: F: -40° to 194°
 C: -40° to 90°
 Pressure rating: 150 psi (10 bar) @ 25 °C., derated @ 1.667 psi (.113 bar) per °C. above 25 °C.
 Sensor material: PP or PFA
 Sensor rating: NEMA 6 (IP68)
 Short threads: 3/4" NPT (3/4" BSP)
 Long threads: 3/4" NPT (3/4" G)
 Mounting gasket: Viton (3/4") metric
 Cable type: 8 ft. (2.5 m), 4-wire (relay) or 3-wire (FET), 22 gauge with ground, shield & PP or PFA jacket

APPLICATION

The intrusive capacitance level switch is an excellent choice for a broad range of relatively clean, conductive, non-coating or scaling type liquids. The relay or FET output provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. For maximum flexibility, the sensor is offered in general purpose and intrinsically safe versions with two probe lengths and PP or PFA Teflon® materials.

General Purpose	Yes	Long sensor	Option
Foam	Yes	Relay	Option
Bubbles	Yes	FET	Option
Conductive	Yes	Intrinsically safe	Option
Clean	Yes	Non-conductive	No
Non-coating	Yes	Dirty	No
Metallic tank	Yes	Light coating	No
Non-metallic tank	Yes	Medium coating	No
PP sensor	Option	Heavy coating	No
PFA sensor	Option	Reed	No
Short sensor	Option		

Approvals

CSA approval: Class I, Groups A, B, C & D; Class II, Groups e, F & G; Class III

CSA entity parameters: Vmax = 32 VDC
 Imax = 0.5 A
 Ci = 0
 Li = 0

CSA certificate: LR79326-4
 CE compliance: EN 50082-2 immunity
 EN 55011 emission

Capacitance Level Switch

LP10 -

Sensor Material

- 1 - PP
- 2 - PFA (add \$100)

Sensor Length

- 3 - Short
- 4 - Long (add \$10)

Mounting Thread (1)

- 0 - 3/4" NPT
- 2 - 3/4" G (add \$5)

Switch Output (2) (3)

- 0 - Intrinsically safe (add \$40)
- 2 - FET, N-channel
- 3 - FET, P-channel
- 5 - Relay, SPDT (add \$20)

STARTS FROM

\$ 185

Add \$ _____

Add \$ _____

Add \$ _____

Add \$ _____

Total \$ _____



This document is provided for reference and is believed to be accurate at the time of publication. However, Flowline reserves the right to change the product specifications at any time without notice. Additional information may be obtained on the Internet at <http://www.flowline.com> or by contacting Flowline.

To order a 25' or 50' sensor cable, place the cable length at the end of the part number (ex: LP10-1302-25') and add the following: 25' add \$15.00 for PP or \$50.00 for PFA; 50' add \$30.00 for PP or \$100.00 for PFA.

The G thread sensor comes with a 3/4" Viton mounting gasket.

The intrinsically safe output is a current loop (dry: 5 mA, wet 19 mA). Package the intrinsically safe sensor with isolation controllers or a matching CSA approved intrinsically safe barrier.

LEVEL SUPERSTORE