GENERAL
The Series SLT Submersible Level Transmitter is a solid state instrument designed for direct submergence into many types of liquid for quick, accurate, and reliable level measurement. The transmitter indicates the level of liquid by continuously measuring hydrostatic pressure via its sensing element, an ion implanted silicone chip consisting of a full Wheatstone bridge circuit used with a 316L stainless steel diaphragm to seal the element from corrosive fluids.

All the electronics are mounted in a submersible 316 stainless steel housing protected by a removable, snub-nosed threaded sensing port.

The electrical connection is a multi-wire, 20 gauge shielded waterproof cable which is vented at the surface end to reference atmospheric pressure. The unit includes a cable support to provide extra stability for longer lengths of cable or for use with agitated fluids.

INSTALLATION
The Series SLT are designed to operate with a 12 to 28 VDC power supply (See figure 1). NOTE: It is strongly recommended to use surge or lightning protectors to prevent damage to the unit form secondary surges or lightning strikes.

To install the Series SLT Transmitter, connect the surface end of the cable to power source and indicator as shown in figure 2. Suspend the transmitter into the well or tank supported only by the attached shielded cable. Insure that the opening is large enough for possible future removal of the transmitter.

PHYSICAL DATA
Service: Liquids.
Accuracy: ±0.25% full scale, BFSL (includes linearity, hysteresis, and repeatability); ±0.50% full scale for model SLT6 only.
Output: 4 to 20 mA DC limited to 30 mA DC.
Supply Voltage: 12 to 28 VDC with reverse polarity surge protection.
Power Supply Effect: ±0.005% full scale per volt.
Overrange Effect: ±0.15% full scale @ 300% of maximum range.
Zero and Span: ±0.50% full scale set @ 77°F (25°C).
Loop Resistance: 800Ω max @ 28V.
Operating Temperature: -40 to 176°F (-40 to 80°C).
Compensated Temperature Range: 32 to 122°F (0 to 50°C).
Storage Temperature: -40 to 176°F (-40 to 80°C).
Temperature Effects: Max ±1% URL output change for ±25°C temp. change within compensated range when calibrated @ 25°C.
Wetted Parts: 316 stainless steel, Viton O-ring, HDPE cable jacket.
Electrical Connection: Attached 4-wire, 20 AWG polyethylene shielded cable.
Weight: 1.0 lb (454 g).

MODELS

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Range</th>
<th>Cable Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLT6</td>
<td>0-6 psi (0-13.8 ft H2O/0-4.2 m H2O)</td>
<td>50 ft (15 m)</td>
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<tr>
<td>SLT15</td>
<td>0-15 psi (0-34.6 ft H2O/0-10.5 m H2O)</td>
<td>75 ft (23 m)</td>
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</tbody>
</table>

FIGURE1
The waterproof cable should not be kinked or nicked, this would allow water into the electronics housing. Permanent damage will result. NEVER cut or splice the waterproof cable. The surface end of the cable is used as the system’s atmospheric reference, this end should not be sealed.

It is strongly recommended to install surge or lightning protection devices when using the Series SLT. Install the protectors in accordance with the following instructions.

1. Lightning protection devices should be placed as close to the instrument as possible and wired in accordance with the NATIONAL ELECTRIC CODE in an approved watertight enclosure.

2. If the distance between the meter and transmitter or meter and recorder is less than 100 ft (30.5 m), only one protector per line may be used.

3. Use #10 AWG ground wire or better from protector.

4. Provide a separate ground for each run of shielded cable or metal conduit.

5. Keep ground wire less than 1 ft (.3 m) long and tie to a suitable ground rod or metal frame ground. Surge capability is only as good as the grounding method. All ground connections must be installed.

6. Install all protectors in weathertight enclosures.

7. Run signal lines shielded and away from power lines.

8. Lead lines for 110 and 220 VAC protectors should be cut as short as practical.

CAUTION: This or any installation cannot protect against direct lightning strike or secondary strikes of sufficient magnitude. Dwyer Instruments cannot accept liability for damage due to lightning or secondary surges.

MAINTENANCE

After final installation of the Series SLT Submersible Level Transmitter, no routine maintenance is required. Periodic checks of connections is recommended. Please contact Dwyer Instruments, Inc. before returning unit for repair to review information relative to your application. When returning a product to the factory, carefully package and ship freight prepaid. Be sure to include a complete description of the application and problem and identify any hazardous material used with the product.