



## LL-100 SERIES

### SPECIFICATIONS

- ◆ Proven ultrasonic technology
- ◆ Effective in virtually any liquid, regardless of viscosity
- ◆ Compact design
- ◆ Standard 3/4" NPT mounting
- ◆ Miniaturized, encapsulated electronics use a smaller, more compact enclosure than comparable systems

The Pointsense™ Model LL-100 Liquid Level Switch is the ideal solution to a host of liquid level sensing and control applications. It uses proven ultrasonic technology to operate in virtually any liquid, regardless of viscosity. Its small size and standard 3/4" NPT mounting make it the perfect choice for new or existing applications. The LL-100 consists of a 316 L stainless steel sensor and an integral miniaturized, encapsulated electronic control unit which is mounted in a cast aluminum, watertight enclosure.

### FEATURES

- ◆ 500:1 wet to dry ratio
- ◆ Epoxy painted enclosure
- ◆ 316 LSS sensor and encapsulated electronic control unit
- ◆ Custom lengths up to 36" available

### APPLICATIONS

- ◆ Pump Protection
- ◆ Storage Tanks
- ◆ Compressors
- ◆ Hydraulic Supply Lines
- ◆ Boiler Water Cutoff
- ◆ Sewage Systems
- ◆ Pipe Lines

**PERFORMANCE SPECIFICATIONS**

Parameter	Typical Value
Repeatability	2 mm typical
Delay	0.5 seconds
Input Power	115 V - 230 V 50/60 Hz AC (standard); 12 or 24 VDC (optional)
Output	10 A DPDT relay
Housing	NEMA 4/NEMA 7 watertight, cast aluminum enclosure

Parameter	Typical Value
Mounting	3/4" NPT standard
Sensor Material	316L SS (standard)
Weight	1 lbs (0.45 Kg) approximate (for standard length – 2.25")
Operating Pressure	Up to 1000 PSIG – 316 SS (6895 Kpa)
Temperature	Sensor: -40 to 300 °F (-40 to 149 °C) Electronics: -20 to 170 °F (-29 to 77 °C)

**MECHANICAL DIMENSIONS IN INCHES [MM]**

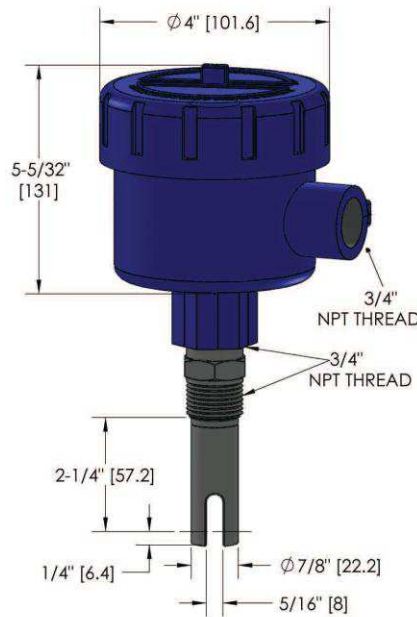


Figure 1: LL-100 series elements

**OPERATION**

The Model LL-100 uses a single ultrasonic wave propagation sensor that is mounted in the liquid medium. The electronics generate a continuous wave ultrasonic signal that completely illuminates the liquid sensing area. The absence of liquid in the sensing area causes the ultrasonic signal to dissipate, which the electronics senses as a “dry” condition. When liquid is present, the amplitude of the ultrasonic signal increases, indicating a “wet” condition. This signal is converted by the electronics to control a relay output. The relay may be used to control the power to an alarm, pump, or other electrical device on either the dry or wet condition. High level failsafe operation is also available.

APPLICATION SCHEMATICS

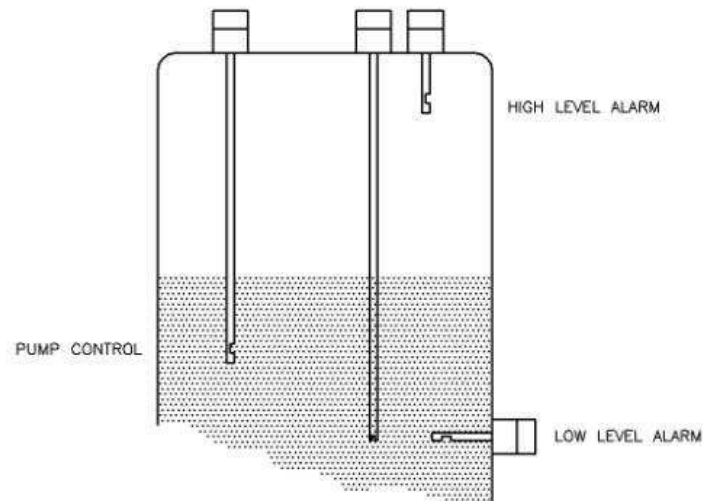
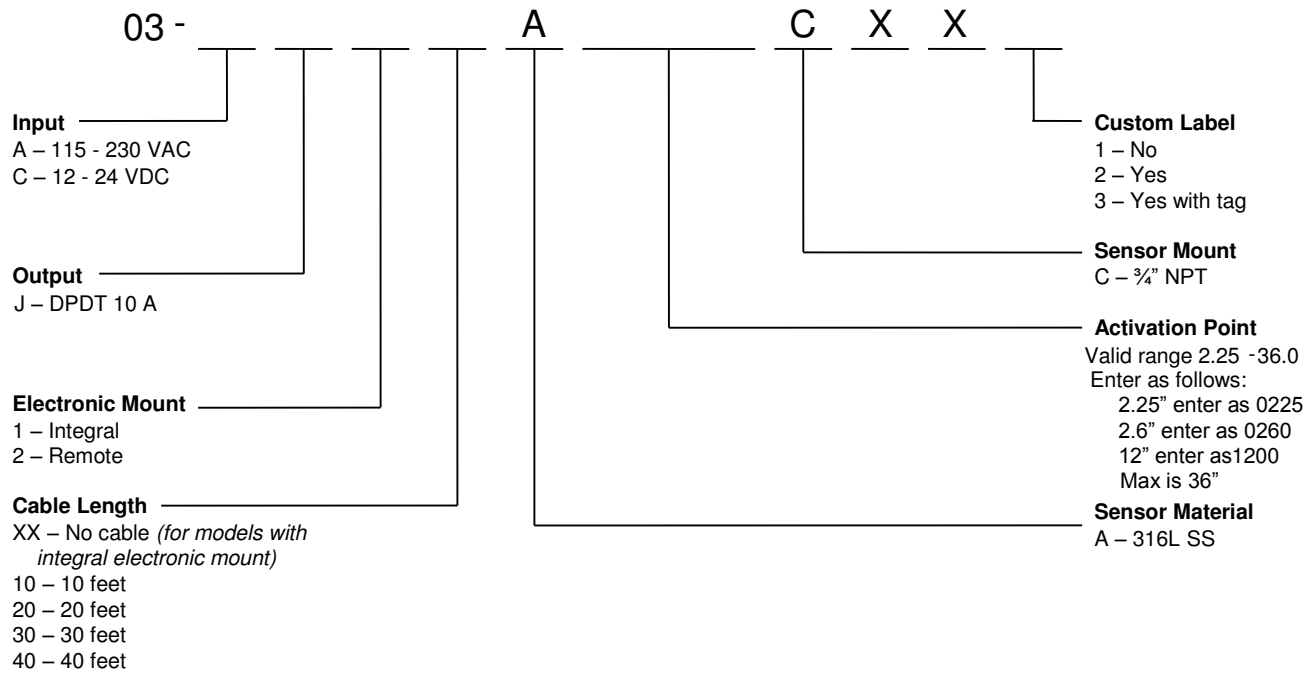


Figure 2: Schematic drawing depicting the LL-100 series elements used in high and low level alarm applications.

**ORDERING INFORMATION**



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