



Type 1510 Side-Mount Electric Level Switch

Form 498

Type 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 or ATEX and IEC approved (optional). See page 2. GOST-R Certified (Standard) |

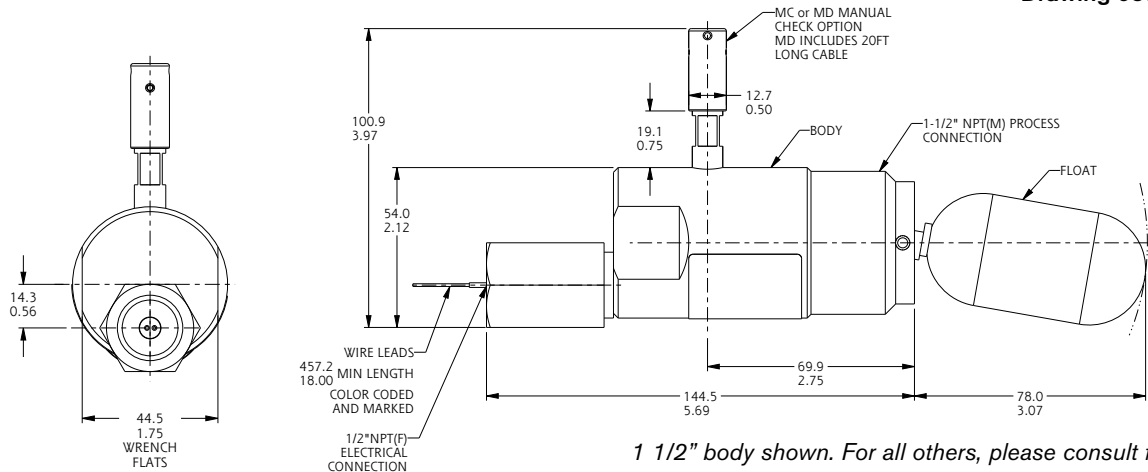
*Agency certifications may affect ratings. See Accessories for details.

Dimensions

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

Linear = mm/inches

Drawing 0390693



Type 1510 Side-Mount Electric Level Switch

How to Order

Model Number System

1510 - B - G - 5A - C - W9 - ES - MC

Switch Mechanisms **4**

Amperages based on resistive loads

| | | | |
|-----------------|------|---|----|
| General Purpose | SPST | 1A @ 110 VAC Max 3A @ 28 VDC Max 3 Watt Minimum | W9 |
| General Purpose | SPDT | 1A @ 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 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 |

Body Material **1**

| | |
|---------------------|---|
| 303SS (Standard) | B |
| 316 Stainless Steel | C |



1510 **B G 5A C W9 ES MC**

5 Optional Accessories

| | |
|-------|--|
| | Insert accessory designator(s) as needed |
| BB | Wetted parts are cleaned for industrial oxygen service |
| 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. |
| MC** | Manual check accessory (uses Viton GLT o-rings) |
| MD** | Manual check accessory (uses Viton GLT o-rings) with 20' remote cable |
| NC | NACE construction - MR 01-75 / ISO 15156 2003. Available only with 316SS materials of construction |
| PP | Tag, fiber. Attached with plastic wire to housing. Stamped with customer specified tagging information. |
| 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. |
| VV | Fungicidal varnish. Covers exterior except working parts. |

*CS or CL 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.

← **Model Number**

Type 1510 Side-Mount Electric Level Switch

Test Certificates

| 1510 Electric Level Switch | Certificates | C1 | C3 | C4 | C5 | C6 | C7 | B5 | B6 | B7 |
|----------------------------|--------------------------|----|----|----|----|----|----|----|----|----|
| | 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.

SOR® offers a full line of commercial-grade process instruments.

**echOsonix®
Level Transmitters**



**Level
Switches**



Level

**Temperature
Switches**



**Temperature
Pressure**

**Flow
Switches**



Flow

**Pressure
Switches**



Process Instrumentation

We Deliver Quality On Time

SOR Inc.

14685 West 105th Street
Lenexa, Kansas 66215

Phone 913-888-2630
Toll Free 800-676-6794
Fax 913-888-0767

sorinc.com

SOR Europe, Ltd.

Farren Court
Cowfold
West Sussex RH13 8BP
United Kingdom

Phone +44 (0) 1403 864000
Fax +44 (0) 1403 864040

SOR - China

Room 903, No. 10 Building
Wan Da Plaza
No. 93 Jian Guo Road
Chao Yang District
Beijing, China 100022

Phone +86 (10) 5820 8767
Fax +86 (10) 58 20 8770

Registered Quality System to ISO 9001:2008

Form 498 (10.11) ©2011 SOR Inc.