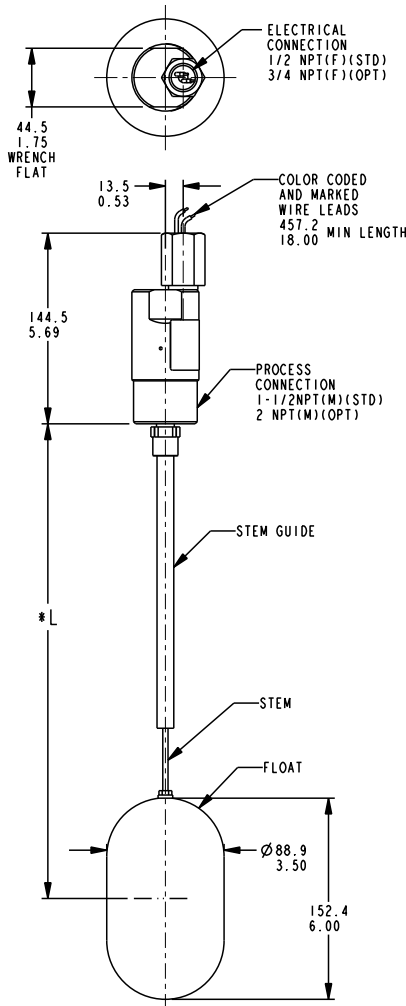


# 1550 Top Mounted Level Switch

**1550** is a vertically mounted, float-operated level switch suitable for plant and OEM applications where open or closed contacts are required to signal presence or absence of liquid at a discrete level. The float stem moves a magnet that actuates (deactuates) a hermetically sealed reed switch.



Linear = mm/in.  
**Drawing 0390428**

## Product Specifications

<b>Mounting</b>	
Orientation	Vertical mount only
Body Material	316 Stainless Steel
Connection Size	1-1/2" through 6"
Connection Type	NPT(M) or Flanged
Maximum Process Pressure	up to 473 psi (32.6 bar) @ 400°F (204°C)
Process Temperature Range	-40 to 400°F (-40 to 204°C)
<b>Electrical</b>	
Switch Type	Hermetically sealed reed switch with 18" 20 AWG wire leads
Housing	Class I, Groups A, B, C & D; Divisions 1 & 2 with CS option
Relay Housing	Class I, Groups C & D; Divisions 1 & 2 with CS option
Connection Size	1/2" NPT(F)
Minimum Specific Gravity	0.60 (based on 14" insertion depth L in the figure at left)
Minimum Insertion Depth L	5" (13 cm)
Full Coupling	7" (17.8 cm)
Half Coupling	5.25" (13.3 cm)
Maximum Insertion Depth L	48" (122 cm)
Minimum Specific Gravity @ 48" (122 cm)	0.71
Design Code	ANSI B31.3
Weight	Approximately 5 lbs. (2.2 kg)
Agency Listing*	CSA Certified (US & Canada) and ANSI/ISA 12.27.01, ATEX and IEC or INMETRO approved (optional). See page 2. GOST R and Rostechnadzor (RTN) Certified (Standard). Certifications available upon request.
<b>Safety Certified to IEC 61508 (SIL)</b>	
SOR products are certified to IEC 61508 for non-redundant use in SIL1 and SIL2 Safety Instrumented Systems for most models. For more details or values applicable to a specific product, see the Safety Integrity Level Quick Guide (Form 1528).	

\*Agency certifications may affect ratings. See Accessories for details.

Design and specifications are subject to change without notice.  
 For latest revision, see [sorinc.com](http://sorinc.com).

# 1550 Top Mounted Level Switch

## How to Order

Model Number System

**1550 - C - F - 5A - C - W9 - ES - TT**

### Switch Mechanisms **3**

Amperages based on resistive loads

General Purpose	SPST	0.9A @ 110 VAC Max 3A @ 28 VDC Max 3 Watt Minimum	W9
General Purpose	SPDT	0.9A @ 110 VAC Max 3A @ 28 VDC Max 3 Watt Minimum	W1
Low Power	SPST	25 Watts Max	L9
Low Power	SPDT	25 Watts Max	L1

### Float Material **2**

316SS (Standard)	473 psig (32.6 bar)	C
Monel	284 psig (19.6 bar)	M

### Process Connections **1**

Threaded:	1 1/2" NPT(M)	5A
	2" NPT(M)	2A
Flanged: (Available with 316SS body only) May affect process pressure rating.	2 1/2" 150#	7C
	300#	7D
	600#	7E
	3" 150#	3C
	300#	3D
	600#	3E
	4" 150#	4C
	300#	4D
	6" 150#	6C
	300#	6D

### 4 Optional Accessories

- CK\*** Insert accessory designator(s) as needed  
ATEX and IECEx dual approved.  
Ex d IIC Ga/Gb T4 (-40°C < Ta < +90°C),  
T5 (-40°C < Ta < +75°C) and  
Ex ia IIC T3 (-40°C < Ta < +125°C)
- CL\*** ATEX and IECEx approved. Ex ia IIC T3  
(-40°C < Ta < +125 °C)
- CR** 3/4" NPT(F) conduit connection
- CS\*** CSA Certified. Class 1, Group A, B, C, D;  
Divisions 1 & 2. For relay option;  
Class 1, Group C & D, Divisions 1 & 2.  
Single seal ambient & process  
temperatures -40°C to +125°C
- CV** Canadian Registration Number (CRN).  
Consult the factory for applicable  
pressure and additional information.
- HT** Explosion proof 316SS terminal box CSA  
Certified Class I, Groups A, B, C & D;  
Class II, Groups E, F & G; Class III,  
Division I (NEMA 4X)
- MR** Mill Test Report
- NC** NACE construction - MR 01-75 / ISO  
15156 2003. Available only with  
316SS materials of construction
- NM\*** INMETRO approved.  
Ex ia IIC T3 (-40°C < Ta < +125°C)
- RB\*\*** 24 VDC powered DPDT relay in explosion  
proof terminal box. Contact rating:  
10 amps @ 115 VAC. Class I,  
Group C, D; Divisions 1 & 2.
- RC\*\*** 120 VAC powered DPDT relay in  
explosion proof terminal box. Contact  
rating: 10 amps @ 115 VAC. Class I,  
Group C, D; Divisions 1 & 2
- RR** Tag, stainless steel. (Attached with  
stainless steel wire to housing.  
Stamped with customer specified  
tagging information. 2 lines,  
18 characters and spaces per line.)
- TT** Stainless steel nameplate permanently  
attached to housing. Stamped with  
customer specified tagging information.

\*CK, CL, CS or NM option is required on all flange mounted units.  
\*\*Not available with L9 or L1 switch options.



1550 C F 5A C W9 ES TT

← Model Number

# 1550 Top Mounted Level Switch

Customer to specify insertion depth L for each switch. See drawing on page 1. Stem guides are not installed on units with insertion depth L less than 7" (177.8 mm). The 1550 Series level switch has a 3.5" (90 mm) diameter float. It will not fit through many process connections. Be sure there is access to attach the float from inside the vessel after instrument installation if necessary.

## Test Certificates

Certificate Designator	C1	C3	C4	C5	C6	C7	B5	B6	B7
	1550 Level Switch	◆						◆	◆
Calibration	◆						◆	◆	◆
Inspection Report		◆					◆	◆	◆
Compliance / Conformance			◆						◆
Dielectric Test				◆			◆		
Insulation Resistance					◆		◆	◆	
QA Test Report						◆			

## Replacement Parts

Part Number	Designator
3130-106	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 the factory for other materials.)
3130-396	Actuator Replacement Kit

## Limited Warranty

SOR® agrees to repair or replace any switch found to be defective in material or workmanship within five years from date of shipment. The limited warranty is valid only if the switch was installed in accordance with published factory installation instructions, operated within the design limitations stated on the nameplate, and returned to the factory for inspection, freight prepaid, within the warranty period. Contact the factory for return authorization. No claim for labor or consequential damages will be allowed.



MEASUREMENT AND CONTROL

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