


#1 – High Level Alarm


High level alarming relative to tank or sump over fill preventing a spill.

- Goal is to notify when a high level is reached preventing an overflow.
- Level sensor can be mounted along the top wall or along the side of the tank.
- Choose a switch technology that is chemically compatible with the liquid.
 - o For water like liquids, choose a Buoyancy Float.
 - o For corrosive liquids, choose an Ultrasonic Gap switch.
 - o For coating and or scaling liquids, choose a Vibration Tuning Fork switch.



2" NPT Mount

Switch-Pro
Side Mount with 16A controller
120 or 240 VAC powered
Wire directly to a pump, valve or alarm




3/4" NPT Mount

Switch-Pro
Side Mount with junction box
12 to 32 VDC powered
Wire directly to a PLC, SCADA or Controller



3/4" NPT Mount

Switch-Pak
Top Mount with 16A controller
120 or 240 VAC powered
Wire directly to a pump, valve or alarm



2" NPT Mount


Switch-Pak
Top Mount with junction box
12 to 32 VDC powered
Wire directly to a PLC, SCADA or Controller

#2 – Low Level Alarm

Low level alarming relative to tank or sump emptying below acceptable liquid level preventing pump cavitation or stressing actuated valve armatures.

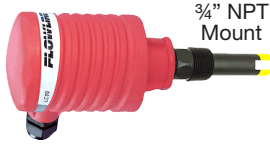
- Goal is to notify when a low level is reached preventing pumps from running dry or when to re-order product.
- Level sensor can be mounted along the top wall or along the side of the tank.
- Choose a switch technology that is chemically compatible with the liquid.
 - o For water like liquids, choose a Buoyancy Float.
 - o For corrosive liquids, choose an Ultrasonic Gap switch.
 - o For coating and or scaling liquids, choose a Vibration Tuning Fork switch.

Solutions:




2" NPT Mount

Switch-Pro
Side Mount with 16A controller
120 or 240 VAC powered
Wire directly to a pump, valve or alarm




3/4" NPT Mount

Switch-Pro
Side Mount with junction box
12 to 32 VDC powered
Wire directly to a PLC, SCADA or Controller



3/4" NPT Mount

Switch-Pak
Top Mount with 16A controller
120 or 240 VAC powered
Wire directly to a pump, valve or alarm



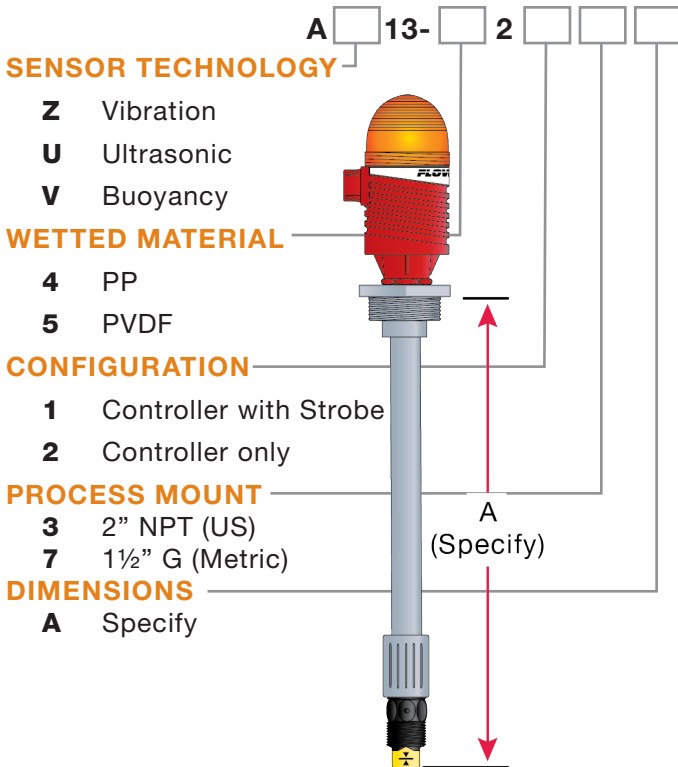
2" NPT Mount

Switch-Pak
Top Mount with junction box
12 to 32 VDC powered
Wire directly to a PLC, SCADA or Controller

5 Basic Level Applications

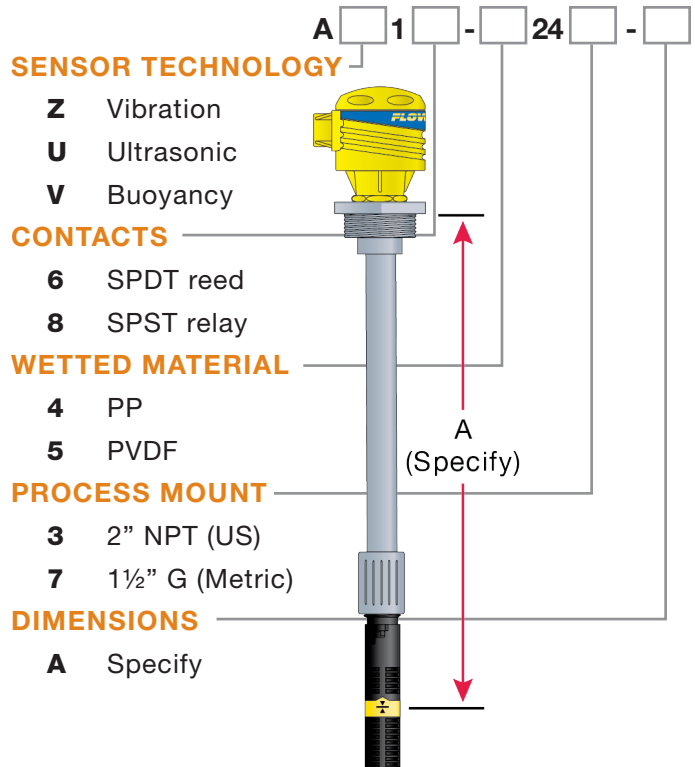
Ordering Switch-Pak

Side Mount with 16A controller, 120 or 240 VAC powered



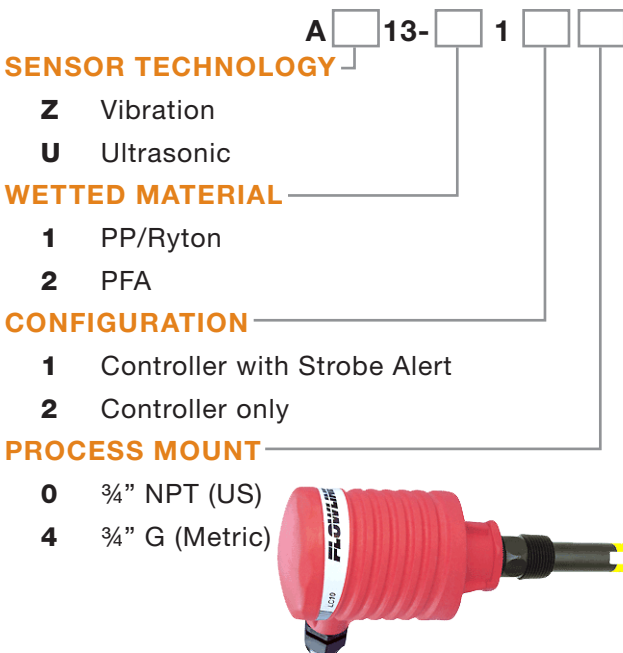
Ordering Switch-Pak

Side Mount with junction box, 12 to 32 VDC powered



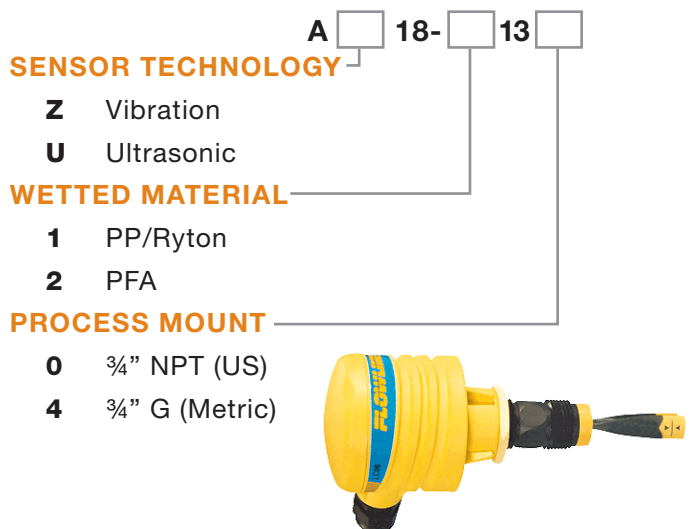
Ordering Switch-Pro

Top Mount with 16A controller, 120 or 240 VAC powered



Ordering Switch-Pro

Top Mount with junction box, 12 to 32 VDC powered



#3 – Leak Detection

Leak detection for interstitial dual wall containment piping systems or tanks.

- Goal is to notify when a leak occurs in a secondary containment tank or pipe.
- Level sensor can be mounted through side wall, the top of the interstitial space or to a tee in secondary containment piping.
- Key is to locate the tip of the sensor at a location where it will come into contact with the liquid as soon as possible after a leak occurs.

Solutions:



Switch-Tek
 Optic Leak Detection Switch
 Wire directly to a PLC, SCADA or add a Controller

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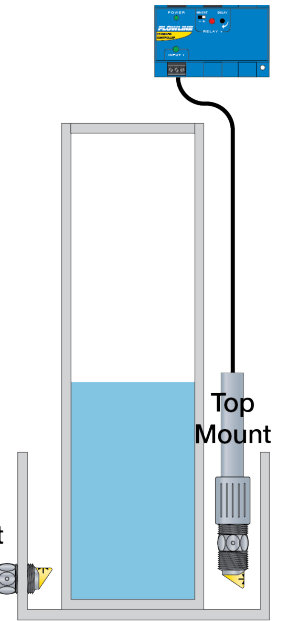
Switch-Pro
 Remote 10A Relay Controller
 120 or 240 VAC powered
 Wire directly to a pump, valve or alarm

or



Switch-Pro
 Compact 16A relay controller
 120 or 240 VAC Powered
 Wire directly to a pump, valve or alarm

Side Mount



#4 – Auto Fill or Auto Empty

Fill or Empty Automation utilizing pump or valve control for auto-fill or auto-empty between two levels.

- Goal is to automatically fill a tank when it gets low or to automatically empty a tank when it is high.
 - Auto Fill is ideal for day tanks / Auto Empty for sumps.
- Level sensor can be mounted along the top wall or the side of the tank.
 - Two level switches are always required, one to start the process and the second to stop the process.
- Connect both level switches to a latching controller or to a PLC, SCADA, DCS, etc. to perform the automatic control.

Solutions:



Smart Trak
 Top mount with 16A controller
 120 or 240 VAC powered
 Wire directly to a pump or valve



Smart Trak + Switch-Pro
 Top mount /w junction box
 Wire directly to a PLC, SCADA or add a remote relay controller to switch 120 or 240 VAC power

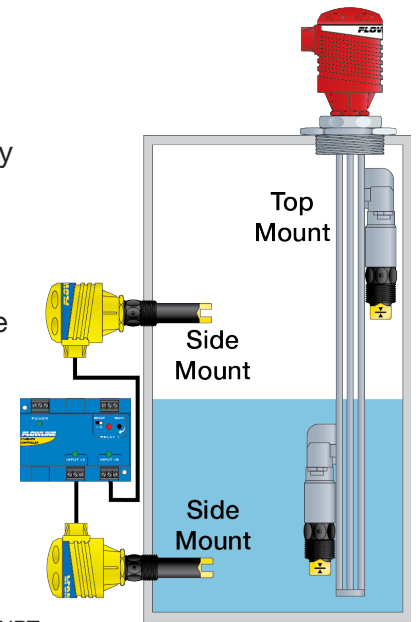
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2 x Switch-Pro + Switch-Pro
 Dual side mount w/ junction box
 Wire directly to a PLC, SCADA or add a remote relay controller to switch 120 or 240 VAC power



5 Basic Level Applications

Ordering Switch-Tek Optic Leak Detection Switch

- LO10- 5
- SENSOR MATERIAL**
- 1 PP
 - 2 PFA
- SENSOR LENGTH**
- 3 Short
 - 4 Long
- PROCESS MOUNT**
- 0 3/4" NPT (US)
 - 2 3/4" G / R (Metric)



Ordering Switch-Pro Compact 16A relay controller, 120 or 240 VAC Powered

- LC10-10
- PROCESS MOUNT**
- 0 3/4" NPT (US)
 - 5 3/4" R (Metric)
- CONFIGURATION**
- 1 Controller only
 - 2 Controller with Strobe Alert



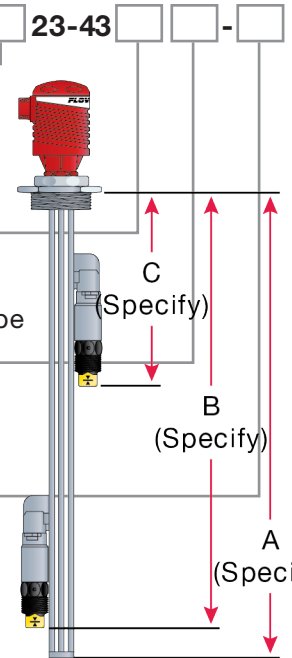
Ordering Switch-Pro Remote 10A Relay Controller, 120 or 240 VAC powered

- LC4 -1001
- ENCLOSURE MOUNT**
- 0 1 relay / 1 sensor
 - 1 1 relay (latching) / 2 sensors
 - 2 2 relays (1 latching) / 3 sensors



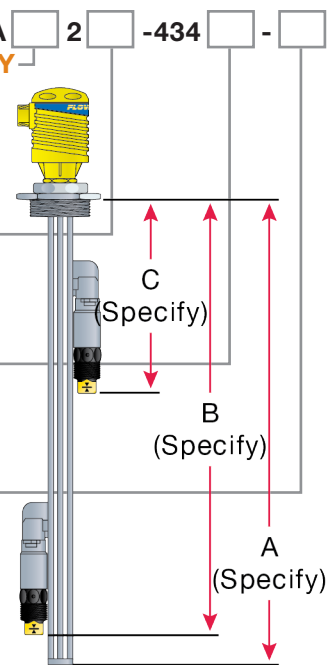
Ordering Smart Trak Top mount with 16A controller, 120 or 240 VAC powered

- A 23-43 -
- SENSOR TECHNOLOGY**
- Z Vibration
 - U Ultrasonic
 - V Buoyancy
- CONFIGURATION**
- 1 Controller only
 - 2 Controller with Strobe
- PROCESS MOUNT**
- 3 2" NPT (US)
 - 7 2" G (Metric)
- DIMENSIONS**
- A Specify
 - B Specify
 - C Specify



Ordering Smart Trak Top mount /w junction box

- A 2 -434 -
- SENSOR TECHNOLOGY**
- Z Vibration
 - U Ultrasonic
 - V Buoyancy
- CONTACTS**
- 6 SPDT reed
 - 8 SPST relay
- PROCESS MOUNT**
- 3 2" NPT (US)
 - 7 2" G (Metric)
- DIMENSIONS**
- A Specify
 - B Specify
 - C Specify



#5 – Inventory Management

Inventory monitoring by continuous level feedback to a local display depicting volumetric measurement.

- Goal is to know how much liquid is in the tank.
- System requires three components: Transmitter, Display & 24 VDC Power Supply.
- Display can also be a controller, PLC, SCADA, DCS, etc.
- Display can be located next to tank, remotely in a control room or both.
- Displays, when combined with relays, can control alarms, pumps & valves for high, low & automatic control functions.
- To span the output for interfacing to an actuated valve or VFD, use a display with a 4-20mA repeater output.

Solutions:



BONUS

Combine Inventory Management with Alarm or Auto Fill/Empty

Combining the above transmitters with a local display with relays add high alarms, low alarms, auto fill or auto empty applications to inventory monitoring.

- Goal is to directly control pumps, valves or alarms along with monitoring how much liquid is in the tank.
- Choose a display that is powered from 120/240 VAC or 24 VDC.
 - 120/240 VAC systems will typically have a 24 VDC power supply and require just the transmitter and the display.
 - Add 2 or 4 relays (3A) to directly switch most alarms and valves.
 - 24 VDC systems will require the transmitter, the display and a separate 24 VDC power supply.
 - Add 2 relays (1A) to directly switch most alarms (audible and visual).
- Display can be located next to tank, remotely in a control room or both.
- A repeater output can still be used to interface to an actuated valve or VFD or to continue the 4-20mA signal to a central controller (PLC, SCADA, DCS, etc.).

Solutions:



DataView
120/240 VAC Powered Display



DataLoop
24 VDC Loop Powered Display

5 Basic Level Applications

Ordering EchoPod

Small & Bluk Tank Ultrasonic

UG -00 1-4

SENSOR RANGE

- 01 4.9' (1.5m)
- 03 9.8' (3.0m)
- 06 19.7' (6.0m)
- 12 39.4' (12.0m)


PROCESS MOUNT ⁽¹⁾

- 0 2" NPT
- 1 2" G (Metric)

USB ADAPTER

- 0 Without Fob
- 1 With Fob

(¹) 3" NPT or 3" G Mount (UG12 only)



Ordering EchoPulse

Pulse Radar

LR -0 01-

APPLICATION

- 15 Waste Radar/98.4' (30m)
- 20 Corrosive Radar/65.6' (20m)
- 30 Sump Radar/98.4' (30m)

STYLE

- 0 No Flange
- 3 Flange Mount

ANTENNA SIZE / BEAM ANGLE

- 1 N/A / 12° beam angle
- 2 2" / 18° beam angle ⁽²⁾
- 3 3" / 12° beam angle
- 4 4" / 8° beam angle

⁽²⁾ metallic/concrete tanks only

LR15 Series



1 1/2" NPT Mount

LR20 Series



3" or 4" Flange Mount

LR30 Series



Bracket Mount

Ordering EchoWave

Guided Wave Radar

LG1 - 0 3-0 -

RANGE

- 0 9.8' (3.0m)
- 1 18.0' (5.5m)

PROBE TYPE

- 0 Rod ⁽²⁾
- 1 Coaxial
- 2 Cable ⁽²⁾

PROCESS MOUNT


- 0 3/4" NPT (US)
- 1 3/4" G (metric)

FOB ADAPTER

- 0 Without Fob
- 1 With Fob

PROBE LENGTH

XXX Standard or custom length
⁽²⁾ metallic/concrete tanks only



Ordering DataView

120/240 VAC Powered Display

LI55 - 1

SUPPLY VOLTAGE


- 1 85-265 VAC
- 8 12-24 /VDC

CONFIGURATION

- 0 Meter only
- 2 Meter with 2 relays
- 4 Meter with 4 relays

REPEATER CONFIGURATION

- 0 No repeater
- 1 4-20mA repeater



Ordering DataLoop

24 VDC Loop Powered Display

LC23-1 1

CONFIGURATION

- 0 Display only
- 2 Display with 2 relays

REPEATER

- 0 No repeater
- 1 4-20mA repeater

