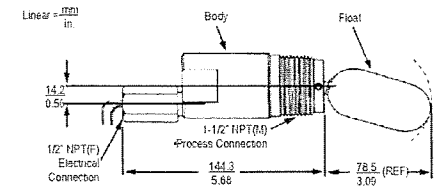
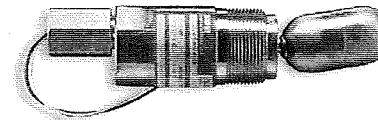




Type 1510 Side-Mount Electric Level Switch

General Instructions



General

The SOR Type 1510 Electric Level Switch mounts into the side of a vessel.

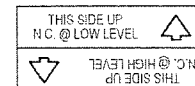
Electric switching action is provided by the float moving a magnet into the field of a hermetically sealed reed switch capsule.

The unit may be mounted for either high or low liquid level alarm by rotating the switch body to the proper position. The body wrench flats provide for ease of rotation and proper positioning. See decal on housing.

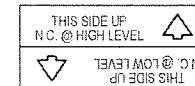
Design and specifications are subject to change without notice. For latest revision, see www.sorinc.com.

Before Installation of the Level Switch

1. Inspect the unit for any shipment damage.
2. Check for mechanical clearance of the float. Float must move freely without binding throughout its stroke.
3. Use an acceptable thread compound when installing unit to ensure a leak-free fit and avoid thread galling.
4. To achieve required function, install unit according to the nameplate instructions shown here.



Nameplate Position
for Low Level Alarm



Nameplate Position
for High Level Alarm

NOTE: NC - indicates circuit is closed

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Installation

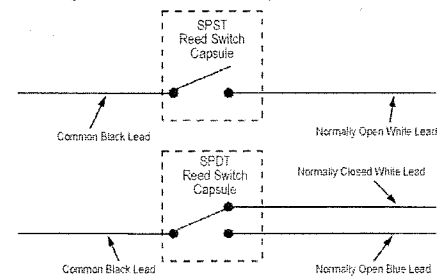
The unit may be mounted in any of the following installation arrangements.

- a. 1-1/2" NPT half coupling (No full coupling).
- b. 2" NPT full coupling. (Use in conjunction with 2 x 1-1/2" NPT bushing as required.)
- c. 2" NPT pipe tee. (Use in conjunction with 2 x 1-1/2" NPT bushing as required.)
- d. Optional flanged mounting.
- e. Optional chamber mounting.

Electrical Connection

Ensure that wiring conforms to all applicable local and national electrical codes and install unit(s) according to relevant national and local safety codes.

Electrical connection is free wire leads with a 1/2" NPT(F) conduit connection. Use two wrenches — one to hold hex conduit connection, the other to tighten conduit fitting. Switching element is a hermetically sealed reed switch.

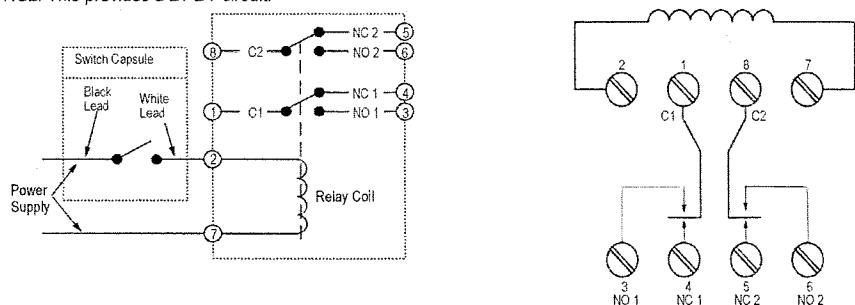


Wiring schematic for DPDT relay option shown on reverse.

CAUTION: Do not exceed 1 amp @ 110 VAC or 3 amps @ 28 VDC (resistive). High current input to switch will cause permanent damage to contacts.

Wiring for DPDT Relay

For Type 1510 Level Switches equipped with DPDT relays, a wiring schematic and pin position schematic is shown below. When the 1510 is actuated, the coil will energize and "make" both NO1 and NO2 while it will "break" NC1 and NC2. This provides a DPDT circuit.



Troubleshooting

Symptom	Probable Cause
1. Float in actuated position but no output signal.	a. No power supply. b. Switch damaged. (Replace.)
2. Float in de-actuated position but still receiving an output signal.	a. Switch damaged. (Replace.)
3. Control will not function when installed but operates when removed from process connection.	a. Inadequate float travel. Float travel restricted by mounting nozzle. See Mounting Requirements.
4. Liquid in vessel at the actuation level but unit does not respond.	a. Leaky or collapsed float. (Replace.) b. Liquid specific gravity too low. c. Float stem bound up or dirty. (Clean.)

Replacement Parts

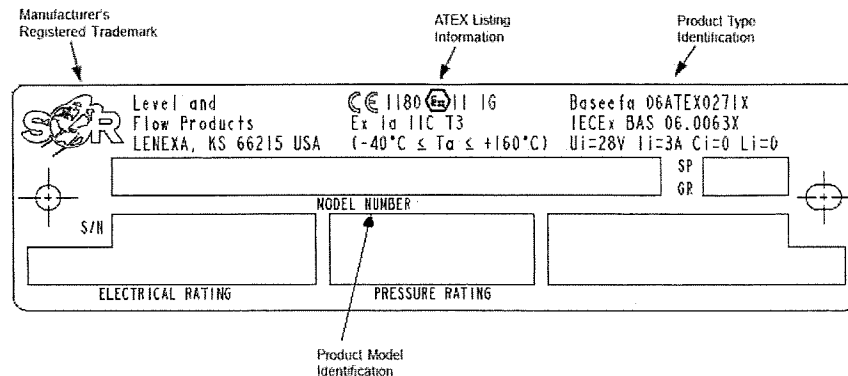
Part Number	Probable Cause
3130-091	SPST Hermetically Sealed Reed Switch Capsule
3130-242	SPDT Hermetically Sealed Reed Switch Capsule
3130-106	SPST Hermetically Sealed Reed Switch Capsule for CSA or ATEX/IECEx Certified units
3130-243	SPDT Hermetically Sealed Reed Switch Capsule for CSA or ATEX/IECEx Certified units
3130-052	316SS Float Assembly

Special Conditions of Safe Use

The permanently attached leads must be suitably protected against mechanical damage and terminated in a suitable junction or terminal facility with a minimum degree of protection of at least IP20.0

ATEX and IECEx Marking Details

For ATEX and IECEx Certified Models



Standards Assessed To: ATEX Certification: EN 60079-0: 2004 & EN 50020: 2002

ATEX Certification: EN 60079-0: 2004 & EN 50020: 2002
IECEx Certification: IEC 60079-0:2004 & IEC 60079-11: 1999

All information and specifications in this bulletin are current at the time of printing. Changes in product design and specifications may occur without notice. Contact the SOR representative in your area or the factory for the current revision of this bulletin.



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