



## LL-01 SERIES

### RELAY VERSION

Proven ultrasonic technology combined with compact electronics

Improved performance in aerated liquids

Cost effective design for tight spaces and direct replacement of electro optical and mechanical float switch

The LL-01 series Ultrasonic Sentio™ Miniature Liquid Level Switch uses proven ultrasonic technology combined with compact electronics yielding improved performance in aerated liquids.

### Features

#### Standard Features

- High pressure up to 250 PSIG (1724 KPa)
- Relay output, SPST (NO or NC)
- No moving parts, easy to install
- Input 5.5 to 30 VDC
- Digital filter techniques enhance performance

#### Optional Features

- Temperature options: 80°C or 100°C
- Mounting options: ¼" NPT or ½" NPT
- Power Loop version also available (Wet 20±1 mA; Dry 4±1 mA)

### Applications

- Pump protection
- Storage tanks
- Compressors
- Medical and laboratory equipment
- Hydraulic supply lines
- Oil film detection
- Coolant reservoirs
- Boiler water cutoff
- Sewage systems
- Pipelines
- Hydraulic and lube reservoirs
- Chillers

## Specifications

<b>Repeatability</b>	2 mm or better
<b>Delay</b>	0.5 seconds
<b>Input Power</b>	5.5 to 30 VDC
<b>Output (standard)</b>	Solid state relay, SPST
<b>Peak Load Voltage</b>	100V (AC or DC), inductive loads must be diode bypassed
<b>Continuous Load Current</b>	3.5 A <25°C derating to 0.75A@100°C
<b>EMC</b>	EN 61326-1 for fixed cable lengths <30 meters and not powered from a DC distribution system; Emissions Group 1 Class A
<b>Sensor Material</b>	316L Stainless Steel
<b>Temperature</b>	-20 to +176°F (-29 to 80°C) or -20 to +212°F (-29 to 100°C)
<b>Operating Pressure</b>	Up to 250 PSIG (1724 KPa)
<b>Mounting</b>	¼" NPT or ½" NPT
<b>Cable Length</b>	1, 4, 10, & 20 foot lengths available

## Mechanical Dimensions in inches [mm]

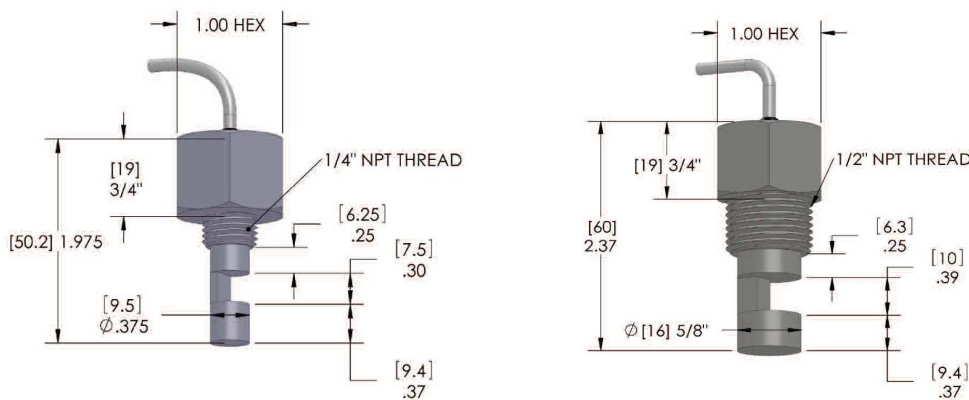


Figure 1

Left: LL-01 series element with ¼" NPT sensor mounting

Right: LL-01 series element with ½" NPT sensor mounting

## Typical Wiring Diagram

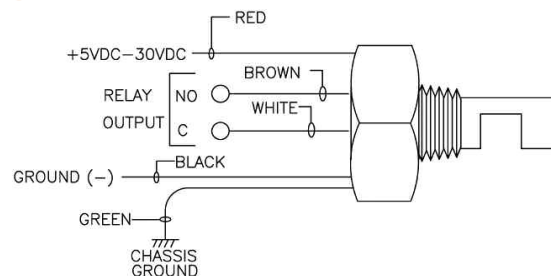


Figure 2  
Typical wiring diagram for LL-01 series elements

## Ordering Information

Part Number	
LL01 - _ A _ _	

**Temperature**

1	80°C, Normally Open
2	100°C, Normally Open
3	80°C, Normally Closed
4	100°C, Normally Closed

**Sensor Material**

A	316L SS
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**Cable Length**

01	1 foot
04	4 feet
10	10 feet
20	20 feet

**Sensor Mount and Activation Point**

A	¼" NPT w/ 0.25" activation point
B	½" NPT w/ 0.25" activation point

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Version # 11/2021



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