



Type 1550 Top-Mount Electric Level Switch

General Instructions

The SOR® Type 1550 Electric Level Switch mounts into the top of a vessel.

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

NOTE: If you suspect that a product is defective, contact the factory or the SOR Representative in your area for a return authorization number (RMA). This product should only be installed by trained and competent personnel.

Before Installing the Level Switch

- Inspect the unit for any shipment damage.
- Check for mechanical clearance of the float. Float must move freely without binding throughout its stroke.
- Use an acceptable thread compound when installing unit to ensure a leak-free fit and avoid thread galling.

Electrical Connection

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 schematics shown on page 2.

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



Do not exceed catalog stated electrical ratings. Improper current input to switch will cause permanent damage to contacts.



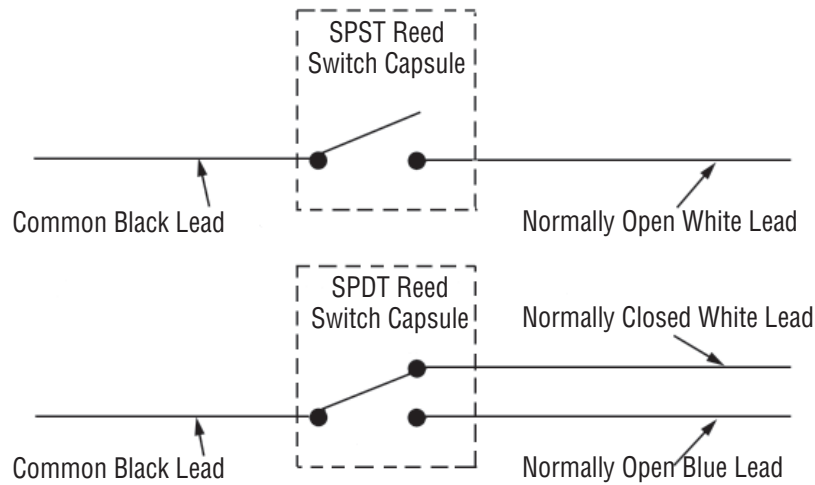
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Design and specifications are subject to change without notice.

For latest revision, go to www.sorinc.com

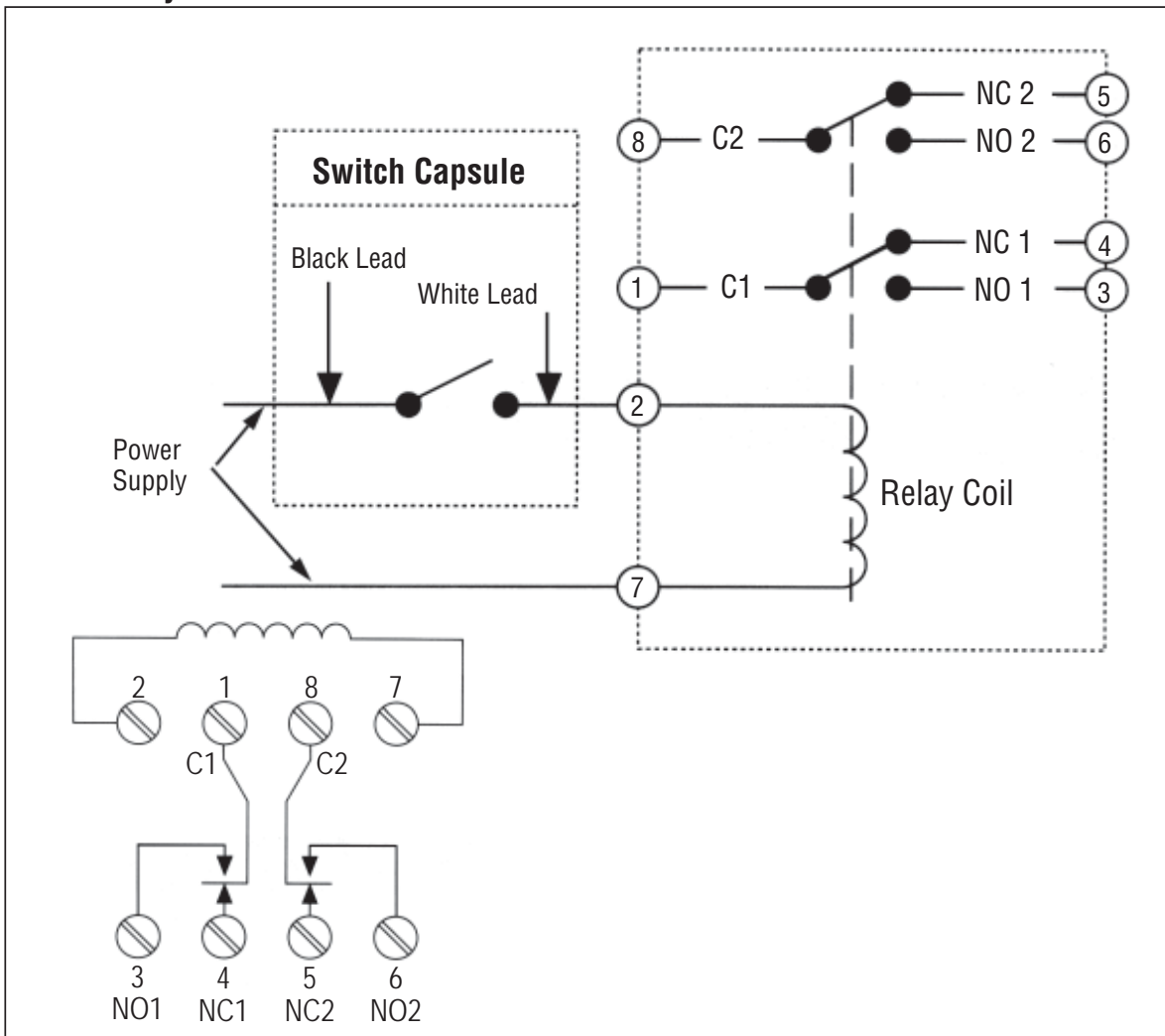
Wiring for SPST and SPDT Switch Operation



Wiring for DPDT Relay

For Type 1550 Level Switches equipped with DPDT relays, a wiring schematic and pin position schematic is shown below. When the 1550 is actuated, the coil will energize and “make” both NO1 and NO2 while it will “break” NC1 and NC2. This provides a DPDT circuit.

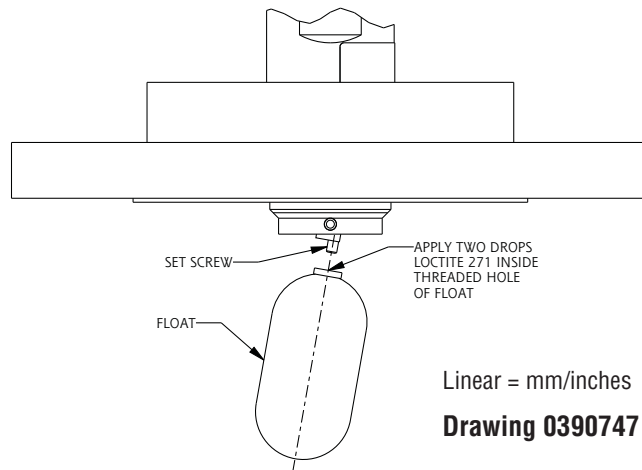
DPDT Relay Schematic



Float Attachment (Series 1500 with Flange)

- 1 Place two drops of Loctite 271 inside the threaded hole of the float.
- 2 Thread the float onto the set screw and hand-tighten.

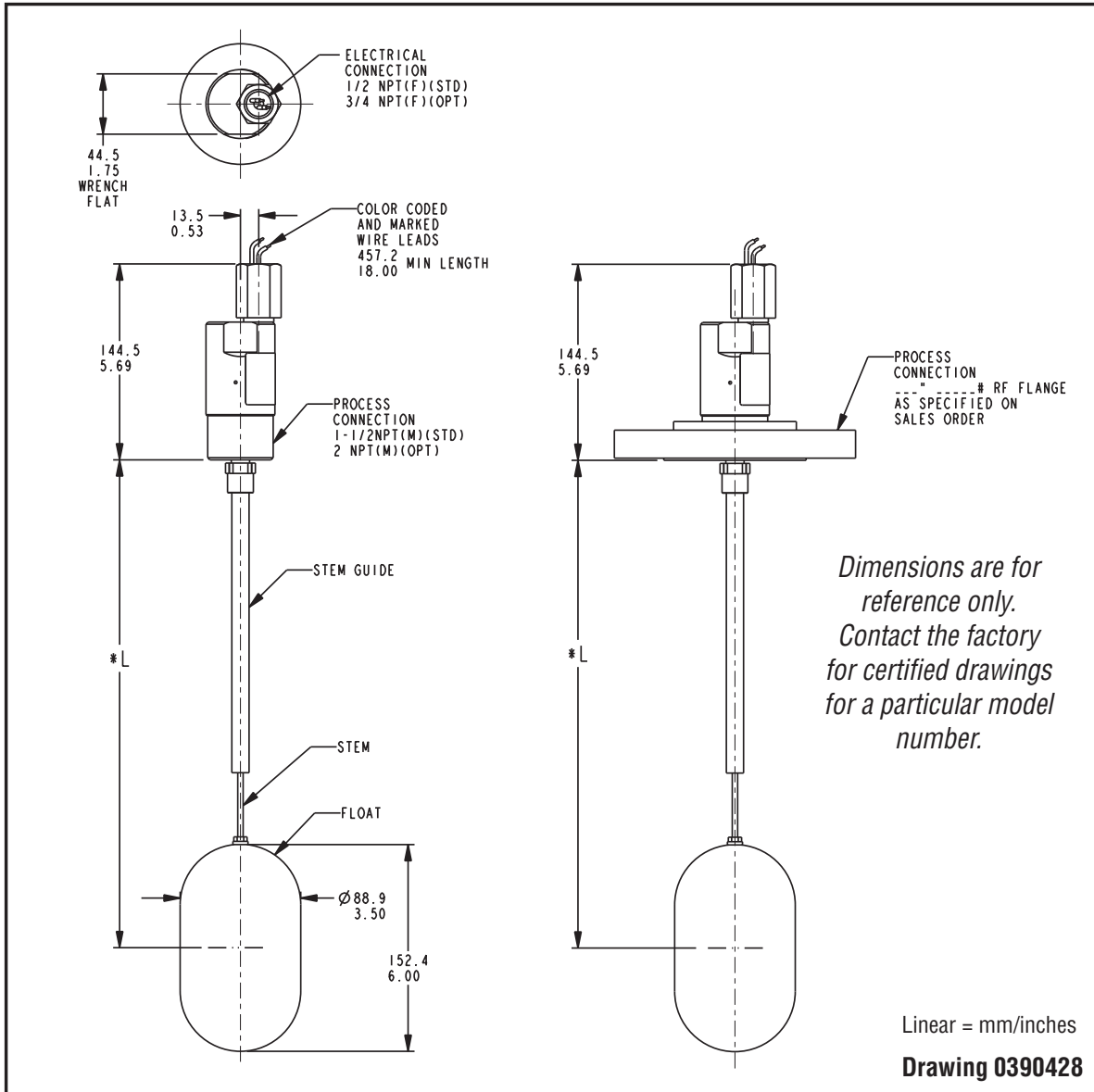
NOTE: Do not remove the set screw as it secures the pivot arm to the shaft.



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

Dimensions



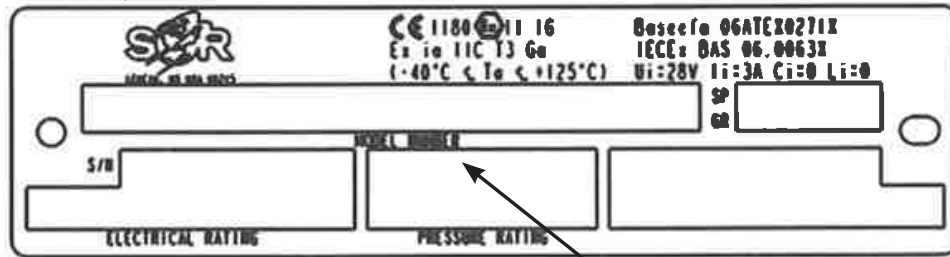
ATEX and IECEx Marking Details

For ATEX and IECEx Certified Models

Manufacturer's
Registered Trademark

ATEX Listing
Information

Product Type
Identification







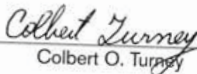

Product Model
Identification

Drawing 0720531

Standards Assessed To: ATEX Certification: EN 60079-0: 2009 & EN 60079-11:2007
IECEx Certification: IEC 60079-0:2004 & IEC 60079-11: 1999

Declaration of Conformity

For ATEX Certified Models

	<h2>EC Declaration of Conformity</h2> 
Product	Type 1500 Electric Switches
Manufacturer	SOR Inc. 14685 West 105 th Street Lenexa, Kansas 66215-5964 United States of America
Date of Issue	August 15, 2007
We declare that the above products conform to the following specifications and directives	ATEX Directive (94/9/EC) Equipment Intended for use in Potentially Explosive Atmospheres EN 60079-0: 2009 & EN 60079-11: 2007 IEC 60079-0: 2004 & IEC 60079-11: 1999
Carries the marking	 II 1 G Ex ia IIC T3 (-40°C ≤ Ta ≤ +125°C) or (-25°C ≤ Ta ≤ +125°C) Ex ia IIC T3 (-40°C ≤ Ta ≤ +125°C)
Reference document	EC-Type Examination Certificate Baseefa06ATEX0271X IECEX BAS06.0063X Issued January 12, 2007
ATEX Notified Body	Baseefa (2001) Ltd. (Notified Body No. 1180) Rockhead Business Park, Staden Lane, Buxton, Derbyshire SK17 9RZ United Kingdom Baseefa Customer Reference No. 1021
Persons responsible	John J. Fortino (VP of Engineering) Colbert O. Turney (VP of Quality Assurance)
 John J. Fortino	 Colbert O. Turney
WE DELIVER QUALITY ON TIME	
	14685 West 105 th Street, Lenexa, KS 66215-5964 913-888-2630 • 800-676-6794 USA • 913-888-0767 FAX
Process Instrumentation LEVEL PRESSURE FLOW TEMPERATURE	
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Troubleshooting

Symptom	Probable Cause
Float in actuated position but no output signal.	a. No power supply. b. Switch damaged. (Replace.)
Float in de-actuated position but still receiving an output signal.	a. Switch damaged. (Replace.)
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.) d. Float travel is obstructed. Verify float can move freely and is not obstructed when installed.

Replacement Parts

Part Number	Description
3130-091	W9 - SPST Hermetically Sealed Switch Capsule
3130-245	W1 - SPDT Hermetically Sealed Switch Capsule
3130-107	L9 - SPST Hermetically Sealed Switch Capsule
3130-244	L1 - SPDT Hermetically Sealed Switch Capsule
3101-122	316SS Float. (Consult factory for other materials.)
3130-396	Actuator Arm Replacement Kit



Printed in USA

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8/8 Registered Quality System to ISO 9001:2000

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