

# LL-10 Series – Relay Version



- A direct replacement for mechanical float type liquid level devices
- Proven ultrasonic technology
- Solid state integral electronics
- Designed for years of maintenance-free service

## DESCRIPTION

The Solid State Float™ LL-10 series liquid level switch is a direct replacement for mechanical float type liquid level devices. It employs proven ultrasonic technology and solid state integral electronics. The Solid State Float™ provides reliable operation in virtually any liquid and eliminates failures due to finite mechanical life inherent in the mechanical float design. With fully epoxy sealed electronics, combined with ultrasonic sensing technology, Solid State Float™ is designed for years of maintenance-free service. Measurement Specialties, Inc. can also customize special versions of the LL-10 Series.

## FEATURES

### Standard Features

- High pressure up to 1000 PSIG (6895 Kpa)
- Output: Relay output, 1 amp SPDT (normally open)
- No moving parts, easy to install
- Input 5 to 30 VDC
- Digital filter techniques enhance performance

### Optional Features

- Electropolishing
- Higher temperature up to 212 °F (100 °C)
- Relay output, 0.5 amp SPDT (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

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## PERFORMANCE SPECIFICATIONS

Parameter	Typical Value
Repeatability	2 mm or better
Delay	0.5 seconds
Input Voltage	5 to 30 VDC
Input Power	100 mA max standard
Leakage Current	Less than 50 $\mu$ A
Output (standard)	Relay Output: 1 AMP SPDT NO or NC; 30 VDC max
Mounting	3/4" NPT STD (for flanges, consult factory)

Parameter	Typical Value
Protection	Transient, reverse polarity
Sensor Material	316L SS
Temperature	-20 to +176° F (-29 to 80 °C)
Operating Pressure	Up to 1000 PSIG (6895 Kpa)
Cable Length	12" (305 mm) (for longer lengths consult factory)

## MECHANICAL DIMENSIONS in inches [mm]

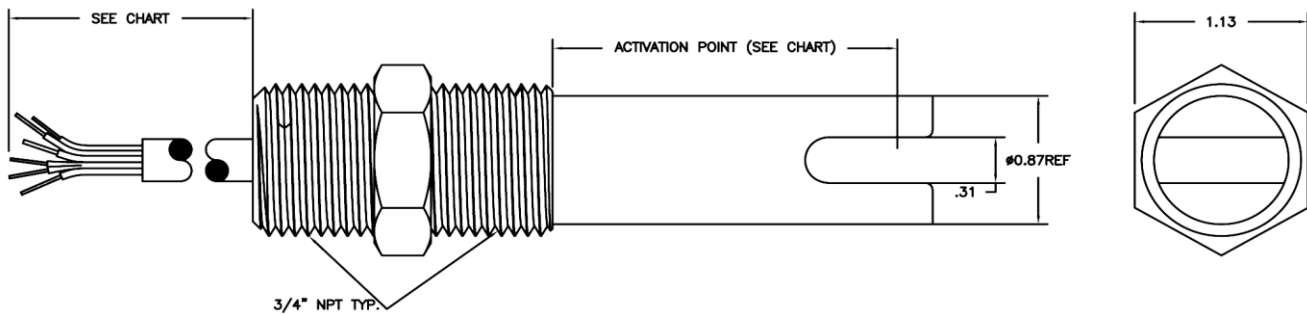


Figure 1: LL-10 series element

## SCHEMATICS

### Typical Wiring Diagram – Relay Output

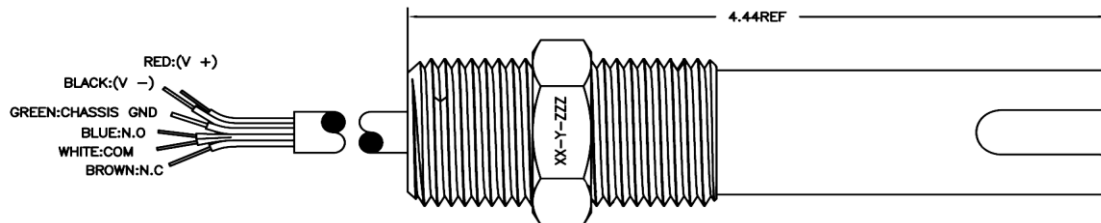
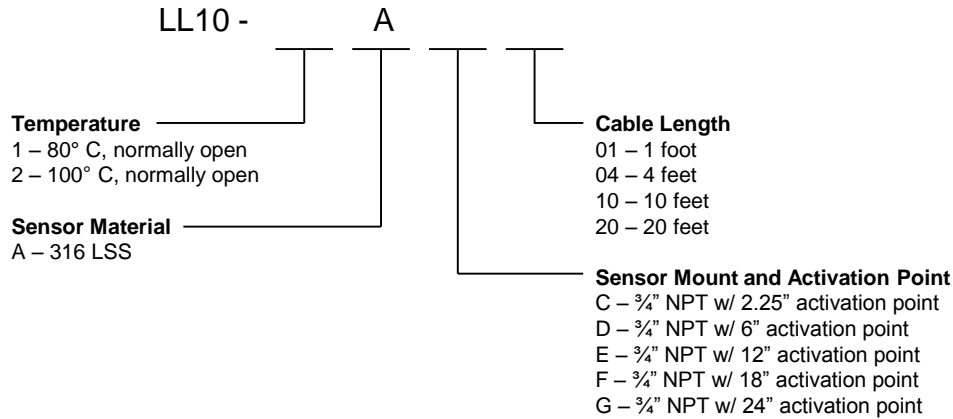


Figure 2: Typical wiring diagram for LL-10 series element

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## ORDERING INFORMATION



## TECHNICAL CONTACT INFORMATION

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