



## LL-10 SERIES

### SPECIFICATIONS

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

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.

### 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)
- ◆ Power Loop output, 4 – 20 mA

### 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 Voltage     | 5 to 30 VDC                       |
| Input Power       | 100 mA max                        |
| Leakage Current   | Less than 50 $\mu$ A              |
| Output (standard) | Relay Output: 1 AMP SPDT NO or NC |
| Mounting          | 3/4" NPT STD                      |

| Parameter          | Typical Value                              |
|--------------------|--|
| Protection         | Transient, reverse polarity                |
| Sensor Material    | 316L Stainless Steel                       |
| Temperature        | -20 to +176° F (-29 to 80 °C)              |
| Operating Pressure | Up to 1000 PSIG (6895 Kpa)                 |
| Cable Length       | 1, 4, 10, & 20 foot long lengths available |

## MECHANICAL DIMENSIONS in inches [mm]

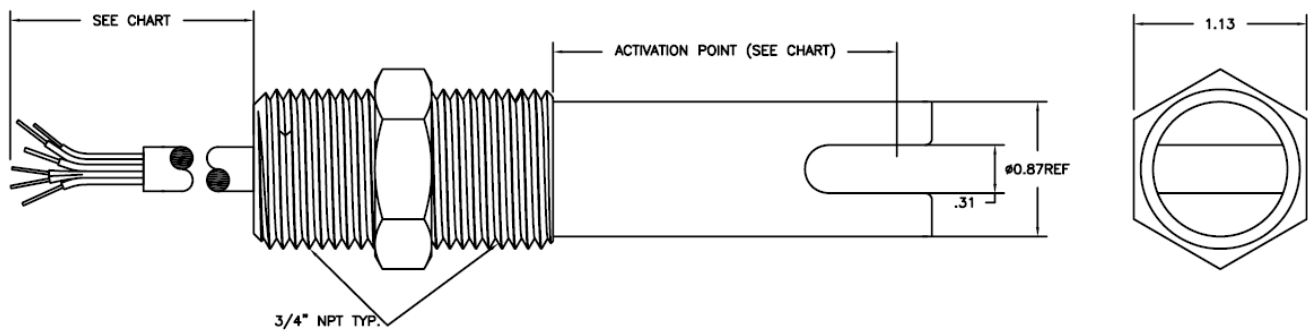


Figure 1: LL-10 series element

## SCHEMATICS

### Typical Wiring Diagram – Relay Output

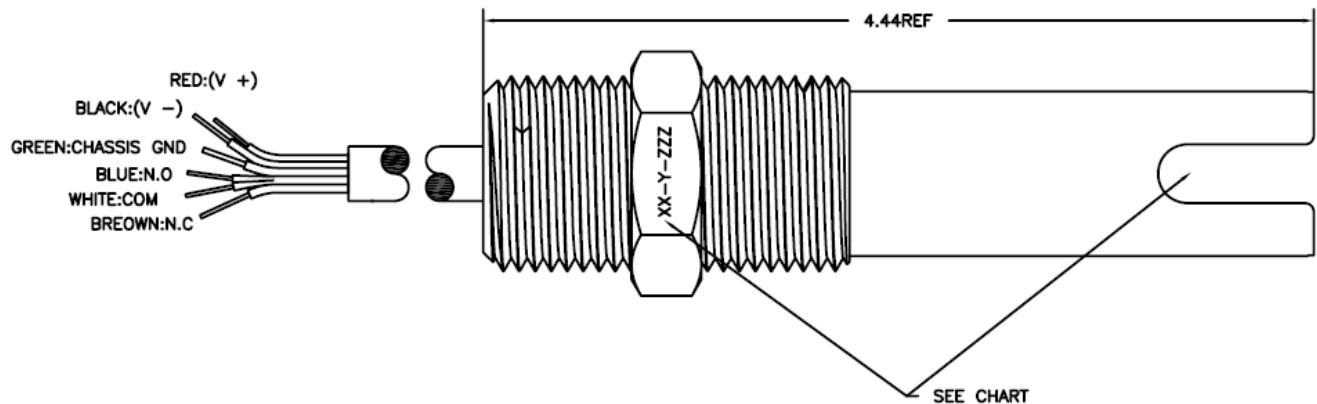
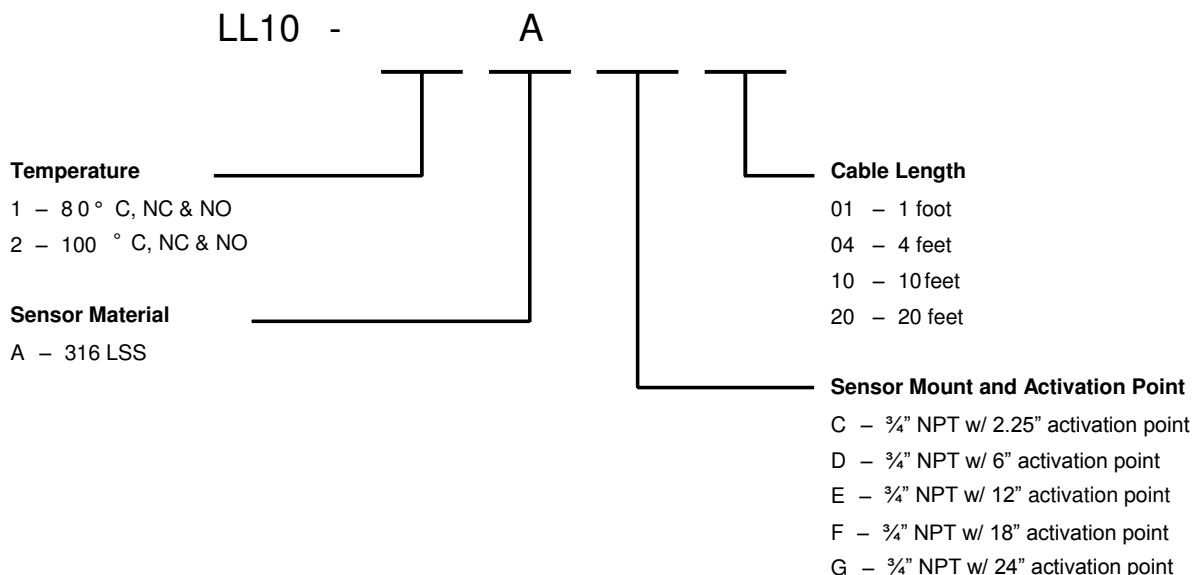


Figure 2: Typical wiring diagram for LL-10 series element

## ORDERING INFORMATION



### NORTH AMERICA

Measurement Specialties, Inc.,  
 a TE Connectivity Company  
 Phone: +1-800-522-6752  
 Email: [customercare.hmpt@te.com](mailto:customercare.hmpt@te.com)

### EUROPE

MEAS Deutschland GmbH(Europe)  
 a TE Connectivity Company  
 Phone: +49-800-440-5100  
 Email: [customercare.tlse@te.com](mailto:customercare.tlse@te.com)

### ASIA

Measurement Specialties (China), Ltd.,  
 a TE Connectivity Company  
 Phone: +86-400-820-6015  
 Email: [customercare.shzn@te.com](mailto:customercare.shzn@te.com)

### TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Accustar, American Sensor Technologies, AST, ATEXIS, DEUTSCH, IdentiCal, TruBlue, KPSI, Krystal Bond, Microfused, UltraStable, Measurement Specialties, MEAS, Schaevitz, TE Connectivity, TE, and the TE connectivity (logo) are trademarks of the TE Connectivity Ltd. family of companies. Other logos, product and company names mentioned herein may be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[LL10-1AG20](#)