

# LL-01 Series – Relay Version



- Proven ultrasonic technology combined with microcontroller
- Improved performance in aerated liquids
- Cost effective design for tight spaces and direct replacement of electro optical and mechanical float switch

## DESCRIPTION

The LL-01 series Ultrasonic Sention™ Miniature Liquid Level Switch uses proven ultrasonic technology combined with a micro controller yielding improved performance in aerated liquids.

## FEATURES

### Standard Features

- High pressure up to 250 PSIG (1724 Kpa)
- Output: Relay output, 0.5 amp SPST (normally open)
- No moving parts, easy to install
- Input 5 to 30 VDC
- Digital filter techniques enhance performance

### Optional Features

- 3.3 volt input power
- Electropolishing
- Higher pressure up to 500 PSIG (3447 Kpa)
- Relay output, 0.5 amp SPST (high level failsafe)

## APPLICATIONS

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

## PERFORMANCE SPECIFICATIONS

Parameter	Typical Value
Repeatability	2 mm or better
Delay	0.5 seconds
Input Power	5 to 30 VDC
Leakage Current	Less than 50 $\mu$ A
Output (standard)	Relay Output: 0.5 amp SPST (normally open or normally closed); 30 VDC max
Protection	Transient, reverse polarity

Parameter	Typical Value
Sensor Material	316L SS
Temperature	-20 to +176° F (-29 to 80 °C)
Operating Pressure	Up to 250 psig (1724 Kpa)
Mounting	1/4" NPT, 1/2" NPT
Cable Length	12" (305 mm)

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## MECHANICAL DIMENSIONS in inches [mm]

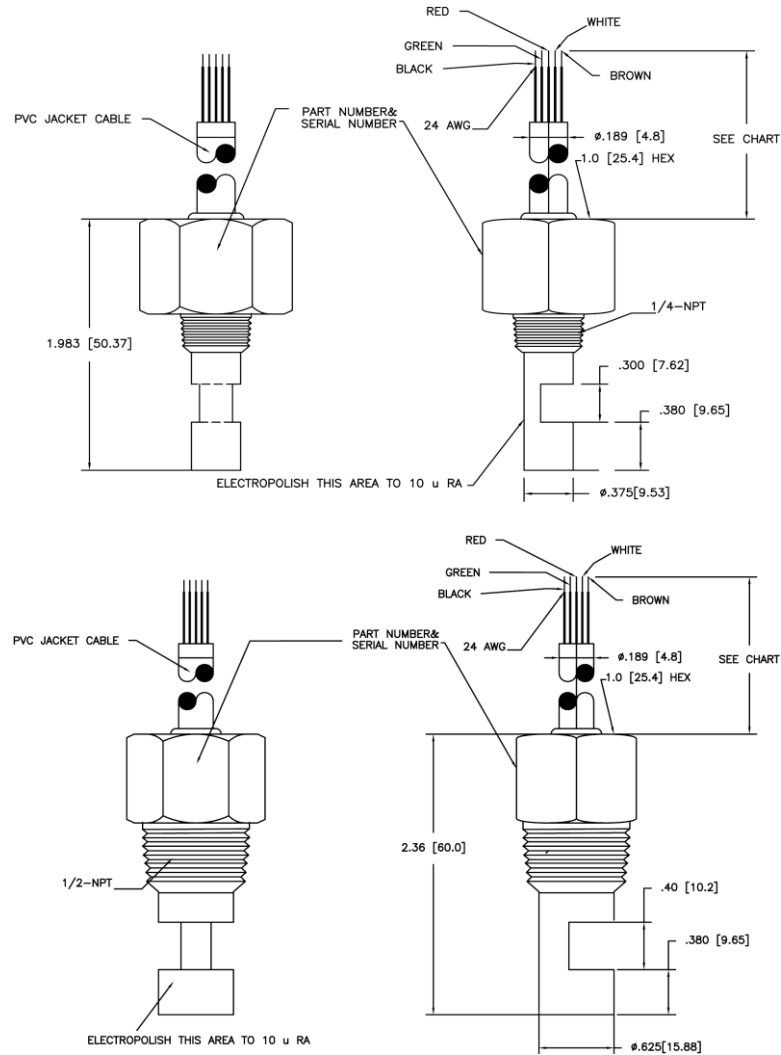


Figure 1: Top - LL-01 series element with 1/4" NPT sensor mounting  
Bottom - LL-01 series element with 1/2" NPT sensor mounting

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## TYPICAL WIRING DIAGRAM

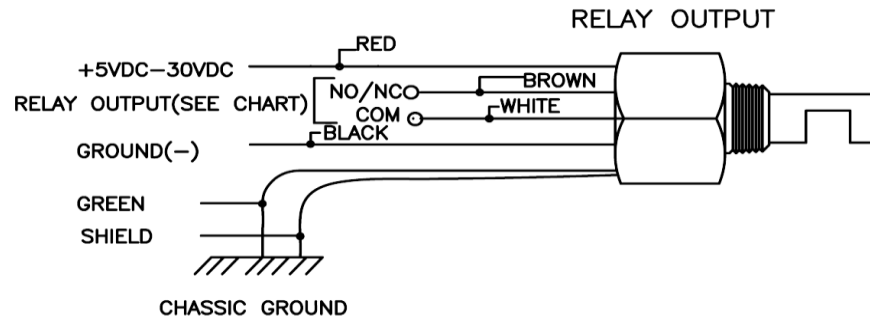
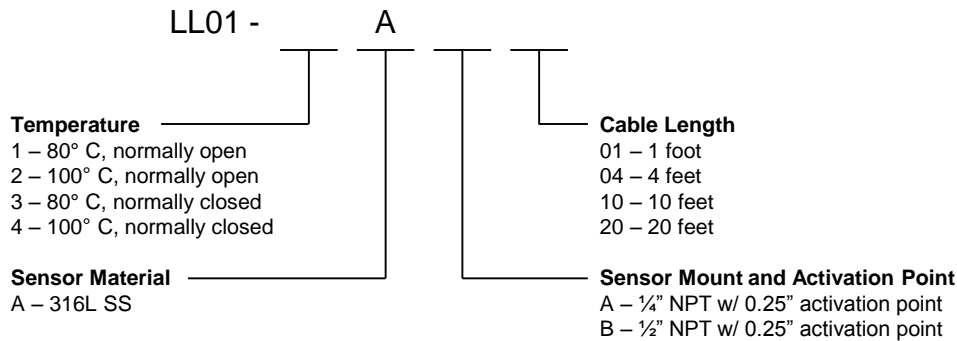


Figure 2: Typical wiring diagram for LL-01 series elements

## ORDERING INFORMATION



## TECHNICAL CONTACT INFORMATION

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