

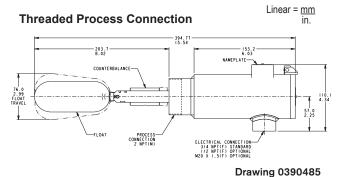
# Type 1710 Horizontal Electric Level Detector

Form 864

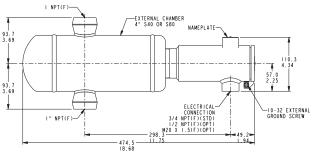
**Type 1710** is a horizontally mounted, foat-operated level detector suitable for plant and OEM applications where open or closed contacts are required to signal presence or absence of liquid at a discrete level. The float extension arm moves a magnet which actuates (de-actuates) a microdetector.

### **Dimensions**

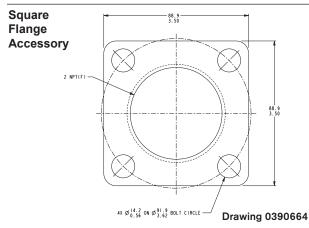
Design and specifications are subject to change without notice. For latest revision, see www.sorinc.net.



#### **External Chamber Accessory**



Drawing 0390508





## **Product Specifications**

Mounting					
Orientation	Horizontal mount only				
Connection size	2" NPT(M) Standard				
(*See process c	onnection table on page 2				
for	flange option designators)				
Float Material	316SS				
Maximum Process Pressure	at 400°F (204°C)				
Threaded connection	1000 psi (69 bar)				
150# Flanged connection	195 psi (13.4 bar)				
300# Flanged connection	515 psi (35.5 bar)				
Process Temperature Range	-40 to 400°F				
	(-40 to 204°C)				
(See Detecto	r Confgurations on page 2)				
Electrical					
Detector type SPE	OT or DPDT snap detector				
(See detector table on pag	e 2 for optional detectors)				
Housing Material Carbon Steel					
Optional Housing Material Stainless Stee					
Connection size	3/4" NPT(F)				
Specific gravity @ 400°F (204°	<b>C)</b> 0.6 SG,1000 psig				
	(69 bar)				
Design Code A	NSI B31.1 or ANSI B31.3				
Certificate available	e with chamber option and				
when access	sory CY or CZ is specified				
Weight	7.3 lbs. (3.2 kg)				
	EX (ౕ ) II 1/2 G Exd IIC T5 0°C ≤ ta ≤ +80°C) Ga/Gb				
Safety Certified to IEC 61508	(SIL)				
SOR products are	certified to IEC 61508 for				
non-redundant us	e in SIL1 and SIL2 Safety				

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 Approvals**

ATEX Flameproof B II 1/2 G Exd IIC T5 (Tamb -40°C  $\leq$  ta  $\leq$  +80°C) Ga/Gb



## Type 1710 Horizontal Electric Level Detector

#### How to Order

### Model Number System

# 1710 - A - G - 2A - C - A1 - H1 - CL - CP

D	etector Co	onfgu	ıra	ition	s	3		Z
	d on resistive loads							
General Purpose 250°F/121°C	24 volt 15 amps SPDT 24 volt 0.5 amp 24 volt 0.25 amp					A1		c c
General Purpose 300°F/149°C	24 volt 10 amps Not recommende for DC service	d		DPDT		<b>A</b> 4		c
High Temp. 400°F/204°C 400 hours	24 volt 5 amps 24 volt 0.5 amp 24 volt 0.25 amp					B1		E
Gold Contacts 180°F/82°C	24 volt 1 amp Not recommende for DC service	d		SPDT		C1		E
Hermetically Sealed 250°F/121°C	24 volt 1 ampSPDT24 volt 3 ampsDPDT					L1 L4		N
Hermetically Sealed Gold Contacts 250°F/121°C	24 volt 1 amp SPDT DPDT May affect lead time for detectors Not recommended					S1 S4		P
Hermetically Sealed High Temperature 400°F/204°C	for AC service 24 volt 1 amp 24 volt 3 amps May affect lead tin for detectors	ne		SPDT DPDT		V1 V4		F
Proce	ess Conne	ctior	າຣ	2				
Ţ	Threaded 2" NPT(M	) Standa	ard	2A				S
Optional Raised Face Flanges (316SS)								
		3" 15 30		3C 3D				۷
Consult factory for flanges not shown.4" 150# 300#4C 4D								Y
Housing Materials								
Carbon Steel (standard) A 300 Series Stainless Steel C								
SVA	1710	Α	G	2A	с	<b>A</b> 1	H1 CL	С

4	<b>Optional Accessories</b>
	Insert accessory designator(s) as needed
СР	1/2" NPT(F) conduit reducer
CN	Conduit Reducer M20 x 1.5(F)
CY *	Certificate of Conformance to ANSI B31.1 design standards
CZ*	Certificate of Conformance to ANSI B31.3 design standards (see page 3)
EE	External chamber stainless steel schedule 40
EG	External chamber carbon steel schedule 40
MR	Mill Test Report
NC	NACE construction - MR 01-75 (Available only with 316SS materials of construction)
PP	Tag, fiber. (Attached with plastic wire to housing. Stamped with customer specified tagging information.)
ΡΥ	Powder coat epoxy coating. No coating on stainless steel parts or plated screws. (500 hours-salt spray)
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.)
SF	Square Flange 316SS 12.7mm/.5" thick rated 250 psi 400°F/17 bar @ 204°C (for use with 2" NPT process connection only).
vv	Fungicidal varnish. Covers exterior except working parts.
ΥY	Epoxy coating, exterior only. Polyamide epoxy with 316SS pigment. (200 hours-salt spray)
	<ul> <li>CY or CZ certification only available with the EE &amp; EG chambers</li> </ul>
CP	Note: All adapters are brass   Model Number

## Type 1710 Horizontal Electric Level Detector

### **Test Certificates**

1710 Horizontal Electric Level Detector	Certificates	C1	C3	C4	C5	C6	C7	B5	B6	B7
	Calibration	٠						•	•	•
	Inspection Report		•					•	•	•
	Compliance / Conformance			•						•
	Dielectric Test				•			•		
	Insulation Resistance					•		•	•	
	QA Test Report						•			

If certification to B31.3 is required, SOR<sup>®</sup> must know the fluid category per the chart below. Refer to the ASME/ANSI B31.3 Fluid Category Section to determine the applicable category.

#### ANSI/ASME B31.3 Fluid Category

Normal	A fluid service not subject to the following four categories.
Category D	A fluid service in which all of the following apply:
	1. The fluid handled is non-flammable, non-toxic, and not damaging to human skin.
	<ol><li>The design gage pressure does not exceed 150 psi.</li></ol>
	3. The design temperature is between -20°F and 366°F.
Category M	A fluid service in which the potential for personnel exposure is judged to be
	significant and in which a single exposure to a very small quantity of a toxic fluid,
	caused by leakage, can produce serious irreversible harm to persons on breathing
	or bodily contact, even when prompt restorative measures are taken.
Severe Cyclic	A fluid service with high-cycle rates that cause extreme stress on components.
High Pressure	Pressure in excess of that allowed by the ASME B16.5 Class 2500 rating for the
	specified temperature and material group or any piping so designated by the customer.

## **SOR**<sup>®</sup> offers a full line of commercial-grade process instruments.



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