

1510 Side Mounted Level Switch

1510 is a horizontally 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 extension arm moves a magnet which actuates (deactuates) a hermetically sealed reed switch. Actuation (deactuation) can be reversed by rotating the unit 180 degrees.



Product Specifications	
Mounting	
Orientation	Horizontal mount only
Connection Size	1-1/2" through 6"
Connection Type	NPT(M) or Flanged
Maximum Process Pressure*	up to 5000 psi (345 bar)
Process Temperature Range	-40 to 400°F (-40 to 204°C)
Electrical	
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	0.45
Design Code	ANSI B31.3
Weight	Approximately 6 lbs. (3 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.
Safety Certified to IEC 61508 (SIL)	
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).	

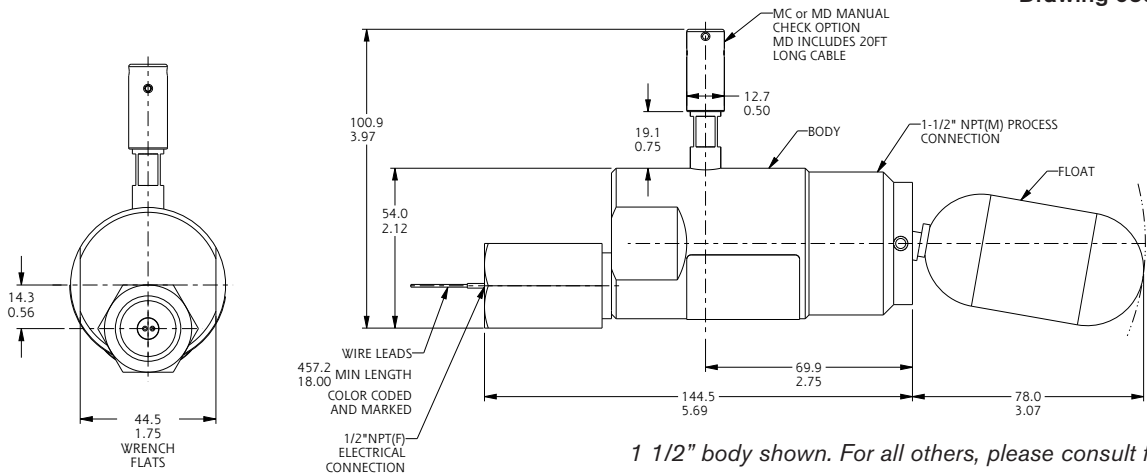
Dimensions

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

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

Linear = mm/inches

Drawing 0390693



1 1/2" body shown. For all others, please consult factory.

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How to Order

Below is the SOR quick select model number tree that provides you with all the options to configure and order a product for your application.

- You must select a designator for each component
- Reference tables, charts and additional information are provided throughout the catalog to help you make your selections.

Switch Mechanisms				4					
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				3					
316SS (Standard)		1500 psig (103 bar) -40 to 400°F (-40 to 204°C)	C						
Monel		900 psig (62 bar) -40 to 400°F (-40 to 204°C)	M						
Polypropylene		5000 psig (345 bar) -40 to 150°F (-40 to 65°C)	S						
Process Connections				2					
Threaded:		1 1/2" NPT(M)	5A						
		2" NPT(M)	2A						
Flanged: (Available with 316SS body only)									
May affect process		2 1/2" 150#	7C						
pressure rating.		300#	7D						
		600#	7E						
		3" 150#	3C						
		300#	3D						
		600#	3E						
		4" 150#	4C						
		300#	4D						
		6" 150#	6C						
		300#	6D						
Body Material				1					
		303SS (Standard)	B						
		316 Stainless Steel	C						
Optional Accessories					5				
Insert accessory designator(s) as needed									
CK*	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. Additional seal not required.								
CV	Canadian Registration Number (CRN). Consult the factory for applicable pressure and additional information.								
MC**	Manual check accessory (uses Viton GLT o-rings - not available with polypropylene floats)								
MD**	Manual check accessory (uses Viton GLT o-rings - not available with polypropylene floats) with 20' remote cable								
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.									
**Manufacturer limits on Viton GLT are -40 to 400°F.									
***Not available with L9 or L1 switch options.									
1510	B	G	5A	C	W9	ES	MC	← Model Number	

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Test Certificates

Certificates	C1	C3	C4	C5	C6	C7	B5	B6	B7
	1510 Level Switch	◆						◆	◆
Calibration	◆						◆	◆	◆
Inspection Report		◆					◆	◆	◆
Compliance / Conformance			◆						◆
Dielectric Test				◆			◆		
Insulation Resistance					◆		◆	◆	
QA Test Report						◆			

Replacement Parts

Part Number	Description
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
3130-052	316SS Float Assembly
3130-040	20' Remote Cable with two cable crimps*
9227-024	Manual Check Accessory (MC) (2" NPT only)*
9227-025	Manual Check Accessory with 20' remote cable (MD) (2" NPT only)*
9227-028	Manual Check Accessory (MC) (1 1/2" NPT only)*
9227-029	Manual Check Accessory with 20' remote cable (MD) (1 1/2" NPT only)*

*Unit must have originally been supplied with MC or MD option.

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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