

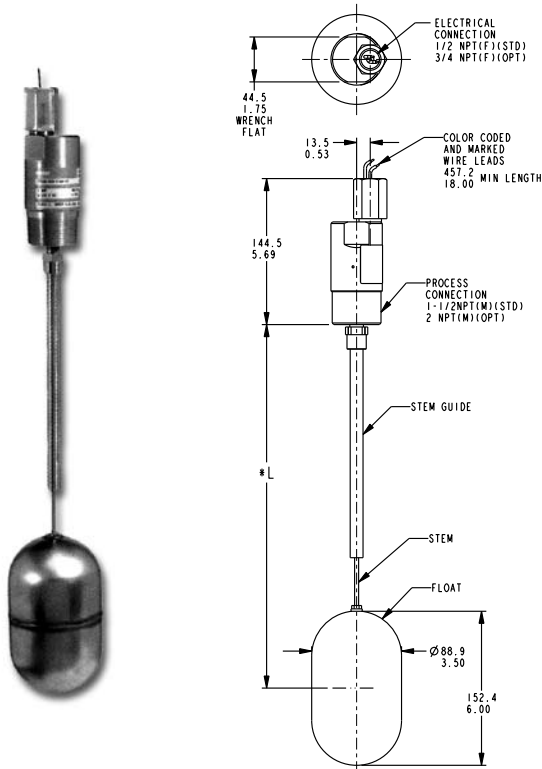


Type 1550 Top-Mount Electric Level Switch

Form 850

Type 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.

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



Linear = mm/in.

Drawing 0390428

How to Order

Select model number from table below.

Accessory designator(s) may be added after ES if required. See page 2.

Body Material	Float Material	Pressure Rating		Model Number
316SS	316SS	473 psi	32.6 bar	1550C - F5A - C - W9 - ES
	Monel	284 psi	19.6 bar	1550C - F5A - M - W9 - ES

Customer to specify insertion depth L for each switch. See drawing above. 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.

Product Specifications

Mounting (Half coupling only)

Orientation	Vertical mount only	
Connection Size	1-1/2" NPT(M) Standard	
For	Change	To
2" NPT(M)	F5A	F2A
Flanged Mounting	F5A	*

*See flange table on page 2 for option designator (316SS construction only)

Maximum Process Pressure	473 psi (32.6 bar) @ 400°F (204°C)
Process Temperature Range	-40 to 400°F (-40 to 204°C)
Note: housing is not submersible in processes above 320°F (160°C)	

Electrical

Switch Type	Hermetically sealed reed switch with 18" 20 AWG wire leads
Switch Rating (resistive)	1 amp at 110 VAC 3 amps at 28 VDC
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)
Contact Form	SPST (For SPDT change W9 to W1 in the model number)
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 and ANSI/ISA 12.27.01 or ATEX and IEC approved (optional).

See page 2.

CSA for Canada and US with the W1 Switch (SPDT)
CSA for Canada only with the W9 Switch (SPST)

Vertical Electric Level Switch

Optional Flanges

316SS construction only. All flanges are seal welded to bodies. The float will be detached from the unit during shipping. Flanged process connections may reduce the pressure rating.

Designator	Raised Face Flange	
F7C	2-1/2"	150#
F7D		300#
F7E		600#
F3C	3"	150#
F3D		300#
F3E		600#

Designator	Raised Face Flange	
F4C	4"	150#
F4D		300#
F6C	6"	150#
F6D		300#

On flanged units, the float will be detached from the unit during shipping.

Optional Accessories

Add option designator(s) to end of model number.

Description	Designator
Wetted parts are cleaned for industrial oxygen service.	BB
ATEX and IECEx approved. Ex ia IIC T3 (-40°C < Ta < +160°C)	CL*
3/4" NPT(F) conduit connection.	CR
CSA Certified. Class I, Groups A, B, C & D; Divisions 1 & 2. For relay option; Class I, Groups C & D, Divisions 1 & 2. Single seal ambient & process temperatures -40°C to +160°C	CS*
Canadian Registration Number (CRN). Maximum allowable pressure rating is 1500 psi. Consult the factory for details.	CV
Explosion proof terminal box CSA Certified Class I, Groups A, B, C & D; Class II, Groups E, F & G; Class III, Division I (NEMA 4X)	HT
NACE construction - MR-01-75. Available only with 316SS materials of construction.	NC
Tag, fiber. Attached with plastic wire to housing. Stamped with customer specified tagging information.	PP
24 VDC powered DPDT relay in explosion proof terminal box. Contact rating: 10 amps @ 115 VAC. Class I, Groups C & D; Divisions 1 & 2	RB
120 VAC powered DPDT relay in explosion proof terminal box. Contact rating: 10 amps @ 115 VAC. Class I, Groups C & D; Divisions 1 & 2.	RC
Tag, stainless steel. Attached with stainless steel wire to housing. Stamped with customer-specified tagging information. (2 lines, 18 characters and spaces per line.)	RR
Stainless steel nameplate permanently attached to housing. Stamped with customer-specified tagging information.	TT
Fungicidal varnish. Covers exterior except working parts.	VV

* CS or CL option is required on all flange mounted units.

Vertical Electric Level Switch

Test Certificates

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

Replacement Parts

Part Number	Designator
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 and ATEX/IECEX Certified units
3130-243	SPDT Hermetically Sealed Reed Switch Capsule for CSA and ATEX/IECEX Certified units
3101-132	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.

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