

# Level Control Products



Continuous



Side Mount



Single Point

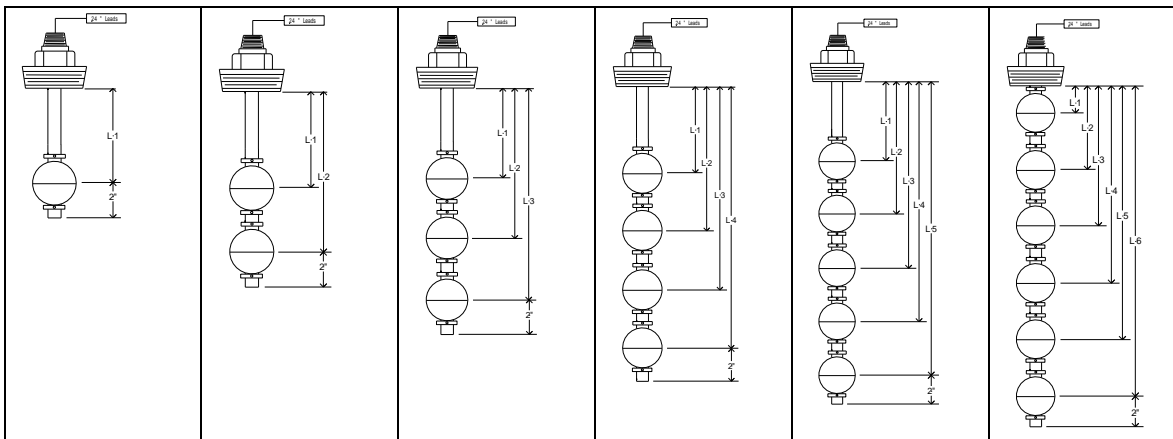


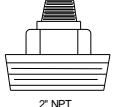
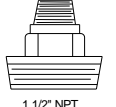
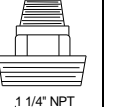
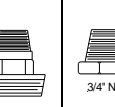
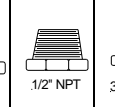
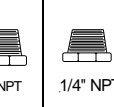
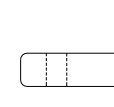
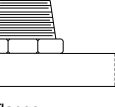
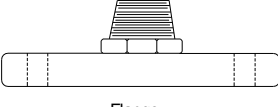
Multi - Level

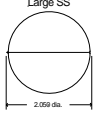
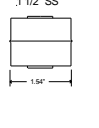
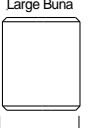
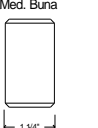
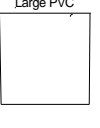
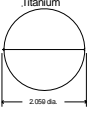
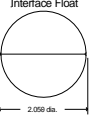
All products are subject to change without notice. Every effort is made to specify exact details, but errors may exist.

# Large Custom Multi Level Series – Brass or Stainless

If you don't see it – ask



<b>2" NPT</b>	<b>1 1/2" NPT</b>	<b>1 1/4" NPT</b>	<b>1" NPT</b>	<b>3/4" NPT</b>	<b>1/2" NPT</b>	<b>3/8" NPT</b>	<b>1/4" NPT</b>	<b>Flange from 1 to 2" ANSI</b>
								
2" NPT	1 1/2" NPT	1 1/4" NPT	1" NPT	3/4" NPT	1/2" NPT	3/8" NPT	1/4" NPT	Flange

<b>2" SS</b>	<b>1 1/2" SS</b>	<b>1 9/16" Buna</b>	<b>1 1/4" Buna</b>	<b>2" PVC</b>	<b>Titanium</b>	<b>Interface</b>	<b>Custom</b>
							<b>More Custom Floats Available</b>
Large SS 2.059 dia.	1 1/2" SS 1.54"	Large Buna 38.76 mm	Med. Buna 1 1/4"	Large PVC	Titanium 2.059 dia.	Interface Float 2.059 dia.	

- ✓ Interface floats for hydrocarbons mixed with water – custom sp.gr. on request
- ✓ Temperature sensors can be supplied internally – RTD's, T/C, On/Off Temp switch
- ✓ 90 deg. Probe available on any model – compression fittings, sanitary etc
- ✓ Slosh shields available
- ✓ Sliding stem available on most models
- ✓ Extra long units can be compression fitting joined
- ✓ Many J box options – including lead length and wire or cable
- ✓ Co Generation – Pump Control – Level Plus Alarm Indication – Back up pumps

## Basic Float Specifics

Material	Pressure PSI	Temperature	Sp. Gr.	Float Weight
316 SS	600	- 40 to 300 deg. F	0.75	38g
Closed Cell Buna	200	-40 to 225F oil	0.55	17g
PVC	100	100 F	0.6	38g
Titanium	500	300 F	0.55	light

# Large Multi Level Switch Part Numbers

Give us a call for help if necessary

## Stainless Steel Probe Part Numbers – any Float

Top Row is Float Type

SS means – Stainless Steel 316

Fitting	2" SS	1 1/2" SS	1 9/16" Buna	1 14" Buna	1 7/8" PVC	2" Interface
Flange (X")	SR x F - 1	SR x F - 2	SR x F - 3	SR x F - 4	SR x F - 5	SR x F - 6
2" NPT	SR20 - 1	SR20 - 2	SR20 - 3	SR20 - 4	SR20 - 5	SR20 - 6
1 1/2" NPT		SR15 - 2	SR15 - 3	SR15 - 4	SR15 - 5	SR15 - 6
1 1/4" NPT				SR14 - 4		
3/4" NPT	SR75 - 1	SR75 - 2	SR75 - 3	SR75 - 4	SR75 - 5	SR75 - 6
1/2" NPT	SR50 - 1	SR50 - 2	SR50 - 3	SR50 - 4	SR50 - 5	SR50 - 6
1/4" NPT	SR25 - 1	SR25 - 2	SR25 - 3	SR25 - 4	SR25 - 5	SR25 - 6
Tube	SR10 - 1	SR10 - 2	SR10 - 3	SR10 - 4	SR10 - 5	SR10 - 6

## Brass Probe Part Numbers – any Float

Top Row is Float Type

SS means – Stainless Steel 316

Fitting	2" SS	1 1/2" SS	1 9/16" Buna	1 14" Buna	1 7/8" PVC	2" Interface
2" NPT	BR20 - 1	BR20 - 2	BR20 - 3	BR20 - 4	BR20 - 5	BR20 - 6
1 1/2" NPT		BR15 - 2	BR15 - 3	BR15 - 4	BR15 - 5	BR15 - 6
1 1/4" NPT				BR14 - 4		
3/4" NPT	BR75 - 1	BR75 - 2	BR75 - 3	BR75 - 4	BR75 - 5	BR75 - 6
1/2" NPT	BR50 - 1	BR50 - 2	BR50 - 3	BR50 - 4	BR50 - 5	BR50 - 6
1/4" NPT	BR25 - 1	BR25 - 2	BR25 - 3	BR25 - 4	BR25 - 5	BR25 - 6
Tube	BR10 - 1	BR10 - 2	BR10 - 3	BR10 - 4	BR10 - 5	BR10 - 6

## Selection Process

- 1) Choose process connection and then the corresponding float part number - eg. SR20 - 1 = SR20 (2" NPT) - 1 (2" SS float)
- 2) Determine levels and location (from 1 to 6) per drawing - add the state (see next) of each level eg. SR20 - 1 - 10A - 15A - 20B - 25A
  - Choose the "state(s)" in the dry position or when holding it in your hand with wires facing up
  - N/O (normally open "A") switch closes on rise and opens on fall
  - N/C (normally closed "B") switch opens contact on rise and closes on fall
- 3) Choose the unit of measure - "C" for inches and "D" for millimeters - and add to the end of the part number

The Example below is a:

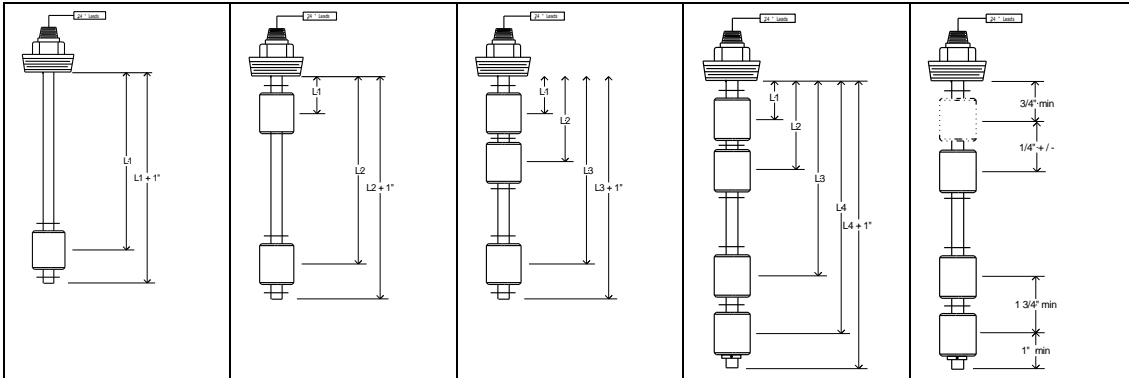
SR20 - 1 - 10A - 15A - 20B - 25A - C = SS body - 2" NPT - 2" SS floats - L1 = 10" N/O - L2 = 15" N/O - L3 = 20" N/C - L4 = 25" N/O

**Or:** BR50 - 4 - 6A - 18A - 36B - D = Brass body - 1/2" NPT - 1 1/4" buna floats - L1 = 6 mm N/O - L2 = 18 mm N/O - L3 = 36 mm N/C Note - 1 9/16 and 1 1/4" buna are the same price.

- ✓ Minimum distance between switch points - using 1 float / two switches is 1/4" (bottom switch will be N/C - upper will be N/O)
- ✓ Minimum distance between stations = 3"
- ✓ 2" of stem length is required below the last level

# Small Custom Multi Level Series – Brass or Stainless

Economical solutions for small tank applications  
If you don't see it – ask



2" NPT	1 1/2" NPT	1 1/4" NPT	1" NPT	3/4" NPT	1/2" NPT	3/8" NPT	1/4" & 1/8"	Flange from 1" to 2" ANSI
2" NPT	1 1/2" NPT	1 1/4" NPT	1" NPT	3/4" NPT	1/2" NPT	3/8" NPT	1/4" NPT	Flange

## Floats

SS	PVC	PP	Kyner	narrow SS	Special SS	Buna Small
1"	1"	1"	1"	1.5"		1"
				.75"		

Interface floats for hydrocarbons mixed water - custom Specific Gravity floats available on request

- ✓ Temperature sensors can be supplied internally - RTD's, T/C, on/off temp. control
- ✓ 90 deg stem on any model - swivel compression fitting allows process connection installation
- ✓ Stem can be Teflon coated to prevent build-up of material - Teflon is a trademark
- ✓ Many more materials will be available soon
- ✓ Every level switch is tested before shipping
- ✓ Slosh shields available for all models in PVC or SS
- ✓ Field adjustable float states - but best if we set them to your specifications
- ✓ Sliding stem available - particularly useful on single station models to adjust level alarm
- ✓ Extra long lengths can use a single compression fitting to allow folding for shipping or low ceilings (also see FX series)
- ✓ Any lead length or material - junction box available

**NOTE - In a rush - no time to figure out part numbers - give us a call, email or fax with a basic description - we will do the rest! We don't mind!**

We will build to fit your application - including connection design, wire length and type, material etc.

## Small Stainless-Steel Probe Part Numbers – any Float

Top Row is Float Type

SS means – Stainless Steel 316

Fitting	1" SS	1" Buna	1" PP	1" Interface	¾" ss	Kynar
Flange (x")	SSR x F - 1	SSR x F - 2	SSR x F - 3	SSR x F - 4	SSR x F - 5	SSR x F - 6
2" NPT	SSR20 - 1	SSR20 - 2	SSR20 - 3	SSR20 - 4	SSR20 - 5	SSR20 - 6
1 ½" NPT	SSR15 - 1	SSR15 - 2	SSR15 - 3	SSR15 - 4	SSR15 - 5	SSR15 - 6
1 ¼" NPT	SSR14 - 1	SSR14 - 2	SSR14 - 3	SSR14 - 4	SSR14 - 5	SSR14 - 6
1" NPT	SSR8 - 1	SSR8 - 2	SSR8 - 3	SSR8 - 4	SSR8 - 5	SSR8 - 6
¾" NPT	SSR75 - 1	SSR75 - 2	SSR75 - 3	SSR75 - 4	SSR75 - 5	SSR75 - 6
½" NPT	SSR50 - 1	SSR50 - 2	SSR50 - 3	SSR50 - 4	SSR50 - 5	SSR50 - 6
3/8" NPT	SSR37 - 1	SSR37 - 2	SSR37 - 3	SSR37 - 4	SSR37 - 5	SSR37 - 6
¼" NPT	SSR25 - 1	SSR25 - 2	SSR25 - 3	SSR25 - 4	SSR25 - 5	SSR25 - 6
Tube	SSR10 - 1	SSR10 - 2	SSR10 - 3	SSR10 - 4	SSR10 - 5	SSR10 - 6

## Small Brass Probe Part Numbers – any Float

Top Row is Float Type

SS means – Stainless Steel 316

Fitting	1" SS	1" Buna	1" PP	1" Interface	¾" ss	Kynar
2" NPT	SBR20 - 1	SBR20 - 2	SBR20 - 3	SBR20 - 4	SBR20 - 5	SBR20 - 6
1 ½" NPT	SBR15 - 1	SBR15 - 2	SBR15 - 3	SBR15 - 4	SBR15 - 5	SBR15 - 6
1 ¼" NPT	SBR14 - 1	SBR14 - 2	SBR14 - 3	SBR14 - 4	SBR14 - 5	SBR14 - 6
1" NPT	SBR8 - 1	SBR8 - 2	SBR8 - 3	SBR8 - 4	SBR8 - 5	SBR8 - 6
¾" NPT	SBR75 - 1	SBR75 - 2	SBR75 - 3	SBR75 - 4	SBR75 - 5	SBR75 - 6
½" NPT	SBR50 - 1	SBR50 - 2	SBR50 - 3	SBR50 - 4	SBR50 - 5	SBR50 - 6
3/8" NPT	SBR37 - 1	SBR37 - 2	SBR37 - 3	SBR37 - 4	SBR37 - 5	SBR37 - 6
¼" NPT	SBR25 - 1	SBR25 - 2	SBR25 - 3	SBR25 - 4	SBR25 - 5	SBR25 - 6
Tube	SBR10 - 1	SBR10 - 2	SBR10 - 3	SBR10 - 4	SBR10 - 5	SBR10 - 6

### Selection Process

- 1) Choose process connection and then the corresponding float part number - eg. SSR20 - 1 = SSR20 (2" NPT) - 1 (1" SS float)
- 2) Determine levels and location (from 1 to 4) per drawing - add the state (see next) of each level e.g. SSR20 - 1 - 10A - 15A - 20B - C
  - Choose the "state(s)" in the dry position or when holding it in your hand with wires facing up
    - N/O (normally open "A") switch closes on rise and opens on fall
    - N/C (normally closed "B") switch opens contact on rise and closes on fall
- 3) Choose the unit of measure - "C" for inches and "D" for millimeters - and add to the end of the part number

**The Example below is a:**

SSR20 - 1 - 10A - 15A - 20B - C = SS body - 2" NPT - 1" SS floats - L1 = 10" N/O - L2 = 15" N/O - L3 = 20" N/C

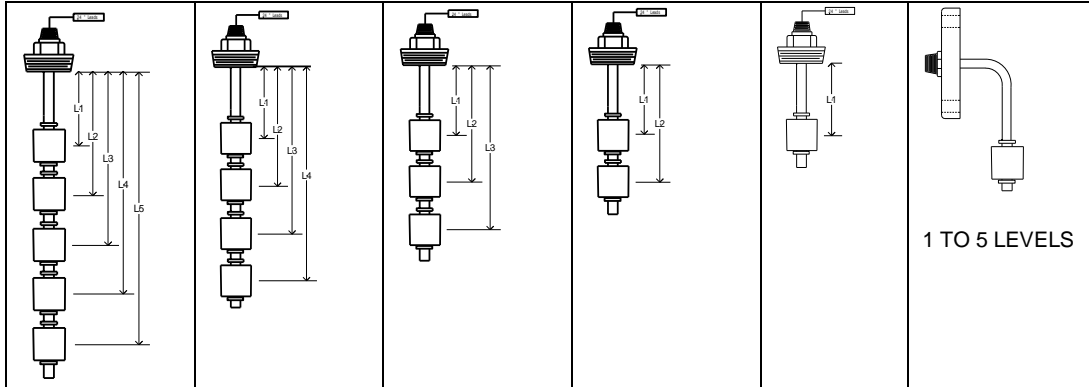
**Or:**

SBR50 - 4 - 6A - 18A - 36B - D = Brass body - 1/2" NPT - 1" buna floats - L1 = 6 mm N/O - L2 = 18 mm N/O - L3 = 36 mm N/C

- ✓ Minimum distance between switch points - using 1 float / two switches is 1/4" (bottom switch will be N/C - upper will be N/O)
- ✓ Minimum distance between stations = 1 3/4"
- ✓ 1" of stem length is required below the last level

## Custom Multi Level Series – PVC

Economical solutions for some acids and water  
If you don't see it – ask



### To Order:

- ✓ Select the fitting size from the left row
- ✓ Select the number of stations to the right
- ✓ Specify switch points and state (N/O or N/C dry) for each level

Fitting	1 Station	2 Station	3 Station	4 Station	5 Station	Switch points
3" Flange	SP3F - 1	SP3F - 2	SP3F - 3	SP3F - 4	SP3F - 5	L1 = ____" N/ L2 = ____" N/ L3 = ____" N/ L4 = ____" N/ L5 = ____" N/ 2.5" after last float
2" Flange	SP2F - 1	SP2F - 2	SP2F - 3	SP2F - 4	SP2F - 5	
2" NPT	SP20 - 1	SP20 - 2	SP20 - 3	SP20 - 4	SP20 - 5	
1/2" NPT	SP05 - 1	SP05 - 2	SP05 - 3	SP05 - 4	SP05 - 5	
1/4" NPT	SP25 - 1	SP25 - 2	SP25 - 3	SP25 - 4	SP25 - 5	
Tube	SP - 1	SP - 2	SP - 3	SP - 4	SP - 5	

**Temperature** - 100 Deg. F

**Pressure** – 40 psi

**Switch Rating** – 250 VAC/DC at 0.5 amps resistive carry 2 amps

Minimum distance between floats – 3" unless one float is used for two stations – then bottom is N/C and top is N/O – distance can be 1/4" +/-

For a 90 deg. Bend add suffix R eg. SPR2F – 1 is 2" flange with one station

# XR 1000 Solid State Latching Relay

Efficient device for latching or on/off control in the process industry.

Primary applications would be pump control, solenoid control, and valve control or other device in level or flow field. The product is ideal with a physical size of about 3"x 2"x 3.75" high and DIN rail ready - safe excite voltage of 24 VDC low mA. Simple to hook up and offers switch protection including time delay preventing nuisance activations.

To use - connect the high- and low-level switch wires to the control, and put the load through the SPDT 240 V 8-amp relay. Connect 120 VAC to power it up and That's it- no programming - no dipswitches - nothing. If the driven device draws over 8 amps - simply use a starter or contactor in the case of a motor or larger relay for other products. The Relay comes complete with identified terminals

## Preliminary Technical Data Sheet

Instrument Type Electromechanical Contact Protection Relay

Model SSR 1000

Housing Size 75mm x 50mm x 100mm

Housing Material Polyamid 6.6

Supply Voltage 115 VAC +/- 10% 50 – 60 Hz

Power Consumption 5 VA (typical)

Control Voltage 24 VDC

Control Current 20 Ma

Input Impedance 3300 Ohm, 100 nF +/- 20%

Maximum Contact "ON" Impedance 4700 Ohm, 47 nF at inputs

Delay Period (initiating) 10 ms

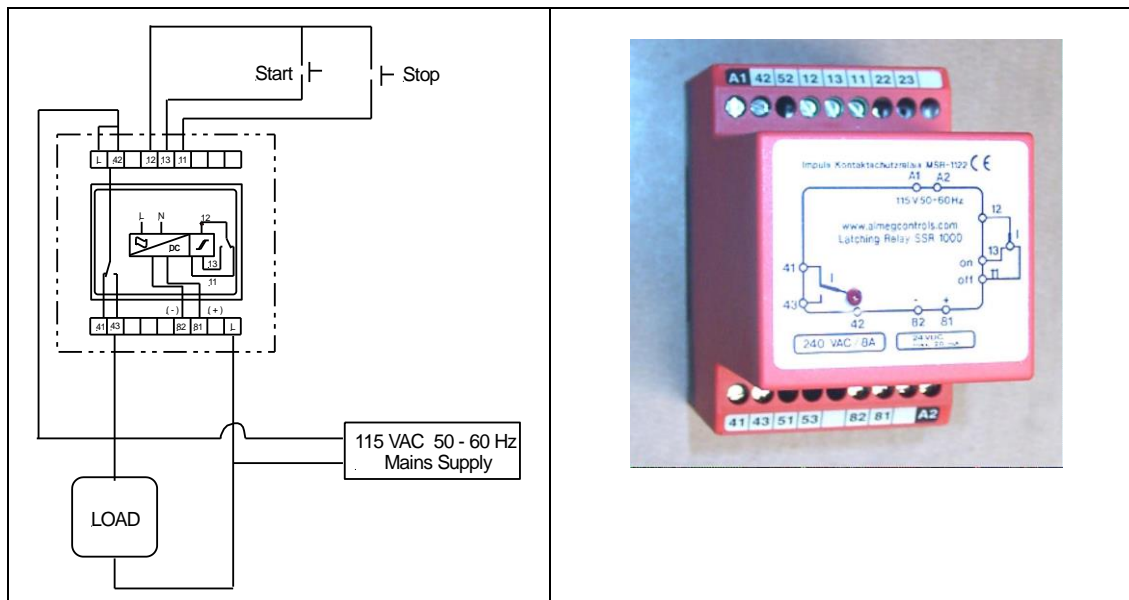
Delay Period (dropping) 20ms

Output 1 SPDT relay contact

Permissible Load 250 VAC / 8A resistive / 1840 VA

Temperature range -20 deg. C to 60 deg. C

Type of protection IP 20



## Recent Updates

### Reed Switches

Latching Reed Switch. We required an engineered reed switch to mount externally on our RVI (remote visual indication). The problem – on the standard units using an external float the switch point can either be set in N/O or N/C position. As the liquid moves up the switch would go to N/C, for example, hit the stop and stay at N/C as the liquid continued to rise.

With the RVI, the float is internal, and the reed switch external. So – as the float hit the switch point it would close the switch (N/C) – but – the float would continue to rise rendering the switch back to N/O.

With our latching reed switch – the float rises – hits the switch – continues but the switch stays closed! The switch will not open until the float passes the reed in the opposite direction.

So - float goes by – switch closes and stays closed – float comes back - switch opens.

SPDT reeds can be used in simple applications when a N/C dry state is required.

Latching Switch – 10 A contact rating; Switching V – 200 VDC; max A 0.5 A resistive.

The latching switch can be used in our multi level models when buna floats are required.

### Checking the Motor Room Floor for Water

The problem – motors are running in an isolated area – usually bolted the concrete floor. A pipe breaks and water runs onto the floor shorting out the motors at a heavy expense. Our product is built to sit on the floor in a possible leak area and monitor the conditions on 24 hr. bases. It can sound a local alarm, call over the phone lines, page our even send a signal to the web for a monthly fee.

The unit easily connects to power with a low voltage signal is sent to the remote. It comes with a 25' PVC cable and is mounted in a NEMA 4 box the long life.

### Temperature Controls

Almeg can supply custom temperature devices and controls to meet the demand of direct replacement products. We can offer a wide range of **Thermocouples** in most ranges and configurations included grounded, isolated and spring inserted. Charts are available for V to temperature readings and housings are available for trains to cans. **RTD's** as well as **temperature switches** can be configured for most applications.

### Pressure and Flow

Some pressure and flow products are becoming available. The On / Off flow switch and mechanical pressure switch are shown elsewhere in the catalogue. Flow and pressure devices are on a “call to request” state currently.

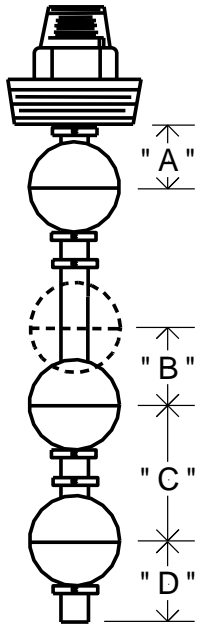
### Plastics

New all plastic small size multi level switches are being developed for the market in areas where stainless or brass will not work. Actual prototypes are running with excellent success.

OEM materials can be polysulfone, polypropylene and more.



## Minimum Dimension for Multi-Level Switches



### Large Size Minimum Dimensions

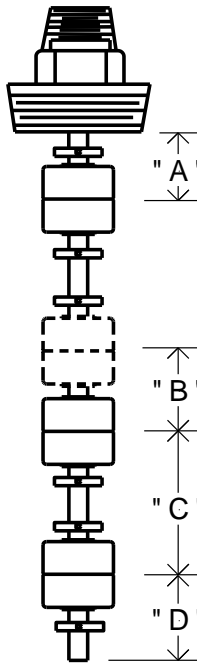
A = 1 1/2" with 2" floats from the thread

B = 1/4" using one float for two stations

note: bottom must be N/C top N/O

C = 3" minimum distance between levels

D = 2" distance from bottom of probe



### Small Size Minimum Dimensions

A = 3/4" with 1" floats from the thread

B = 1/8" using one float for two stations

note: bottom must be N/C top N/O

C = 1 3/4" minimum distance between levels

D = 1" distance from bottom of probe

### PVC:

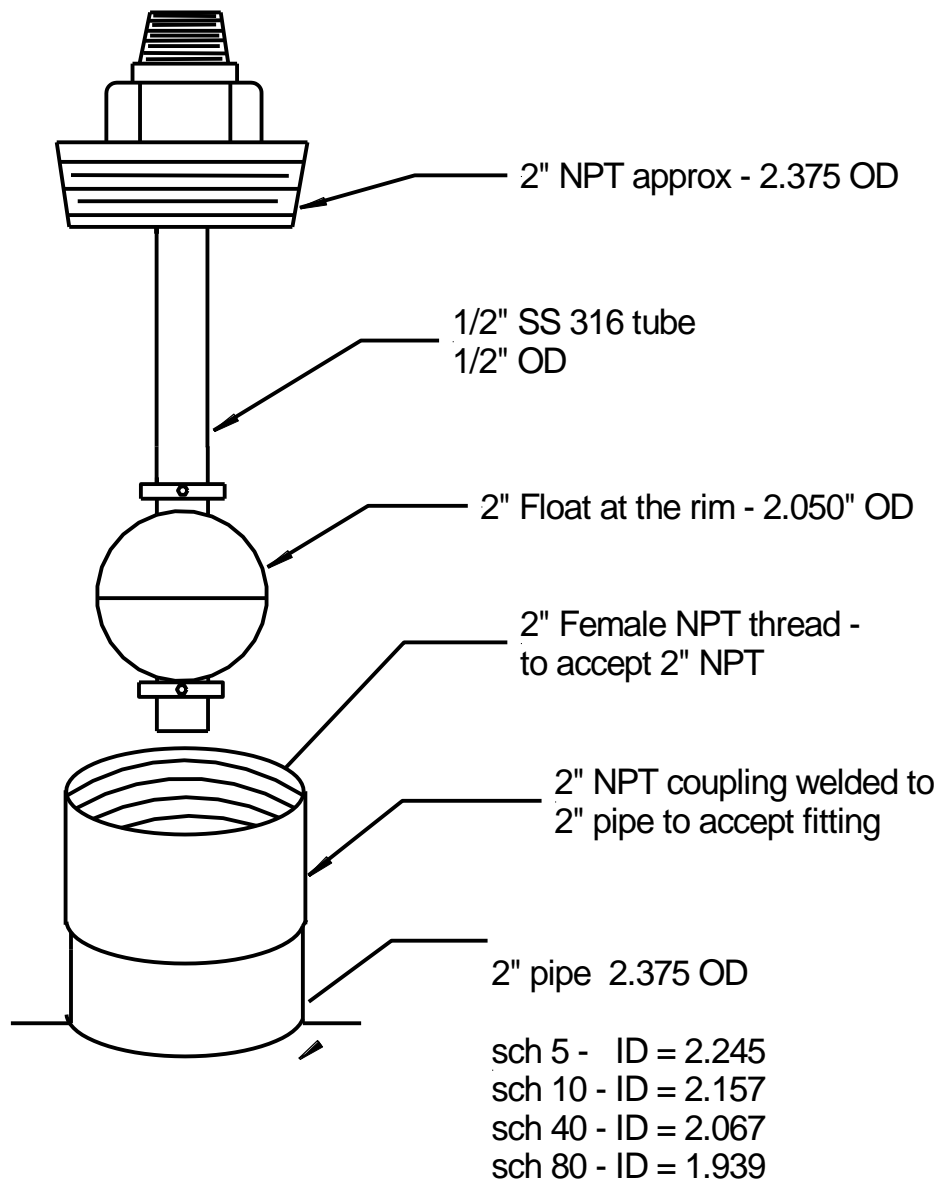
A = 1 1/2"

B = 1/4"

C = 3 1/4"

D = 2 1/4"

## Level Switch Fits a 2" NPT Coupling

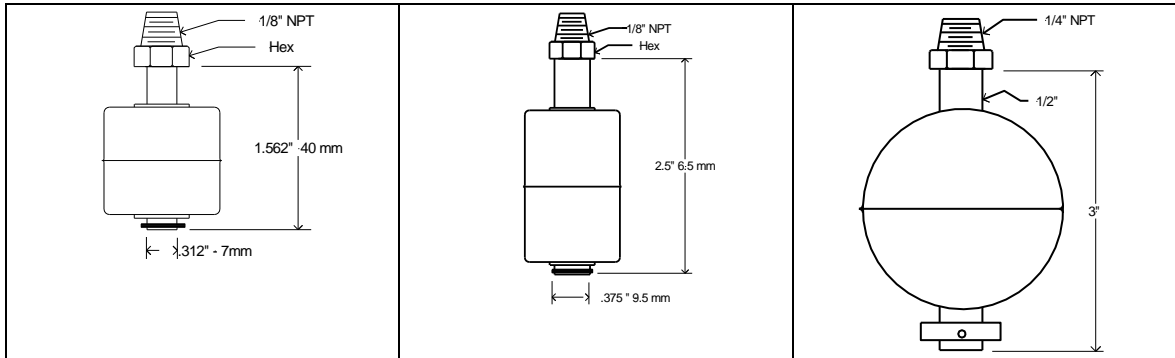


# Single Activation - Float Level Switches

Used for High- or Low-Level Alarm applications

- ✓ Small, Medium or Large sizes
- ✓ Install in top or bottom of a tank
- ✓ Variety of stem and float material combinations
- ✓ 1/8" or 1/4" NPT connection
- ✓ High resistance to vibration and shock
- ✓ Switch state easily changed from N/O to N/C
- ✓ 100% of our switches are tested before shipping
- ✓ Stainless Steel floats are pressure tested and weighed
- ✓ Explosion Proof model available
- ✓ Custom controls available for all our switches
- ✓ Powerful 240 Volt AC/DC @ 0.5 amps resistive – carry 2

Small Size



**Small Size**

**Part Number**

Probe Material	SS Float	Buna Float	PP Float	Kynar Float	Titanium Float
Stainless Steel	SVS12	SVB12	SVP12	SVK12	
Brass	BVS12	BVB12	BVP12	BVK12	
Polypropylene	PVS12	PVB12	PVP12	PVK12	
Kynar (PVDF)				KVK12	

**Medium Size**

**Part Number**

Probe Material	SS Float	Buna Float	PP Float	Kynar Float	Titanium Float
Stainless Steel	SVS12	SVB12	SVP12	SVK12	
Brass	BVS12	BVB12	BVP12	BVK12	

**Large Size**

**Part Number**

Probe Material	SS Float	Buna Float	PP Float	Kynar Float	Titanium Float
Stainless Steel	SXS25	SXB25	SXP25	SXK25	
Brass	BXS25	BXB25	BXP25	BXK25	
Polypropylene	PXS25	PXB25	PXP25	PXK25	(pvc float) PKP25
Kynar (PVDF)				KXK25	
Titanium					TXT25

**Floats**

**Operating Range**

	PSI	Temperature	Sp. Gr.	Weight	
316 Stainless Steel	500 psi	- 40 to 300 F	Std. is – 0.72	7.6 g	
Closed Cell Buna	200 psi	- 40 to 225 F oil	0.47	5.42 g	
PVC	100 psi	100 F	0.7	6.5 g	
Kynar ( PVDF)	100 psi	100 F	0.7	6.5 g	
Polypropylene	100 psi	100 F	6.5	6.5 g	
Titanium	300 psi	300 F	0.55	light	

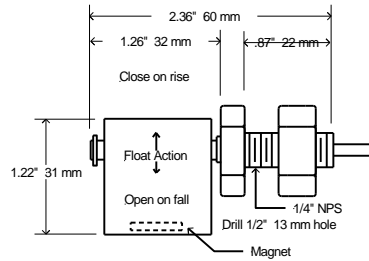
## Small Side Installation - Float Level Switches

**SX80**

The little stubby can be rotated 180 degrees to change state allowing for NO or N/C positions. Great cost-effective dependable product.

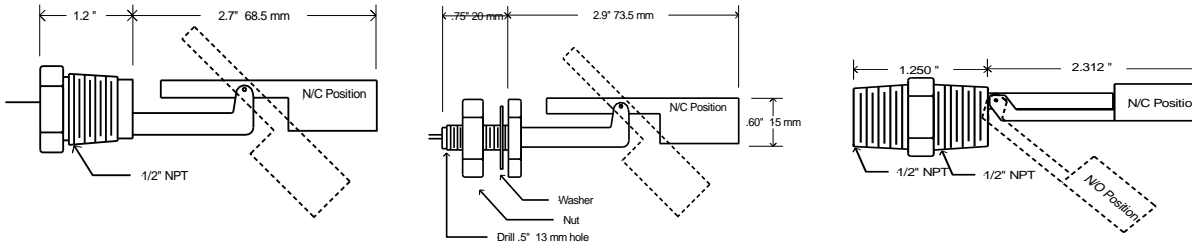
### Vertical float action

- ✓ Material – Polypropylene
- ✓ Temperature Range - 40 to 100 deg. F
- ✓ Pressure – 75 psi
- ✓ Sp. Gr. 0.80
- ✓ Switch – 240 VAC/DC @ 0.5 A resistive



### Hinged Float Action

Install the hinged model thru the tank wall in either N/O or N/C position. The SX series is ideal for quick installation at selected points. Two can be used for high / low control or install several for low cost tank level indication. Works with the latching relay and other control products. A magnet located in the swing arm activates a reed switch (240 VAC / DC @ 0.5 amps resistive) in the main body. Drill a 1/2" or 13 mm hole for the bulkhead models or 1/2" NPT for the fitting type. Switch – 250 VAC/DC 0.5A resistive carry 2



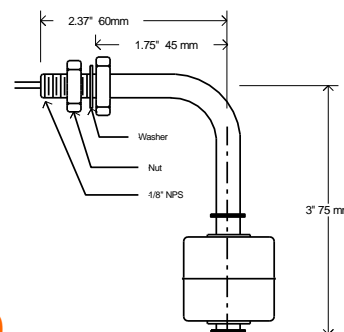
Connection	Polypropylene	Kynar	Nylon	Stainless	Pictures on first page
1/2" NPT	SX500		SX502	SX600	
Bulkhead	SX300		SX302		
1/2" NPT X 1/2" NPT	SX200	SX201		SX601	
Temperature	- 10 to 80 C	100 C	- 10 to 110 C	- 40 TO 148 C	
Pressure	100 psi	100 psi	100 psi	200 psi	
Specific Gravity	0.55	0.65	0.65	0.80	

### 90-degree Design

Good looks and a smart design make this rugged model ideal for OEM or one-shot applications. The activation can be selected on location by simply reversing the float. Installs in the side of a vessel with simplicity being the key. Simply drill a 25/64" or 10mm hole or 1/8" NPS thread and install.

Max pressure	275 psi
Temperature SS / SS	- 40 to 150 deg. C
SS / Buna in oil	- 40 to 110 deg. C
SS / Buna in Water	- 40 to 90 deg. C
Specific Gravity SS / (Buna)	0.80 (0.50)
Switch	250 VAC / DC 0.5A

**SX100**



The above designs are a result of custom requests. We have tried to develop some standard products for easy ordering and cross-reference. If nothing fits – we do offer many other process connections and sizes. Dimensions and specifications can change without notice. Drawings not to scale.

## Level Switch – Single Point Heavy Duty Construction

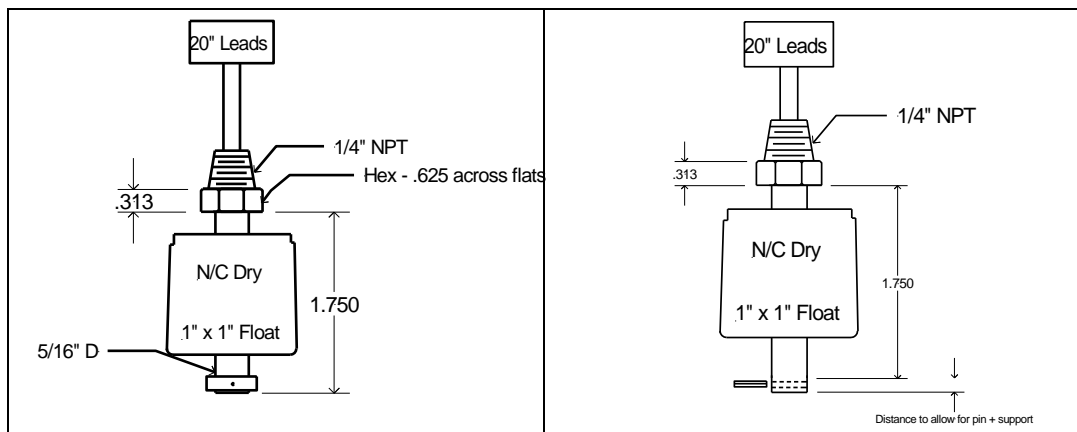
The original extra large ATB3 is designed for rugged conditions indicating high- or low-level applications. Construction consists of the standard high-end reed switch with either buna or stainless-steel floats. The hex is extra long for quick wrench tightening. As with the small size - the entire probe is fully potted to prevent moisture from entering the assembly in most cases.

Standard models can take abuse – but we still have demand for the ¼” NPT connection in small size probes.

Three stop options are available depending on the application: **1** – standard gripping clip **2** – 5/8” locking cup point set screw collar **3** – stainless spring pin. (Switch state is not field adjustable with pin)

The Buna is a true closed cell foam and can be drilled or cut and will not take on moisture. The sp.gr. of the float remains constant – because it does not take on moisture or swell.

Connection	Lead length	Temperature	Probe Material	Pressure / Sp. Gr.	Rating
¼” NPT	20” standard any length option within reason	Buna -40 to 225 deg. Oil  Stainless Float 300 deg. F	Brass	Buna 200 psi 0.47  Stainless Float 500 psi 0.72	250 VAC/DC 0.5 amps resistive carry 2
<b>Part Number Brass / Buna</b>	<b>Part Number Brass / Stainless</b>	<b>Optional Lead Length</b>			
ATB3	ATS3	Part Number – lead length in inches E.G. ATB3 – 48 is Brass / Buna 48” leads			
<b>Above part numbers are with standard gripping rings</b>					
<b>AT Series c/w Collar</b>	<b>AT Series c/w Pin</b>	With pin series – indicate N/O or N/C dry position			
Add suffix - C	Add Suffix – C – N/___	Add the suffix after the lead length option if any			

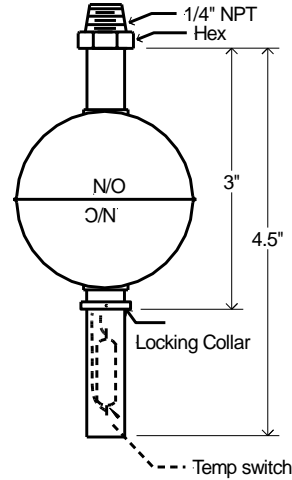


Standard ATB3 shown  
with gripping ring

## Temperature plus Single Point Level Switch (TLI)

Brass / Buna model shown – Stainless model available on request

- Two indicators in one using one installation
- Temperature control can control or shut down expensive or signal process systems when temperature parameters are exceeded
- Level indication will signal high or low level
- Either switch can be normally open or closed
- The temperature switch is located in the probe bottom.
- The probe is shown in it's basic form but can be modified to meet customer demands
- Standard units are available from 0 to 115 deg. C in five-degree increments.



The level portion works by a magnet-equipped float passing over a reed switch. The float position can either closed or open depending on the mode. The temperature switch is very unique. An encapsulated reed / magnet assembly makes up the switch. The magnet is factory set to change its magnetic lines of flux as the temperature increases. When the preset temperature is reached – the lines of force are enough to activate the sensor.

**Part Number:** TLI – (XXX) - B - A  
 - Temperature setting - Form - Float State

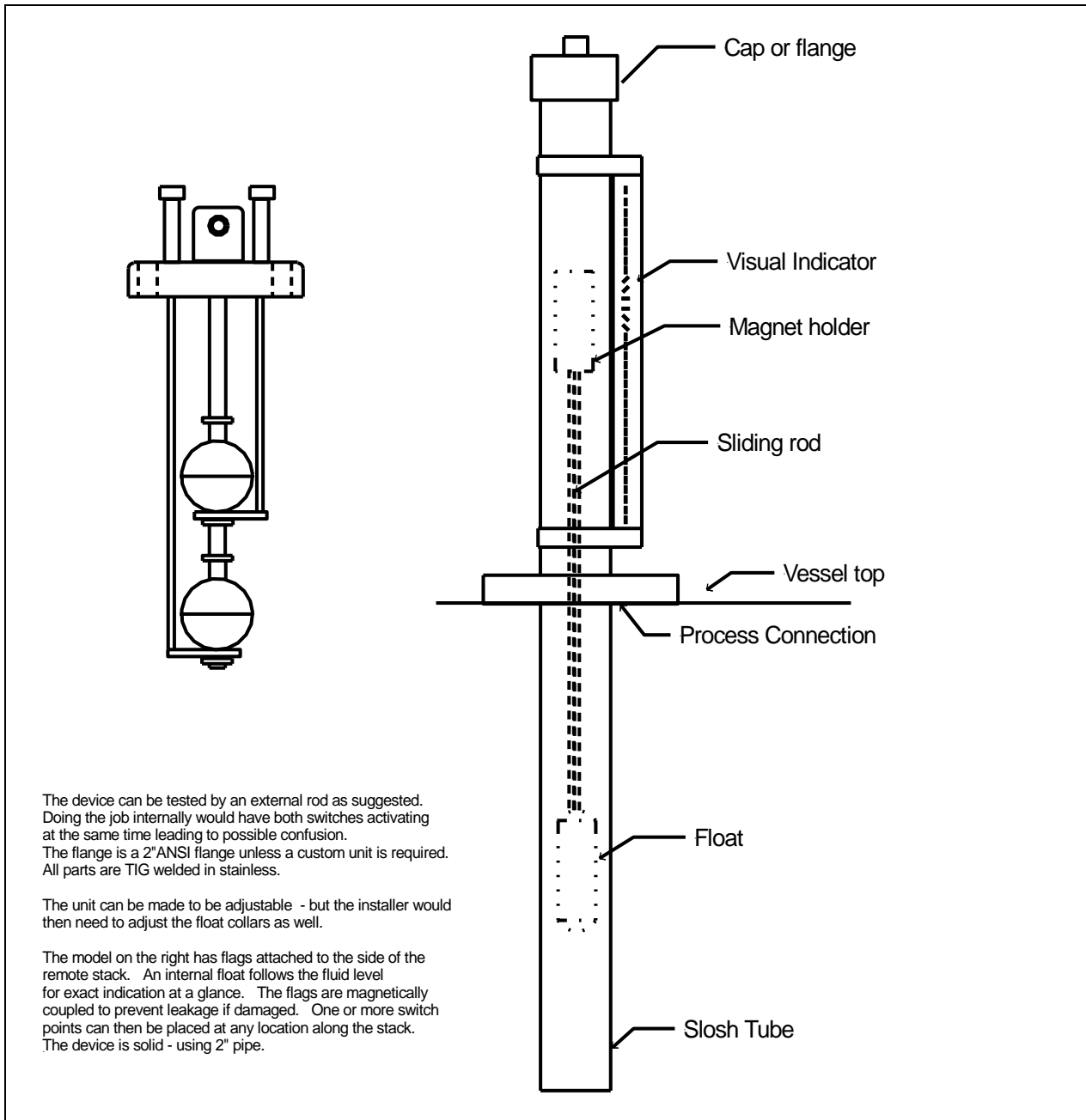
e.g. TLI – 55 – B – A - Switch set a 55 deg.C - N/C – float is normally open dry - close on rise

**Reed State**                **N/C = B** close on fall                **N/O = A** open on fall  
**Temperature State**    **N/C = B**    **N/O = A**

Temperature Contact Rating	10 W max. 12 V.A.
Temperature Voltage	100 VDC 120 VAC
Temperature Current	0.5 amps resistive make. Carry 1
Open temperature	5 deg. Increments
Tolerance	+ / - 5 deg. C
Reset Differential	10 deg. C
Reed Switch Contact Rating	250 VAC/Dc @ 0.5A resistive carry 2
Pressure	200 psi
Specific Gravity	0.50 Buna
Process Connection	1/4" NPT
Lead Length	24" both - standard – request long option

## Model used in Ships Bilge

When actual float movement is required during a test. Other options are available such as an internal sliding tube that moves the reed assembly or a total moving stem with a cinch nut or set screw to lock the device.

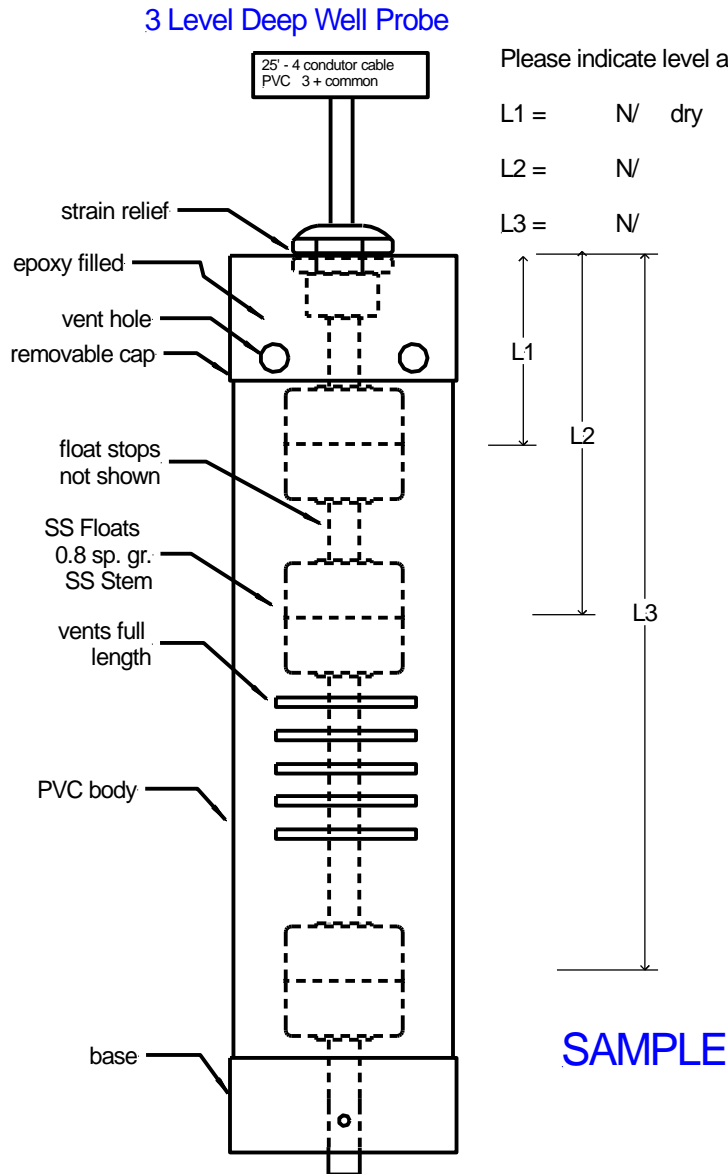


The dimensions, floats, specs and configuration are available from the SR series Large Size Multi Level Controls. Choose a configuration then ask for – Float Test Model

## Deep Level Probe with 1 to 4 Switch Points

The probe is lowered into a well or similar vessel on a 25' (other lengths optional) cable to the required depth. The level can then be accurately detected or even controlled between the set points of the switches. The probe can simply be used as an alarm to indicate rising fluid. Interface floats are available to detect hydrocarbons on water a customer specified set points.

Call with requirements a drawing will be returned for approval. Model shown has 3 switch points and 25' of cable.

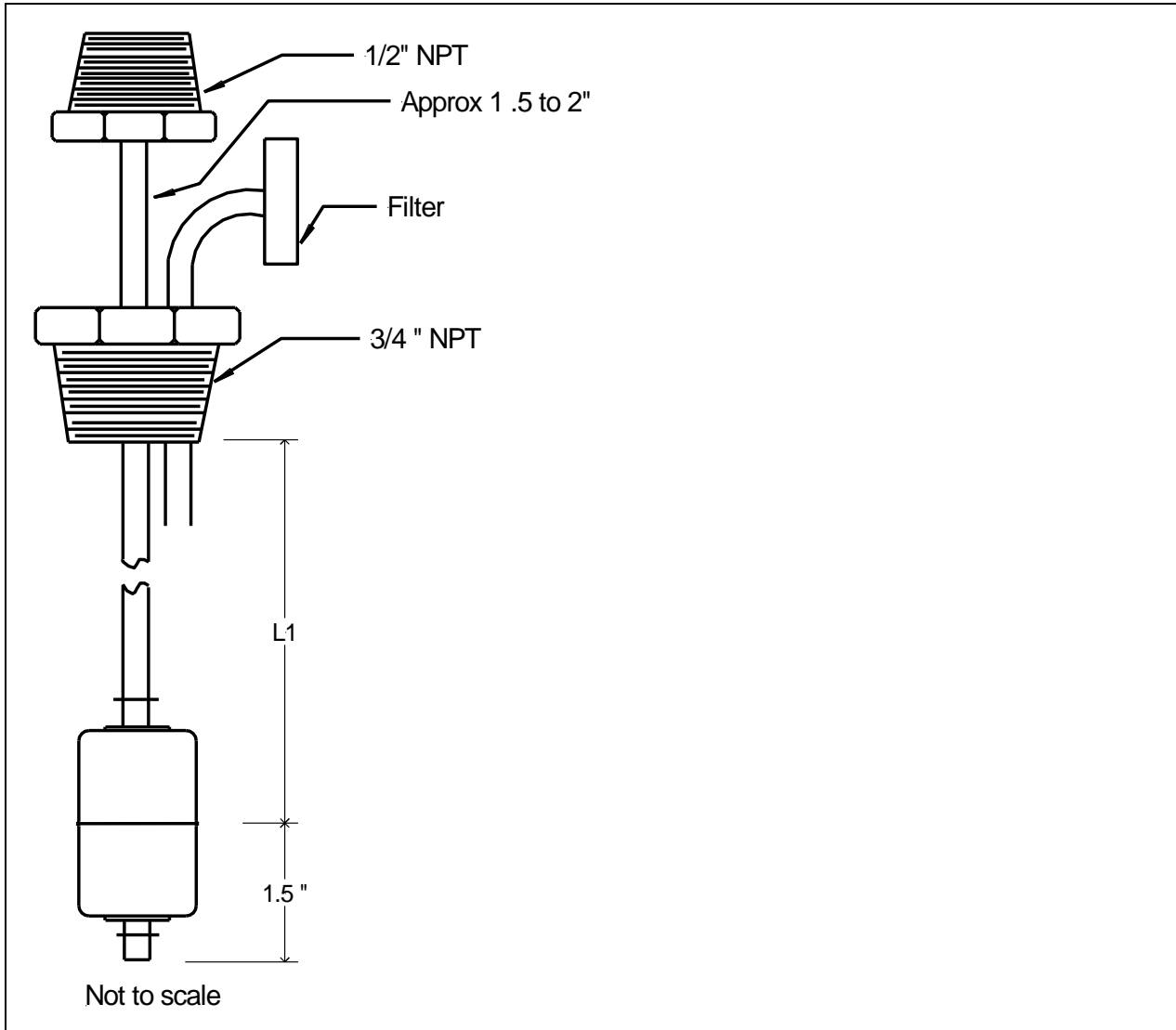


Switch Rating	250 VAC/Dc @ 0.5A resistive carry 2
Protective Shell	PVC 1 1/4" pipe size
Cable	SJOW , SJJOW, PVC options



## Level Switch with Vent and Filter

The Vented Level Control (VLC) can be used for high or low level. Options include up to 4 switch points and float specific gravity. Use this model when the vessel needs to be vented - but still needs dirt filtration. The drawing indicates a 3/4" NPT and a 1/2" NPT to attach a J box. The drawing is a sample of what's available. Send a request and we will return a drawing for approval.



Switch Rating

250 VAC/Dc @ 0.5A resistive carry 2

# Drum Level Switches - Drum Level Controls – Drum Continuous Indication

## PRODUCT

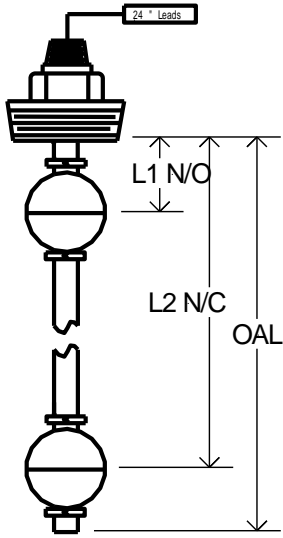
The popular drum level indicators are built to fit standard manufactured drums for vertical or horizontal positions. Bung fittings vary in size - the most popular are 3/4" NPT, 1 1/2" NPT and 2" NPT. If custom applications are required - please check the [Custom Multi Level Page](#) or [Small Size Multi Level](#). or [Continuous](#).

## CONTROLS

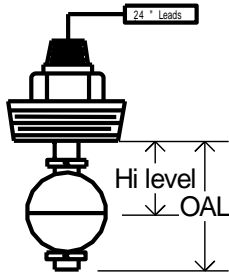
Several switch controls are available for the drum level products. To control a pump or solenoid the solid state [SSR 1000](#) is ideal with low excite voltage and 240 VAC up / down control. A high drum level, low drum level or combination alarm is available in either battery or wall transformer configuration. Our product can also connect over the phone lines to provide a simple alarm system.

SPECIFICATIONS:	DRUM LEVEL AND PROBE LENGTHS
<p><b>Operating Temperature:</b> Stainless Float - 300 deg. F 148.9 deg. C Buna Float - 200 deg. F. 92 deg. C in oil PVC - 140 deg F</p>	<p><b>Vertical Drum 55 Gallon:</b> Continuous Level Probe - 30" High Level Alarm - 1" N/O Low Level Alarm - 31" N/C Hi / Low Indication - Top 1" N/O bottom 31" N/C</p>
<p><b>Max. Pressure:</b> Buna 150 psi Stainless Steel 700 psi PVC 15 psi</p>	<p><b>Horizontal Drum 55 Gallon</b> Continuous Level Probe - 20" High Level Alarm - 1" N/O Low Level Alarm - 25" N/C Hi / Low Indication - Top 1" N/O - Bottom 25" N/C</p>
<p><b>Switch:</b> SPST 240 VAC @ 0.5 amps resistive (<a href="#">see spec sheet</a>) SPDT in large only - 30 VA - 120 VAC</p>	<p><b>Vertical Drum 30 Gallon</b> Continuous Level Probe - 24" High Level Alarm - 1" N/O Low Level Alarm - 25" N/C Hi / Low Level Indication - Top 1" N/O Bottom 25" N/C</p>
<p><b>Minimum Sp. Gr.:</b> Stainless Steel - .98    Stainless Steel - 0.7    PVC 0.6</p>	<p><b>Horizontal Drum 30 Gallon</b> Continuous Level Probe - 15" High level Alarm - 1" N/O Low Level Alarm - 16" N/C Hi / Low Level Alarm Top 1" N/O Bottom 16" N/C</p>

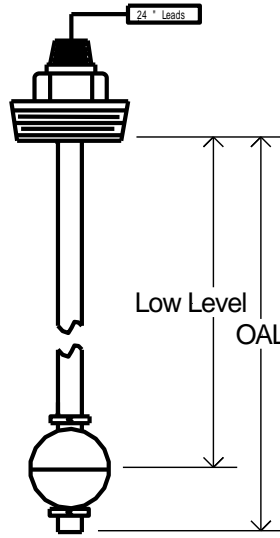
## Drum Level Drawings



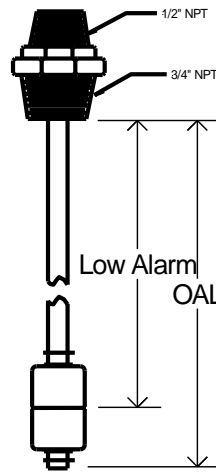
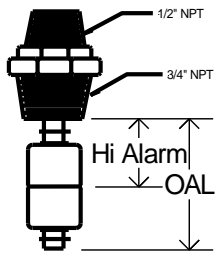
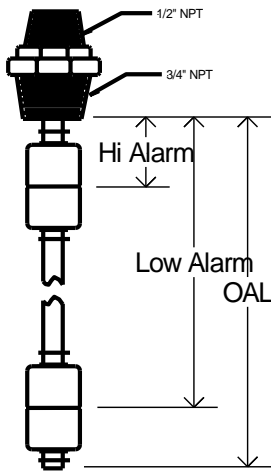
Hi - Low Alarm



Hi Alarm



Low Alarm



NOT TO SCALE  
Lengths may Change

## Drum Level Part Numbers

<b>Continuous Level Indication 2" NPT</b>					
Material	Length	Part Number	Add for 4 - 20	Price	Price with 4 - 20
Stainless Steel	30"	SRC20 - 1 - 30 - 31	- 4/20		
Stainless Steel	20	SRC20 - 1 - 20 - 21	- 4/20		
Stainless Steel	24	SRC20 - 1 - 24 - 25	- 4/20		
Stainless Steel	15	SRC20 - 1 - 15 - 16	- 4/20		
Brass / Buna	30	BRC20 - 3 - 30 - 31	- 4/20		
Brass / Buna	20	BRC20 - 3 - 20 - 21	- 4/20		
Brass / Buna	15	BRC20 - 3 - 15 - 16	- 4/20		
Brass / Buna	30	BRC20 - 3 - 30 - 31	- 4/20		
		BRC20 - 3 - 30 - 31	- 4/20		

<b>High Level Alarm Switch 55 Gallon Drum and 30 Gallon Drum fits Vertical and Horizontal</b>			
Material	Fitting Size	Part Number	Price
Stainless Steel	3/4" NPT	SSR75 - 2 - 1A - C	
Stainless Steel	1 1/2" NPT	SR15 - 2 - 1A - C	
Stainless Steel	2" NPT	SR20 - 1 - 1A - C	
Brass / Buna	3/4" NPT	SBR75 - 2 - 1A - C	
Brass / Buna	1 1/2" NPT	BR15 - 3 - 1A - C	
Brass / Buna	2" NPT	BR20 - 3 - 1A - C	

<b>Low Level Alarm Switch 55 Gallon Drum</b>					
Material	Fitting Size	Vertical Part Number	Price	Horizontal Part Number	Price
Stainless Steel	3/4" NPT	SSR75 - 2 - 31B - C		SSR75 - 2 - 25B - C	
Stainless Steel	1 1/2" NPT	SR15 - 2 - 31B - C		SR15 - 2 - 25B - C	
Stainless Steel	2" NPT	SR20 - 1 - 31B - C		SR20 - 1 - 25B - C	
Brass / Buna	3/4" NPT	SBR75 - 2 - 31B - C		SBR75 - 2 - 25B - C	
Brass / Buna	1 1/2" NPT	BR15 - 3 - 31B - C		BR15 - 3 - 25B - C	
Brass / Buna	2" NPT	BR20 - 3 - 31B - C		BR20 - 3 - 25B - C	

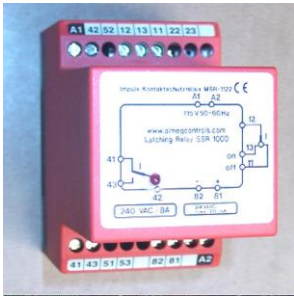
## Drum Level Part Numbers - continued

<b>Hi and Low Level Alarm Switch 55 Gallon Drum</b>					
<b>Material</b>	<b>Fitting Size</b>	<b>Vertical Part Number</b>	<b>Price</b>	<b>Horizontal Part Number</b>	<b>Price</b>
Stainless Steel	3/4" NPT	SSR75 - 2A - 31B - C		SSR75 - 2A - 1 - 25B - C	
Stainless Steel	1 1/2" NPT	SR15 - 2 - 1A - 31B - C		SR15 - 2 - 1A - 25B - C	
Stainless Steel	2" NPT	SR20 - 1 - 1A - 31B - C		SR20 - 1 - 1A - 25B - C	
Brass / Buna	3/4" NPT	SBR75 - 2 - 1A - 31B - C		SBR75 - 2 - 1A - 25B - C	
Brass / Buna	1 1/2" NPT	BR15 - 3 - 1A - 31B - C		BR15 - 3 - 1A - 25B - C	
Brass / Buna	2" NPT	BR20 - 3 - 1A - 31B - C		BR20 - 3 - 1A - 25B - C	

<b>Low Level Alarm Switch 30 Gallon Drum</b>					
<b>Material</b>	<b>Fitting Size</b>	<b>Vertical Part Number</b>	<b>Price</b>	<b>Horizontal Part Number</b>	<b>Price</b>
Stainless Steel	3/4" NPT	SSR75 - 2 - 25B - C		SSR75 - 2 - 16B - C	
Stainless Steel	1 1/2" NPT	SR15 - 2 - 25B - C		SR15 - 2 - 16B - C	
Stainless Steel	2" NPT	SR20 - 1 - 25B - C		SR20 - 1 - 16B - C	
Brass / Buna	3/4" NPT	SBR75 - 2 - 25B - C		SBR75 - 2 - 16B - C	
Brass / Buna	1 1/2" NPT	BR15 - 3 - 25B - C		BR15 - 3 - 16B - C	
Brass / Buna	2" NPT	BR20 - 3 - 25B - C		BR20 - 3 - 16B - C	

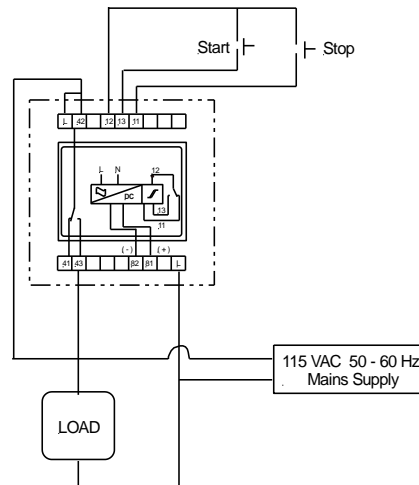
<b>Hi and Low Level Alarm Switch 30 Gallon Drum</b>					
<b>Material</b>	<b>Fitting Size</b>	<b>Vertical Part Number</b>	<b>Price</b>	<b>Horizontal Part Number</b>	<b>Price</b>
Stainless Steel	3/4" NPT	SSR75 - 2 - 1A - 25B - C		SSR75 - 2 - 1A - 16B - C	
Stainless Steel	1 1/2" NPT	SR15 - 2 - 1A - 25B - C		SR15 - 2 - 1A - 16B - C	
Stainless Steel	2" NPT	SR20 - 1 - 1A - 25B - C		SR20 - 1 - 1A - 16B - C	
Brass / Buna	3/4" NPT	SBR75 - 2 - 1A - 25B - C		SBR75 - 2 - 1A - 16B - C	
Brass / Buna	1 1/2" NPT	BR15 - 3 - 1A - 25B - C		BR15 - 3 - 1A - 16B - C	
Brass / Buna	2" NPT	BR20 - 3 - 1A - 25B - C		BR20 - 3 - 1A - 16B - C	

## Solid State Latching Relay



Efficient device for latching or on/off control in the process industry. Primary applications would be pump control, solenoid control, valve control or other device in level or flow field. The product is ideal with a physical size of about 3"x 2"x 3.75" high and DIN rail ready - safe excite voltage of 24 VDC low mA. Simple to hook up and offers switch protection including time delay preventing nuisance activations.

To use - connect the high- and low-level switch wires to the control, and put the load through the SPDT 240 V 8-amp relay. Connect 120 VAC to power it up and that's it- no programming - no dipswitches - nothing. If the driven device draws over 8 amps - simply use a starter or contactor in the case of a motor or larger relay for other products. The Relay comes complete with identified terminals.

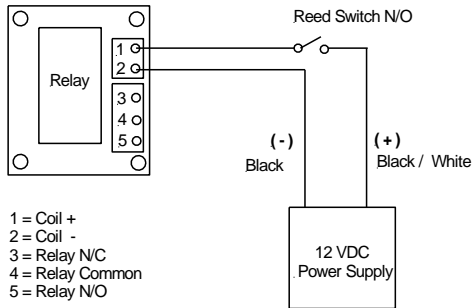


### Preliminary Technical Data Sheet

Instrument Type	Electromechanical Contact Protection Relay
Model	SSR 1000
Housing Size	75mm x 50mm x 100mm
Housing Material	Polyamid 6.6
Supply Voltage	115 VAC +/- 10% 50 – 60 Hz
Power Consumption	5 VA (typical)
Control Voltage	24 VDC
Control Current	20 Ma
Input Impedance	3300 Ohm, 100 nF +/- 20%
Maximum Contact "ON" Impedance	4700 Ohm, 47 nF at inputs
Delay Period (initiating)	10 ms
Delay Period (dropping)	20ms
Output	1 SPDT relay contact
Permissible Load	250 VAC / 8A resistive
Temperature range	-20 deg. C to 60 deg. C
Type of protection	IP 20

# Other Control Options

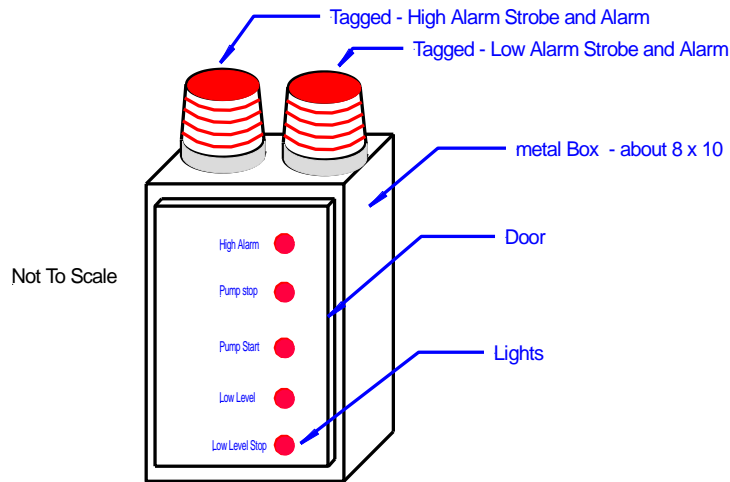
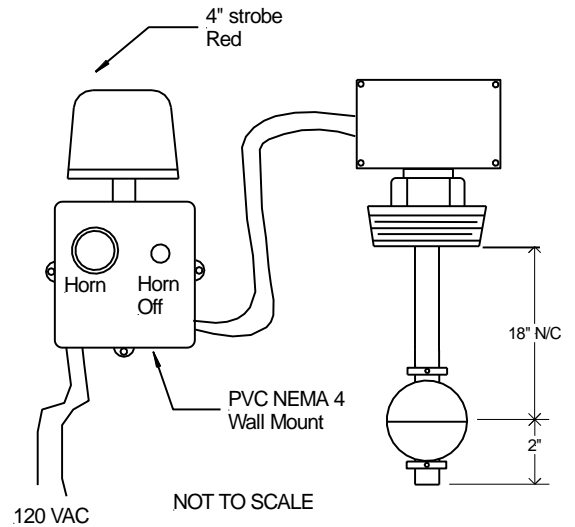
## Almeg 12 VDC Slave or Power Relay Used to switch Alarms, Lights etc.



- 1 = Coil +
- 2 = Coil -
- 3 = Relay N/C
- 4 = Relay Common
- 5 = Relay N/O

Relay specs on relay  
Power supply specs on power supply

Reversing the + and - will damage the diode



- Lights for all actions
- Momentary contact test buttons
- Solid state latching relay for pump control\*
- Relay Alarms
- Low level shut down
- Strobe light plus horn
- Internal terminal connections
- Steel box with door
- Internal components - Din Rail mounted

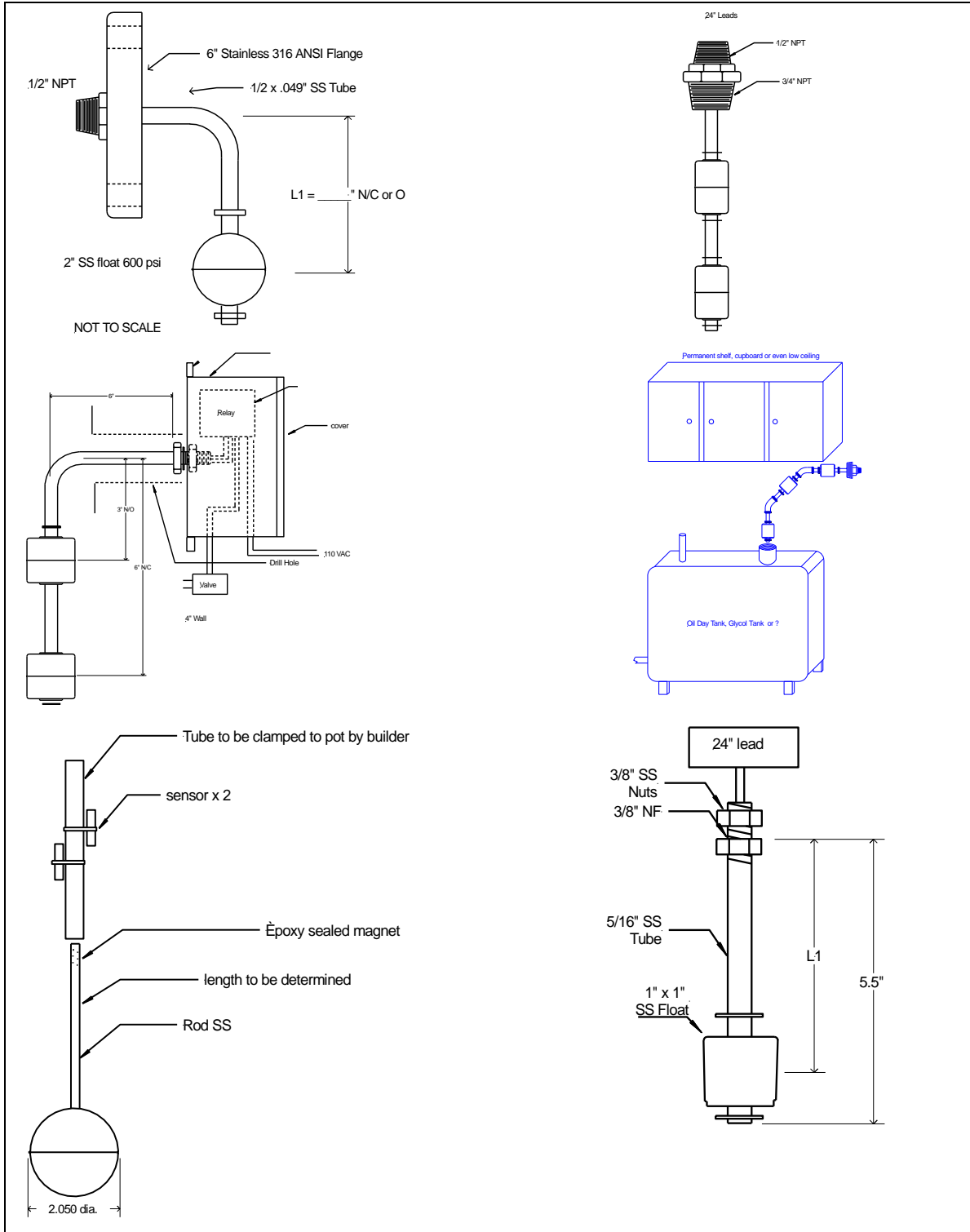
### \* Latching relay

**Contact:** SPST contacts - 10A @240 VAC  
8A @ 24 VDC

**Input -** Dry Contacts  
**Excitation:** 4 mA maximum  
at contacts  
LED - Power On  
LED - Relay Closed

Full compliment of Intrinsically Safe Barriers for reed switch applications in explosive areas. Solid control for high/ low level as well as high and low alarm. Request Information t this time

# Some Examples of Simple Custom Applications





# Paddle Flow Switch

Other models available on request

Designed to detect flow or no flow in pipes with diameters from 1" to 4" NPT. The flow switch is supplied with a full length paddle and is trimmed at the time of installation to the required flow rate. The flow profile is engraved on the paddle. The flow switch is SPDT equipped and is capable of switching in either direction. Plastic model information available soon.



## Operating Range

**Activation Range (chart to follow) 1 1/4" pipe 5 psi to 4" pipe 38 psi. (depends on paddle length cut)**

<b>Fitting Size</b>	1" NPT c/w 1/2" NPT Facing Up
<b>Paddle</b>	304 Stainless Steel
<b>Spring</b>	316 Stainless Steel
<b>Other Wetted Parts</b>	Teflon (TM) and Ceramic 316 Stainless
<b>Temperature</b>	125 deg. C Max - 200 deg. C
<b>Maximum Pressure</b>	1900 psi
<b>Pressure Movement</b>	3 psig
<b>Switch Rating</b>	1A / 250 VAC Resistive SPDT

Pipe Scribe Marks	1" Pipe		1 1/4" Pipe		1 1/2" Pipe		2" Pipe		2 1/2" Pipe		3" Pipe		4" Pipe	
	Act.	De. Act	Act	De. Act.	Act	De. Act	Act.	De-Act	Act	De-Act	Act	De-Act	Act	De-Act
<b>1"</b>	2	1.5	3.5	2	11	5	17	14						
<b>1 1/4"</b>			5	3	13	8	22	15	29	22				
<b>1 1/2"</b>					15	11	28	21	38	30				
<b>2"</b>							22	15	27	20	48	38		
<b>2 1/2"</b>									21	14	40	26	52	39
<b>3"</b>											31	20	45	32
<b>4"</b>													39	25

Numbers are in GPM. Activation (Act.) and De Activation (De. Act) are approximate flow rates and will vary with temperature, liquid and viscosity. They should only be used as guidelines for approximate specifications. The unit is a Flow Switch – On or Off.

## Mechanical Pressure Switch

Ideal pressure switches for the Industrial and Marine industry requiring solid design and dependability including a NEMA 6 enclosure. The product is capable of operating outdoors or in. Other applications would be compressors, diesel units, power stations and ships.

### Technical Specifications:

**Contact Rating:** Depending on the model - + 250 VAC @ 0.1 A inductive - 125 VDC, 12W or HD model up to 440 VAC

**Enclosure:** NEMA 6 IP 67

**Pressure Fitting:** 1/4"NPT male, brass

**Wetted Parts:** Brass, Stainless Steel, Carbon Steel

**Repeatability:** + / - 0.25 % F.S.

**Approvals:** Canadian CSA - USA UL



### Ordering Information

#### Standard Pressure Switches

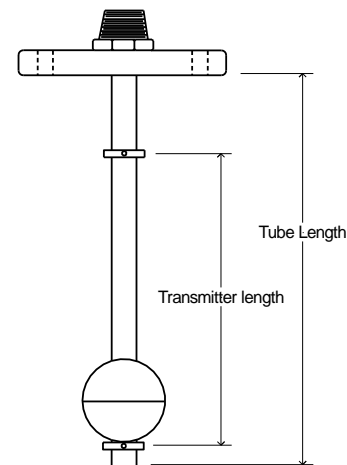
Model Number	Range PSI	Hysteresis Adjustable PSI	Maximum Pressure PSI	Temperature F Range Medium	Temperature F Range Ambient
FXS - 3162	87 to 870	14.5 to 43.5	1700	- 13 to 212	-13 to 160
More Options	<b>CALL</b>				

# Continuous Level Transducer SRC Series

## How Does It Work?

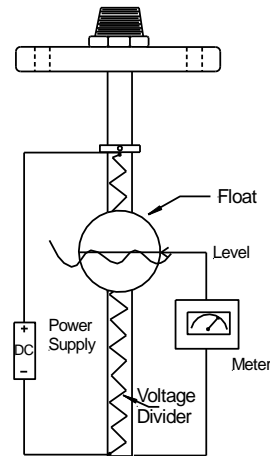
The transducer probe encapsulates a tiny printed circuit board isolated from the probe wall and is sealed at the top preventing moisture from entering the assembly. As the magnetic equipped float travels the probe (following the liquid level) it taps off sections of the probe thus outputting a signal that is calibrated to equal the level.

Output can be resistive with 1 to 10 VDC, or a 4 – 20 output for other types of controls. It can control a local level meter, bar graph, adjustable start stop level or pump control, alarms, chart recorders, be directed to a web and more.



## Features

- ✓ The SRC series is not limited to the spec sheet.
- ✓ Standard lengths in stainless to 10 feet
- ✓ Brass to 11.5 feet
- ✓ Special request sp.gr. floats for hydrocarbons etc.
- ✓ Several outputs available 0 to 5 VDC, 0 to 10 VDC, 4-20 mA
- ✓ Local or remote readings – analog or digital
- ✓ Probe size can be 0.50", 0.625", 1", 1.25" tube
- ✓ Many process connection options
- ✓ Complete controls are available – some not shown
- ✓ Sensing voltage – 20 VDC Max
- ✓ Custom lead lengths
- ✓ Easy ordering



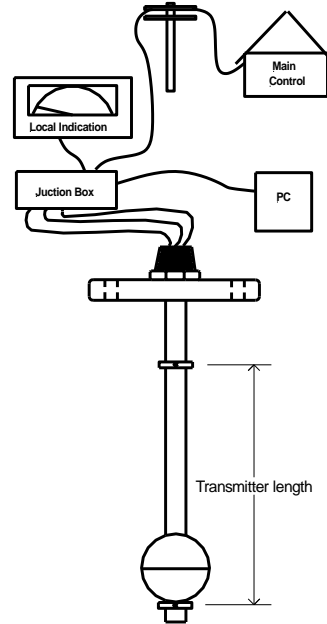
## Easy Ordering

1. Select, compatible to process, transducer material
2. Choose process connection size 2" NPT and up or 1/2" NPT
3. Select transducer indicating length
4. Select probe length -2" required above and below transducer for float to fit. 1/2" diameter is most cost effective
5. Select output
6. Call or send a sketch and a drawing will be returned for approval



# Controls for the Continuous Level Transducer SRC Series

## Local Indication



## Horizontal Tank Level Indication



## Converts to 4 – 20 signal



## New Controllers

1. Vertical bar graph with controls for level and alarms
2. Intrinsically safe for resistive type
3. Local digital display
4. Readings to 7-day charts
5. Web access to visual indication (monthly fee)
6. Control with six adjustable switch points

## Stainless Specifications

Length: 3" to 19'

Wetted parts: 316 SS

Accuracy: 10 mm + / -

Specific Gravity: 0.75 standard

Max. Pressure: 600 psi

Sensing Voltage: 20 VDC Max.

Temperature: - 40 to 300 Deg. F

Lead length: 36" standard – longer optional

## Brass / Buna Specifications

Temperature: - 40 to 225 deg. F oil

Pressure: 200 psi

Specific Gravity: Standard 0.55 – options available

# Remote Visual Indication (RVI)

## What it Does?

A magnetic or bypass level indicator provides a visual indication of the level in a vessel.

A series of flags visually indicates the level from a good distance. The flags are remote from the liquid thus no process will leak - even if the flag housing is damaged.

Several reed switch points can be added to the outside for point indication or the continuous model for a more exact remote reading. A stainless scale is available more accurate visual readings.

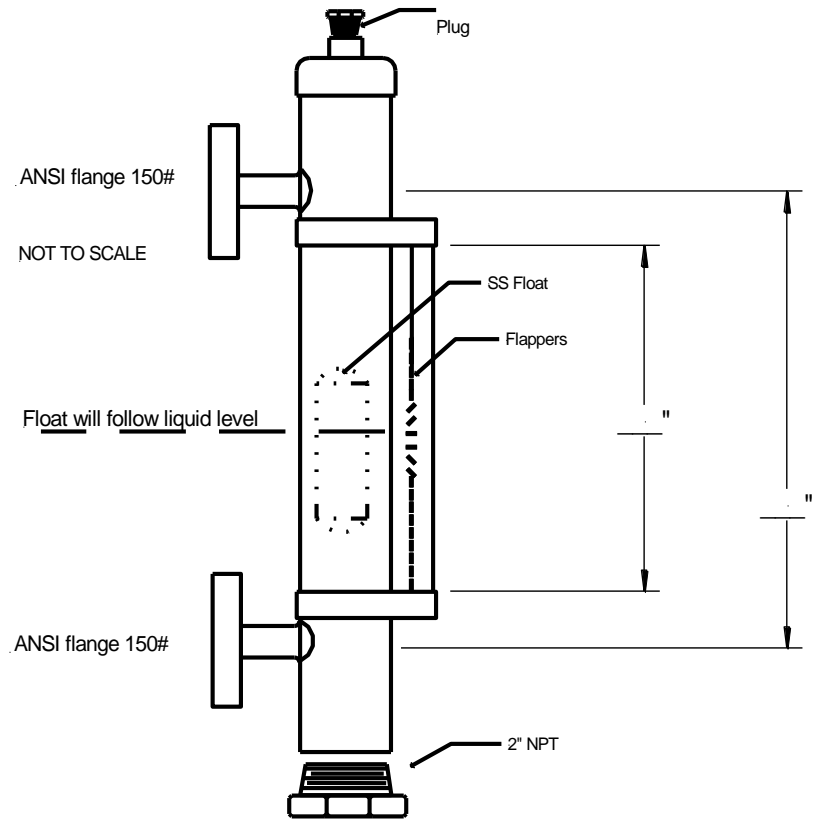
## How it Works?

A Bypass or Standoff Pipe is engineered to specifications with either pipe or flange fittings to attach to an existing vessel. The center-to-center distance is built to request. A flag or flapper chain is attached to the external part of the column. The flag has magnetic tips to provide neat alignment as the level rises and falls.

A magnetic equipped float located inside the column follows the liquid level activating the flags as it moves. So - a section of "flipped" flags indicates the level.

## How to order:

1. Plastic or Stainless material is available with a large selection of floats and sp.gr. to choose from.
2. Select material, standoff NPT pipe or flange center to center. The indicating distance will be between the standoffs.
3. Select what indication is required.
4. Indicate process liquid, temperature and pressure.
5. Send basic information and a drawing will be returned for approval.



Float - 316 SS 0.80 sp.gr. - 400 deg C 2' Dia removable  
Top of stack has removable plug for venting  
Flag holder - 304 SS 200 deg. C  
Flag display can be rotated on sight right or left 90 deg. +  
Flags are magnetized through the middle to maintain vertical position and snap action  
Flag size - 1/2" wide x 5/16" high  
Flag colour all white (empty) on one side - opposite is brown with green flag every 4"  
Reed switch points option are adjustable  
Continuous indication is available - 5 to 24 VDC 3 wire  
Flag housing is supported by SS gear clamp  
Options - shut off valves.

## Adjustable Probe Level Switch

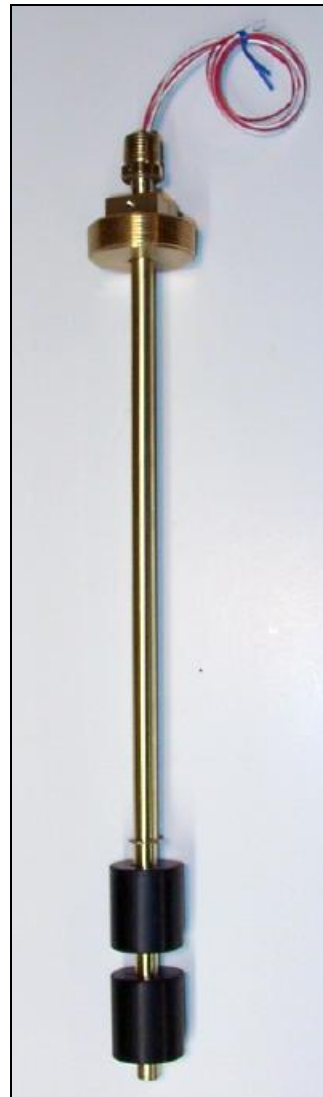
Sometimes things need to change - the best way would be to use our Continuous Level Transducer but cost may be a deciding factor.

So - the unit to the right is available with one to seven stations with most connection options in all our materials.

On this model, a setscrew tightens on the sliding tube to adjust to any height. Other models use compression fittings or strain relief options. Choose from one of our multi level switch options - and ask for adjustable length.

The continuous can be made adjustable as well

The unit has the same specifications as the large multi level found near the first page.



## Temperature Sensors / Switches

A sanitary fitting on the left is available in many configurations

Center picture shows several connections available for custom units

A union connection is on the right



**Temperature Switch.** The TMX temperature switch can be incorporated into any of our larger size level switch probes resulting in a Temperature / Level combination product. It can act as a stand alone product built into many of our custom probe designs. The device is temperature set at the factory to design requirements. It can be either Normally Open or Normally Closed to control alarms or heater safety shutdowns.



**How Does It Work?** The temperature sensing reed switch features automatic resetting, compact size and a very long life. A reed switch is inserted into an engineered sized magnet then epoxy sealed. Basically - as the temperature increases the magnetic lines of flux change in proportion to the temperature. The magnetic is set to change the reed switch state at customer requested points - either N/O or N/C. Switch points can be from 0 deg. C to 115 deg. C in five degree nominal increments. The standard operating range is + / - 5 deg. C.

**Contact Rating:** 10 W

**Voltage:** 100 VDC, 120 VAC

**Current:** Carry / Break 1 amp make 0.5 amps resistive

**Open Temperature:** 5 deg C increments starting at 0 deg. C

**Tolerance:** + / - 5 deg. C

**Reset Differential:** 19 deg. C max

**How To Order:** At this time an order sheet is not available. Please email us (see above slot) with your requirements. We offer standalone units or switches incorporated into our level probes. The picture depicted is all stainless steel 1/2" NPT x 1/2" NPT set at 55 deg. C either N/O or N/C.

## Mechanical or Non-Electrical Level Indication:

Visual level indication at a glance when power is not available. Process connections are cast in several standard sizes and lengths are made to order. The floats are closed cell Buna and the float arms are SS to work

oils. Please check back for added features or email for more information.

Most gauges are available in 1 1/2 "NPT or 2" NPT. Rod arms are stainless to work in oils. Call for custom applications.

**Standard Gauge**



**Rugged Metal Housing**



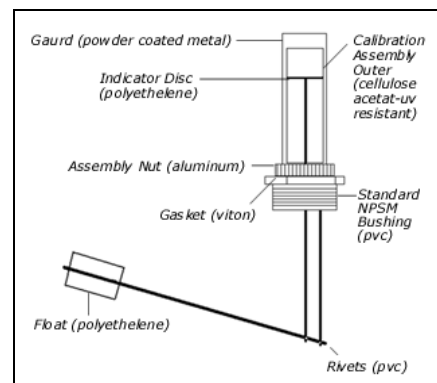
**All New Plastic Model**



**Standard Model**



**Plastic Configuration**





## Reed Switch Protection (1)

### Point Level Switch

Our custom level switches operate on the principal of a magnet-equipped float, or floats, activating a reed switch (float station) at customer requested dimensions and state (N/O or N/C dry). The custom sizing combined with low activation energy reed switches sealed in their own hermetic environment allow our controls to handle huge jobs from small places - any job as long as the capacity is not exceeded. Make sure there is enough capacity - if not, simply use an accessory interface device, such as a relay, to handle the required load. In other words, let the switch sense and the relay or electronics control. Only test with an Ohm meter not a light. Level switches are really for pilot duty devices and will work well with a control relay.

### The Reed Switch

The tiny switches are comprised of a sealed glass tube containing spring arms with rhodium contact material. The magnets close the contacts when they are within the required range. Like a computer chip –its small size does not limit it to small jobs. It can do big jobs from restricted spaces as long as the capacity is not exceeded.

### Possible Problems

Two common causes can destroy the switch. First - if the power rating of the switch is greatly exceeded, the contacts will weld immediately. Second - if the switch is induced to arc as it opens or closes the plated contact surface will fail. The greater the arc - the sooner the failure. The switch will weld in the closed position. Switches are rated with a resistive load - ARC suppression is important.

#### How to Suppress the Arc (RELAY)

For a DC circuit - a simple one-amp diode placed parallel with the load will suppress the arc. Select a diode with a voltage rating at least **three times** or more that of your circuit rating. Connect cathode to positive. Cathode usually has a dark ring, on the body, on the same side. e.g. 1N4004 For an AC circuit use a disk capacitor / resistor placed parallel with the switch. Select a 0.1 mfd 400 to 600 V capacitor. Place a 50 - 100 ohm 1/4 watt resistor in series with the capacitor. Place the pieces parallel to the switch. (A Varistor V130LA10A will also work in AC)

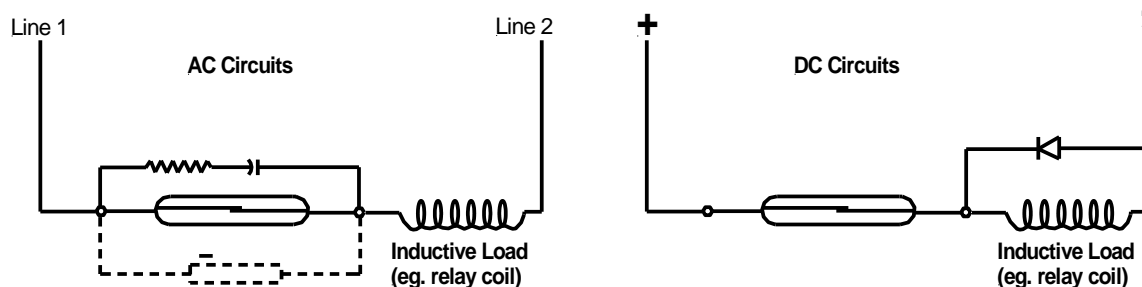
### Interface or Control Devices

#### Solid State:

SCR's or Triacs are an effective off the shelf product for controlling alarm lights or latching or holding relays. Latching relays would be used for high/low level control. The switch only sees a milliamp resistive signal load from the solid-state device. Most solid-state devices c/w arc suppression if needed. Solid state devices are readily available at most electronic outlets or from your level switch distributor.

#### Electromechanical Relays

A great simple device and can be wired in any conceivable logic. A suppression circuit as above should be used with mechanical relays as the reed switch would see an inductive load.



## Reed Switch Protection (2)

### Other Devices

Thousands of control devices are available such as the 5-volt non-arcing computer brain. The new world is controlled by low voltage computer chips where power levels are low - an ideal situation for our level switches. Let the switches control for example LED's, computer outputs, solid-state devices and small indicator lamps. Use an interface to control motor starters, motors, lamps or heating devices, etc.

### Reed Switch

Maximum voltage SPST AC - 250 VAC  
Maximum voltage SPST DC - 250 VDC  
Maximum amps switching - 0.5 amps  
Maximum amps carry current - 2 amps  
Resistive ratings  
Hermetically sealed  
SPDT - 120 VAC @ 0.5 amps resistive

### Quality

Over twelve years' worth of our level switches are in use around the world. They can be found in a multitude of level applications. Many OEM's from our early days are still with us.

#### **IMPORTANT INFORMATION ON USE**

##### **Single Point Level Switch Including Side Mount**

Best used as an alarm signal they have a narrow differential between off and on. Unless they are controlled by a time delay or other such logic they will cycle rapidly and cause premature failure. Wave action could have the same affect on the switch. A slosh control device would help.

##### **Multi Point Level Switches Including Bent Stem**

Can be used for level control with up to 6 stations for alarms and level control. Use an appropriate control device.

### Fail Safe Installation

Always design the system for fail-safe operation - an example would be - liquids should not overflow because of a power failure. Failure of a relay or pump should not allow the liquid to overflow. Also -failure of a level switch should not cause conditions to be unsafe. Level controls should be satisfied by intelligent fail-safe design. A back-up design or setup should be incorporated if a fail-safe design cannot be achieved by circuit and or component configuration. *It is important and the responsibility of the purchasing Engineer, who delegates control of a design to automate, to insure a means to sustain safe control when components or power fails.*

### Will it do Your Job?

The controls are built to customer requests. The company does not recommend products for any specific use. We will discuss design and details with user engineers. All components are assembled from part numbers described in the brochure. The company, as described in the warranty, does not authorize or warrant the products supplied by the company, for use in a system that may affect life or personal safety or for use as a critical component.

## Warranty

ALMEG CONTROLS O/B 938077 Ontario Inc.

Almeg Controls, a division of 938077 Ontario Inc, (the "Corporation") warrants all new products supplied by it to be free from defects in material and workmanship for a period of One year from the date of delivery (the Warranty Period"). The Corporation, at its option, shall repair or replace the products within the Warranty Period; provided, however, that,

- (a) the Corporation is satisfied that such repair or replacement is necessary due to a defect in material or workmanship and is not attributable to improper installation, misuse, or a negligent act or omission on the part of the purchaser, its agents or employees;
- (b) the products have not been repaired by persons other than the Corporation within the Warranty Period; and
- (c) the purchaser has supplied the Corporation with notice in writing of the defect within the Warranty Period and has returned the product to the Corporation by prepaid courier.

There are no promises, guarantees, assurances, inducements, representations, warranties or agreements, either oral or written, express or implied, statutory or otherwise, including without limitation any implied warranty of merchantability or fitness for a particular purpose, other than is specifically stated herein. The Corporation shall in no event be held liable for any property damage, personal injury, loss of profit, economic loss or any other damages, claims, suits or actions resulting directly or indirectly from the use or operation of any products supplied by the Corporation, or the use or operation of any equipment containing the products supplied by the Corporation."