ALSCO +GF+ Industrial Rotameters

Corrosion Resistant flow meters for accurate measurement of liquids and gases.

Flowmeters

Features:

- End connections from 3/8" to 2 1/2" (socket, threaded and flanged) in PVC, PP and PVDF
- Tubes available in Polyamide (PA) and Polysulphone (PSU)
- Scales available in GPM, LPH, Percentage (10-100%), SCFM and m3/h
- Accuracy 3% of full scale, 1% of measured range
- Rated pressure 150 psi at 68º F
- Rated Temperature 32º - 140º F (PA and PSU with PVC ends); 32º - 194º F (PSU with PP ends); 32º - 212º F (PSU with PVDF ends)
- Seal materials in EPDM or FPM

General

Vertical flow meters used to measure the rate of flow of liquids or gases in industrial piping systems. Wide selection of materials and measurement scales allows rotameters to be used in a broad range of applications and media. UPW models are also available for applications that require ultra-pure conditions.

Shatter-Proof

GF high impact plastic rotameter tubes are durable and virtually shatter-proof. They are the perfect alternative to fragile glass and expensive armored flowmeters.

Applications

- Beverages
- Biotechnical Sciences
- Brewing
- Chemical
- Confectionery
- Cosmetics
- Electronics
- Food Processing
- Manufacturing
- Pulp & Paper
- Power
- Photographics
- Water & Water Treatment

Easy to Read

GF rotameters are equipped with adjustable guides for easy visual readout. Bright orange-colored floats are clearly visible, even from a distance.

Dual Scales

Scales are offered in GPM, LPH, %, and cubic meters per hour for water. Special scales are available for SCFM (air).

Limit Switches

Minimum and maximum limit switches can be installed and adjusted using the integral mounting rail. These reed switches provide an accurate flow readout when activated by the optional magnetic float.

Part #	Size	Water		Tube	Float	Seals	
	ID (in)	GPM	LPH	Material	Material		Price
5100-PF	1	0.22 - 2.2	50 - 500	Polysulphone	PVDF	FPM	203.00
5100-PV	1	0.22-2.2	50-500	Polysulphone	PVDF	FPM	125.00
5101-PF	1	0.44 - 4.4	100 - 1000	Polysulphone	PVDF	FPM	203.00
5101-PV	1	0.44-4.4	100-1000	Polysulphone	PVDF	FPM	125.00
5102-PF	1 1/2	1.3 - 13.0	300 - 3000	Polysulphone	PVDF	FPM	314.00
5102-PV	1 1/2	1.3-13.0	300-3000	Polysulphone	PVDF	FPM	195.00
5103-PF	1 1/2	2.6 - 26.0	600 - 6000	Polysulphone	PVDF	FPM	314.00
5103-PV	1 1/2	2.6-26.0	600-6000	Polysulphone	PVDF	FPM	179.00
5104-PF	2	4.4 - 44.0	1000 - 10000	Polysulphone	PVDF	FPM	454.00
5104-PV	2	4.4-44.0	1000-10000	Polysulphone	PVDF	FPM	271.00
5105-PF	2	6.6 - 66.0	1500 - 15000	Polysulphone	PVDF	FPM	454.00
5105-PV	2	6.6-66.0	1500-15000	Polysulphone	PVDF	FPM	271.00

PF = PVDF threaded , PV = PVC socket

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ALSCO BLUE WHITE Flowmeters

F- 400N SERIES IN - LINE FLOWMETERS

General Description

This unit offers individual, handmade quality, combined with excellent accuracy and repeatability. F-400 series flowmeters are machined of high quality acrylic rod stock, and carefully polished to a clear-as-glass finish. Easy to read scales are screen printed on the meter body. Adapters are reinforced with * aluminum stress rings for added strength, and o-ring seals are Viton.

An exceptional flowmeter at a remarkable price!

* On 1-10, 1-17 and 5-21 GPM models only.

Specifications

- Accuracy: ± 5%
- Material of Construction (meter body): Machined acrylic
- 150 psi @ 73°F
- Range: 0.025 to 21 GPM

Applications

- Hydroponic systems
- Electronic and microchip procession equip.
- D.I. and ultrapure water systems
- Pollution montoring and control equipment
- Photo and x-ray processing equipment
- Water and wastewater treatment equip.
- Chemical procession equipment

Part #	Calibration		Adapter	Price
	GPM	LPM	Size	$
5106	0.025 - 0.250	0.1 - 1.0	1/4" FPT	$ 83.55
5107	0.025 - 0.250	0.1 - 1.0	3/8" FPT	83.55
5108	0.1 - 1.0	0.4 - 4.0	3/8" FPT	71.45
5109	0.1 - 1.0	0.4 - 4.0	1/2" FPT	71.45
5110	0.2 - 2.0	1.0 - 7.5	3/8" FPT	71.45
5111	0.2 - 2.0	1.0 - 7.5	1/2" FPT	71.45
5112	0.3 - 3.0	1.5 - 11.5	3/8" FPT	77.03
5113	0.3 - 3.0	1.5 - 11.5	1/2" FPT	77.03

Part #	Calibration		Adapter	Price
	GPM	LPM	Size	$
5114	00.5 - 5.0	1.8 - 18	3/8" FPT	$ 71.45
5115	0.5 - 5.0	1.8 - 18	1/2" FPT	71.45
5116	1.0 - 10	4.0 - 38	3/4" FPT	137.65
5117	1.0 - 10	4.0 - 38	1" FPT	137.65
5118	1.0 - 17	—	3/4" FPT	137.65
5119	1.0 - 17	—	1" FPT	137.65
5120	5.0 - 21	8.0 - 78	3/4" FPT	137.65
5121	5.0 - 21	8.0 - 78	1" FPT	137.65

F- 440 SERIES FLOWMETERS

General Description

These compact, durable units are injection molded of heat and chemical resistant Polysulfone. They feature Quik Loc (half union) connectors that couple the meter body to the pipe connectors at each end of the flowmeter.

F-440 series units are available in configurations for in-line or panel mount installation. Additionally, F-440 units may be ordered with an integral, adjustable flow control needle metering valve.

A versatile and economic flowmeter.

Specifications

- Accuracy: ± 5%
- Material of Construction (meter body): Molded Polysulfone
- 180 psi @ 73°F
- Range: 0.025 to 5.0 GPM

Part #	Calibration		Adapter	Price
	GPM	LPM	Size	$
5122	0.025 - 0.250	0.1 - 1.0	3/8" MPT	$ 67.96
5123	0.025 - 0.250	0.1 - 1.0	1/2" MPT	67.96
5124	0.1 - 1.0	0.4 - 4.0	3/8" MPT	67.96
5125	0.1 - 1.0	0.4 - 4.0	1/2" MPT	67.96
5126	0.2 - 2.0	0.750 - 7.5	3/8" MPT	67.96
5127	0.2 - 2.0	0.750 - 7.5	1/2" MPT	67.96
5128	0.5 - 5.0	1.8- 18	3/8" MPT	67.96
5129	0.5 - 5.0	1.8 - 18	1/2" MPT	67.96

Part #	Calibration		Adapter	Price
	GPM	LPM	Size	$
5130	1.0 - 10	5.0 - 37.5	3/4" MPT	$ 78.31
	GPH			
5131	3.0 - 30	—	3/8" MPT	67.96
5132	3.0 - 30	—	1/2" MPT	67.96
5133	5.0 - 60	—	3/8" MPT	67.96
5134	5.0 - 60	—	1/2" MPT	67.96

F- 440E Units for Panel Mount Installation

General Description

The panel mount F-400E (E=Elbow) flowmeters come equipped with 90° adapters for panel mount installation. Installation is easy. Drill two holes in the panel, insert meter fittings through the holes, and secure with the provided lock nuts. The elbows come with MPT or barbed connections.

Specifications

- Accuracy: ± 5%
- Material of Construction (meter body): Molded Polysulfone
- O-Ring Material: Viton®
- 120 psi @ 73°F
- Scale Range: 0.025 to 0.250

Part #	Calibration		Adapter	Price
	GPM	LPM	Size	$
5135	0.025 - 0.250	0.1 - 1.0	3/8" MPT	$ 81.74
5136	0.025 - 0.250	0.1 - 1.0	1/2" MPT	81.74
5137	0.1 - 1.0	0.4 - 4.0	3/8" MPT	81.74
5138	0.1 - 1.0	0.4 - 4.0	1/2" MPT	81.74
5139	0.1 - 1.0	0.4 - 4.0	1/2" I.D. Barbed	81.74
5140	0.2 - 2.0	0.75 - 7.5	3/8" MPT	81.74
5141	0.2 - 2.0	0.75 - 7.5	1/2" MPT	81.74
5142	0.2 - 2.0	0.75 - 7.5	1/2" I.D. Barbed	81.74

Part #	Calibration		Adapter	Price
	GPM	LPM	Size	$
5143	0.5 - 5.0	1.8 - 18	3/8" MPT	$ 81.74
5144	0.5 - 5.0	1.8 - 18	1/2" MPT	81.74
5145	0.5 - 5.0	1.8 - 18	1/2" I.D. Barbed	81.74
5146	1.0 - 10	5.0 - 37.5	1/2" MPT	95.51
5147	1.0 - 10	5.0 - 37.5	3/4" MPT	95.51
5148	1.0 - 10	5.0 - 37.5	1/2" I.D. Barbed	95.51
5149	1.0 - 10	5.0 - 37.5	5/8" I.D. Barbed	95.51

F- 440EA Adjustable Panel Mount Flowmeters

General Description

The panel mount F-440EA (A=Adjustable) models have an integral adjustable flow control needle valve. The valve construction is of injection molded Polysulfone. The PVC needle valve has double o-ring packing on the stem, and a 15° valve stem point for greater flow control. These units also come with MPT or barbed connections. Any number of configurations are possible.

Specifications

- Accuracy: ± 5%
- Material of Construction (meter body): Molded Polysulfone
- O-Ring Material: Viton®
- 120 psi @ 73°F
- Scale Range: 0.025 to 0.250

Part #	Calibration		Adapter	Price
	GPM	LPM	Size	$
5150	0.025 - 0.250	0.1 - 1.0	1/2" MPT	$ 121.32
5151	0.1 - 1.0	0.4 - 4.0	1/2" MPT	121.32
5152	0.2 - 2.0	.75 - 7.5	1/2" MPT	121.32
5153	0.5 - 5.0	1.8- 18	1/2" MPT	121.32
5154	1.0 - 10	5.0 - 3.75	3/4" MPT	135.13
	GPH			
5155	3 - 30	—	1/2" MPT	121.32
5156	5 - 60	—	1/2" MPT	121.32

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F- 451 Series High Volume In-Line Units

General Description

F-451 series flowmeters offer excellent accuracy and repeatability, combined with a durable injection molded Polysulfone meter body and connectors, and # 316 stainless steel internal parts. Half unions couple the meter body to the 1" FPT connectors at each end of the flowmeter. This configuration facilitates both installation and maintenance.

It's tough to beat the quality and economy of the F-451 series.

Specifications

- Accuracy: ± 3%
- Material of Construction (meter body):

  Molded Polysulfone
- O-Ring Material: Viton®
- 150 psi @ 73°F

Part #	Calibration		Adapter	Price
	GPM	LPM	Size	$
5157	1.0 - 10	3.0 - 38	1" FPT	234.44
5158	2.0 - 20	7.5 - 75	1" FPT	246.04
5159	3.0 - 30	12 - 115	1" FPT	269.59
5160	4.0 - 40	15 - 155	1" FPT	283.00

Units with 90° Elbows

Part #	Calibration		Adapter	Price
	GPM	LPM	Size	$
5161	1.0 - 10	3.0 - 38	1" FPT	271.40
5162	2.0 - 20	7.5 - 75	1" FPT	281.93
5163	3.0 - 30	12 - 115	1" FPT	303.35
5164	4.0 - 40	15 - 115	1" FPT	315.48
	Calibration SCFM			
5165	80 to 80		1" FPT	246.04

F- 452 Series Flowmeters

General Description

The newest addition to our Polysulfone flowmeter line offers excellent accuracy and repeatability and pride-of-workmanship ... all at a realistic price!

F-452 units have 2" FPT adapters, Viton O-Ring seals, and # 316 stainless steel internal parts. Half Union connectors couple the meter body to the 2" FPT adapters at each end of the flowmeter.

The F-452 series offers many of the capabilities of glass and metal flowmeters that cost many times more.

F-452 units are available Specially Equipped for hostile environments.

Specifications

- Accuracy: ± 3%
- Material of Construction (meter body):

  Molded Polysulfone
- O-Ring Material: Viton®
- 150 psi @ 73°F
- Capacities: Up to 130 GPM
- Adapter Size: 2" FPT

Part #	Calibration		Adapter	Price
	GPM	LPM	Size	$
5166	2.0 - 20	—	2" FPT	$ 474.99
5167	6.0 - 60	30 - 230	2" FPT	474.99
5168	10 - 80	40 - 300	2" FPT	474.99
5169	5.0 - 100	20 - 380	2" FPT	474.99
5170	15 - 130	60 - 500	2" FPT	505.40
5171	20 - 175	—	2" FPT	505.40
	Calibration SCFM			
5172	30 - 230		2" FPT	474.99

ALSCO BLUE WHITE Flowmeters

F- 300 FLOWMETERS

General Description

The F-300 has been an industry standard for over three decades, but it is well suited to any closed pipe installation requiring a flowmeter to fit on horizontal pipe.

The F-300 impact tube flowmeter features a tough, one piece machined acrylic meter body, corrosion resistant internal parts, and permanent screen print scale.

Special low flow rate units are designated by an "R" in model number.

Each F-300 series is individually packaged with gasket seal and mounting clamps.

Specifications

- Material of Construction (meter body): machined acrylic
- 150 psi @ 73°F
- Capacities: 2 to 1900 GPM
- Mounting: Horizontal Pipe

Part #	Calibration		Adapter	Price
	GPM	LPM	Size	$
5173	5 - 40	20 - 150	1" Pipe	$ 66.64
5174	2 - 10	—	1" Pipe	66.64
5175	5 - 40	20 - 150	1" Tubing	66.64
5176	2 - 10	—	1" Tubing	66.64
5177	15 - 75	55 - 275	1 1/4" Pipe	66.64
5178	5 - 35	30 - 130	1 1/4" Pipe	66.64
5179	15 - 75	55 - 275	1 1/4" Tubing	66.64
5180	5 - 35	30 - 130	1 1/4" Tubing	66.64
5181	20 - 100	75 - 375	1 1/2" Pipe	66.64
5182	8 - 30	30 - 110	1 1/2" Pipe	66.64
5183	20 - 100	75 - 375	1 1/2" Tubing	66.64
5184	8 - 30	30 - 110	1 1/2" Tubing	66.64
5185	40 - 150	150 - 550	2" Pipe	71.63
5186	15 - 70	60 - 260	2" Pipe	71.63

Part #	Calibration		O.D. of Pipe /	Price
	GPM	LPM	Copper Tube	$
5187	40 - 150	150 - 550	2" Tubing	$ 71.63
5188	15 - 70	60 - 260	2" Tubing	71.63
5189	60 - 240	250 - 900	2 1/2" Pipe	81.74
5190	60 - 240	250 - 900	2 1/2" Tubing	81.74
5191	80 - 300	300 - 1195	3" Pipe	92.12
5192	40 - 140	160 - 520	3" Pipe	92.12
5193	80 - 300	300 - 1125	3" Tubing	92.12
5194	40 - 140	160 - 520	3" Tubing	92.12
5195	125 - 500	500 - 2000	4" Pipe	100.49
5196	125 - 500	500 - 2000	4" Tubing	100.49
5197	250 - 1050	900 - 3900	6" Pipe	162.50
5198	250 - 1050	900 - 3900	6" Tubing	162.50
5199	500 - 1900	1800 - 7200	8" Pipe	180.63
5200	500 - 1900	1800 - 7200	8" Tubing	180.63

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+GF+ SIGNET System Selection

To help you choose the right system for your specific liquid applications needs, follow these recommended steps.

Step 1: Determine Application Requirements

Defining the following variable before building your system will ensure peak performance from your Signet sensors, electrodes and instruments.

- **Measurement range**
- **Installation requirements**
- **Pipe size and material**
- **Chemical compatibility of all wetted parts to process chemicals**
- **Hazardous location requirements**
- **System specifications (such as temperature and pressure)**
- **Performance requirements of sensor/electrode**
- **Fluid particulates**
- **Viscosity of fluids**

Step 2: Select Sensor/Electrode Technology

Based on the application requirements, choose a sensor or electrode. For pH/ORP and conductivity/resistivity electrodes, select your preferred connection style (Twist-Lock or Dry-Loc). Then, determine your signal output requirement to allow you to match just the right instrument.

Step 3: Choose Instrument

Choose a flow, pH/ORP, conductivity/resistivity, temperature pressure, level or multi-parameter instrument from the comprehensive Signet offering. All units are available in 1/4 DIN panel or field configuration and are available with digital, analog, or analog/digital display. Various retrofit adapters and mounting accessories are also available.

Step 4: Determine Installation Requirements

We offer a wide selection of installation fittings to suit select flow and analytical insertion sensor and electrodes. These fittings are specifically designed to ensure the proper placement of the sensor or electrode in the system to achieve accurate readings.

ALSCO SIGNET Installation Guidelines

pH and Conductivity Sensor Installation Guidelines

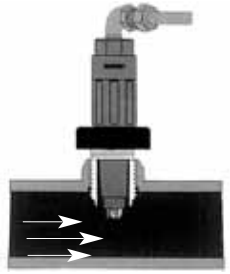


Figure 1:
For proper sampling and increased life, the sensor should be placed as far as possible from point of reagent addition, and close to the exit of the tank in submersible applications. Flow rate past the electrode should be less than 4 ft/s for bulb and 5 ft/s for flat surface configurations.
Signet's unique connection technology makes it easy to maintain a clean, dry contact between the probe and pre-amplifier. Contact surfaces should be protected from excessive exposure to dirt or spray during installation and maintenance. Signet pre-amplification allows for pH signal transmission up to 400 ft. Keep electrode clean and well maintained for a longer life.

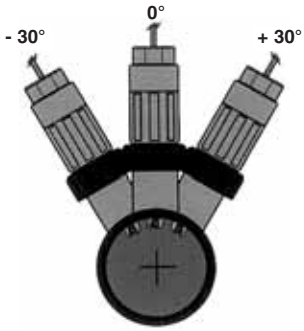


Figure 2:
In order to maintain proper flow of electrolyte through the reference junction, and to prevent air from affecting the measuring element, pH electrodes should be mounted vertically ± 30°. Keep the electrode wet at all times. Storage is best in a KCL solution.

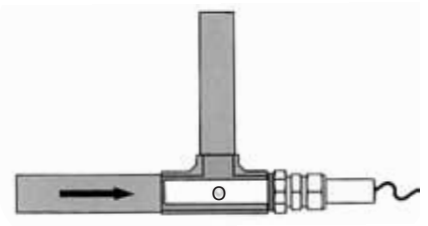


Figure 3:
For a standard threaded sensor, mounting with flow into the sensor is recommended. A four o'clock installation position is ideal when the sensor is used with Signet fittings. The electrode should be mounted to prevent air entrapment in the sensor. In aerated tanks, a baffle may be needed. Coating of the electrodes will cause erroneous readings, so avoid oils from coming in contact with the electrode. Conductivity signal transmission to 100 ft. is acceptable.

Flow Installation Guidelines

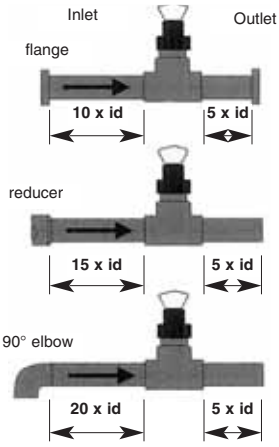


Figure 1:
Flow sensors generally depend upon a "fully developed turbulent flow profile" for maximum linearity and accuracy. To achieve this, the sensor must be located in a straight run of pipe upstream and downstream of the sensor.
Major obstructions such as pumps or throttled valves will require longer straight runs.

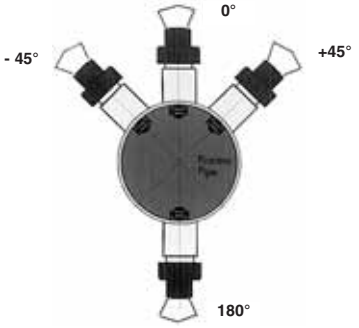


Figure 2:
In horizontal pipe runs with no air pockets or sediment present, mount the sensor / fitting in the 12 o'clock or 6 o'clock position. If sediment or air pockets are present, tilt the sensor / fitting at a maximum angle of 45° to overcome these obstacles.

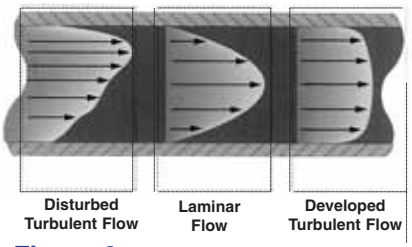
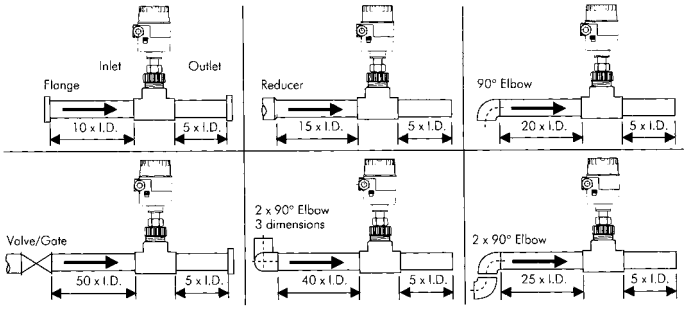


Figure 3:
The most common flow profile found in industrial applications are fully developed turbulent flow (require for Signet sensors). The second type, disturbed turbulent flow, is less stable and occurs when the flow is interrupted by a valve, elbow, or other obstruction. To achieve a developed turbulent flow, refer to the steps in figure 1. The third type , laminar flow, occurs with highly viscous fluids, or fluids traveling at very low velocities. This flow condition is measured with a Reynolds number. Typically, flow conditions with a Reynolds number lower than 2,000 are considered laminar. For a developed turbulent flow acceptable for Signet sensors, this number should be above 4,500.

+GF+ SIGNET Installation Data:

For maximum linearity and accuracy, the sensor should be located in a straight run of pipe upstream and downstream of the sensor. Major obstructions such as pumps or throttled valves will require longer straight runs.



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SIGNET Controller

+GF+ SIGNET 8900 Multi-Parameter Controller

Description

The 8900 Multi-Parameter Controller takes the concept of modularity to the extreme. Each 8900 is field commissioned with the users specified combination of inputs, outputs, and relays using simple-to-install modular boards into the base unit. To assemble a controller, there is a choice of two base units offered with a choice of back-lit LCD or vacuum fluorescent display. Then, continue building with a selection of plug-in modules for either two, four, or six input channels which accepts any of the Signet sensors listed below, and/or other manufacturer's sensors via a 4 to 20 mA signal converter (Signet Model 8058). To complete your unit, choose a power module with universal AC line voltage or 12 to 24 VDC. If more features are needed, analog output and relay modules are available and easily installed. Plus, the 8900 will support up to four additional relays via an external relay module.

Features

- Measures Flow, pH, ORP, Conductivity, Pressure, Level and Temperature
- Multi-language display
- 1/4 DIN enclosure
- 12 to 24 VDC or 85 to 264 VAC Power
- Digital Communication for extended cable lengths and easy wiring
- Accepts 4 to 20mA output devices when used with 8058 signal converter
- Up to four analog outputs
- Up to eight relays
- Available with 2, 4 or 6 channels
- Two BTU calculations

Applications

- RO/DI System Control
- Media Filtration
- Pure Water Production
- Demineralizers
- Chemical Processing
- Metal & Plastics Finishing
- Fume Scrubbers
- Proportional Chemical Addition
- Cooling Tower & Boiler Protection
- Wastewater Treatment
- Aquatic Animal Life Support Systems

Specifications

- Configurability: Modular (completely field commissionable)
- No. of input channels: 2 , 4, or 6
- Input signal types:
  S³L™: Serial ASCII, TTL level 9600 bps
  Frequency: 0 to 1500 Hz
  Accuracy: 0.5% of reading
- Measurement types:
  Flow, pH, ORP, Conductivity/Resistivity, Pressure, Temperature, Level
- Derived measurements:
  Sum, Difference, Ratio, % Recovery, % Reject, % Passage, Power (BTU)
- No, of relays supported:
  Available in pairs: 2, 4, 6 or 8 (8 Dry-Contact and/or 4 Solid State)
- No. of analog outputs:
  Available in pairs: 2, or 4 (active and/or passive 4 to 20mA; and/or 0 to 5/10 VDC)

Compatible Products

- 515 Paddlewheel Rotor-X Flow Sensor
- 2536 Paddlewheel Rotor-X Flow Sensor
- 2551 Electromagnetic Flow Sensor
- 525 Metalex™ Flow Sensor
- 2000 Micro Flow Sensor
- 2100 Turbine Flow Sensor
- 2250 Hydrostatic Level Sensor
- 2350 Temperature Sensor
- 2450 Pressure Sensor
- 2507 Mini Flow Sensor
- 2517 Brass Paddlewheel Flow Sensor
- 2540 High Performance Flow Sensor
- 2750 and 2760 DryLoc™ pH/ORP Sensors
- 2754-2757 pH & ORP Electrodes
- 2764-2767 Differential DryLoc™ pH/ORP Electrodes
- 2774-2777 Threaded DryLoc™ pH/ORP Electrodes
- 2850 Conductivity/Resisivity Sensor
- 7000 Vortex Flow Sensor
- i-Go™ 8058 Signal Converter

Part #	Description	Price
9278	Base Unit with Back-lit LCD	$ 384.00
9279	Base Unit with Vacuum Fluorescent Display	532.00
9280	I/O Module - Two Input w/two passive 4 to 20mA outputs	264.00
9281	I/O Module - Two Input w/two active 4 to 20mA outputs	334.00
9282	I/O Module - Four Inputs (no outputs)	362.00
9283	I/O Module - Four Inputs w/two passive 4 to 20mA outputs	477.00
9284	I/O Module - Four Inputs w/two active 4 to 20mA outputs	549.00
9285	Power Module - 85 to 264 VAC power module	176.00
9286	Power Module - 12 to 24 VDC power module	116.00
9287	Relay Module - Two dry contact relays	105.00
9288	Relay Module - Two solid state relays	105.00
9289	Additional Outputs - Two passive 4 to 20mA outputs	165.00
9290	Additional Outputs - Two active 4 to 20mA outputs	236.00
9291	Accessories - 2-terminal plug. 2 ea. (for SSR & Out 3&4)	6.00
9292	Accessories - DB-9 crossover cable	28.00
9293	Accessories - Rear panel w/ captive screws	23.00
9294	1/4 DIN wall mount bracket, 6.5 in.	58.00
9295	1/4 DIN wall mount bracket, 9.0 in.	66.00

SIGNET Controllers

SIGNET 5075 Totalizing Monitor

Description

The Signet 5075 Totalizing Flow Monitor displays flow rate on a highly visible analog dial, and uses a backlit LCD for displaying totalized flow volumes. One of the two totalizers is resettable from the front panel, and can also be reset froma remote location up to 30m (100ft.). The other totalizer is non-resettable and is commonly used to tally consumption, or to permanently record industrial effluent volumes. The monitors require 12 to 24 Volts, AC or DC, and can be used with any Signet flow sensor with a frequency output.

Specifications

- Operating Range: 0.5 Hz to 10 kHz
- Power Requirements: 12 to 24 Volts, AC or DC, unregulated, 50 to 60 Hz, 10W max.
- Display: Analog: Slide-in dial 0-2, 4, 6, 8, 10 or 100
  Digital: Backlit 2X16 character alphanumeric LCD
- Operating Temperature: -10º to 55°C(14 to 131ºF)
- Relative humidity: 0 to 95%, non-condensing
- Accuracy: +/-0.5% of reading
- Enclosure: ABS Plastic, NEMA 4X/IP65 front
- Keypad: Silicone rubber
- Panel and case gasket: Neoprene
- Window: Hard-coated polycarbonate
- CE, CUL, UL
- Manufactured under ISO 9001:2000 for Quality and ISO 14001: 2004 for Environmental Management

Compatibility

All +GF+ SIGNET Flow Sensors

Features

- **Analog and Digital display**
- **Tamper proof security code**
- **Two 8-digit totalizers; one permanent, one resettable**
- **Non-volatile memory**
- **Simple push-button operation**

Applications

- **Water Treatment Systems**
- **Filtration Systems**
- **Feed Pump Pulsing**
- **Fertigation • Irrigation**
- **Commercial Pools & Spas**
- **Groundwater Remediation**

Part #	Description	Price
9177	SIGNET 5075 Totalizing Monitor	$ 605.00
9301	Splashproof Back Cover Kit	43.00
9303	Mounting Bracket	30.00
9302	Retrofit Adapter Kit	24.00
9170	Liquid Tight Connector Kit	48.00

+GF+ SIGNET 5600 ProPoint™ Batch Controller

Description

The Signet 5600 Batch Controller is an extremely refined instrument that combines complex control capability with operational simplicity. Select either Simple or Advanced mode to limit feature options to suit your specific batch requirements, and make changes to batch volume quickly and easily. Two relays and one analog output provide the means to increase batch precision while dramatically reducing the possibility of water hammer in a system. Batch progess is displayed on the analog dial, while the backlit LCD is used for calibration, set-up, and to show totalized flow volumes. The controllers require 12 to 24 Volts, AC or DC, and can be used with any Signet Flow Sensor with a frequency output.

Key Specifications

- Operating range: 0.5 Hz to 10 kHz, optically isolated
- Display: Analog: Reversible dial, 0 to 100%
  Digital: Backlit 2X16 character LCD
  Batch Size: 0 to 999999 engineering units
  Totalizer: 8 digit non or resettable
- Current Output: 4 to 20 mA, non-isolated, internally powered, Loop Impedance: 350Ω max. @ 12V, 950Ω max. @ 24V
  Accuracy: ±0.1%
  Configurations: Batch completion, valve control, or end of batch
- Alarm Contacts: Two SPDT relays: 5A @ 30VDC max., 5A@125 VAC,or 3A@250VAC
  Batch: Batch in progress
  Options: Two-stage shutdown,overrun alarm, end of batch pulse, missing signal alarm
- Add. Functions: EOB pulse, remote start, stop, resume
- Operating Cond.: Temperature: 14 to 131°F
  Relative humidity: 0-95%,non-condensing
- Accuracy: ±0.5% of reading
- Quality Standard: CE, UL, CUL

Compatibility

All +GF+ SIGNET Flow Sensors

Features

- **Easy Batch Volume Entry**
- **Remote Start, Stop & Resume**
- **Auto-calibration**
- **Two Stage Shutdown Control**
- **Manual or Automatic Overrun Compensation**
- **Missing Signal Alarm**
- **Advanced Valve Control**
- **Dual Totalizers**
- **End-of-batch Trigger**

Applications

- **Batch Processes**
- **Chemical addition**
- **Filter Backwash Initiation**
- **Canning & Bottling**

Part #	Description	Price
9222	5600 Batch Controller	$ 845.00
9301	Splashproof Back Cover Kit	43.00
9303	Mounting Bracket - Right Angle	30.00
9302	Retrofit Adapter Kit	24.00
9170	Liquid Tight Connector Kit	48.00

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SIGNET Monitors

+GF+ SIGNET 5500 ProPoint™ Flow Monitor

Description

SIGNET 5500 Flow Monitor is equipped with a scaleable 4-20 mA output and two relays programmable for high, low, and pulse operation. Instantaneous flow rate is easy to read on the analog dial, while the backlit LCD is used for calibration, set-up and displaying totalized flow volumes. One of the two totalizers is resettable from the front panel, and can also be reset from a remote location up to 100 ft. The other totalizer is non-resettable and is commonly used to tally consumption, or to permanently record industrial effluent volumes. The monitors require 12 to 24 volts, AC or DC, and can be used with any SIGNET Flow Sensor with a frequency output.

Features

- Analog & digital display
- Simple push-button operation
- Two Programmable Relays
- Tamper Proof Security Code
- Two 8-digit totalizers
- Programmable pulse outputs
- Non-volatile memory
- Scalable 4 to 20 mA
- 1/4 DIN, NEMA 4X / IP65
- Quality Standards: UL, CE

Applications

- Waste Water Flow Accumulation
- Water Treatment Systems
- Feed Pump Pulsing
- Filtration systems
- Process Flow Monitoring
- Fertigation • Irrigation
- Commercial Pools & Spas
- Groundwater Remediation
- HVAC • UPW Distribution
- Process Flow Monitoring

Compatibility

All SIGNET Flow Sensors

Specifications

- Operating Range: 0.5 Hz to 10kHz, optically iso.
- Power Requirements: 12 to 24 Volts, AC or DC, unregulated, 50-60 Hz, 10W max.
- Display: Analog: Slide-in Dials 0-2,4,6,8,10 or 100
  Digital: Backlit 2X16 character alphanumeric LCD
- Current Output: 4-20 mA, non-iso, internally pwrd.
  Loop impedance: 350 Ω max. @ 12V, 950 Ω max. @ 24V. Accuracy: ±0.1%. Update rate: 100 msec.
- Alarm Contacts: Two SPDT relays: 5A @ 30 VDC, 5A @ 125 VAC, or 3A @ 250 VAC max.
  Hi/Lo programmable with adjustable hysteresis
- Additional Functions: Sensor Pulse, Count pulse, Remote totalizer reset
- Operating Temperature: 14 to 131°F
- Accuracy: ±0.5% of reading
- Relative Humidity: 0 to 95%, non-condensing
- Enclosure: ABS Plastic, NEMA 4X/IP65
- Keypad: Silicon rubber
- Panel and Case Gasket: Neoprene
- Window: Hard-coated polycarbonate
- Quality Standards: CE, CUL, UL

Part #	Description	Price
9307	5500 Flow Monitor Reversible dial face kit included (0-2, 4, 6, 8, 10 and 100)	$ 865.00
9301	Splashproof Back Cover Kit	43.00
9303	Mounting Bracket	30.00
9302	Retrofit Adapter Kit	24.00
9170	Liquid Tight Connector Kit	48.00

SIGNET Monitors

+GF+ SIGNET 5090 Sensor-Powered ProPoint™ Flow Monitor

Features
- Sensor-powered flow rate indication up to 200 feet
- Wide flow range: 1-20 fps in pipe sizes 0.5" to 36"
- Single-point calibration from front panel
- Factory Mutual (FM) approved for intrinsic safety
- High visibility analog display

Applications
- Distribution Systems
- Filtration Systems
- HVAC • Hazardous Locations
- Remote Flow Monitoring
- Process Flow Monitoring
- Process Cooling Water

Description
The 5090 is an economical analog flow rate indicator, with a meter movement powered by the output signal of SIGNET 515 Rotor-X and 319/515 Wet-Tap Flow Sensors themselves. No additional power source is required. This unique system is suitable for a wide range of flow rates, and Factory (FM) approved for intrinsic safety without the need for barriers. The NEMA 4X/IP integrity of the entire enclosure with the use of an optional Rear Cover Kit, adding to the independence and reliability of this simple flow measuring system, even in the most demanding industrial environments.

Compatibility
515 Flow Sensor & 319 / 515 Wet-Tap

Specifications
- Operating Range: 1 to 20 ft/s
  7 ft./s (min. full scale range)
- Power Requirements: None
- Display: Taut-band suspension meter move ment, 250° deflection (not suitable for pro-longed exposure to vibration)
- Operating Temperature: 14 to 149°F
- Accuracy: ±2% of full scale
- Repeatability: ±1% of full scale
- Relative Humidity: 0 to 95%, non-condensing
- Enclosure: ABS Plastic, NEMA 4X/IP65
- Panel and Case gasket: Neoprene
- Window: Hard-coated polycarbonate
- Quality Standards: CE, CUL, FM, UL

Part #	Description	Price
9300	5090 Sensor Powered Flow Monitor	$ 333.00
9301	Splashproof Back Cover Kit	43.00
9303	Mounting Bracket	30.00
9302	Retrofit Adapter Kit	24.00
9170	Liquid Tight Connector Kit	48.00

+GF+ SIGNET 3300/3500 Ultrasonic Flow Monitor System

3300

Features
- Bi-directional flow
- Measures debris laden flow with non-fouling sensors
- Open or closed channel/pipe
- Self-diagnostics
- Local display of flow rate and total • Data logger
- RS232 communication
- Vandal resistant
- No-moving parts

Applications
- Ind/Muncipal Wastewater
- Pump Station Monitoring
- Environmental Monitoring
- Billing Networks
- Sewer and Stormwater Flow Monitoring

Description
The 3300 Ultrasonic Flow Monitoring System advances the use of Doppler ultrasound technology in flow measurement by utilizing proprietary "Advance Spectrum" signal processing in measuring the entire flow stream. The result is reliable, power-efficient, low cost of ownership, liquid flow monitoring in open or closed channels. The 3300 includes features tailored to meet common requirements in a variety of applications. The 3300 can be equipped with up to four 4 to 20mA outputs for interfacing to loggers, telemetry systems or PLC's for long-term monitoring.

Specifications
- User interface: Flow display is an internal 6-digit, 0.5in. LCD of constant status, flow rate and flow volume total
- Power: 9VDC- 1 amp, regulated power converter required for 10VAC/240VAC oper.
- Outputs: Pulse output: open-collector flow volume pulse, which shorts pulse pin to system ground , 4 to 20mA output
- Alarm: Short Message Service Protocol
- Program Memory: Battery backed NVRAM
- Operating Temperature: 23 to 122º F
- Enclosure Rating: IP66
- Application Software required
- Quality Standards: CE

Part #	Description	Price
3-3300	Ultrasonic Doppler flow meter electronics package	$4169.00
3-3300-1	Doppler flow meter electronics package w/4 to 20mA	5334.00
3-3500.312-1	Strap-in sensor, (0-13.1ft) depth measurement, 33ft cable	4141.00
3-3500.313-1	Strap-in sensor, (0-32.8ft) depth measurement, 33ft cable	4141.00
3-3500.320-1	Insertion sensor, Ni plated brass, 33ft cable, 2"NPT	2847.00

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+GF+ SIGNET 5900 Salinity Monitor

Description

The 5900 monitor utilizes conductivity sensors to provide direct reading, including calibration, of salinity in parts per thousand (PPT). Equipped with a scaleable 4 to 20 mA output and two programmable relays, the monitor requires 12 to 24 Volts, AC or DC, and can be used with Signet 2822 and 2823 Conductivity Sensors (10.0 and 20.0 cell constants, resp.) Temperature is selectable for display in either ºC of ºF, and compensation is automatic. Calibration is simplified with single-point salinity and temperature entry via the wet-cal menu sequence. The four-button keypad arrangement with intuitive software design is user-friendly.

Specifications

- Oper. Range: Salinity: 1 to 80 ppt
  Temperature: 23 to 212°F
- Power Requirements: 12 to 24 Volts, AC or DC, unregulated, 50 to 60 Hz, 10W max.
- Display: Analog: Slide-in dials 0-2,4,6,8,10, or 100
  Digital: Backlit 2X16 character alphanumeric LCD
- Current output: 4 to 20 mA, non-isolated, internally powered, Loop impedance: 350Ω max. @ 12V, 950Ω max. @ 24V, Accuracy: +/-0.1%
- Alarm contacts: Two SPDT relays: 5A @ 30 VDC, 5A @ 125 VAC max., or 3A @ 250 VAC max. Hi/Lo programmable with adjustable hysteresis
- Operating Temperature: 14 to 131°F
- Relative humidity: 0 to 95%, non-condensing
- Accuracy: +/-2% of reading
- Enclosure: ABS Plastic, NEMA 4X/IP65 front
- Keypad: Silicone rubber
- Panel and case gasket: Neoprene
- Window: Hard-coated polycarbonate
- Quality Standards: CE, UL

Features

- **Direct reading & calibration**
- **Backlit LCD**
- **Dual Proportional Control**
- **Temperature compensation**

Applications

- **Saltwater Production**
- **Desalinization** • **Aquaculture**
- **Environmental studies**

Compatibility

- **2819-2823 Electrodes**
- **2839-2842 DryLoc Electrodes**

Part #	Description	Price
9178	5900 Salinity Monitor	$ 933.00
9301	Splashproof Back Cover Kit	43.00
9303	Mounting Bracket	30.00
9302	Retrofit Adapter Kit	24.00
9170	Liquid Tight Connector Kit	48.00

+GF+ SIGNET 2100 Turbine Sensor

Description

Engineered specifically for use in low flow, small dimension applications, the 2100 Flow Sensor provides, accurate readings in two flow ranges, 0.1 to 1 GPM, and 0.8 to 10 GPM. The injection-molded PVDF body and ceramic bearings provide excellent chemical compatibility and long service in dosing and batch applications. NEMA 4X electronics.

Key Specifications

Flow Range: Hi: 0.8-10 GPM Lo: 0.1-1 GPM
Pressure: Hi: 2-232 psi Lo: 26-232 psi
Fluid Temp: 0-72°C
Linearity: ± 3% of reading
Repeatability: ± 0.5% of reading
Pipe Size: 1/2" Hose Size: 1/2", 3/8", 1/4
Output: Open Collector, sinking
Power: 5 to 24 VDC@ 1.5 mA max.

Features

- **Connection to rigid pipe or tubing unaffected by mounting angles**
- **PVDF & ceramic wetted parts**
- **Low & High Flow rate capable**
- **Both clear & opaque fluids**

Applications

- **Chemical addition**
- **Textiles** • **High-purity Disp.**
- **Water Addition** • **Dosing**
- **Pump Protection**
- **Fertigation**

Compatibility

Most SIGNET flow instrumentation

	Part #	Description	Price
Turbine Body	9179	Turbine Lo Flow PVDF / FPM	$ 235.00
	9180	Turbine Lo Flow PVDF / EPDM	235.00
	9181	Turbine Hi Flow PVDF / FPM	235.00
	9182	Turbine Hi Flow PVDF / EPDM	235.00
Connector Kits	9183	Hose Barb Kit, PVDF 1/2"	30.00
	9184	Hose Barb Kit, PVDF 3/8"	30.00
Note: Two Connector Kits are required per Turbine Flow Sensor.	9185	Hose Barb Kit, PVDF 1/4"	30.00
	9186	Fusion Socket Kit, PVDF 1/2"	30.00
	9187	Butt Fusion/IR Kit, PVDF 1/2"	30.00
	9188	Metric Socket Kit, PVC 1/2"	10.00
	9189	SCH80 Socket Kit, PVC 1/2"	10.00
	9190	NPT Thread Socket Kit, PVC 1/2"	10.00

Ordering Procedure:

1. Choose flow range, o-ring material, then select appropriate Turbine Body part #.
2. Choose end connector type, size, and material, select Connector Kit part #.
   Two Connector Kits are required per Turbine Flow Sensor.

SIGNET Flow Sensors

+GF+ SIGNET 515 Rotor- X Flow Sensor

Description

Simple to install with time-honered reliable performance, Model 515 Rotor-X paddlewheel flow sensors are highly repeatable, rugged sensors that offer exceptional value with little or no maintenance. The output signal of the Model 515 is a sinusoidal frequency capable of driving a self-powered flowmeter (5090). The wide dynamic flow range of 0.3 to 6m/s (1 to 20 ft/s) allows the sensor to measure liquid flow rates in full pipes and can be used in low pressure systems.

Key Specifications

- **Flow Rate Range: 1 to 20 ft./s**
- **Frequency: 6 Hz per ft/s; sinusoidal**
- **Linearity: ±1% of full range**
- **Repeatability: ±0.5% of full scale**
- **Pressure / Temperature:**
  PP body: 180 psi @ 68°F, 25 psi @194°F
  PVDF body: 200 psi @ 68°F, 25 psi @212°F
- **O-rings: FPM-Viton® 9 (std)**
- **Cable Length: 25 feet**
- **Quality Standards:**
  CE, FM (Class I,II,III / Div. 1/ Groups A-G)

Compatibility

5090, 5500, 5075 Flow Monitors
5600, 8900 Controller 8550 Flow Transmitter

Features

- **Flow rate range 1 to 20 ft/s**
- **Simple, economical design**
- **For 1/2" to 36" Pipes**
- **Wide Turndown Ration / 20:1**
- **Self-powered**
- **FM and CE Approved**

Applications

- **Filtration Systems**
- **Pure water production**
- **Chemical Production**
- **Liquid Delivery Systems**
- **Pump Protection**
- **Scrubber Systems**

Part #	Housing Material	Shaft Material	Pipe Size (in)	Weight (lbs)	Sensor Length (in)	Price $
9047	Polypro	Titanium	0.50 - 4.0	1.00	3.50	300.00
9048	Polypro	Titanium	5.0 - 8.0	1.50	5.00	311.00
9049	Polypro	Titanium	10.0 & up	1.50	7.75	337.00
9050	PVDF	Hastelloy C	0.50 - 4.0	1.00	3.50	534.00
9051	PVDF	Hastelloy C	5.0 - 8.0	1.50	5.00	553.00
9052	PVDF	Hastelloy C	10.0 & up	1.50	7.75	576.00
9053	PVDF	PVDF	0.50 - 4.0	1.00	3.50	511.00
9054	PVDF	PVDF	5.0 - 8.0	1.50	5.00	556.00

+GF+ SIGNET 2536 Low Flow Sensor

Description

Simple to install with time-honored reliable performance,, Model 2536 Rotor-X paddlewheel Flow Sensors are highly repeatable, rugged sensors that offer exceptional value with little or no maintenance. The Model 2536 has a process-ready open collector signal as has a wide dynamic flow range of 0.3 to 20 ft/s). The sensor measures liquid flow rates in full pipes and can be used in low pressure systems. Sensors can be installed in 0.5 to 36 in. pipes using Signet's line of custom fittings.

Key Specifications

- **Operating Range: 0.3 to 20 ft/s**
- **Linearity: ±1% of full range**
- **Repeatability: ±0.5% of full scale**
- **Pressure / Temperature:**
  PP body: 180 psi @ 68°F, 25 psi @185°F
  PVDF body: 200 psi @ 68°F, 25 psi @185°F
- **O-rings: FPM-Viton® (std)**
- **Cable Length: 25 feet**
- **Quality Standards: CE**

Compatibility

5500, 5075 Flow Monitor **8550 Flow Transmitter**
5600, 8900 Controller

Features

- **Flow rate range 0.3 to 20 ft/s**
- **Simple, economical design**
- **For 1/2" to 36" Pipes**
- **Wide Turndown Ration / 66:1**
- **Open-collector output**
- **High resolution and noise immun.**

Applications

- **Filtration Systems**
- **Pure water production**
- **Chemical Production**
- **Liquid Delivery Systems**
- **Pump Protections • Scrubbers**

Part #	Housing Material	Shaft Material	Pipe Size (in)	Rotor Material	Price $
9211	Polypro	Titanium	0.50 - 4.0	Black PVDF	325.00
9212	Polypro	Titanium	5.0 - 8.0	Black PVDF	343.00
9213	Polypro	Titanium	10.0 & up	Black PVDF	361.00
9214	Nat. PVDF	Hastelloy C	0.50 - 4.0	Nat. PVDF	553.00
9215	Nat. PVDF	Hastelloy C	5.0 - 8.0	Nat. PVDF	604.00
9216	Nat. PVDF	Nat. PVDF	0.5 - 4.0	Nat. PVDF	578.00

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SIGNET Flow Sensors

+GF+ SIGNET 2537 Paddlewheel Flow Sensor

Description

The NEW Signet 2537 Flow Sensor is the next generation in fluid measurement technology from the inventor of the original paddlewheel flowmeter. This new sensor is an enhancement on what's already an industry standard. It has the added functionality of various output options including flow switch, pulse divider, digital (S^3L) or 4 to 20mA. Additionally, it offers low flow, low power and high resolution options and can be configured on-site directly through the built-in user interface. The 2537 utilizes the same fittings are the 515 & 2536.

Key Specifications

- **Operating Range: 0.3 to 20 ft/s**
- **Linearity: ±1% of max. range @ 77º F**
- **Repeatability: ±0.5% of max. range@77ºF**
- **Pressure / Temperature:**

PP body: 180 psi @ 68°F, 25 psi @185°F
PVDF body: 200 psi @ 68°F, 25 psi @185°F

- **O-rings: FPM-Viton® (std)**
- **Quality Standards: CE, UL**

Features

- **Digital and 4 to 20mA outputs**
- **Flow Switch & Pulse Divider output**
- **Low flow capabilities down to .3 ft/s**
- **Installs into pipe sizes 1/2" to 8"**
- **Built-in user interface**
- **Low power and high resolution opt.**

Applications

- **Filtration Systems**
- **Pure water production**
- **Chemical Production**
- **Reverse Osmosis**
- **Pump Protection • Scrubbers**

Compatibility

5500, 5075 Flow Monitor 8550 Flow Transmitter 5600, 8900 Controller

Part #	Housing Material	Shaft Material	Pipe Size (in)	Rotor Material	Price $
3-2537-1C-P0	Polypro	Titanium	0.50 - 4.0	Black PVDF	461.00
3-2537-1C-P1	Polypro	Titanium	5.0 - 8.0	Black PVDF	482.00
3-2537-1C-T0	Nat. PVDF	Nat. PVDF	0.50 - 4.0	Nat. PVDF	549.00
3-2537-3C-P0	Polypro	Titanium	0.50 - 4.0	Black PVDF	472.00
3-2537-3C-P1	Polypro	Titanium	5.0 - 8.0	Black PVDF	482.00
3-2537-3C-T0	Nat. PVDF	Nat. PVDF	0.5 - 4.0	Nat. PVDF	549.00

+GF+ SIGNET 3519 Wet-Tap Valve

Description

The 3519 Wet-Tap Valve serves as a unique interface between the installation fitting and the extended 515 or 2536 flow sensor. It provides a fast method of removing the sensor from the pipe under specified operating pressures. The PVC & SS design of the Wet-Tap makes it resistant to corrosion and chemical attack by acids, alkalies, salt solutions, and a number of other harsh chemicals.

Features

- **Eliminates downtime**
- **Dual safety lanyards**
- **Pressure release valve**

Applications

- **Filtration Systems**
- **Water Distribution**

Compatibility

515 Flow Sensor
2536 Flow Sensor

Part #	Housing Material	Shaft Material	Pipe Size (in)	Weight (lbs)	Sensor Length (in)	Price $
9056	Polypro	Titanium	0.50 - 4.0	2.86	11.75	837.00
9057	Polypro	Titanium	5.0 - 8.0	2.86	13.00	879.00
9058	Polypro	Titanium	10.0 & up	2.86	16.00	920.00

Part #	Description	Price
9140	(515) Sensor only - Wet-Tap PP (0.5 to 4")	480.00
9141	(515) Sensor only - Wet-Tap PP (5 to 8")	531.00
9142	(515) Sensor only - Wet-Tap PP (10" up)	571.00

Part #	Housing Material	Shaft Material	Pipe Size (in)	Weight (lbs)	Sensor Length (in)	Price $
3519/2536-P3	Polypro	Titanium	0.50 - 4.0	2.86	11.75	936.00
3519/2536-P4	Polypro	Titanium	5.0 - 8.0	2.86	13.00	978.00
3519/2536-P5	Polypro	Titanium	10.0 & up	2.86	16.00	1020.00

Part #	Description	Price
3-2536-P3	(2536) Sensor only - Wet-Tap PP (0.5 to 4")	511.00
3-2536-P4	(2536) Sensor only - Wet-Tap PP (5 to 8")	560.00
3-2536-P5	(2536) Sensor only - Wet-Tap PP (10" up)	596.00

SIGNET Flow Sensors

+GF+ SIGNET 525 Metalex Flow Sensor

FM & CE Approved

Description

The 525 Metalex Flow Sensor offers the added strength of an all stainless steel construction with insertion paddle-wheel technology. The result is a highly reliable sensor resistant to extreme pressures and temperatures. The Tungsten Carbide shaft with Fluoroloy B® bearing provide an increased length between maintenance. A comprehensive fitting program allows installation in steel lines with the mini-block for small diameters, and either the mini-tap or saddle for pipes up to 12 in.

Features

- Withstands High press/temp
- Simple Installation
- Tungsten Carbide or SS Rotorshaft

Applications

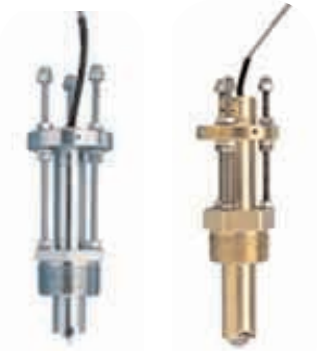
- Boiler Feedwater Monitoring
- HVAC Systems
- Chemical Transport
- Heat Exchangers
- Reverse Osmosis
- Boiler Condensate

Compatibility

5500 Flow Monitor
5600, 8900 Controller
5075 Totalizing Flow Monitor
8550 Conductivity / Resistivity TDS Controller

Part #	Description - Style	Pipe Size (in)	Price
9072	Mini Tap	0.5 - 1.0	$ 492.00
9073	Mini Tap	1.25 - 12.0	492.00
9074	Saddle *	2.0 - 12.0	492.00
• Max. Temp - 150°F and Max. Pressure - 300 psi			

+GF+ SIGNET 2540 / 2517 High Performance Flow Sensor



2540 2517

Features

- 316 SS or Brass Construction
- Measures Flow Rates as low as 0.3 ft/s
- Standard NPT or ISO process connections
- Hot-tap versions for installation / service without system shutdown
- Non-magnetic RF detection (2540)

Applications

- HVAC • Turf Irrigation
- Cooling & Filtration Systems
- Water Distribution • Leak Detection
- Pump Protection
- Clarified Effluent Totalization
- Ground Water Remediation

Compatibility

8550 Flow Transmitter
5075 Totalizing Flow Monitor
5600, 8900 Controller
5500 Flow Monitor

Part #	Description	Price
9075	Metal 2540 - Standard Sensor with 1.5” NPT & up	$ 514.00
9075-1	Metal 2540 - Hot Tap with 1.5” NPT & up	717.00
9076	Hot Tap Insertion Tool	421.00
9077	Brass 2517 - Standard Sensor with 1.5” NPT	480.00
9078	Brass 2517 - Standard Sensor with 1.5” ISO	480.00
9079	Brass 2517 - Ext. length for Hot-Tap with 1.5” NPT	723.00
9080	Brass 2517 - Ext. length for Hot-Tap with 1.5” ISO	723.00

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+GF+ SIGNET 2551 Magmeter Flow Sensor

Description

The Signet 2551 Magmeter is an insertion style magnetic flow sensor that features no moving parts. The patented sensor design is available in corrosion-resistant materials to provide long-term reliability with minimal maintenance costs. Material options include PP with stainless steel, PVDF with stainless steel, PVDF with Hastelloy-C, or PVDF with Titanium. Utilizing the comprehensive line of Signet installation fittings, sensor alignment and insertion depth is automatic.

Features

- Patented Magmeter technology
- No moving parts
- Bi-directional flow
- Empty pipe detection
- Installs into pipe sizes 0.5 to 12 in.
- Flow rate range 0.15 to 33 ft/s
- Accurate measurement even in dirty liquids
- Blind 4 to 20mA, digital/frequency, relay output
- No pressure drop
- Corrosion resistant materials; PP or PVDF with SS, Hastelloy C, or Titanium

Applications

- Chemical processing
- HVAC
- Demineralization regeneration
- Water and wastewater monitoring
- Metal Recovery and Landfill Leachate
- Commercial poos, spas and aquariums
- Scrubber control
- Neutralization systems

Compatibility

5500 Flow Monitor
5600 Batch Controller
8900 Controller
5075 Flow Monitor
8550 Flow Transmitter

Other combinations available:

PVDF & Ti, PVDF & Hastelloy C, PVDF & SS

Key Specifications

- Flow Range: Minimum - 0.15 ft/s Maximum - 33 ft/s
- Linearity: ±1% reading plug 0.033 ft/s)
- Repeatability: ±0.5% of reading @ 77º F
- Storage Temperature: -4 to 158º F
- Relative Humidity: 0 to 95% (non-condensing)
- Operating Temperature: Ambient: 14º to 158º F Media: 32º to 185º F
- Max. operating pressure: 10.3 bar @ 77º F, 1.4 bar @ 185º F
- Standards: CE, UL, CUL

Part #	Description	Price
3-2551-P0-11	PP & SS, 4 in., freq. or digital	$ 801.00
3-2551-P0-12	PP & SS, 4 in., 4 to 20mA	801.00
3-2551-P1-11	PP & SS, 8 in., freq. or digital	824.00
3-2551-P1-12	PP & SS, 8 in., 4 to 20mA	824.00
3-2551-P2-11	PP & SS, 12 in., freq. or digital	1147.00
3-2551-P2-12	PP & SS, 12 in., 4 to 20mA	1233.00

+GF+ SIGNET 2552 Metal Magmeter

Description

The 2552 Magmeter Flow Sensor is a heavy duty, high performance sensor in an adjustable-insertion configuration that can be used with a ball valve for hot-tap installations. This insertion style flow sensor has no moving parts and is constructed of corrosion-resistant materials to provide long-term reliability with minimal maintenance cost. The empty pipe detection features a zero flow output when the electrodes are not completely wetted.

Features

- Patented Magmeter technology
- No moving sensor parts
- Bi-directional flow
- Empty pipe detection
- Adjustable insertion depth for large pipe sizes up to 48”
- Flow rate range 0.15 to 33 ft/s
- Accurate measurement even in dirty liquids
- Three output choices: frequency, digital, or 4 to 20mA
- NPT or ISO threads
- Diagnostic features using colored LED lights
- Optional detachable waterproof cable

Applications

- Chemical processing
- Municipal Water Distribution
- Water and wastewater monitoring
- Water Inlets to Process Plants
- Surface, Ground and Ocean Water
- Industrial Water Distribution
- Food Processing and Waste Lines

Compatibility

5500 Flow Monitor
5600 Batch Controller
8900 Controller
5075 Flow Monitor
8550 Flow Transmitter

Key Specifications

- Flow Range: Minimum - 0.15 ft/s Maximum - 33 ft/s
- Linearity: ±1% reading plus 0.033 ft/s)
- Repeatability: ±0.5% of reading @ 77º F
- Storage Temperature: 5 to 158º F
- Relative Humidity: 0 to 95% (non-condensing)
- Operating Temperature: Ambient: 5º to 158º F Media: -5º to 185º F
- Max. operating pressure: 20.7 bar @ 25º C (300psi @ 77º F)
- Standards: CE

Part #	Description	Price
3-2552-11-A-11	7.3” insert, 1 1/4” NPT, Fixed Cable, Freq. or digital output	$ 1536.00
3-2552-11-A-12	7.3” insert, 1 1/4” NPT, Fixed Cable, 4 to 20mA output	1646.00
3-2552-11-B-11	7.3” insert, 1 1/4” NPT, Connector, Freq. or digital output	1536.00
3-2552-11-B-12	7.3” insert, 1 1/4” NPT, Connector, 4 to 20mA output	1646.00
3-2552-12-A-11	7.3” insert, 1 1/4” ISO, Fixed Cable, Freq. or digital output	1536.00
3-2552-12-A-12	7.3” insert, 1 1/4” ISO, Fixed Cable, 4 to 20mA output	1646.00
3-2552-12-B-11	7.3” insert, 1 1/4” ISO, Connector, Freq. or digital output	1536.00
3-2552-12-B-12	7.3” insert, 1 1/4” ISO, Connector, 4 to 20mA output	1646.00

SIGNET Flow Sensors

+GF+ SIGNET 2000 Micro-Flow Sensor

Description

The SIGNET 2000 Micro Sensor is constructed from polyphenylene sulfide which combines high chemical resistance and material strength. The 2000 offers two flow ranges, starting at 0.03 gpm, for clean process liquids, regardless of fluid color. This sensor can be connected to flexible tubing or rigid pipe, and uses standard hardware for mounting. Only one moving part and a low pressure drop across the sensor reduces operating costs and maintenance requirements.

Compatibility

5500, 5075, Flow Monitors
5600 Batch Controller
8900 Controller
8550 Flow Transmitter

Key Specifications

- Output signal: Open collector NPN transistor, 10 mA max. sink
- Operating range:
  -11, -12 versions: 0.03 to 0.7 gpm
  -21, -22 versions: 0.3 to 3.2 gpm
- Pipe Connections: 1/4 in. NPT male or ISO 7 / 1 - R 1/4 male
- Linearity: ±1.2% of full range
- Repeatability: ±0.5% of full range
- Pressure/Temp: 32 - 176°F @ 80 psi max.
- Sensor body: 40% glass filled Polyphenylene Sulfide (PPS)
- Rotor: PEEK™, natural, unfilled
- O-Ring: FPM-Viton®
- Power requirements: 5 to 24 VDC @ 10 mA max.

Features

- **Two flow ranges available**
  0.03 to 0.7 gpm
  0.3 to 3.2 gpm
- **Simple Mounting**
- **1/4in., NPT or ISO threads**
- **Measures clear and dark liquids**

Applications

- **Coolant Flow**
- **Dosing**
- **Batch Dispensing**
- **Not recommended for strong oxidizers**

Part #	Port Size	Range (gpm)	Price
9312	1/4 in. NPT	0.03 to 0.7 gpm, 0.11 to 2.6 lpm	$ 331.00
9313	ISO 7 / 1-R 1/4	0.03 to 0.7 gpm, 0.11 to 2.6 lpm	331.00
9314	1/4 in. NPT	0.03 to 3.2 gpm, 1.13 to 12.11 lpm	331.00
9315	ISO 7 / 1-R 1/4	0.03 to 3.2 gpm, 1.13 to 12.11 lpm	331.00

+GF+ SIGNET 2507 Mini-Flow Sensor

PVDF

Description

The SIGNET 2507 Mini Flow Sensor contains a free-running rotor that is driven by the fluid flow. Within the given measurement range, the rotational speed of the rotor is proportional to the fluid flow rate. Permanent magnets built into the rotor actuate an electronic switch in the top of the sensor generating a square-wave output signal proportional to flow rate. Both opaque and transparent fluids can be measured from 0.2-20 centistrokes

Compatibility

5500, 5075 Flow Monitors
5600 Batch Controller
8900 Controller
8550 Flow Transimitter

Key Specifications

- Output Signal: 5VDC, open collector pulse
- Operating Range: See below in ordering info.
- Max. Pressure / Temperature:
  5.5 bar, 80 psi @ -22°F
  3 bar, 45 psi @ 248°F
- Power Requirements: 5 to 24 VDC @ 10 mA max.
- Pipe Connections: 0.25 in. NPT (male)
- Repeatability: ±0.25% of full range
- Sensor Body: PVDF
- Insert: Teflon® PTFE
- Turbine: PVDF
- O-ring: FPM-Viton®
- Threaded Adapters: PVDF
- Cable Length: 25 ft., splice up to 1000 ft.

Features

- **Compact Assembly**
- **Simple Installation**
- **1/4" Threaded Connection**
- **PVDF Construction**
- **Detachable Signal Connector**
- **Four Flow Ranges**

Applications

- **Fluid Dispensing**
- **Chemical Dosing**
- **Laboratory and clinical wet benches**
- **Batch Process**

Part #	Flow Range (ml / min)	Range (gpm)	Price
9084	400 to 2,800	0.105 to 0.740	$ 686.00
9085	700 to 4,200	0.185 to 1.123	686.00
9086	1,300 to 6,000	0.343 to 1.585	686.00
9087	3,200 to 12,000	0.845 to 3.170	686.00

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ALSCO SIGNET Vortex Flow Meter

7000/7001 Vortex Flow Sensors

Description

Signet Vortex Flow Sensors provide extremely accurate and reliable flow measurement with no moving parts. The PVC sensors are injection-molded to achieve a smooth surface finish for cleanliness and better chemical compatibility, that also drastically reduces manufacturing inconsistencies and in-service particulation associated with machined surfaces. A variety of end connector options simplify installation and allow unparalleled configuration versatility. The sensors feature either frequency output or fixed 4 to 20 mA current output, and can be used with Signet's comprehensive offering of flow instrumentation to achieve enhanced system functionality.

Features

- Six sizes in the range 1/2 to 2"
- No moving parts or machined surfaces
- Injection-molded plastic construction
- Excellent surface-finish quality
- +/- 1% of reading accuracy
- Vibration-noise protection
- Standard sensor output: Frequency or 4 to 20 mA
- Reverse polarity protected

Applications

- Process Flow
- Plating Rinse
- RO / DI Skids
- Process Cooling Water
- Neutralization Systems
- Waste Water Effluent
- Scrubber Control
- Chemical Delivery
- Accurate Batching

Specifications

- Pipe size range: 1/2 to 2 in.
- Linearity: ±1% of reading @ 25º C
- Repeatability: ±0.5% of reading @ 25º C
- Reynolds Number: 7500
- Enclosure:
  Rating: NEMA 4X/IP65
  Material: PC/PBT blend of resins
  Seals (2): Buna-N (NBR)
- Maximum vibration:
  1mm or 1g double amplitude @ 500 Hz
- Max. Pressure/Temperature Ratings:
  232 psi @ 32º F, 54 psi @ 140º F
- Operating temperature:
  32 to 149º F
- Storage temperature:
  5 to 176º F

Part #	Description	Price
3-7000-51	VxF Sch80 PVC 0.5"	$ 806.00
3-7000-52	VxF Sch80 PVC 0.75"	806.00
3-7000-53	VxF Sch80 PVC 1.0"	806.00
3-7000-54	VxF Sch80 PVC 1.25"	927.00
3-7000-55	VxF Sch80 PVC 1.50"	927.00
3-7000-56	VxF Sch80 PVC 2.0"	927.00
3-7000-61	VxF Metric PVC d20	770.00
3-7000-62	VxF Metric PVC d25	770.00
3-7000-63	VxF Metric PVC d32	770.00
3-7000-64	VxF Metric PVC d40	908.00
3-7000-65	VxF Metric PVC d50	908.00
3-7000-66	VxF Metric PVC d63	908.00
3-7001-51	VxC Sch80 PVC 0.5"	806.00
3-7001-52	VxC Sch80 PVC 0.75"	806.00
3-7001-53	VxC Sch80 PVC 1.0"	806.00
3-7001-54	VxC Sch80 PVC 1.25"	927.00
3-7001-55	VxC Sch80 PVC 1.50"	927.00
3-7001-56	VxC Sch80 PVC 2.0"	927.00
3-7001-61	VxC Metric PVC d20	770.00
3-7001-62	VxC Metric PVC d25	770.00
3-7001-63	VxC Metric PVC d32	770.00
3-7001-64	VxC Metric PVC d40	908.00
3-7001-65	VxC Metric PVC d50	908.00
3-7001-66	VxC Metric PVC d63	908.00

SIGNET Flow Totalizer

+GF+ SIGNET 8150 Battery Powered Flow Totalizer

Field Mount

Panel Mount

Description

The 8150 will provide years of dependable operation. The large digital display indicates flow rate and totalized flow volume simultaneously. One of the three totalizers is resettable from the front panel or a remote location, while the second resettable totalizer can only be reset by entering a user-selectable security code. Meanwhile, the third is a permanent non-resettable totalizer. Our intuitive software design and four-button keypad provide for simple operation while setting screen displays and programming the system.

Integral Mount

Features

- Three totalizers
- Long-lasting lithium batteries
- Mounting versatility
- No-flow indicator
- Large digital display with averaging
- Simple push-button operation
- User selectable access code prevents unwanted changes
- Auto-calibration

Applications

- Wastewater Flow Accumulation
- Water Treatment Systems
- Remote or Mobile Treatment/Distribution Systems
- Irrigation and Filtration Systems
- Commercial Pools & Spas
- Groundwater Remediation
- RO Concentrate
- Process Flow Monitoring
- UPW Distribution
- Demineralizer Regeneration
- Process Cooling Water
- Neutralization Systems

Compatibility

515,525,2517 Sensors

Standards and Approvals

CE, CUL, UL pending

Part #	Description	Price
3-8150-1	Field Mount, 8150 Battery powered Flow Totalizer	$ 489.00
3-8150-1P	Panel Mount, 8150 Battery powered Flow Totalizer	489.00
3-8150-P0	Integral Mount, mount kit, 3-8510-P0 (#9108) Paddlewheel	764.00
3-8150-P1	Integral Mount, mount kit, 3-8510-P1 (#9109) Paddlewheel	782.00
3-8150-T0	Integral Mount, mount kit, 3-8510-T0 Paddlewheel	1029.00
3-8150-V0	Integral Mount, mount kit, 3-8510-V0 (#9110) Paddwheel	985.00

Technical Data

Environmental

- Operating Temperature: 14 to 149°F
- Storage Temperature: -40 to 212°F
- Relative Humidity: 0 to 95%, non-condensing

General

Accuracy: ±0.5% of reading

Enclosure:

- Rating: NEMA 4x/IP65 front • Case: PBT resin
- Window: Polyurethane coated polycarbonate
- Keypad: Sealed 4-key silicone rubber

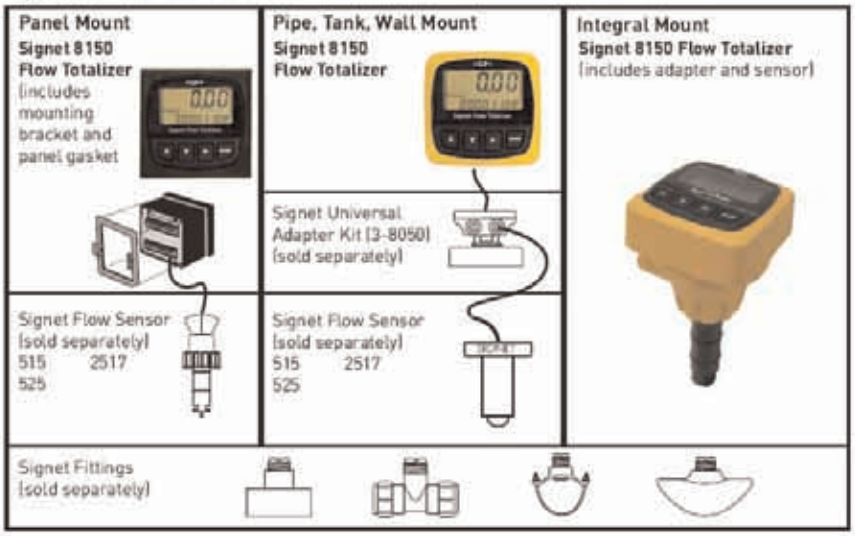
Display:

- LCD type - 4-digit upper line - flow rate
  8-digit lower line - volume totalizer count, either resettable or permanent
  Averaging 0 to 120 secs.
- Contrast: Automatic
- Low Battery indication:
  Battery symbot appears on LCD display
- 8-digit resettable totalizers:
  Stored until user resets; continues to be stored even after batteries are removed
- 8-digit permanent:
  Kept permanently, even when batteries are removed

Electrical

- Battery: Two 3.6V Lithium thionyl chloride, AA-size
- Battery Life: 4 years nominal @ 122º F

System Overview



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SIGNET Transmitter

+GF+ SIGNET 8550 ProcessPro™ Flow Transmitter

Field Mount

Panel Mount

Description

The 8550 Flow Transmitter is an advanced solution that converts the signal from all Signet flow sensors into a 4 to 20mA signal for long distance transmission, and offers the unique feature of dual input and output capability. Configuration flexibility is maximized with two optional relays for process control, two packaging options for integral/pipe mount or panel installation, and scalability for virtually any flow range or engineering unit. State-of-the-art electronic design ensures long-term reliability, signal stability, and simple user setup and operation.

Features

- Permanent & resettable totalizers
- Scaleable outputs • Relay options
- Mounting versatility
- Simulate function
- 2x16 character dot matrix LCD
- Large pushbuttons
- Clear marked terminal labels

Applications

- Flow control & monitoring
- Effluent totalization
- Filtration or softener regeneration
- Effluent totalization • Pump protection
- Feed pump pulsing • Ratio control
- Water distribution • Leak detection

Part #	Description	Price
9239	Flow Transmitter, Field Mount, 1 input	$ 426.00
9240	Flow Transmitter, Panel Mount, 1 input	426.00
9241	Flow Transmitter, Field Mount, with relays	505.00
9242	Flow Transmitter, Panel Mount, with relays	505.00
9243	Flow Transmitter, Field Mount, dual input / output	723.00
9244	Flow Transmitter, Panel Mount, dual input / output	723.00
9232	Universal Adapter Kit	52.00
9245	Watertight NEMA 4X Cover	46.00
9234	Flow Integral Mounting Kit, NPT	52.00
9246	RC Filter Kit (for relay use only). Contains 2 Filters	19.00

Compatibility

515, 2536, 2551, 525, 2000, 2100, 2507, 2517, 2540, 2550, 7000,7002 Flow Sensors

Technical Data

Environmental

- Operating Temperature: 14 to 158°F
- Storage Temperature: 5 to 176°F
- Relative Humidity: 0 to 95%, non-condensing

General

Accuracy: ±0.5% of reading @ 25º C

Enclosure:

- Rating: NEMA 4x/IP65 front • Case: PBT
- Window: Polyurethane coated polycarbonate
- Keypad: Sealed 4-key silicone rubber

Display:

- Alphanumeric 2x16 LCD • Update rate: 1 sec.
- Contrast: User selected, 5 levels

Electrical

Sensor Input: • Range: 0.5 to 1500 Hz

- Sensor power:
  2-wire: 1.5 mA @ 5 VDC ±1%
  3 or 4 wire: 20 mA @ 5 VDC ±1%
- Optically isolated from current loop
- Short circuit protected

Current output:

- 4 - 20 mA, isolated, fully adjustable & reversible
- Power: 12 to 24 VDC ±10% regulated
- Max loop impedance: 50Ω max. @ 12 V, 325Ω max. @ 18V, 600Ω max. @ 24 V
- Update rate: 100ms • Accuracy: ±0.03 mA

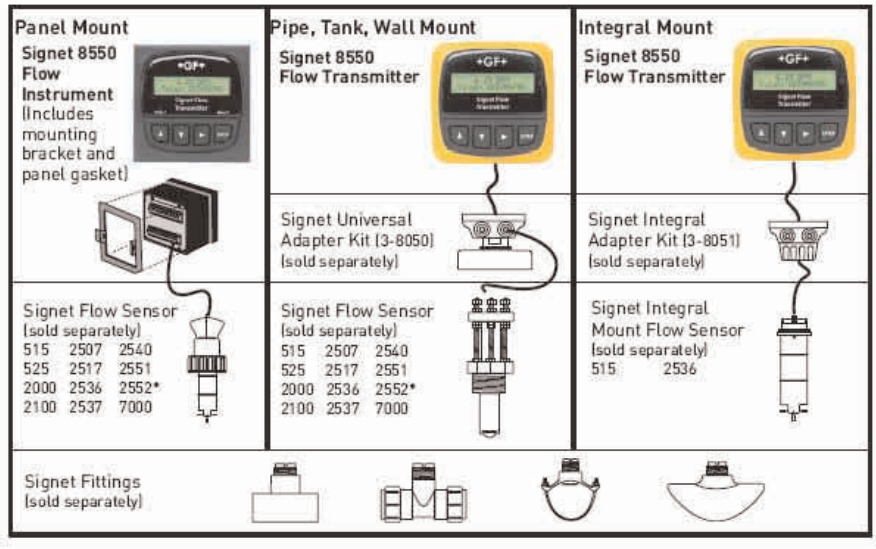
Relay output:

- Mechanical SPDT contacts: Hi, Lo, Pulse, Off
- Max voltage rating:
  5 A @ 30 VDC, 5 A @ 250 VAC resistive load
- Hysteresis: User adjustable
- Max 300 pulses / min.

Open-collector output: Hi, Lo, Pulse, Off

- Open-collector, optically isolated, 50 mA max, sink, 30 VDC max. pull-up voltage.
- Max 300 pulses / min.

System Overview



NEW

+GF+ SIGNET 2850 Conductivity / Resistivity Sensor

Threaded J-Box

Universal Mt.

Description

The 2850 Conductivity/Resistivity Sensors are available in various configurations for maximum installation flexibility. The univ. mount is for pipe, wall, or tank mounting and enables single or dual (digital versions only) inputs using any std. Signet conductivity/resistivity sensor. The threaded j-box version can be used with these same Signet sensors for submersible sensor mounting. It is also available as a combined integral system configuration for in-line mounting and includes a conductivity electrode.

Integral Conductivity System for in-line installations

Features

- S³L™ Digital Interface or
- Two-wire 4 to 20mA output with many range settings
- Integral mount systems for quick and easy installation
- Automatic electrode cell constant recognition (0.01, 0.10, 1.0, 10.0)
- For use with ALL Signet conductivity electrodes
- Compact design for maximum installation flexibility
- EasyCal with automatic test solution recognition
- Dual channel unit avail. for low cost installation with 8900 Controller

Applications

- Water treatment & Water Quality Monitoring
- Reverse Osmosis
- Deionization
- Demineralizer, Regeneration & Rinse
- Scrubber, Cooling Tower and Boiler Protection
- Aquatic Animal Life Support Systems

Part #	Description	Price
9296	Submersible,3/4" thr, EasyCal, Digital output	$ 289.00
9297	Submersible,3/4" thr,EasyCal, 4 to 20mA output	404.00
9298	Universal mount, EasyCal, Digital output	289.00
9299	Universal mount, EasyCal, 4 to 20mA output	404.00

+GF+ SIGNET 2750 DryLoc™ pH / ORP Sensor Electronics

In-line 2750

Submersible

Features

- In-line integral mount and submersible installation versions
- No additional pre-amplifier • Auto configuration for pH or ORP operation
- S³L™ Digital Output • Two-wire 4 to 20mA loop output
- Compatible with 3719 pH/ORP Wet-Tap
- Automatic buffer recognition • Automatic temperature compensation
- DryLoc™ electrode connector • Optional EasyCal calibration aid
- Junction boxes for convenient wiring

System Features

a) 4 to 20mA or S³L™ output connection
b) Easy push-button calibration (EasyCal option)
C) LED indicator
d) Sensor input connections
e) Local EasyCal enable for S³L™ output

Applications

- Water / Wastewater Treatment • Neutralization Systems • Scrubber Control
- Effluent Monitoring • Surface Finishing • Flocculent Coagulation
- Heavy Metal Removal and Recovery • Commercial Pools & Spas
- Toxics Destruction • Sanitization Systems • Aquatic Animal Life Support Systems

Part #	Description	Price
9338	In-line Sensor w/ Junction Box, S³L or 4-20mA output	$ 344.00
9339	In-line Sensor w/ Junction Box & Local EasyCal; S³L or 4-20mA	378.00
9340	Submersible Sensor Electronics, NPT; S³L or 4-20mA output	327.00
9341	Submersible Sensor Electronics, ISO; S³L or 4-20mA output	327.00

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+GF+ SIGNET 2760 DryLoc™ pH / ORP Preamplifier


In-line 2760


Submersible

Features

- In-line integral mount and submersible installation versions
- Auto configuration for pH or ORP operation
- Compatible with 3719 pH/ORP Wet-Tap
- Automatic buffer recognition • Automatic temperature compensation
- Optional EasyCal calibration aid
- Junction boxes for convenient wiring

Description

The 2760 is a preamplifier that allows any DryLoc® pH/ORP electrode to work with most Signet instruments. It is also sold as a simple connector for use with other manufacturer's instruments that do not require a preamplified signal.

Applications

- Water / Wastewater Treatment • Neutralization Systems • Scrubber Control
- Effluent Monitoring • Surface Finishing • Flocculent Coagulation
- Heavy Metal Removal and Recovery • Commercial Pools & Spas
- Toxics Destruction • Sanitization Systems • Aquatic Animal Life Support Systems

Part #	Description	Price
3-2760-1	Submersible Preamplifier,with 3/4" NPT threads and 15ft cable	$ 216.00
3-2760-2	Submersible Preamplifier, with 3/4" ISO threads and 15ft cable	216.00
3-2760-3	Submersible Connector with 15ft cable and 3/4" NPT threads	168.00
3-2760-4	Submersible Connector with 15ft cable and ISO 7/1R 3/4 threads	168.00
3-2760-11	In-line Preamplifier, NPT 3/4" threads	216.00
3-2760-21	In-line Preamplifier, ISO 7/1R 3/4 threads	216.00
3-2760-31	In-line Connector, NPT 3/4" threads	168.00
3-2760-41	In-line Connector, ISO 7/1R 3/4 threads	168.00

+GF+ SIGNET 3719 pH/ORP Wet-Tap Assembly

Features

- Removes electrodes from pressurized systems for routine service or replacement
- Automatic process isolation upon electrode retraction - no separate valve required
- Space saving 45mm (1.75 in.) short-stroke design
- Sealed pneumatic dampening for smooth and safe operation
- SafeLoc™: Camactivated automatic locking mechansim (patent pending)
- Compatible with Twist-Lock and DryLoc™ Electrodes for use with 2720 Preamplifier or 2750 pH/ORP Sensor • Suitable for mounting in any orientation
- Large reference volume for long electrode life
- pH electrode includes integrated temperature sensor

Description

The 3719 pH/ORP Wet-Tap allows installation and removal of pH or ORP electrodes without the need for process shutdown during routine electrode maintenance and calibration. Process isolation is achieved with a double O-ring seal on a unique and compact retraction assembly; no separate valve is required. A camactivated automatic locking mechanism, SafeLoc™, and the short stroke design help to assure operator safety.

Applications

- Water / Wastewater Treatment • Neutralization Systems • Scrubber Control
- Effluent Monitoring • Surface Finishing
- Heavy Metal Removal • Recreational Water Monitoring
- Toxics Destruction • Sanitization Systems • Aquatic Animal Life Support Systems

Part #	Description	Price
3-3719-11	Wet-Tap Assembly, 1.5" NPT process threads	$ 686.00
3-3719-12	Wet-Tap Assembly, ISO 7/1-R 1.5 process threads	686.00
3-3719-21	Wet-Tap Assembly, 2" NPT process threads	720.00
3-3719-22	Wet-Tap Assembly, ISO 7/1-R 2 process threads	720.00

ALSCO SIGNET pH / ORP Sensors

+GF+ SIGNET 2714 / 2714-HF / 2716 pH Electrodes

Description

The SIGNET 2714 and 2716 pH Electrodes offer unsurpassed accuracy and reliability. The unique twist-lock design enables electrode installation and maintenance with virtually zero downtime. A long double junction reference path provides long term use in industrial process and wastewater application.

Key Specifications

- Operating Range: pH: 0 to 14
- Temperature: 2716: 32 to 185°F, 2714: 50 to 185°F, 2714-HF: 32 to 122°F
- Construction Materials: CPVC body with FPM O-rings, Porous UHMW PE
- Response Time: < 5 seconds for 95% of signal change
- Temperature and Pressure Limit: 100 psi @ 149º F
- Pipe Size Range: Fits +GF+ SIGNET tees from 0.5 to 4.0 in. • Efficiency: ≥97% @ 77ºF
- Primary Functions: 2714: Flat surface resists fouling for heavy industry
  2716: Bulb surface for general use 2714-HF: Applications w/ trace hydrofluoric acid
- Temperature Sensor: 3K Balco (3000Ω = 25ºC)

Compatibility

5700 pH/ORP Monitor 8750 pH Transmitter 2720 pH/ORP Preamp.

Features

- Durable CPVC or glass body with Twist-Lock connector
- Integrated temperature sensor
- Flat or bulb surfaced electrodes
- DI option (pH) for pure waters
- HF option for applications containing trace Hydrofluoric Acid

Applications

- Water and wastewater
- Boiler Protection • Neutralization
- Effluent monitoring
- Cooling Towers • Process Control
- Commercial pools and spas

Part #	Description	Price
9093	Flat pH electrode	$ 272.00
9094	Bulb pH electrode	231.00
9093-HF	Flat pH electrode, HF resistant	334.00
Note: All use +GF+ SIGNET 2720 Preamplifier		

+GF+ SIGNET 2715 / 2717 ORP Electrodes

Description

The SIGNET 2715 and 2717 ORP Electrodes feature a double-junction combination electrode with unique integral I.D. resistor for auto. sensor recognition by the SIGNET 8750 pH /ORP Transmitter and 5700 pH / ORP Monitor. The chemically resistant CPVC body, and twist-lock connection make removal and replacement of electrodes fast and simple.

Key Specifications

- Operating Range: ORP: ±2,000 mV's
- Temperature: 2717: 32 to 185°F 2715: 50 to 185°F
- Construction Materials: CPVC body with FPM O-rings, Porous UHMW PE
- Response Time: Application dependent
- Temperature and Pressure Limit: 100 psi @ 149º F
- Pipe Size Range: Fits +GF+ SIGNET fittings to 4" • Efficiency: > / = 97% @ 77ºF
- Primary Functions: 2715: Flat surface resists fouling for heavy industry
  2717: Bulb surface for general use

Compatibility

2720 pH / ORP Preamplifier 5700 pH / ORP Monitor
8750 pH / ORP Transmitter

Features

- Durable CPVC or glass body with Twist-Lock connector
- Large reference volume
- Flat or bulb surfaced electrodes

Applications

- Water and wastewater
- Boilter Protection • Neutralization
- Effluent Monitoring
- Cooling Towers • Process Control
- Aquatic Animal Life Support Sys.
- Sanitation Systems
- Commercial pools and spas

Part #	Description	Price
9095	Flat ORP electrode	$ 293.00
9096	Bulb ORP electrode	254.00
Note: All use +GF+ SIGNET 2720 Preamplifier		

+ GF+ SIGNET 2720 Pre-amplifier

Description

The SIGNET 2720 unity gain Pre-amplifier converts pH probe signals to a level that can be wired over a great distance on ordinary cable. 2720 connects to the SIGNET pH and ORP sensors with a unique twist-lock connection design. The 2720 was designed for use with any device supplying a dual 5 VDC supply including all current Signet models of pH and ORP controllers, monitors, and transmitters.

Features

- Unbreakable CPVC body
- Twist-lock design allows quick connect/disconnect of sensors
- In-line & submersible installations
- Use with pH & ORP Twist-lock Electrodes to assure signal integrity

Applications

- Water and wastewater
- Flocculent Coagulation
- Effluent monitoring
- Toxics destruction
- Heavy metal removal & recovery
- Sanitation systems

Specifications

- Op.Range: mV Input: ±2,500mV's
- Storage Temp: 32 to 176°F
- Gain: unity
- Max. current: < 1 mA
- Input Impedance: > 10^{11} Ω
- Temperature Contact Resistance: < 100 milliohms
- Power require.: Provided by all Signet pH / ORP instruments

Compatibility

2714, 2715, 2716, and 2717 pH or ORP Electrodes
5700 pH / OPR Monitor
8750 pH / ORP Transmitter

Part #	Description	Price
9125	Unity gain pre-amplifier	$ 195.00
9126	Sensor cap (red) for in-line sensor mtg	12.00

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ALSCO SIGNET Conductivity Sensors

+GF+ SIGNET 2819 / 2820 / 2821 Conductivity/Resistivity Sensors

Sanitary Connections Available

Applications
- Pure Water Treatment
- Boiler Condensate • TDS
- Rinse water monitoring/control
- USP Purified Water/WFI Water Production • Salinity
- Chemical concentrations
- Semiconductor Water Production

Description
The SIGNET 2819 / 2820 / 2821 Conductivity Sensors offer high performance and reliability. Controlled surface finish and integral temperature compensation devices ensure accurate conductivity measurement. Available in three cell constants, these sensors offer a measurement range from .055 to 10,000 µS when used with Signet conductivity instrumentation.

Features
- Controlled surface finish
- Reversible 3/4 in. NPT process connection for in-line and tank usage
- Concentric electrode design for signal integr.
- Integral platinum temperature sensor

Compatibility
5800CR Conductivity / Resistivity Monitor
5900 Monitor, 8850,8860 Transmitter

Specifications
- Operating Range: 0.01 Cell: 10 K Ω to 18.3 M Ω (0.055 to 100 µS) (max. recom. cable length 25 ft. in range from 10Ω to 18.3MΩ) 0.1 Cell: 1 to 1,000 µS 1.0 Cell: 10 to 10,000 µS
- Temperature: 212°F max. (optional 316 SS fitting: 248°F)
- Pressure: 100 psi max. (optional 316 SS fitting: 200 psi)
- Pipe Size Range: 3/4 in. and larger
- Body: 316 SS • Insulator: PTFE
- Fitting: 3/4 in. MNPT PP (Reversible for submersion)
- Optional: 1/2 in. MNPT 316 SS
- O-rings: EPR
- Cable length: 15 ft. (100 ft. max.)

Part #	Description	Price
9209	0.01 cm-1 cell constant, 316SS electrode,3/4" reversible threads	$ 301.00
9200	0.1 cm-1 cell constant, 316SS electrode,3/4" reversible threads	299.00
9202	1.0 cm-1 cell constant, 316SS electrode,3/4" reversible threads	299.00

+GF+ SIGNET 2822 / 2823 Conductivity/Resistivity Sensors

Features
- Controlled surface finish
- Reversible 3/4 in. NPT process connection for in-line and tank usage (2823 only)
- Easy to install
- Higher temperature
- Integral PT-1000, Platinum RTD

Applications
- Cleaner and Degreaser Concentrations
- Rinse water monitoring
- Pure Water Treatment
- Chemical concentration
- Boiler Condensate • Salinity

Description
The SIGNET 2822 / 2823 Conductivity Sensors offer higher pressure and temperature specifications. The flow through design ensures continuous measurement without air entrapment. These sensors are designed to install into common 0.75 in. fittings. The 2823 fitting may be reversed allowing instant changeover from in-line to submersible applications. Proven circuit design allows high range accuracy without the need for expensive and troublesome platinum or graphite electrodes.

Compatibility
5800CR Conductivity / Resistivity Monitor
5900 Salinity Monitor
8850,8860 Transmitters

Specifications
2822
- Operat. Range: 10.0 Cell: 100 to 200,000 µS
- Temperature: 203°F max.
- Pressure: 100 psi max.
- Pipe Size Range: 3/4 in. and larger
- Body: CPVC • Electrodes: 316SS
- O-rings: EPR • Cable: 15 ft. (100 ft. max.)
- Fitting: 3/4 in. MNPT 316 SS

Optional: 316 SS, 3/4 in. MNPT for submersion

2823
- Operat. Range: 20.0 Cell: 200 to 400,000 µS
- Temperature: 302°F max.
- Pressure: 100 psi max.
- Pipe Size Range: 3/4 in. and larger
- Body: 316 SS • Insulator: PTFE
- O-rings: EPR • Cable: 15 ft. (100 ft. max.)
- Fitting: 3/4 in. MNPT 316 SS (reversible for submersion)

Part #	Description	Price
9205	10 cm-1 cell constant, 316SS electrode, 3/4" fixed threads	$ 502.00
9207	20 cm-1 cell constant, 316SS electrode,3/4" reversible threads	602.00

SIGNET Electrodes

+GF+ SIGNET 2839 - 2842 Conductivity Electrodes

2841-1
2842-1

2840-1

2839-1

Description

The 2839-2842 Conductivity/Resistivity Electrodes are available in four cell constants from 0.01 to 10.0, and are suitable for a wide variety of applications from high purity water quality monitoring to demineralizer regeneration. 316SS electrode surface finishes are controlled in a precision bead blasting operation to ensure measurement accuracy and repeatability. The PEEK insulator and process connections are injection over-molded to minimize variance between electrodes. Double threaded connections in either 3/4" NPT or ISO 7/1-R 3/4 enable quick and easy installation in submersible or in-line configurations. Transmitter integral mounting kit and J-Boxes are available as accessories.

Features

- Controlled surface finish ensures accuracy and repeatability
- 316SS electrodes with injection molded PEEK™ process connections & insulators
- Compact electrode length for easy in-line installation
- Suitable for operation up to 268º F
- Double-threaded connection for in-line or submersible mount
- Triple orifice flow-through design reduces clogging and bubble entrapment
- 3/4 in. NPT or ISO 7/1 - R 3/4 process connections
- Cell constants may be traceable to NIST and certified to within ±1% of value
- Integral Mounting Kit and J-Box accessories

Applications

- Water treatment & Water Quality Monitoring
- Reverse Osmosis • Deionization
- Cooling Tower and Boiler Protection
- Distillation • Desalination
- Demineralizer • Semiconductor
- Aquatic Animal Life Support Systems

Compatibility

5800CR Conductivity/Resistivity Monitor
5900 Monitor, 8850,8860 Transmitter

Part #	Description	Price
9324	(3-2839-1) 0.01, 15 ft. cable, 3/4 in. NPT	$ 258.00
9325	(3-2839-1D) 0.01, 15 ft. cable, ISO 7/1 — R 3/4 in.	258.00
9326	(3-2840-1) 0.1, 15 ft. cable, 3/4 in. NPT	258.00
9327	(3-2840-1D) 0.1, 15 ft. cable, ISO 7/1 — R 3/4 in.	258.00
9328	(3-2841-1) 1.0, 15 ft. cable, 3/4 in. NPT	258.00
9329	(3-2841-1D) 1.0, 15 ft. cable, ISO 7/1 — R 3/4 in.	258.00
9330	(3-2842-1) 10.0, 15 ft. cable, 3/4 in. NPT	357.00
9331	(3-2842-1D) 10.0, 15 ft. cable, ISO 7/1 — R 3/4 in.	357.00

+GF+ SIGNET 2754 - 2757 DryLoc™ pH and ORP Electrodes

Features

- Designed for use with 2750 DryLoc™ Sensor
- Foul-proof connector
- Gold-plated contacts
- Durable CPVC body
- Self-cleaning flat versions reduce risk of glass breakage
- Large reference volume and solid polymer electrolyte
- Temperature sensor included in pH electrodes
- DI options for pure water
- HF option for pH
- Wet-tap option

Part #	Description	Price
9332	Flat pH Electrode, Dry-Loc connection	$ 261.00
9333	Flat pH Electrode, HF Resistance, Dry-Loc connection	321.00
9334	Flat ORP Electrode, Dry-Loc connection	283.00
9335	Bulb pH Electrode, Dry-Loc connection	223.00
9336	Bulb pH Electrode, DI Resistant, Dry-Loc connection	261.00
9337	Bulb ORP Electrode, Dry-Loc connection	245.00

Applications

- Water & Wastewater treatment
- Neutralization Systems
- Scrubber Control • Surface Finishing
- Effluent Monitoring • Toxics Destruction
- Sanitization Systems • Pools & Spas
- Aquatic Animal Life • Process control

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SIGNET Electrodes

+GF+ SIGNET 2764-2767 Differential DryLoc™ pH and ORP Electrodes

Features
- Field-proven differential design for stable measurements in the most aggresive applications • Solution ground
- Rebuildable reference electrode
- Water-tight DryLoc™ connector with foulproof gold contacts
- Porous Teflon™ reference junction
- Integral temperature sensor, Quick temperature response
- Easy sensor replacement using DryLoc™ electrode connector
- Compatible with other suppliers' instruments

Applications
- Water & Wastewater treatment
- Coagulation and Flocculation
- Plant Effluent • Plating Baths
- Scrubbers • Textile Dye Process
- Harsh Chemical Applications
- Heavy metal Removal & Recovery
- Toxics Destruction • Surface Finishing

Compatibility
2750-2760 pH/ORP Sensors
5700 Monitor, 8750 Transmitter
8900 Controller

Part #	Description	Price
3-2764-1	Flat pH Electrode, 3K ohm TC	$ 404.00
3-2764-2	Flat pH Electrode, PT1000 TC	413.00
3-2764-3	Flat pH Electrode, 300 ohm TC	404.00
3-2765-1	Flat ORP Electrode, 10K ID	434.00
3-2765-2	Flat ORP Electrode, PT1000 TC	443.00
3-2765-3	Flat ORP Electrode, 300 ohm TC	434.00
3-2766-1	Bulb pH Electrode, 3K ohm TC	381.00
3-2766-2	Bulb pH Electrode, PT1000 TC	389.00
3-2766-3	Bulb pH Electrode, 300 ohm TC	381.00
3-2767-1	Bulb ORP Electrode, 10 K ID	411.00
3-2767-2	Bulb ORP Electrode, PT1000 TC	420.00
3-2767-3	Bulb ORP Electrode, 300 ohm TC	411.00

+GF+ SIGNET 2774-2777 Threaded DryLoc™ pH and ORP Electrodes

Features
- Durable Dryloc™ connector with gold plated contacts
- Special design allows mounting at any angle
- Quick temperature response
- High temperature versions available
- Easy sensor replacement using DryLoc™ electrode connector
- Mounts into standard 3/4 inch threads

Compatibility
2750-2760 pH/ORP Sensors
5700 Monitor, 8750 Transmitter
8900 Controller

Applications
- Water Treatment & Water Quality Monitoring
- Demineralizer, Regeneration & Rinse
- Cooling Tower and Boiler Protection
- Aquatic Animal Life Support Systems
- Pool and Spa Control
- Neutralization Systems

Part #	Description	Price
3-2774	Flat pH Electrode, 3K ohm TC	$ 346.00
3-2774-1	Flat pH Electrode, PT1000 TC	346.00
3-2775	Flat ORP Electrode, 10 K ID	363.00
3-2775-1	Flat ORP Electrode, no TC	363.00
3-2776	Bulb pH Electrode, 3K ohm TC	312.00
3-2776-1	Bulb pH Electrode, PT1000 TC	312.00
3-2777	Bulb ORP Electrode, 10 K ID	328.00
3-2777-1	Bulb ORP Electrode, no TC	328.00

SIGNET Transmitter

+GF+ SIGNET 8750 pH / ORP Transmitter

Field Mount

Panel Mount

Description

The 8750 pH/ORP Transmitter is designed for broad application and ease of setup and use. The unit auto-configures for either pH or ORP use when connected to SIGNET pH or ORP sensors. Multiple mounting options allow for installation best suited to your particular application. The automated "Easy-cal" menu features automatic buffer recognition for mistake proof pH or ORP sensor calibrations. Two-line LCD provides sensor diagnostic information for ease in system maintenance.

Compatibility

Signet 3-27XX ph/ORP, Preamplifier / Electrodes

Standards and Approvals

CE, UL Listed, ISO 9001

Features

- Display in Degree C or Degree F
- Hold & Simulate functions
- Integral or remote mounting
- Output scalability • Relay options
- Dual output option allows temp. and pH signal transmission
- 2x16 character dot matrix LCD
- Large pushbuttons & terminal labels

Applications

- Neutralization systems
- Heavy metals recovery
- Plating & Scrubber control
- Pool & Spa control • Disinfecting
- Water treatment & quality
- Waste treatment

Part #	Description	Price
9247	pH / ORP Transmitter, Field Mount, 1 input	$ 534.00
9248	pH / ORP Transmitter, Panel Mount, 1 input	534.00
9249	pH / ORP Transmitter, Field Mount, with relays	639.00
9250	pH / ORP Transmitter, Panel Mount, with relays	639.00
9251	pH / ORP Transmitter, Field Mount, dual output	790.00
9252	pH / ORP Transmitter, Panel Mount, dual output	790.00
9232	Universal Mounting Kit	52.00
9245	Transmitter NEMA 4X Back Cover	46.00
9246	RC Filter Kit (for relay use only). Contains 2 Filters	19.00

Technical Data

Environmental

- Operating Temperature: 14 to 158°F
- Storage Temperature: 5 to 176°F
- Relative Humidity: 0 to 95%, non-condensing

General

Accuracy: ±0.03 pH, ± 2 mV's ORP

Enclosure:

- Rating: NEMA 4x/IP65 front • Case: PBT
- Window: Polyurethane coated polycarbonate
- Keypad: Sealed 4-key silicone rubber

Display:

- Alphanumeric 2x16 LCD
- Contrast: User selected, 5 levels

Electrical

Sensor Input range:

- pH: 0.00 to 14.00 pH
- temp. 3K Balco, -13 to 248°F
- ORP: -2000 to +2000 mV, isolated (10K I.D. resistance T+, T-)

Current output:

- 4-20 mA, isolated, fully adjustable & reversible
- Power: 12 to 24 VDC ±5% regulated
- Max loop impedance: 50Ω max. @ 12 V, 325Ω max. @ 18V, 600Ω max. @ 24 V
- Update rate: 0.5 seconds
- Accuracy: ±0.03 mA @ 25°C, 24 V

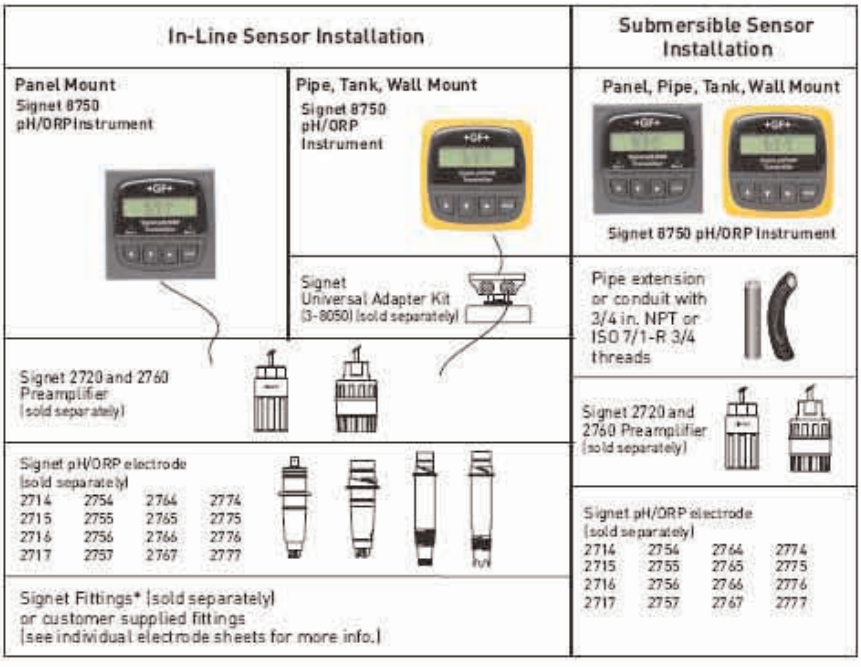
Relay output:

- Mechanical SPDT contacts: Hi, Lo, Pulse, Off
- Max voltage rating: 5 A @ 30 VDC or 5A @ 250 VAC resistive load
- Hysteresis: User adjustable
- Max 400 pulses / min.

Open-collector output: Hi, Lo, Pulse, Off

- Open-collector, optically isolated, 50 mA max, sink, 30 VDC max. pull-up voltage.
- Max 400 pulses / min.

System Overview



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SIGNET Transmitter

+GF+ SIGNET 8350 Temperature Transmitter

Field Mount

Panel Mount

Description

The 8350 Temperature Transmitter converts the signal from the 2350 temperature sensor into a 4 to 20mA signal. Offers exceptional repeatability and accuracy over a wide operating termperature range. Configurations include open collector outputs or relays for process control or alarming. Chemical resistant NEMA 4X packaging options include highly visible field mount or black panel mount with standard 1/4 DIN cutout.

Compatibility

Signet 2350 Temperature Sensor i-Go 8058 Signal Converter

Standards and Approvals

CE, UL Listed, ISO 9001

Features

- Field Scaleable
- Temp. and mA loop indication
- Degree C or Degree F
- Output Simulation function
- 2 sensor input option
- Relay option with status indictors
- 2x16 character dot matrix LCD

Applications

- Plating Bath Temperature Control
- Heat Exchange Monitor
- R.O. & DI system monitor
- Hot/Cold Mixing system monitor
- Data Acquisition • Cooling loops
- Effluent monitoring • HVAC
- Chemical Processing

Part #	Description	Price
9253	Temperature Transmitter, Field Mount, 1 input	$ 426.00
9254	Temperature Transmitter, Panel Mount, 1 input	426.00
9255	Temperature Transmitter, Field Mount, with relays	505.00
9256	Temperature Transmitter, Panel Mount, with relays	505.00
9257	Temperature Transmitter, Field Mount, dual input/output	723.00
9258	Temperature Transmitter, Panel Mount, dual input/output	723.00
9232	Universal Mounting Kit	52.00
9245	Transmitter NEMA 4X Back Cover	46.00
9233	3/4" Integral Mounting Kit, NPT	58.00
9246	RC Filter Kit (for relay use only). Contains 2 Filters	19.00

Technical Data

Environmental

- Operating Temperature: 14 to 158°F
- Storage Temperature: 5 to 176°F
- Relative Humidity: 0 to 95%, non-condensing

General

Accuracy: ±0.9°F

Enclosure:

- Rating: NEMA 4x/IP65 front • Case: PBT
- Window: Polyurethane coated polycarbonate
- Keypad: Sealed 4-key silicone rubber

Display:

- Alphanumeric 2x16 LCD
- Update rate: 1 second
- Contrast: User selected, 5 levels

Electrical

Sensor Input:

- Range: 14 to 212°F

Current output:

- 4-20 mA, isolated, fully adjustable & reversible
- Power: 12 to 24 VDC ±10% regulated
- Max loop impedance: 50Ω max. @ 12 V, 325Ω max. @ 18V, 600Ω max. @ 24 V
- Update rate: 200ms
- Accuracy: ±0.03 mA

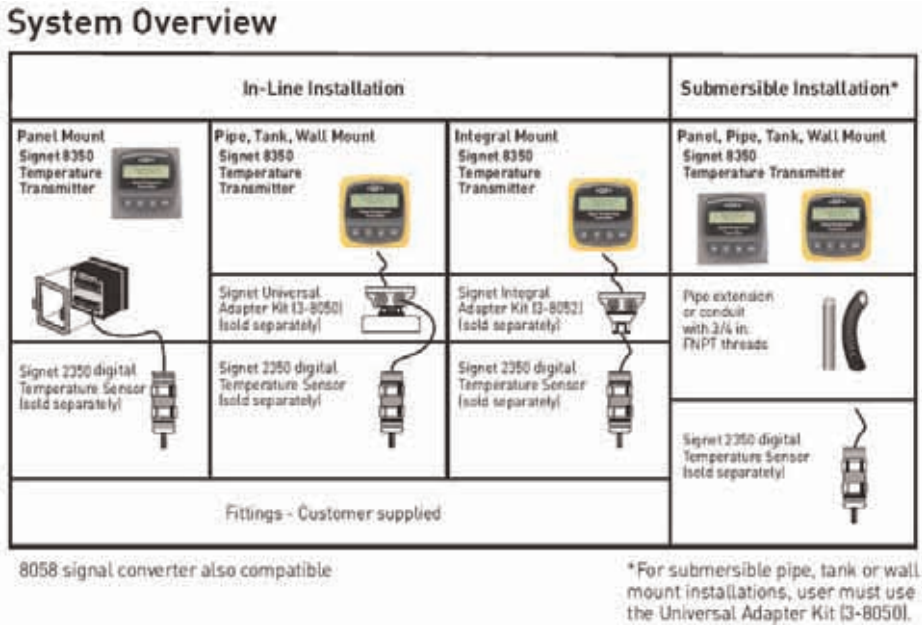
Relay output:

- Mechanical SPDT contacts: Hi, Lo, Pulse, Off
- Max voltage rating: 5 A @ 30 VDC, or 5A @ 250 VAC resistive load
- Hysteresis: User adjustable
- Max 400 pulses / min.

Open-collector output: Hi, Lo, Pulse, Off

- Open-collector, optically isolated, 50 mA max, sink, 30 VDC max. pull-up voltage.
- Max 400 pulses / min.

System Overview



8058 signal converter also compatible

*For submersible pipe, tank or wall mount installations, user must use the Universal Adapter Kit (3-8050).

SIGNET Transmitter

+GF+ SIGNET 8450 Pressure Transmitter

Field Mount

Panel Mount

Description

The 8450 Pressure Transmitter is a unique solution that converts the signal from the 2450 pressure sensor into a 4 to 20 mA signal for long distance transmission. State-of-the-art electronic design offers a single-point calibration. Configuration flexibility is maximized with optional relays for process control, packaging options for integral / pipe mount or panel installation or dual input / output capability.

Compatibility

Signet 2450 Pressure Sensor, i-Go 8058 Signal converter

Standards and Approvals

CE, UL Listed, ISO 9001

Features

- psi, Bar, or kPa display
- Integral or remote mounting
- Single point calibration
- Dual input / output option
- Simulation function • Relay option
- Output scalability
- Splashproof enclosure
- 2 x 16 character dot matrix LCD
- Chemical resistant enclosure and self-healing window
- Large pushbuttons

Applications

- Pump, filter or pipe protection
- Pressure regulation/monitoring
- Over or under pressure alarm
- Scrubbers • Irrigation Systems
- Pump servicing • Waste water
- HVAC • Chemical processing

Part #	Description	Price
9259	Pressure Transmitter, Field Mount, 1 input	$ 426.00
9260	Pressure Transmitter, Panel Mount, 1 input	426.00
9261	Pressure Transmitter, Field Mount, with relays	505.00
9262	Pressure Transmitter, Panel Mount, with relays	505.00
9263	Pressure Transmitter, Field Mount, dual output	723.00
9264	Pressure Transmitter, Panel Mount, dual output	723.00
9232	Universal Mounting Kit	52.00
9245	Transmitter NEMA 4X Cover	46.00
9233	3/4" Integral Mounting Kit	58.00
9246	RC Filter Kit (for relay use only). Contains 2 Filters	19.00

Technical Data

Environmental

- Operating Temperature: 14 to 158°F
- Storage Temperature: 5 to 176°F
- Relative Humidity: 0 to 95%, non-condensing

General

Accuracy: ±1% of full scale
Repeatability: ±0.5% of full scale
Enclosure:
- Rating: NEMA 4x/IP65 front • Case: PBT
- Window: Polyurethane coated polycarbonate
- Keypad: Sealed 4-key silicone rubber

Display:
- Alphanumeric 2x16 LCD
- Update rate: 1 second
- Contrast: User selected, 5 levels

Electrical

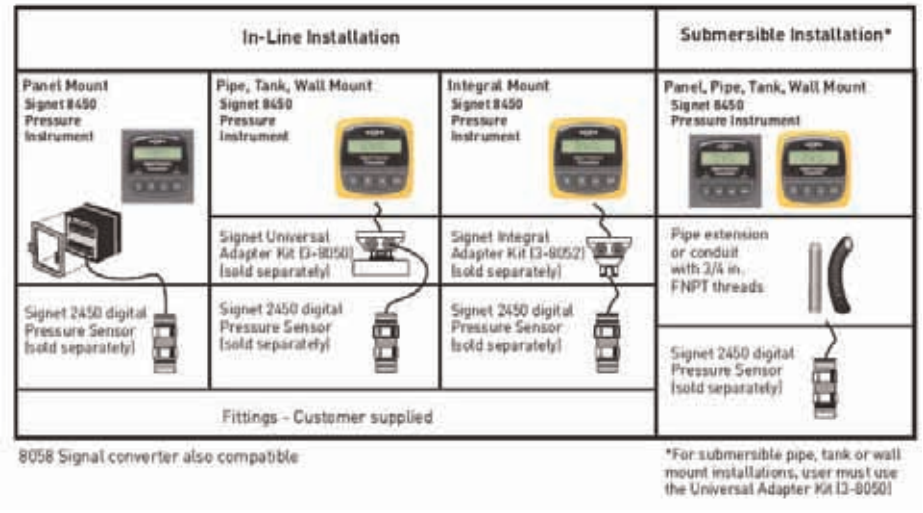
Sensor Input:
- Range: 0 to 250 psig, 0 to 17 bar, 0 to 1700 kPa

Current output:
- 4-20 mA, isolated, fully adjustable & reversible
- Power: 12 to 24 VDC ±10% regulated
- Max loop impedance: 50Ω max. @ 12 V, 325Ω max. @ 18V, 600Ω max. @ 24 V
- Update rate: 100ms
- Accuracy: ±0.03 mA

Relay output:
- Mechanical SPDT contacts: Hi, Lo, Off
- Max voltage rating: 5 A @ 30 VDC, 5A @ 250 VAC resistive load
- Hysteresis: User adjustable

Open-collector output: Hi, Lo, Off
- Open-collector, optically isolated, 50 mA max, sink, 30 VDC max. with pull-up resistor.

System Overview



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SIGNET Transmitter

+GF+ SIGNET 8250 Level Transmitter

Field Mount

Panel Mount

Description

Signet 8250 Level Transmitters are compatible with the Signet 2450 Pressure Sensors. They are available in field and panel mount configurations, single or dual-channel input and equipped with one 4 to 20mA output for each input channel. The unit also features two relays, plus the ability to support two additional externally mounted relays (for a total of four). Relay operations is selectable for High, Low, Window or Off, and includes fully adjustable hysteresis and trigger time delay.

Compatibility

Signet 2450 Pressure Sensor, i-Go 8058 Signal converter, 2250 Level Sensor, 8059 Relay

Standards and Approvals

CE, UL Listed, ISO 9001

Features

- Single or Dual Channel Input
- Advanced Relay Control
- Output Simulation
- Manual & Automatic Level-to-Volume Conversion
- Display Level, Volume or Both
- Units for Level: ft.,in.,m,cm, %
- Units for Volume: gal., in3, lbs., l, m3, kg, %
- Specific Gravity Entry for Use with Pressure Sensors and Mass Unit Conv.
- User-selectable Averaging for Display and Output
- 4 to 20mA Outputs Fully-Scaleable, Reversible and Assignable to Either or Both Channels (8250-3X versions)

Applications

- Continuous level and/or volume monitor
- Local or remote display (up to 400ft.)
- Fill start/stop control
- Pump protection • Inventory management • Overflow protection
- Storage tank monitoring • Clarifiers
- Plating Lines • Neutralization tanks
- Leak detection • Waste sumps
- Pump station control

Part #	Description	Price
3-8250-2	Level transmitter, Field mount, 1 input w/Relays	$ 506.00
3-8250-2P	Level transmitter, Panel Mount, 1 input w/Relays	506.00
3-8250-3	Level transmitter, Field Mount, 2 inputs, 2 outputs	724.00

Technical Data

Environmental

• Operating Temperature: 14 to 158°F • Storage Temperature: 5 to 176°F • Relative Humidity: 0 to 95%, non-condensing

General

Enclosure: • Rating: NEMA 4x/IP65 front • Case: PBT • Window: Polyurethane coated polycarbonate • Keypad: silicone rubber

Display: • Alphanumeric 2x16 LCD • Update rate: 1 second • Contrast: User selected, 5 levels

Electrical

Input Power: • 12 to 24VDC ±10% regulated, 250mA max. current

Current output: • 4-20 mA, isolated, fully adjustable & reversible

• Power: 12 to 24 VDC ±10% regulated

• Max loop impedance: 50Ω max. @ 12 V, 325Ω max. @ 18V, 600Ω max. @ 24 V • Update rate: 300ms • Output Accuracy: ±0.03 mA

Relay output: • 2 setsMechanical SPDT contacts standard • Max voltage rating: 5A @ 30 VDC, 5A @ 250 VAC, resistive load • Hysteresis: User adjustable

+GF+ SIGNET 2250 Hydrostatic Level Sensor

The 2250 Hydrostatic Level Sensor for level and depth control has a one-piece injection bolded PVDF body and ceramic diaphragm for superior compatibility in corrosive liquids. Utilizing hydrostatic pressure (pressure exerted on a colum of fluid by the weight of the solution above it), the 2250 disregards false level signals from steam vapors, foam or any other debris on the liquid surface. Two pressure ranges allow for optimal resolution matched to your sensing needs. Solid state circuitry eliminates drift (no internal potentiometers). Built-in temperature compensation provides outstanding accuracy over wide temperature ranges.

Features

- Level/depth measurement
- 4 to 20mA or digital output
- 1pc injection molded PVDF body
- Flush ceramic diaphragm
- Easy submersible installation
- Choice of two pressure ranges
- Standard union connection and extended cable and capillary tubing (32.8 ft.)

Specifications

- One-piece PVDF body
- Temperature Range: 14 to 212°F
- Process Connection: 3/4 in. NPT
- Accuracy: ±0.9°F
- Repeatability: ±0.2°F
- Wetted Materials: PVDF
- Storage Temp.: -67°F to 212°F
- 15 ft. cable for remote installation
- 6 in. cable for integral installation

Applications

- Inventory Management
- Storage Tank Monitoring
- Neutralization Tanks
- Plating Lines • Waste Sumps
- Clarifiers • Overflow protection

Signal Compatibility

8250, 8450 Transmitters
8900 Controller

Part #	Description	Price
3-2250-11L	Digital, 1/2" union, 3.4 bar (50psi), 3/4" socket	$ 576.00
3-2250-12L	Digital, 3/4" NPT, 3.4 bar (50psi), 3/4" socket	576.00
3-2250-21L	4 to 20mA, 1/2" union, 3.4 bar (50psi), 3/4" socket	663.00
3-2250-22L	4 to 20mA, 3/4" NPT, 3.4 bar (50psi), 3/4" socket	663.00

+GF+ SIGNET 2350 Temperature Sensors

Description

The SIGNET 2350 Temperature Sensor has a one piece injection molded PVDF body that is ideal for use in high purity applications. It also outlasts metal sensors in aggressive liquids and eliminates the need for costly cutom thermowells. These sensors are available S3L digital output, or field-scaleable 4 to 20mA output. Dual threaded ends (3/4" NPT) allow submersion in process vessels, or in-line installation with conduit connection. Integral adapters may be used to create a compact assembly with field mount versions of the Signet 8350 Temperature Transmitter.

Features

- Standard 3/4" NPT Process Connection
- PT-1000 Platinum RTD sensor
- Easy Installation • Digital Output
- Threaded for In-line or submersion

Signal Compatibility

8350 Temperature Transmitter
8900 Controller

Specifications

- One-piece PVDF body
- Temperature Range: 14 to 212°F
- Process Connection: 3/4 in. NPT
- Accuracy: ±0.9°F
- Repeatability: ±0.2°F
- Wetted Materials: PVDF
- Storage Temp.: -67°F to 212°F
- 15 ft. cable for remote installation
- 6 in. cable for integral installation

Applications

- HVAC System
- Heat Exchange Monitor
- R.O./D.I. System Monitor
- Plating Bath Temperature Control
- Hot/Cold Mixing System Monitor
- Data Acquisition
- Cooling Loops
- Effluent Monitoring
- Chemical Processing

Part #	Description	Price
9230	Temperature Sensor, 3/4" MNPT, Remote, 15 Ft. Cable	$ 240.00
9231	Temperature Sensor, 3/4" MNPT, Integral, 6 In. Cable	240.00
9232	Universal Mounting Kit	52.00
9233	3/4" Integral Mounting Kit	58.00

+GF+ SIGNET 2450 Pressure Sensors

Description

The SIGNET 2450 Pressure Sensor has an all PVDF body and ceramic diaphragm for superior compatibility in corrosive liquids. Three pressure range versions allow for optimal resolution matched to your sensing needs. Solid state circuitry eliminates drift (no internal potentiometers.) Built-in temperature compensation provides outstanding accuracy over wide temperature ranges. These sensors are available with digital output, or field scaleable 4 to 20mA output. Integral adapters may be used to create a compact assembly with a field mount version of the 8250 Level or 8450 Pressure Transmitter.

Features

- Standard 3/4" NPT Process Connection or 1/2" Male Union
- Pressure or level measurement
- Easy Installation • Digital Output
- Choice of three pressure ranges
- One-piece injection molded PVDF body

Signal Compatibility

8250,8450 Transmitter 8900 Controller

Specifications

- One-piece PVDF body
- Operating Temp: 5 to 185°F
- Process Connection: 3/4 in. NPT
- Accuracy: ±1% of full scale @ 25ºC
- Response Time: <100ms
- Wetted Materials: PVDF housing
- Storage Temp.: -4°F to 212°F
- 15 ft. cable for remote installation
- 6 in. cable for integral installation
- Flush Ceramic Diaphragm

Applications

- HVAC and Irrigation Systems
- Scrubbers • Marine
- Chemical Processing
- Pump Protection
- Wastewater
- Water Management
- Level or Depth Sensing

Part #	Description	Price
9235	Pressure Sensor, 3/4" MNPT, 0-50 psi, Remote, 15 Ft. Cable	$ 404.00
9236	Pressure Sensor, 3/4" MNPT, 0-50 psi, Integral, 6 In. Cable	404.00
9237	Pressure Sensor, 3/4" MNPT, 0-250 psi, Remote, 15 Ft. Cable	404.00
9238	Pressure Sensor, 3/4" MNPT, 0-250 psi, Integral, 6 In. Cable	404.00
9232	Universal Mounting Kit	52.00
9233	3/4" Integral Mounting Kit	58.00

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SIGNET Transmitter

+GF+ SIGNET 8850 Conductivity / Resistivity Transmitter

Field Mount

Panel Mount

Description

The 8850 Conductivity / Resistivity Transmitter is designed for broad application and ease of setup and use.
The unit can be used for conductance, resistance or TDS signal transmission and display. Mounting can be accomplished is several options best tailored to your application requirements. Full-microprocessor based electronics allow wide operating range, and long term signal stability due to the elimination of potentiometers, jumpers, and dip switches.

Compatibility

Signet 2819-2823 & 2839-2842 Conductivity / Resistivity Electrodes

Standards and Approvals

CE, UL Listed, ISO 9001

Features

- Display in µS, mS, kOhm, MOhm, ppm(TDS)
- Simulate function • Relay options
- Programmable Temperature compensation
- Dual output option allows temperature and process signal transmission
- 2 x 16 character dot matrix LCD
- Chemical resistant enclosure and self-healing window • Large pushbuttons

Applications

- RO/DI system control • Rinse tank control
- Cooling tower, scrubber or blowdown control
- Environmental study (TDS)
- Desalination monitor • Leak detection
- Chemical concentration

Part #	Description	Price
9265	Cond / Resist Transmitter, Field Mount, 1 input	$ 573.00
9266	Cond / Resist Transmitter, Panel Mount, 1 input	573.00
9267	Cond / Resist Transmitter, Field Mount, with relays	671.00
9268	Cond / Resist Transmitter, Panel Mount, with relays	671.00
9269	Cond / Resist Transmitter, Field Mount, dual output	753.00
9270	Cond / Resist Transmitter, Panel Mount, dual output	753.00
9232	Universal Mounting Kit	52.00
9245	Transmitter NEMA 4X Back Cover	46.00
9233	3/4" Integral Mounting Kit	58.00
9246	RC Filter Kit (for relay use only). Contains 2 Filters	19.00

Technical Data for 8850

Environmental

- Operating Temperature: 14 to 158°F
- Storage Temperature: 5 to 176°F
- Relative Humidity: 0 to 95%, non-condensing

General

Accuracy: ±2% of reading
Enclosure:

- Rating: NEMA 4x/IP65 front • Case: PBT
- Window: Polyurethane coated polycarbonate
- Keypad: Sealed 4-key silicone rubber

Display:

- Alphanumeric 2x16 LCD
- Contrast: User selected, 5 levels

Electrical

Sensor Input range:

- Conductance: 0.055 to 400,000 µS/cm
- Resistivity: 10 KΩ to 18.2 MΩ•cm
- TDS: 0.023 to 200,000 ppm
- Temp.: PT 1000, -13 to 248°F

Current output:

- 4-20 mA, isolated, fully adjustable & reversible
- Power: 12 to 24 VDC ±5% regulated
- Max loop impedance: 50Ω max. @ 12 V, 325Ω max. @ 18V, 600Ω max. @ 24 V
- Update rate: 200 ms
- Accuracy: 0.5 seconds
- Accuracy: ±0.03 mA @ 25°C, 24 V

Relay output:

- Mechanical SPDT contacts: Hi, Lo, Pulse, Off
- Max voltage rating: 5 A @ 30 VDC, or 5A @ 250 VAC resistive load
- Hysteresis: User adjustable
- Max 400 pulses / min.

Open-collector output: Hi, Lo, Pulse, Off

- Open-collector, optically isolated, 50 mA max, sink, 30 VDC max. pull-up resistor.
- Max 400 pulses / min.

8860 Dual Channel Conductivity / Resistivity Controller

Description

The 8860 is a two-channel input device equipped with 3 scaleable 4-20 mA output and 4 programmable relays. A selector switch activates two open collector outputs in place of two of the relays for extraordinary output versatility. Dual input and advanced control capability, including percent rejection, difference and ratio calculations, together with the Conductivity Sensors listed below, form the perfect measurement and control system for water treatment applications and more.

Compatibility

2819-2823, 2839-2842
Conductivity/Resistivity Electrodes

Applications

- RO/DI system control
- Demineralizer Regeneration/Rinse
- Scrubber, Cooling Tower
- Boiler Protection
- Rinse Tank Water Quality
- Desalinization • Leak Detection
- Aquaculture • Environment Studies

Features

- 2-Channel Input • Simultaneous Display
- AC or DC Powered
- Display and/or Control: µS, mS, PPM or PPB (TDS) kΩ, MΩ, % Rejection, Difference, Ratio °C or °F
- Three (3) Fully Scaleable 4 to 20 mA Outputs
- Two (2) Open Collector Outputs
- Up to Four (4) Programmable Relays
- Time Delay Relay Function
- Proportional Pulse Control Capability
- Output Simulation for Complete System Testing
- Simple Push-Button Operation
- 1/4 DIN, NEMA 4X / IP65 Enclosure

Part #	Description	Price
9271	Conductivity / Resistivity Controller, DC Powered	$ 998.00
9272	Conductivity / Resistivity Transmitter, AC Powered	1058.00
9245	Transmitter NEMA 4X Back Cover	46.00
9170	Liquid-tight Connector Kit for rear cover (3 connectors)	48.00
9302	5x5 inch Adapter Plate for +GF+ SIGNET retrofit	24.00
9303	Surface Mount Bracket	30.00
9246	RC Filter Kit (for relay use only). Contains 2 Filters	19.00

SIGNET Monitors

+GF+ SIGNET 5700 pH / ORP ProPoint™ Monitor

Description

The 5700 monitor is a versatile and intelligent instrument that recognizes the type of sensor connected, either Signet pH or ORP Electrode, then automatically sets itself for the corresponding display and functionality. Also, during "Easy Cal" operation, the monitor automatically recognizes standard buffers/test solutions thereby shortening and simplifying routine calibration procedures. Two programmable relays and one scaleable 4 to 20 mA output are included, and the four-button keypad arrangement with intuitive software design is user-friendly.

Compatibility

2720,2721 pH/ORP Preamplifier
2714-2717 pH/ORP Electrodes
2764-2767, 2774-2777 Electrodes

Specifications

- Operating Range: pH: 0 to 14, optically isolated
  Temp: -13 to 248°F
  ORP: -2,000 to + 2,000 mV's, optically isolated
- Power Requirements: 12 to 24 VAC or 12 to 24 VDC, unregulated, 50-60 Hz, 10W Max.
- Display: Analog: Slide-in dial reversible 0 to 14 pH or ±1000 mV's, Digital: Backlit 2X16 character alphanumeric LCD
- Current output: 4 to 20 mA, non-isolated, internally powered, Loop impedance: 350Ω max. @ 12V, 950Ω max. @ 24V, Accuracy: ±0.1%
- Alarm contacts: Two SPDT relays: 5A @ 30 VDC, 5A @ 125 VAC max., or 3A @ 250 VAC max. Hi/Lo programmable with adjustable hysteresis
- Operating Temperature: 14 to 131°F
- Relative humidity: 0 to 95%, non-condensing
- Accuracy: ±0.2% of scale
- Enclosure: ABS Plastic, NEMA 4X/IP65
- Keypad: Silicone rubber
- Panel and case gasket: Neoprene
- Window: Hard-coated polycarbonate
- CE, UL

Features

- **Automatic Sensor recognition**
- **Analog and Digital Display**
- **Backlit LCD • Input Isolation**
- **Temperature display pH/ORP**
- **Programmable relays**
- **Scalable 4 to 20 mA output**

Applications

- **Water/Wastewater Treatment**
- **Effluent monitoring**
- **Neutralization • Process Cont.**
- **Surface Finishing • Pools**
- **Toxics Destruction • Spas**
- **Sanitization Systems**

Part #	Description	Price
9310	SIGNET 5700 Powered pH / ORP Monitor	$ 915.00
9301	Splashproof Back Cover Kit	43.00
9303	Mounting Bracket Cover	30.00
9302	Retrofit Adapter Kit	24.00
9170	Liquid Tight Connector Kit	48.00

+GF+ SIGNET 5800CR Conductivity/Resistivity ProPoint™ Monitor

Description

The 5800CR Conductivity/Resistivity Monitor is equipped with a scaleable 4 to 20 mA output and two programmable relays for simple and convenient process control and monitoring. Temperature is selectable for display in either ºC or ºF, and compensation is automatic and programmable (meets USP requirements). The monitor requires 12 to 24 Volts, AC or DC, and can be used with the Signet Conductivity Sensors listed below.

Compatibility

2819-2823, 2839-2842 Electrodes

Specifications

- Oper. Range: Conductance: 0.055 to 400,000 µS Resistance: 10kΩ to 18.2 MΩ (0.055 to 0.1 µS) must be performed in solution temp. from 20-100°C Temperature: PT-1000; 32 to 212°F
- Power Requirements: 12 to 24 VAC or 12 to 24 VDC, unregulated, 50-60 Hz, 10W Max.
- Display: Analog: Slide-in dial 0 to 2,4,6,8,10, or 100 Digital: Backlit 2X16 character alphanumeric LCD
- Current output: 4 to 20 mA, non-isolated, internally powered, Loop impedance: 350Ω max. @ 12VDC, 950Ω max. @ 24VDC, Accuracy: ±0.1%
- Alarm contacts: Two SPDT relays: 5A @ 30 VDC, 5A @ 125 VAC max., or 3A @ 250 VAC max. Hi/Lo/Pulse programmable with adj. hysteresis
- Operating Temperature: 14 to 131°F
- Relative humidity: 0 to 95%, non-condensing
- Enclosure: ABS Plastic, NEMA 4X/IP65 front
- Keypad: Silicone rubber
- Panel and case gasket: Neoprene
- Window: Hard-coated polycarbonate
- CE, UL

Features

- **Backlit LCD**
- **Temperature Compensation**
- **Two programmable relays**
- **Dual Proportional Control capability**
- **Display units: µS, mS, kOhm, MOhm, PPM (TDS)**

Applications

- **Desalinization • Aquaculture**
- **Chemical concentration**
- **Demineralizer regeneration and rinse**
- **Rinse Tanks • Cooling Towers**
- **Reverse osmosis**
- **Boiler protection**

Part #	Description	Price
9223	5800CR conductivity / Resistivity Monitor	$ 933.00
9301	Splashproof Back Cover Kit	43.00
9303	Mounting Bracket Cover	30.00
9302	Retrofit Adapter Kit	24.00
9170	Liquid Tight Connector Kit	48.00

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ALSCO SIGNET Sensor Installation Fittings

Size (in.)	PVC Tee Part #	Price $
1/2	9131-005-T	94.00
3/4	9131-007-T	94.00
1	9131-010-T	94.00
1 1/4	9131-012-T	106.00
1 1/2	9131-015-T	111.00

Size (in.)	PVC Tee w/Pipe Assem Part #	Price $
1/2	9131-005-A	161.00
3/4	9131-007-A	161.00
1	9131-010-A	167.00
1 1/4	9131-012-A	178.00
1 1/2	9131-015-A	178.00
2	9131-020-A	190.00
2 1/2	9131-025-A	200.00
3	9131-030-A	217.00
4	9131-040-A	240.00

Size (in.)	PVC Saddle Part #	Price $
2	9131-020-S	128.00
2 1/2	9131-025-S	128.00
3	9131-030-S	151.00
4	9131-040-S	178.00
6	9131-060-S	217.00
8	9131-080-S	267.00
10	9131-100-S	357.00
12	9131-120-S	357.00

Size (in.)	CPVC Tee Part #	Price $
1/2	9132-005-T	111.00
3/4	9132-007-T	111.00
1	9132-010-T	111.00
1 1/4	9132-012-T	130.00
1 1/2	9132-015-T	137.00

Size (in.)	CPVC Tee w/Pipe Assem Part #	Price $
1/2	9132-005-A	161.00
3/4	9132-007-A	161.00
1	9132-010-A	167.00
1 1/4	9132-012-A	178.00
1 1/2	9132-015-A	178.00

Size (in.)	PP Clamp-on Saddle Part #	Price $
10	PPS100	482.00
12	PPS120	482.00

Size (in.)	Carbon Steel Tee thr. Part #	Price $
1/2	9138-005-T	267.00
3/4	9138-007-T	267.00
1	9138-010-T	267.00
1 1/4	9138-012-T	140.00
1 1/2	9138-015-T	204.00
2	9138-020-T	262.00

Size (in.)	Carbon Steel Weldolet Part #	Price $
2 1/2	9138-025-W	134.00
3	9138-030-W	134.00
4	9138-040-W	134.00
5	9138-050-W	175.00
6	9138-060-W	175.00
8	9138-080-W	175.00
10	9138-100-W	407.00
12	9138-120-W	407.00

Size (in.)	316SS Tee thr w/PVDF insert Part #	Price $
1/2	9136-005-T	337.00
3/4	9136-007-T	337.00
1	9136-010-T	337.00
1 1/4	9136-012-T	169.00
1 1/2	9136-015-T	215.00
2	9136-020-T	267.00

Size (in.)	316SS Weldolet w/PVDF insert Part #	Price $
2 1/2	9136-025-W	454.00
3	9136-030-W	454.00
4	9136-040-W	454.00
5	9136-050-W	477.00
6	9136-060-W	477.00
8	9136-080-W	477.00
10	9136-100-W	704.00
12	9136-120-W	704.00

Size (in.)	PP Tee metric union Part #	Price $
1/2	9135-005-T	163.00
3/4	9135-007-T	163.00
1	9135-010-T	175.00
1 1/4	9135-012-T	204.00
1 1/2	9135-015-T	239.00
2	9135-020-T	290.00

Size (in.)	Galv Iron Tee thr w/PVDF insert Part #	Price $
1	9137-010-T	105.00
1 1/4	9137-012-T	105.00
1 1/2	9137-015-T	105.00
2	9137-020-T	105.00

Size (in.)	Iron Strap-on Saddle Part #	Price $
2	9137-020-S	134.00
2 1/2	9137-025-S	175.00
3	9137-030-S	175.00
4	9137-040-S	175.00
5	9137-050-S	232.00
6	9137-060-S	244.00
8	9137-080-S	255.00
10	9137-100-S	482.00
12	9137-120-S	482.00

Size (in.)	Copper Sweat-on Tee w/PVDF insert Part #	Price $
1/2	9192-005-T	241.00
3/4	9192-007-T	241.00
1	9192-010-T	241.00
1 1/4	9192-012-T	121.00
1 1/2	9192-015-T	152.00
2	9192-020-T	185.00

Size (in.)	Brass Tee thr w/PVDF insert Part #	Price $
1	BR4T010	143.00
1 1/4	BR4T012	112.00
1 1/2	BR4T015	135.00
2	BR4T020	170.00

Size (in.)	Brass Brazolet w/PVDF insert Part #	Price $
2 1/2	BR4B025	328.00
3	BR4B030	328.00
4	BR4B040	328.00
5	BR4B050	452.00
6	BR4B060	452.00
8	BR4B080	452.00
10	BR4B100	677.00
12	BR4B120	677.00

Size (in.)	PVDF Tee metric union Part #	Price $
1/2	9133-005-T	232.00
3/4	9133-007-T	232.00
1	9133-010-T	255.00
1 1/4	9133-012-T	279.00
1 1/2	9133-015-T	308.00
2	9133-020-T	355.00

Size (in.)	Fiberglass Tee Part #	Price $
1 1/2	9134-015-T	320.00
2	9134-020-T	320.00

Size (in.)	Fiberglass Saddle Part #	Price $
3	9134-030-S	349.00
4	9134-040-S	419.00
6	9134-060-S	594.00
8	9134-080-S	639.00
10	9134-100-S	872.00
12	9134-120-S	1105.00

Size (in.)	Metalex™ Soc Weld Mini-Tap Part #	Price $
1/2	9139-005-T	327.00
3/4	9139-007-T	327.00
1	9139-010-T	327.00

Size (in.)	Metalex™ Weld-On Mini-Tap Part #	Price $
1 1/4	9139-012-T	273.00
1 1/2	9139-015-T	273.00
2	9139-020-T	273.00
2 1/2	9139-025-T	273.00
3	9139-030-T	273.00
4	9139-040-T	273.00
5	9139-050-T	273.00
6	9139-060-T	273.00
8	9139-080-T	273.00
10	9139-100-T	273.00
12	9139-120-T	273.00

Size (in.)	Metalex™ Strap-On Saddle Part #	Price $
2	9139-020-S	365.00
2 1/2	9139-025-S	357.00
3	9139-030-S	395.00
4	9139-040-S	395.00
5	9139-050-S	433.00
6	9139-060-S	433.00
8	9139-080-S	448.00
10	9139-100-S	501.00
12	9139-120-S	539.00

ALSCO SIGNET Parts and Accessories

Rotor - X Accessories

Part #	Description	Price
9143	Replacement Rotor - PVDF Black	43.00
9144	Replacement Rotor - PVDF Nat.	35.00
9145	Replacement Rotor - Tefzel	51.00

9147	Replacement Pin - Titanium	$ 20.00
9148	Replacement Pin - Hastelloy C	50.00
9149	Replacement Pin - Tantalum	114.00
9150	Replacement Pin - SS	50.00
9152	Replacement Pin & Rotor Kit - PVDF	57.00

9153	FPM O-Ring	$ 3.00
9154	EPR O-Ring	7.00
9155	FFPM Kalrez O-Ring	150.00

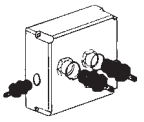
9126	Sensor Cap, Red	$ 12.00
9157	Sensor Plug, Polypro	51.00
-	-	-
9159	Conduit Cap	12.00

6400-9001	Intrinsic Safety Barrier-2 req. for 515 flow sensor	$ 474.00
6402-9001	Intrinsic Safety Barrier-2 req. for 525 & 2517 flow sensors	486.00

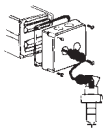
Instrument Spare Parts

Part #	Description	Price
9303	Right Angle Mounting Bracket	$ 30.00

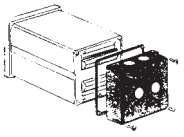
9170	Liquid Tight Connector Kit	$ 48.00



9172	Sensor Conduit Adaptor Kit	$ 46.00



9301	Splashproof Back Cover Kit	$ 43.00
9302	Retrofit Adapter	24.00



Miscellaneous Products

Part #	Description	Price
3-2759	pH and ORP system tester	345.00
3-8059-2	Ext 2-Relay Module	206.00
3-8059-4	Ext 4-Relay Module	302.00
3-8058-1	4-20 to digital converter, 1 Chan	191.00
3-8058-2	4-20 to digital converter, 2 Chan	285.00
3-2830	Conductivity Certification Tool	181.00

+GF+ SIGNET 24VDC Switching Power Supplies

Description

The 24VDC Switching Power Supplies provide regulated output voltage in compact and lightweight plastic housings that can be DIN Rail or surface mounted. The series includes five different output capacities from 300mA to 4.2A (7.5W to 100W), all of which accept universal AC line voltage input and meet worldwide standards for performance and safety. So whether your power requirements are for a single system, multiple SIGNET instruments or other devices requiring 24VDC operation, you have found the right supply for your specific application.

Features

- Regulated 24VDC output voltage
- Short-circuit protection
- Five output capacities: 300mA, 600mA, 1.3A, 2.1A, and 4.2A
- DIN rail or surface mount
- Universal AC input (85 to 264VAC)
- DC compatible input (105 to 370VDC)
- Fused input
- Auto resetting output overcurrent protection
- Unique spring-up, finger-safe terminals
- Output voltage adjust (+/- 10%)
- Light-weight plastic housing
- Quality standards: CE, cUL and UL508 listed

Application

Perfect for use with:

- ProcessPro™, ProPoint™, and Intelek-Pro™
- 2550 & 2560 Electromagnetic Flow Sensors
- 7000 / 7001 / 7002 Vortex Flow Sensors

Also suitable for Electric Actuated Valves, including Solenoid

Part #	Description	Price
9273	24 VDC Power Supply, 7.5W, 300mA	$ 97.00
9274	24 VDC Power Supply, 15W, 600mA	148.00
9275	24 VDC Power Supply, 30W, 1.3 A	193.00
9276	24 VDC Power Supply, 50W, 2.1 A	257.00
9277	24 VDC Power Supply, 100W, 4.2A	373.00

Installation

The power supplies use a special spring-loaded screw. This makes installation as easy as pushing down and turning with a screwdriver. The Installation time is cut in half since the screws do not need to be backed out to install wiring. The screws are held captive once installed and are 100% finger-safe. Screw terminal accept bare wire or ring or fork connectors.

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Min / Max GPM Values For SIGNET Insertion Sensors

The values provided in the chart below are for product comparison in schedule 40 metal pipe. the minimum/ maximum gpm values will differ depending on pipe size, schedule and pipe material.

Pipe Size	2536 / 8512	2550	2540	2560	515 / 8510	525 / 2517
GPM Min. GPM Max.						
0.5	0.3 19	- -	- -	0.3 19	1 19	1.6 19
0.75	0.5 34	- -	- -	0.5 34	1.7 34	2.7 34
1	0.8 54	- -	- -	0.8 54	2.7 54	4.4 54
1.25	1.4 94	- -	- -	1.4 94	4.7 94	7.4 94
1.5	1.9 127	- -	1.9 127	1.9 127	6.4 127	10.1 127
2	3.2 210	3.2 210	3.2 210	3.2 210	10.6 210	16.8 210
2.5	4.5 300	4.5 300	4.5 300	4.5 300	15 300	24 300
3	7 461	7 461	7 461	7 461	24 461	37 461
4	12 794	12 794	12 794	12 794	40 794	63 794
5	19 1247	19 1247	19 1247	- -	63 1247	100 1247
6	27 1801	27 1801	27 1801	- -	91 1801	144 1801
8	47 3119	47 3119	47 3119	- -	156 3119	250 3119
10	74 4915	74 4915	74 4915	- -	246 4915	393 4915
12	105 6977	105 6977	105 6977	- -	349 6977	559 6977
14	127 8432	127 8432	127 8432	- -	422 8432	- -
16	166 11015	166 11015	166 11015	- -	551 11015	- -
18	210 13942	210 13942	210 13942	- -	698 13942	- -

Recommended Scale Ranges (GPM)

Recommended full scale calibration ranges for individual pipe size installations are shown in the chart below. Average flow rate should be approx. 50% of the scale. Although systems are normally calibrated in gallons per minute (GPM), virtually any volumetric unit is available for use in a specific system calibration.

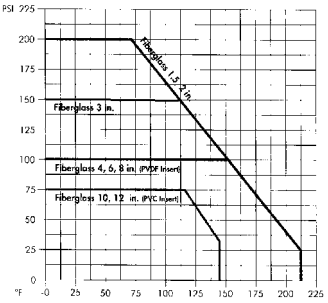
For use with SIGNET 5090 & 515

Pipe Size	Min.	Max.
0.50	0-8	0-2x10
0.75	0-2x10	0-4x10
1	0-4x10	0-8x10
1.25	0-6x10	0-100
1.50	0-6x10	0-2x100
2	0-100	0-2x100
2.50	0-2x100	0-4x100

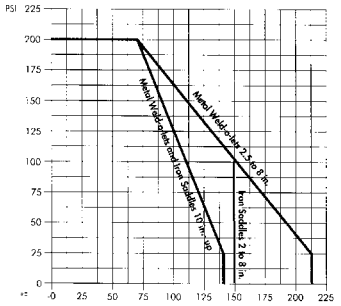
Pipe Size	Min.	Max.
3	0-4x100	0-6x100
4	0-4x100	0-100x10
5	0-6x100	0-100x10
6	0-8x100	0-2x1000
8	0-2x1000	0-4x1000
10	0-2x1000	0-6x1000
12	0-4x1000	0-8x1000

Pressure / Temperature Graphs

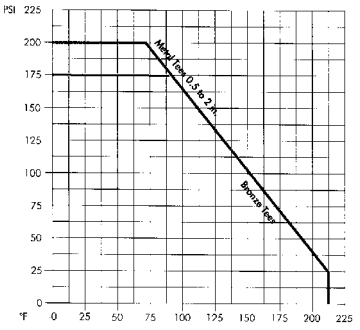
Fiberglass Tees and Saddles



Metal Weld-o-lets and Saddle Fittings

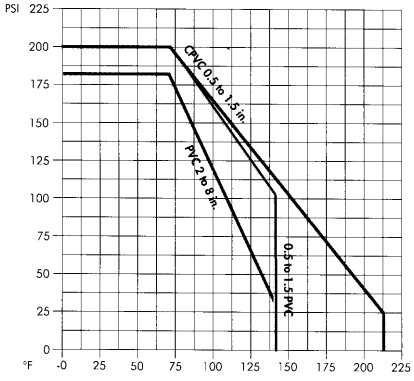


Metal Tees



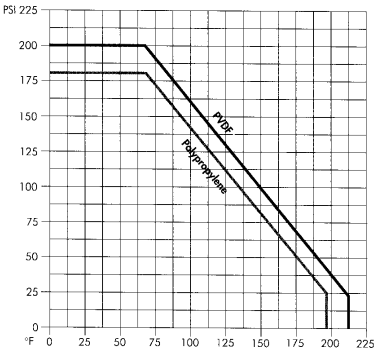
Pressure / Temperature Graphs

PVC CPVC Tees and Saddles



PP and PVDF Tees

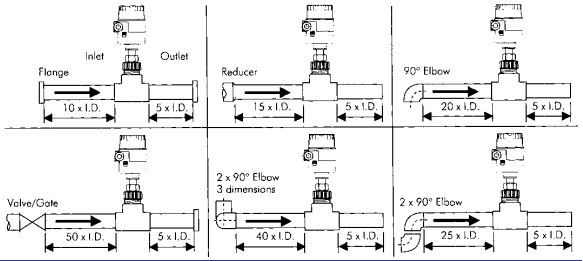
PVDF: 200 PSI @ 68 °F/212 °F @ 25 PSI
PolyPro: 180 PSI @ 68 °F/194 °F @ 25 PSI



Note:
The pressure / temperature curves are specifically for the Signet sensor. During system design the specifications of all components must be considered. In the case of a metal piping system, a plastic sensor will reduce the system specification. When using a PVDF sensor in a PVC piping system, the fitting will reduce the system specification.

+GF+ SIGNET Installation Data:

For maximum linearity and accuracy, the sensor should be located in a straight run of pipe upstream and downstream of the sensor. Major obstructions such as pumps or throttled valves will require longer straight runs.



Flow Switches

Flotect® Vane Operated Flow Switch

Operation is simple and dependable. In most applications, the switch in normally off while there is sufficient flow of liquid or air. When the flow stops, the vane spring moves the vane, actuating a single pole double throw switch rated 5A @ 120/250 VAC to start or stop motor, pump, engine, etc. Operate a damper or valve; shut down a burner or actuate an alarm or signal, protecting unattended equipment from damage or loss of production.

The V8 Flotect® Flow Switch has a leak proof body and vane. The full size trimmable vane is provided with molded-in graduations allowing for installation in a 1" through 6" pipe. The V* flow switch can be used in various chemical processes, industrial systems and similar applications where process conditions are compatible with polyphenylene sulfide, ceramic 8 and 316SS.

Specifications:

- Temperature Limit: 212°F maximum
- Pressure Limit: 150 PSIG (10 Bar)
- Wetted materials:
  Vane and Body: Polypenylene Sulfide (PPS).
  Pin and Spring: 316SS on Inconel.
  Magnet: Ceramic 8.
- Enclosure rating: General purpose
- Switch Type: SPDT snap switch; MV option: SPDT gold contact snap switch.
- Electrical Rating: 5A @ 125/250 VAC, 5A resistive, 3A inductive @ 30 VDC.
  MV option: 1A @ 125VAC, 1A resistive, 0.5A inductive @ 30 VDC.
- Electrical Connections: 18 AWG 18" (460mm) long.
- Conduit Connection: 1/2" male NPT.
- Process Connection: 1" male NPT.
- Mounting Orientation: Switch can be installed in any position but the actuation/deactuation flow rates are based on horizontal pipe run and are nominal valves.
- Set Point Adjustment: Vane is trimmable.
- Agency approvals: CE, UL 508 for US and Canada.

Cold Water Flow Rates Approx. actuation / deactuation **GPM** upper, **LPM** lower		Air Flow Rates Approx. actuation / deactuation **SCFM** upper, **LPM** lower	
Pipe Size		**Pipe Size**	
1	10.8 / 9.1 40.9 / 34.6	1	39 / 32.6 1105 / 923
1 1/4	9.8 / 8.3 37.2 / 31.4	1 1/4	37.5 / 32.2 1062 / 912
1 1/2	8.6 / 6.8 32.4 / 25.7	1 1/2	33.4 / 26.7 945 / 757
2	10.9 / 8.8 41.2 / 33.4	2	43 / 36.8 1218 / 1042
3	12.9 / 8.9 48.8 / 33.5	3	52.7 / 38.9 1493 / 1100
4	21.1 / 13.8 79.7 / 52.2	4	87.6 / 63.6 2482 / 1802
6	45 / 33 170.2 / 124.7	6	168.6 / 137.4 4775 / 3890

Part #	Price
3870	$ 58.00

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Burkert Sensors

Paddle-Wheel Flow Sensor/Switch for Easy On / Off Control

8032

8032

This paddle-wheel Flow Sensor/Switch is specially designed to switch a valve and establish an on/off control loop. Switching point can be programmed with the key pads on the display or can programmed externally from a programmable logic controller over a 4 ... 20 mA loop. The connection process in the piping is done with the "easy to connect" quarter-turn technique of the INLINE fittings.

Features

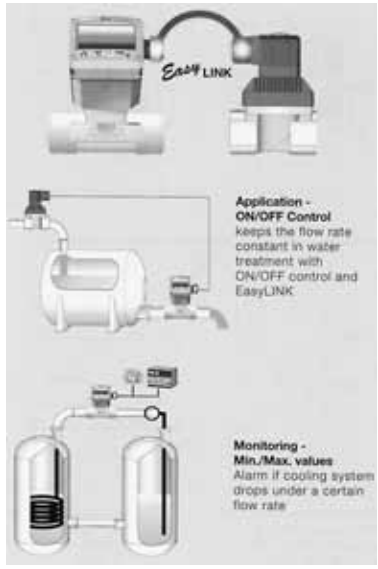
- On/Off Control System for Switching Applications
- Programmable On/Off Control System for easy Fluid Control Systems
- Complete Communication thanks to external Setpoint Link or AS-Interface • CE Approval

Process Specifications

- Pipe diameter: 1/2 - 2"
- Measuring range: 0.6 f/s - 30 f/s
- Switching accuracy: ± 1% fs.
- Repeatability: 0.4%
- Housing material: PC+20% glass fibre
- Front panel foil: Polyester
- Sensor element: Paddle wheel
- Wetted parts: PVDF, ceramic, RPM standard (EPDM option)

Environment Specifications

Fluid Temperature: 212°F max.
Ambient temperature: 32°F ... 140°F
Fluid pressure: 230 psi max.



Part #	Price	Voltage	Output	Connector
	$			
7294	276.00	12-30 VDC	NPN	Cable Plug 2508
7295	276.00	12-30 VDC	PNP	Cable Plug 2508
7296	323.00	12-30 VDC	NPN & PNP	M12 Plug 5 pin
7297	306.00	12-30 VDC	Relay	Miz Plug 5 pin & Cable Plug
7298	29.00	M12 Female Cable Connector		
7299	58.25	5 Pin M12 Female Connect. w/ 2 Meter Cable		

NPT Pipe Fittings				
Size	Brass	Part #	SS	Part #
1/2"	$ 160.00	7320-005	$ 287.00	7321-005
3/4"	166.00	7320-007	308.00	7321-007
1"	173.00	7320-010	330.00	7321-010
1 1/4"	190.00	7320-012	380.00	7321-012
1 1/2"	203.00	7320-015	400.00	7321-015
2"	222.00	7320-020	463.00	7321-020

Temperature Sensor / Switch for Easy On / Off Control

8400

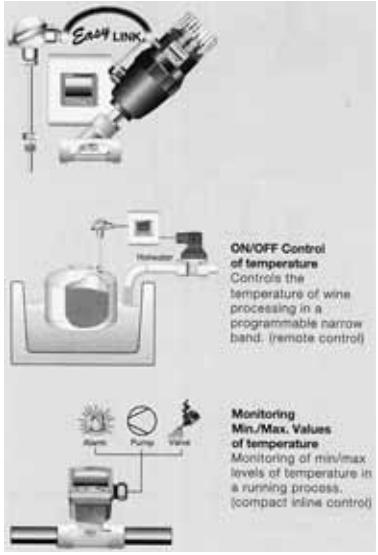
This Sensor/Switch is specially designed to switch a valve and establish an on/off control loop. The Switching point can be programmed with the key pads on the display or can programmed externally from a programmable logic controller over a 4 ... 20 mA loop. The connection process in the piping is done with a standard connection.

Features

- On/Off Control System for Switching Applications
- Programmable On/Off Control System for easy Fluid Control Systems
- Complete Communication thanks to external Setpoint Link or AS-Interface • CE Approval

Process Specifications

- Pipe diameter: any pipe with sensor connection
- Measuring range: -42°F to 257°F (with ambient temperature 32°F to 104°F or 104°F to 194°F (with ambient temp. above 104°F)
- Switching accuracy: ± 1.0°F (32°F to 176°F) ± 3.0°F (outside of 32°F to 176°F)
- Repeatability: 0.4%
- Housing material: PC+20% glass fibre
- Front panel foil: Polyester
- Sensor element:Pt100
- Wetted parts: SS, RPM standard (EPDM option)



Part #	Price	Voltage	Output	Connector
7322	259.00	12-30 VDC	NPN	Cable Plug 2508
7323	259.00	12-30 VDC	PNP	Cable Plug 2508
7324	313.00	12-30 VDC	NPN & PNP	M12 Plug 5 pin
7325	340.00	12-30 VDC	Relay	M12 Plug 5 pin & Din Plug
7298	29.00	M12 Female Cable Connector		
7299	58.25	5 Pin M12 Female Connect. w/ 2 Meter Cable		

Environment Specifications

Fluid Temperature: 256°F max.
Ambient temperature: 32°F ... 140°F
Fluid pressure: 230 psi max.

Note: Fittings for 8400 not yet available

Echotouch™ Two-Wire Ultrasonic Level Transmitter

Features

- LCD digital display indicates level in inches or centimeters
- PP enclosure rated NEMA 4X with rugged Kynar® transducer
- EasyCal simple push button calibration for all user set points
- Adjustable dead band and range filters eliminate false echo returns

Application

The transmitter is typically selected for atmospheric bulk storage, day tank and waste sump applications located within a classified hazardous area. Media examples include diesel fuel and hydrochloric acid.

Specifications

Range: 0.5 to 18 ft.
Accuracy: ±0.25% of span in air
Resolution: 0.125" (3 mm)
Beam width: 8° conical
Display units: Inch / cm
Supply voltage: 12-32 VDC
Signal output: 4-20 mA, two-wire
Signal invert: 4-20 / 20-4mA
Calibration: Digital, push button
Process Temp.: F: -40°to 140°
C: -40°to 60°
Pressure: 30 psi (2 bar) @ 25° C. ,derated @ 1.667 (.113 bar) psi per °C. above 25°C.
Enclosure rating: NEMA 4X (IP65)
Enclosure material: PP, UL94VO
Transducer material: PVDF Kynar®
Process Mount: 2" NPT (2" G)

Part #	Description	Material	Size	Price
1875-01	* Echotouch 2-Wire Transmitter	PVDF	See Spec. Above	$ 850.00
1916	Remote Relay controller with LED display	PP	3.9 x 2.8 x 3.7"	425.00
HB24-1.2-A	* Power Supply Transformer 115V / 24 VDC, 1.2A	-	4" x 5" x 2"	72.25

* A Power Supply Transformer should be purchased with Ultrasonic Sensor.

Echotouch™ Three-Wire Ultrasonic Level Transmitter

Features

- LED digital display indicates level in inches or centimeters
- Relay for alarm or automatic fill or empty control operation
- EasyCal simple push button calibration for all user set points
- PP NEMA 4X enclosure with rugged Kynar® transducer
- Fail-safe intelligence and relay logic for maximum process safety

Application

The transmitter is ideally suited for challenging corrosive, slurry or waste liquids and is typically selected for large atmospheric bulk storage and waste sump applications. Media examples include sulfuric acid and resin.

Specifications

Range: 2" mount 0.5 to 24.5 ft.
Accuracy: ±0.25% of span in air
Resolution: 0.125" (3 mm)
Beam width: 8° conical
Supply voltage: 14-36 VDC
Consumption: 200 mA max.
Current flow: Source / Sink
Signal output: 4-20 mA, three-wire
Signal invert: 4-20 / 20-4mA
Calibration: Digital, push button
Process Temp.: F: -40°to 140°
C: -40°to 60°
Pressure: 30 psi (2 bar) @ 25° C., derated @ 1.667 (.113 bar) psi per °C. above 25°C.
Enclosure rating: NEMA 4X (IP65)
Enclosure material: PP, UL94VO
Transducer material: PVDF, 2" mount
Process Mount: 2" NPT (2" G)

Part #	Description		Material	Size	Price
1875	* Echotouch 3-Wire Transmitter	** Sinking (4-20mA)	PVDF	See Spec. Above	$ 850.00
1875-03	* Echotouch 3-Wire Transmitter	** Sourcing (4-20mA)	PVDF	See Spec. Above	850.00
1916	Remote Relay controller with LED display		PP	3.9 x 2.8 x 3.7"	425.00
HB24-1.2-A	* Power Supply Transformer 115V / 24 VDC, 1.2A		-	4" x 5" x 2"	72.25

* A Power Supply Transformer should be purchased with Ultrasonic Sensor. ** The sourcing transmitter provides internal 4-20 mA excitation and should be used with a sinking device. The sinking transmitter requires external 4-20 mA excitation and should be used with a sourcing device.
NOTE: The above mentioned prices are based on the general purpose transmitter configuration.

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EchoSonic™ Two-Wire Ultrasonic Level Transmitter

Features

- Simple compact sensor with target calibration and LED status indicator
- Offered in four measurement ranges up to 8m with 1" and 2" transducers
- PC/ABS enclosure rated NEMA 6 or 4X with PVDF transducer
- 5cm Miniature dead band optimizes the filling capacity of small vessels
- Fail-safe intelligence with diagnostic feedback for easy troubleshooting
- 5cm minimum beam width for applications with restricted space

Application

The general purpose two-wire ultrasonic transmitter provides non-contact level measurement up to 26' or 8m, and is well suited for challenging ultrapure, corrosive, slurry or waste liquids. The transmitter is broadly selected for atmospheric bulk storage, day tank, waste sump, process vessel, IBC tote, 55-gallon drum and waste sump applications.

Specifications

Range: LU05: 2" to 4' LU12: 4" to 9.8'
LU11: 4" to 16.4' LU13: 8" to 26.2'
Accuracy: ±0.2% of span in air
Resolution: LU05/12: 0.019" (0.5mm)
LU11/13: 0.039" (1mm)
Beam width: LU05/12: 2" diameter
LU 11/13: 3" diameter
LED indication: Power, calibration and diagnostics
Memory: Non-volatile
Supply voltage: 12-28 VDC
Loop resist.: 500Ohms @ 24 VDC
Signal output: 4-20 mA, two-wire
Calibration: Target, calibration wire
Fail-safety: Reverts to 22 mA
Process Temp.: F: -40°to 160°
C: -20°to 60°
Temp. comp.: Automatic
Pressure: 30 psi (2 bar) @ 25° C., derated @ 1.667 (.113 bar) psi per °C. above 25°C.
Enclosure rating: NEMA 6 or 4X
Enclosure material: PC/ABS FR
Transducer material: PVDF Kynar®
Cable length: 10' (3m)
Process Mount: LU05/12: 1" NPT (1" G)
LU11/13: 2" NPT (2" G)
Classification: General purpose

Calibration

The 4-20 span set points are easily calibrated with the Cal-wire, a DC power supply and flat reflective target. To configure the 4 mA set point, attach the Cal-wire to the return side of the power supply, hold the transmitter at the desired set point range and turn power on until the logo plate illuminates. It's level made simple!

Diagnostics

The transmitter features advanced self-test diagnostics that continuously sweep the applied performance of the product. In the event of low acoustic confidence, the analog signal will hold at 22 mA and the blue LED logo plate will turn on until such time that the level is acquired.

DataSwitch Remote Relay Controller

SPECIFICATIONS

Supply Volt.: 120/240 VAC, @ 50/60 Hz
Consumption: 5 Watts max.
Sensor supply: 28 VDC @ 5 Watts
Loop Power: 4-20 mA, 24 VDC
LED indication: Power and relay status
Type display: LED, 3.5 digit
Bar graph LED: Span & set points
Alarm indication: Amber LED: < 4 mA
RED LED: > 20 mA

ORDERING

Part #	Description	Price
1916	Continuous relay controller	$425.00

Part #	Description	Material	Size	Price
1998	EchoSonic LU12 (4 in. to 9.8 ft.)	PVDF	1" Diameter	$ 495.00
1999	EchoSonic LU13 (8 in. to 26.2 ft.)	PVDF	2" Diameter	695.00
2965	EchoSonic LU05 (2in. to 4 ft.)	PVDF	1" Diameter	395.00
1916	Remote Relay controller with LED display	PP	3.9 x 2.8 x 3.7"	425.00
HB24-1.2-A	* Power Supply Transformer 115V / 24 VDC, 1.2A	-	4" x 5" x 2"	72.25

Ricochet™ Two-Wire Ultrasonic Level Transmitter

Features

- Simple compact sensor with fixed span and LED status indicator
- Two measurement ranges up to 3.7m with 3/4" and 2" transducers
- PP enclosure rated NEMA 4X with rugged PVDF transducer
- Narrow 8° beam width for application in restricted space
- Fail-safe intelligence with diagnostic feedback for easy troubleshooting

Specifications

Range:	LA15: 3.6" to 6' LA20: 6" to 12'
Accuracy:	±0.25% of span in air
Resolution:	0.125" (3 mm)
Beam width:	8° conical
Supply voltage:	12-36 VDC
Signal output:	4-20 mA, two-wire
LED indication:	Power and fail-safety
Loop resist.:	600 Ohms @ 24 VDC
Fail-safety:	Reverts to 22 mA during echo-loss
Process Temp.:	F: -40°to 140° C: -40°to 60°
Temp. comp.:	Automatic
Pressure:	30 psi (2 bar) @ 25° C., derated @ 1.667 (.113 bar) psi per °C. above 25°C.
Enclosure rating:	NEMA 4X / IP65
Enclosure material:	PP, UL94VO
Transducer material:	PVDF Kynar®
Process Mount:	LA15: 3/4" NPT (3/4" G) LA20: 2" NPT (2" G)
Conduit entrance:	Single, 1/2" NPT
Classification:	General purpose
CE compliance:	EN 61326 EMC

Application

The general purpose two-wire ultrasonic transmitter provides non-contact level measurement up to 12' or 3.7 m, and is well suited for corrosive or ultrapure liquids. The transmitter is typically selected for light duty atmospheric day tank and process vessel applications. Media examples include ultrapure water, potable water and brine solutions.

Tech Tip

For level measurement and control, package the transmitter with our universal panel meter. The panel meter is powered by 120 or 240 VAC and provides loop power for the transmitter. The meter features 2 or 4 relays with an isolated 4-20 mA repeater.

Continuous Relay Controller

SPECIFICATIONS

Supply Volt.:	120/240 VAC, 50/60 Hz
Consumption:	5 Watt
Sensor supply:	24 VDC @ 1.5Watts
Signal input:	4-20 mA, 18 VDC
Relay config.:	High or low alarm High and low alarm Fill / Empty with alarm
LED indication:	Power and relay
LED display:	Alphanumeric, 3.5 digit
Bar graph display:	4-20 mA and set points
Alarm indication:	Amber LED: < 4 mA RED LED: > 20 mA

ORDERING

Part #	Description	Price
1916	Continuous relay controller	$425.00

Part #	Description	Material / Size	Price
1874	Ricochet Transmitter Two-wire, 6' range	See above spec.	$ 495.00
1874-1	Ricochet Transmitter Two-wire, 12' range	See above spec.	595.00

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EchoSpan™ Two-Wire Ultrasonic Level Transmitter

Features

- Setup is fast and simple with push button calibration and LCD display
- Offered in three measurement ranges up to 10m w/2" transducer
- 6-segment LCD display indicates level in inch or centimeter values
- 7.6 cm minimum beam width for applications w/restricted space
- Selectable display indicates level in air gap or liquid height
- PC/ABS enclosure rated NEMA 4X with rugged PVDF transducer

Application

The general purpose two-wire ultrasonic transmitter provides non-contact level measurement up to 32' or 10m, and is ideally suited for challenging ultrapure, corrosive or waste liquids. Push button calibrated, the transmitter is broadly selected for atmospheric bulk storage, day tank and waste sump applications. Media examples include wastewater and sodium hydroxide.

Tech Tip

Calibration is fast and simple with our scrolling single layer menu, three button interface and 6-segment LCD display. Troubleshooting is easy with our unique Setup and Diagnostic feedback modes. Setup displays the transmitter's calibration set points. Diagnostics provides users with a snapshot of sensor performance and application variables. Its full feature level made simple.

Specifications

Range:	LU81: 4" to 16.4' LU83: 8" to 26.2' LU84: 12" to 32.8'
Accuracy:	±0.2% of span in air
Resolution:	LU81/83: 0.039" (1mm) LU84: 0.078" (2mm)
Dead band:	LU81: 4" (10cm) LU83: 8" (20cm) LU84: 12" (30cm)
Beam width:	3" diameter
Memory:	Non-volatile
Supply voltage:	12-28 VDC
Loop resist.:	500Ohms @ 24 VDC
Signal output:	4-20 mA, two-wire
Calibration:	Push button
Fail-safety:	Selectable 4mA, 20mA, 21mA, 22mA or hold
Process Temp.:	F: -40°to 140° C: -20 to 60°
Temp. comp.:	Automatic
Pressure:	30 psi (2 bar) @ 25° C., derated @ 1.667 (.113 bar) psi per °C. above 25°C.
Enclosure rating:	NEMA 4X / IP65
Enclosure material:	PC/ABS FR
Transducer material:	PVDF Kynar®
Conduit entrance:	Dual, 1/2" NPT
Process Mount:	2" NPT (2" G)
Classification:	General purpose

DataSwitch Remote Relay Controller

SPECIFICATIONS

Supply Volt.:	120/240 VAC, @ 50/60 Hz
Consumption:	5 Watts max.
Sensor supply:	28 VDC @ 5 Watts
Loop Power:	4-20 mA, 24 VDC
LED indication:	Power and relay status
Type display:	LED, 3.5 digit
Bar graph LED:	Span & set points
Alarm indication:	Amber LED: < 4 mA RED LED: > 20 mA

ORDERING

Part #	Description	Price
1916	Continuous relay controller	$425.00

Part #	Description	Material	Size	Price
LU81-5101	EchoSpan 2-wire transmitter (4in. to 16.4ft range)	PC/ABS FR	2" NPT	$ 700.00
LU83-5101	EchoSpan 2-wire transmitter (8in. to 26.2ft range)	PC/ABS FR	2" NPT	750.00
LU84-5101	EchoSpan 2-wire transmitter (12in. to 32.8ft range)	PC/ABS FR	2" NPT	835.00

FloaTek™ Two-Wire Float Level Transmitter

Features

- Rugged 316 stainless steel float, guide and 2" NPT mounting plug
- Compatible with Flowline remote indicator and relay controllers
- Custom assembled to your guide length and span dimensions
- Explosion proof transmitter for use in hazardous environments

Application

Offered in FM and CSA approved explosion proof or general purpose configurations, the two-wire float transmitter provides contact level measurement up to 6' or 1.8m, and is ideally suited for relatively clean water, light oil or diluted corrosive liquids. The transmitter is typically selected for high temperature and/or pressure process tank applications located within a classified hazardous or general purpose area. Media examples include hot water and cooking oil.

Tech Tip

Perfect for high temperature and pressure applications, the LV51-S001 explosion proof transmitter is provided with a rugged cast aluminum enclosure rated NEMA 7.

Specifications

Range:	5" to 72"
Accuracy:	.25" over span in water
Specific gravity:	0.75 minimum
Orientation:	± 30° from vertical
Supply voltage:	LV50: 10 to 30 VDC
	LV51: 10 to 40 VDC
Loop resist.:	600Ohms @ 24 VDC
Signal output:	4-20 mA, two-wire
Signal invert:	4-20 or 20-4 mA
Calibration:	None, fixed span
Process Temp.:	F: -40° to 230°
	C: -40° to 110°
Electronic Temp.:	F: -40° to 160°
	C: -40° to 71°
Pressure:	300 psi maximum
Enclosure rating:	LV50: NEMA 4X (IP65)
	LV51: NEMA 7 (IP65)
Encl. material:	LV50: PP, UL94VO
	LV51: Aluminum
Guide/float mat.:	316 SS
Process mount:	2" NPT
Conduit entrance:	Single, 1/2" NPT
Classification:	LV50: General purpose
	LV51: Explosion proof

Continuous Relay Controller

SPECIFICATIONS

Supply Volt.:	120/240 VAC, @ 50/60 Hz
Consumption:	5 Watts max.
Sensor supply:	28 VDC @ 5 Watts
Loop Power:	4-20 mA, 24 VDC
LED indication:	Power and relay status
Type display:	LED, 3.5 digit
Bar graph LED:	Span & set points
Alarm indication:	Amber LED: < 4 mA
	RED LED: > 20 mA

ORDERING

Part #	Description	Price
1916	Continuous relay controller	$425.00

Part #	Description	Material	Size	Price
2966	MicroSpan LV50 (5" to 72") *	PP	See Above	$ 310.00
2967	MicroSpan LV51 (5" to 72") *	Aluminum	See Above	410.00
HB24-1.2-A	Power Supply Transformer 115V / 24 VDC, 1.2A	-	4" x 5" x 2"	72.25

* Add number of inches to end of Part # for length of float guide. Add $9.00 per inch specified.

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DeltaSpan™ Two-Wire Pressure Level Transmitter

Features

- Rugged stainless steel transducer with flexible polyurethane cable
- Optional weight anchors sensor in turbulent or fast moving liquids
- Removable guard protects sensor from damage and process debris
- Optional installation kit for easy wiring termination and process mount

Tech Tip

For integral wiring termination and process mount, order the LD90 installation kit for use with your transmitter. Each kit includes a compact junction box, PP plug fitting and nylon cable connector for fast installation. Its level made simple!

General Purpose	Yes
Conductive	Yes
Non-conductive	Yes
Δ Conductive	Yes
Foam	Yes
Vapors	Yes
Δ Gas density	Yes
Contact	Yes
Clean	Yes
Non-coating	Yes

Ambient pressure	Yes
Low pressure	Yes
Medium pressure	No
Intrinsically safe	No
Non-contact	No
Integral relay	No
Vacuum	No
Dirty	No
Coating	No

Specifications

Range:	LD10: 7.5 psi LD11: 15 psi LD12: 30 psi
Accuracy:	± 0.25% of span
Supply Volt:	7-35 VDC
Loop resist.:	(Vs-7) x 50Ω
Signal Output:	4-20mA, two wire
Calibration:	None, fixed span
Process Temp:	F: -5° to 125°
Temp. comp.:	Automatic
Proof pressure:	2 x full span
Enclosure rating:	NEMA 6X (IP68)
Probe material:	316ss & 17-4 PH ss
Cable material:	Polyurethane
Cable type:	2-conductor, shielded
Cable length:	LD10 & LD11: 32 ft. LD12: 48 ft.
Weight:	Approx. 100 grams
CE Compliance:	EN 50082-2 immunity EN 55011 emission

The general purpose two-wire pressure transmitter provides contact level measurement up to 30 psi or 2.0 bar and is ideally suited for relatively clean water, light oil or diluted corrrosive liquids. The transmitter is typically selected for underground bulk storage, wet well, open channel or pond applications. Media examples include irrigation water and motor oil.

Part #	Description	Price
2955	Deltaspan Pressure Level Transmitter / 0-7.5 psi / 0-17 ft.	$ 470.00
2956	Deltaspan Pressure Level Transmitter / 0-15 psi / 0-34 ft.	495.00
2957	Deltaspan Pressure Level Transmitter / 0-30 psi / 0-70 ft.	520.00
2958	PP Installation Fitting with Nylon liquid tight connector	120.00
2959	PVDF Installation Fitting with PVDF liquid tight connector	140.00

EchoDucer™ Two-Wire Ultrasonic Level Transmitter

Features

- Rugged PVDF transducer for insertion through tall riser fittings, concrete walls or pipes with ID > 2" schedule 40
- Fixed 20 cm to 8 m measurement span requires no field calibration
- Self leveling transducer for use with non-perpendicular fittings
- Fail-safe intelligence with diagnostic feedback for easy troubleshooting

Tech Tip

The breakthrough insertion design eliminates acoustic interference often associated with tall installation fittings, concrete ceilings or underground bulk storage tanks. The self leveling transducer can also be applied with installation fittings that are not perpendicular to the liquid surface.

Specifications

Range:	8" to 26.2'
Accuracy:	± 0.2% of span in air
Supply Volt:	12-28 VDC
Loop resist.:	500 Ohms @ 24 VDC
Signal Output:	4-20mA, two wire
Fail-safety:	Reverts to 22 mA
Process Temp:	F: -4° to 140°
Temp. comp.:	Automatic
Electronics temp.:	F: -40º to 160º
Enclosure rating:	51_1: NEMA 4X (IP65) 5201: NEMA 6 (IP68)
Trans. material:	PVDF
Trans. cable mat.:	FEP
Trans. insertion:	7" to 10' (18cm to 3m)
Trans. alignment:	Self-aligning, perpendicular to liquid surface

The general purpose two-wire ultrasonic transmitter provides non-contact level measurement up to 26' or 8m, and is well suited for corrosive or waste liquids. The transmitter is typically selected for atmospheric bulk storage, day tank or waste sump applications. Media examples include resin and sulfuric acid.

Part #	Description	Material	Size	Price
LU43-5101	EchoDucer 2-wire Transmitter 26. 2' Range*	PVDF	2" NPT	$ 795.00

* To special order the length of cable (A-Dimension),place the cable length (inches/cm) at the end of the part number. Add $1.00 per inch of cable (first 7" of cable are included).

Symprobe™ Two-Wire RF Capacitance Level Transmitter

Features

- FEP Teflon® probe for use with highly corrosive acid solutions
- Self grounding probe does not require reference in plastic tanks
- Easy potentiometer calibration with power LED and span invert switch

Application

The transmitter is typically selected for pressurized day tank and process vessel applications. Media examples include nitric and hydrochloric acid.

Specifications

Accuracy: ±1% of full span
Repeatability: ±0.125”
Dielectric range: > 20 constants
Probe pF range: 100 to 1000 pF
Supply voltage: 14-36 VDC
Signal output: 4-20 mA, two-wire
Signal invert: 4-20 / 20-4mA
Calibration: Potentiometer
Process Temp.: F: -40° to 158°
Pressure: 75 psi (5 bar) @ 25° C. , derated @ 1.667 psi (.113) per °C. above 25°C.
Enclosure rating: NEMA 4X / IP65
Enclosure material: PP, UL94VO
Process mount: 3/4” NPT (3/4” G)
Conduit entrance: Single, 1/2” NPT

Part #	Description	Material	Size	Price
1972	RF Capacitance Transmitter	FEP	12” Symprobe	455.00
1878	RF Capacitance Transmitter	FEP	18” Symprobe	455.00
1879	RF Capacitance Transmitter	FEP	24” Symprobe	485.00
1880	RF Capacitance Transmitter	FEP	36” Symprobe	515.00
1881	RF Capacitance Transmitter	FEP	48” Symprobe	550.00
1882	RF Capacitance Transmitter	FEP	60” Symprobe	595.00
1883	RF Capacitance Transmitter	FEP	72” Symprobe	645.00
1884	RF Capacitance Transmitter	FEP	84” Symprobe	700.00
1885	RF Capacitance Transmitter	FEP	96” Symprobe	755.00
1886	RF Capacitance Transmitter	FEP	108” Symprobe	810.00
1887	RF Capacitance Transmitter	FEP	120” Symprobe	865.00

Cricket™ Two-Wire Level Transmitter

Features

- Easy potentionmeter calibration with power LED and span invert switch
- Low-cost measurement solution for light duty level applications
- PVC, PP or PVDF wave guides may be easily sized in the field
- Wave guide dampens turbulence for accurate measurement in agitation

Application

The transmitter is typically selected for atmospheric day tank and process vessel applications. Media examples include potable water and malic acid.

Specifications

Range: 0.3 to 10 feet
Accuracy: ±1% of span in air
Resolution: 0.125” (3 mm)
Supply voltage: 14-36 VDC
Signal output: 4-20 mA, two-wire
Signal invert: 4-20 or 20-4mA
Calibration: potentiometer
Temp. rating: F: -40° to 140°
C: -40° to 60°
Temp. comp.: Automatic
Pressure: Atmospheric
Guide material: PVC, PP or PVDF
Enclosure rating: NEMA 4X / IP65
Enclosure material: PP, UL94VO
Process mount: 1” NPT
Conduit connection: Single, 1/2” NPT

Part #	Description	Material	Size *	Price *
1871	PVC Cricket Contact Transmitter LA12 (12” Wave guide)	PVC	Specify (1’ to 10’)	$ 378.00
1872	PP Cricket Contact Transmitter LA12 (12” Wave guide)	PP	Specify (1’ to 10’)	380.00
1873	PVDF Cricket Contact Transmitter LA12 (12” Wave guide)	PVDF	Specify (1’ to 10’)	400.00
1916	Remote Relay controller with LED display	PP	3.9 x 2.8 x 3.7”	425.00

* Specify length by adding length desired to the end of Part # . The above mentioned prices are based on a 12” length. For PVC, add $3.00 per foot for each additional foot up to 10’. For PP, add $5.00 per foot for each additional foot up to 10’. For PVDF, add $25.00 per foot for each additional foot up to 10’. The lengths may be specified in 1/2” increments from 1’ to 10’ maximum.

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Smart Trak™ with Compact Junction Box - Adjustable Multi-Point Level Detection

Features

- Offered in 3 sensing technologies for broad application coverage
- Rugged PP construction for use in challenging corrosive environments
- Adjustable level switches make field adjustments fast and simple
- PP junction box with swivel base
- Corrosive multi-point level detection with contacts for PLC or control input

Application

Offered in CSA approved intrinsically safe or general purpose configurations, this switch package provides up to four adjustable level switch points with a IA relay or dry contact closure interface for remote devices such as a PLC, SCADA or alarm. The product is typically selected for atmospheric day tank, process vessel and waste sump applications. Specify the appropriate sensor technology and assembly dimensions.

Sensors

Vibration

- Typically applied in wastewater media with light coating and/or foaming characteristics
- General purpose classification

Ultrasonic

- Broadly applied in chemical, solvent, hydrocarbon and light weight oil media
- Intrinsically safe classification

Buoyancy

- Best applied in clean water or water-like chemical media that is non-coating or scaling
- General purpose classification

Price on Application

Specifications

Length:	8” to 10 feet
Switch points:	1 to 4 (field adjustable)
Orientation:	± 30° vertical
Process Temp.:	F: -40° to 194 C: -40° to 90°
Pressure:	Atmospheric
Wetted material:	PP (20% glass fill)
Process mount:	2” NPT
Enclosure rating:	NEMA 4X (IP65)
Installed height:	5.7” above tank process mount
Encl. material:	PP, UL94VO
Conduit entrance:	Single, 1/2” NPT
Termination:	12 poles
CE compliance:	EN 50082-2 immunity EN 55011 emission EN 61010-1 safety

Ultrasonic Sensor

Supply voltage:	12-36 VDC
Consumption:	25 mA maximum
Contact type:	(1) SPST relay
Contact rating:	GP: 120 VAC/VDC @ 1A IS: 32 VDC @ 0.5A
Contact output:	Selectable NO/NC
Classification:	Intrinsically safe

Vibration Sensor

Supply voltage:	12-36 VDC
Consumption:	25 mA maximum
Contact type:	(1) SPST relay
Contact rating:	120 VAC/VDC @ 1A
Contact output:	Selectable NO/NC
Classification:	General Purpose

Buoyancy Sensor

Contact type:	(1) SPDT reed
Contact rating:	120 VAC/VDC @ 15 VA
Contact output:	Selectable NO/NC
Classification:	General Purpose

Tech Tip

The compact junction box is constructed of UL approved fire retardant PP and comes pre-wired with a 12-pole terminal strip.

Remote Relay Controller

ORDERING

Part #	Description	Price
1916	Continuous relay controller	$425.00

Smart Trak™ with Compact Relay Controller
Adjustable Automatic Fill or Empty Control

Features

- Fail-safe relay control of pumps and valves with 0-60 second time delay
- Offered in 3 sensing technologies for broad application coverage
- Rugged PP construction for use in challenging corrosive environments
- Adjustable level switches make field adjustment fast and simple
- Easy setup with LED indicators for sensor, power and relay status

Application

This general purpose switch package provides a complete solution for automatic filling or emptying of a tank between two adjustable level switch points with a 10A latching compact relay controller for pump or valve actuation. The product is typically selected to atmospheric day tank, process vessel and waste sump applications. Specify the appropriate sensor technology and assembly dimensions.

Sensors

Vibration

- Typically applied in wastewater media with light coating and/or foaming characteristics
- General purpose classification

Ultrasonic

- Broadly applied in chemical, solvent, hydrocarbon and light weight oil media
- Intrinsically safe classification

Buoyancy

- Best applied in clean water or water-like chemical media that is non-coating or scaling
- General purpose classification

Price on Application

Specifications

Length:	8” to 10 feet
Switch points:	2 (field adjustable)
Orientation:	± 30° vertical
Supply voltage:	120/240 VAC @ 50-60Hz
Contact type:	(1) SPDT relay, latching
Contact rating:	250 VAC@ 10A
Contact latch:	Selectable On/Off
Contact delay:	0-60 seconds
LED indication:	Power, relay and sensor status
Process Temp.:	F: -40° to 194° C: -40° to 90°
Electronics temp.:	F: -40° to 140° C: -40° to 60°
Pressure:	Atmospheric
Wetted material:	PP (20% glass fill)
Process mount:	2” NPT
Enclosure rating:	NEMA 4X (IP65)
Encl. material:	PP, UL94VO
Conduit entrance:	Single, 1/2” NPT
Classification:	General purpose
CE compliance:	EN 50082-2 immunity EN 55011 emission EN 61010-1 safety

Tech Tip

The AC powered relay controller has a latching 10A relay, adjustable time delay, LED indicators and NO or NC invert switch. The rugged NEMA 4X enclosure is made of UL approved fire retardant PP and features a 300° swivel base for easy conduit alignment.

Tech Tip

The controller with Strobe Alert configuration brings attention to process conditions such as the emptying of waste into treatment.

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Float-Point™ with Compact Junction Box
High Temp-Pressure Multi-Point Level Detection

Features

- Rugged 316 stainless steel float, guide and 2" NPT mounting plug
- High temp-pressure multi-point level detection with contacts for PLC input
- Custom assembled to your exact guide length and float dimensions
- Offered with aluminum NEMA 7 or PP NEMA 4X enclosures

Application

Offered in FM and CSA approved explosion proof or general purpose configurations, this switch package provides up to four level switch points with a dry contact closure interface for remote devices such as a PLC or SCADA. The product is typically selected for high temperature and/or pressure process vessel applications located within a classified hazardous or general purpose area. Media examples include nickel acid or fuel oil. Specify the appropriate assembly dimensions.

Hazardous

The FM and CSA approved explosion proof configuration is provided with a cast aluminum enclosure for use in Class I, Division I, Groups B, C and D; Class II, Groups E, F and G hazardous area applications.

Specifications

Length:	4" to 72 inches
Switch points:	1 to 4 (set by factory)
Accuracy:	± 3 mm in water
Repeatability:	± 1 mm in water
Specific gravity:	0.75 minimum
Orientation:	± 30° vertical
Contact type:	(1-4) SPDT reed
Contact rating:	240 VAC/VDC @ 20VA
Process Temp.:	F: -40° to 300° C: -40° to 148.9°
Pressure:	750 psi max. (51.7 bar max.)
Guide/float mat.:	316 ss
Process mount:	2" NPT
Enclosure rating:	S443: NEMA 4X (IP65) S453: NEMA 7
Encl. material:	S443: PP, UL94VO S453: Aluminum
Conduit entrance:	Single, 1/2" NPT
Wire type:	3-12 wire wire, # 18 AWG
Termination:	12 poles
Classification:	S443: General purpose S453: Explosion proof
CE compliance:	EN 50082-2 immunity EN 55011 emission EN 61010-1 safety

Tech Tip

The general purpose compact junction box is constructed of UL approved fire retardant PP and comes pre-wired with a 12-pole terminal strip. The FM and CSA approved explosion proof configuration is provided with a cast aluminum enclosure for use is Class I, Division I, Groups B, C & D; Class II, Groups E, F & G hazardous area applications.

Price on Application

Switch-Pak™ PP or PVDF High Level Detection and/or Control

with Compact Relay Controller

Price on Application

Features

- PP or PVDF construction for use in challenging corrosive environments
- Fail-safe relay control of pumps and valves with 0-60 second time delay
- Offered in 3 sensing technologies for broad application coverages
- Optional strobe brings immediate attention to tank alarm conditions
- PP enclosure rated NEMA 4X with 300° conduit swivel base

Application

This general purpose switch package provides a complete solution for high level spill prevention with a fixed level switch point and 10A compact relay controller for pump or valve actuation. The optional flash alarm brings immediate attention to high level conditions. The product is typically selected for pressurized and/or highly corrosive bulk storage, day tank and waste sump applications. Specify the appropriate sensor technology, material and assembly dimension.

Tech Tip

For applications with highly corrosive media such as hydrofluoric acid, select the PVDF wetted material option for years of lasting and reliable performance. The Kynar® fitting is heat welded and final assembled to your required length with either a PVDF Kynar® buoyancy or PFA Teflon® ultrasonic sensor. The AC powered relay controller has a 10A relay, adjustable time delay, LED indicators, NO or NC invert switch and UL fire retardant PP enclosure.

with Compact Junction Box

Price on Application

Features

- PP or PVDF construction for use in challenging corrosive environments
- Offered in 3 sensing technologies for broad application coverages
- Corrosive single-point level detection with contact for PLC or control input
- PP enclosure rated NEMA 4X with 300° conduit swivel base
- Available in intrinsically safe and general purpose configurations

Application

Offered in CSA and Cenelec approved intrinsically safe or general purpose configurations, this high level spill prevention switch package provides a fixed level switch point with a IA relay or dry contact closure interface for remote devices such as a PLC, SCADA or alarm. The product is typically selected for pressurized and/or highly corrosive bulk storage, day tank and waste applications. Specify the appropriate sensor technology, material and assembly dimension.

Tech Tip

For applications with highly corrosive media such as hydrofluoric acid, select the PVDF wetted material option for years of lasting and reliable performance. The PVDF extension fitting is heat welded and custom assembled to your A-dimension with either a PVDF buoyancy or PFA ultrasonic sensor. It's level made simple!

Vibration Sensor

- Typically applied in wastewater media with light coating and/or foaming characteristics

Ultrasonic Sensor

- Broadly applied in chemical, solvent, hydrocarbon and light weight oil media

Buoyancy Sensor

- Best applied in clean water or water-like chemical media that is non-coating or scaling

Side Mount Bracket

Order the LM50 side mount bracket for easy installation on open tanks.

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Switch Pro™ with Compact Relay Controller

Features
- PP, Ryton® or PFA wetted material for challenging corrosive liquids
- Fail-safe relay control of pumps and valves with 0-60 seconds time delay
- Optional strobe brings immediate attention to tank alarm conditions
- Offered in 2 sensing technologies for broad application coverage

Application
Installed through the side wall, this general purpose high or low level switch package includes a 10A compact relay controller for pump or valve actuation with an optional flash alarm. The product is typically selected for bulk storage, day tank and process vessel applications. Specify the appropriate sensor technology and material.

Specifications
- Orientation: ± 20° horizontal
- Supply voltage: 120/240 VAC @ 50-60 Hz.
- Contact type: (1) SPDT relay
- Contact rating: 250 VAC @ 10A
- Contact delay: 0-60 seconds
- LED indication: Power, relay and sensor status
- Process temp.: F: -40° to 194° C: -40° to 90°
- Electronics temp.: F: -40° to 140° C: -40° to 60°
- Process mount: 3/4" NPT
- Enclosure rating: NEMA 4X (IP65)
- Conduit entrance: Single, 1/2" NPT
- Classification: General purpose
- CE compliance: EN 50082-0 immunity, EN 55011 emission, EN 61010-1 safety

Sensor Technology:
Ultrasonic, Vibration

Price on Application

Tech Tip
The AC powered relay controller has a 10A relay, adjustable time delay, LED indicators and NO or NC invert switch and UL fire retardant PP enclosure. The optional Strobe Alert flashes during a high or low level alarm condition.

Switch Pro™ with Compact Junction Box

Features
- PP, Ryton® or PFA wetted material for challenging corrosive liquids
- Offered in 2 sensing technologies for broad application coverage
- PP enclosure rated NEMA 4X with 300° conduit swivel base
- Corrosive single-point level detection with contact for PLC or control input

Application
Installed through the side wall offered in CSA approved intrinsically safe or general purpose configurations, this high or low level switch package includes a 1A relay for remote PLC, SCADA or alarm interface. The product is typically selected for bulk storage, day tank and process vessel applications. Specify the appropriate sensor technology and material.

Specifications
- Orientation: ± 20° horizontal
- Process temp.: F: -40° to 176° C: -40° to 80°
- Pressure: 150 psi (10 bar)
- Wetted material: AU1_: PP/PFA AZ1_: Ryton®
- Conduit entrance: 1/2" NPT
- Process mount: 2" NPT (2" G)

Ultrasonic
- Supply voltage: 12-36 VDC
- Contact type: (1) SPST relay
- Contact rating: GP: 60 VA IS: 32 VDC @ 0.5A
- Classification: Intrinsically safe

Vibration
- Supply voltage: 12-30 VDC
- Contact type: (1) SPST relay
- Contact rating: 60 VA
- Classification: General purpose

Sensor Technology:
Ultrasonic, Vibration

Price on Application

Tech Tip
The NEMA 4X enclosure is made of UL approved fire retardant PP and features a 300° swivel base for easy conduit alignment. The power and switch conductors are prewired to the terminal strip.

Switch-Tek™ Vibration Level Switch

Features

- Rugged Ryton® probe with Viton® and PP cable rated NEMA 6
- Automatic coating adjustment optimizes sensor performance
- Coating preventative maintenance alarm saves time and money
- 1A relay selectable NO or NC via power supply wiring polarity

Application

The general purpose vibration level switch is a great choice for dirty liquids including those with light to medium coating, scaling or foaming characteristics. Media examples include wastewater, diluted caustic soda and light weight oil. For optimum performance and proactive maintenance, the sensor automatically adjusts for coating build up, and if necessary, outputs a preventative maintenance alarm.

Specifications

- Orientation: Universal
- Repeatability: ± 0.5 mm in water
- Supply voltage: 12-30 VDC
- Consumption: 25 mA maximum
- Contact type: (1) SPST relay (NO/NC)
- Contact rating: 60 VA
- Maint. alarm: NPN transistor , 10 mA max.
- Process temp.: F: -40° to 176°
- Pressure: 150 psi (10 bar)
- Sensor rating: NEMA 6 (IP68)
- Sensor material: Ryton® (glass filled), Viton® cable grommet
- Cable length: Standard: 10 ft. Special order: 25 ft.
- Process mount: 3/4" NPT (3/4" G)
- Classification: General purpose

Part #	Description	Price From
1973	Vibration Level switch	$ 270.00

Switch-Tek™ Ultrasonic Level Switch

Features

- Rugged PP or PFA Teflon® probe and cable rated NEMA 6
- 1A relay selectable NO or NC via power supply wiring polarity
- Compatible with MicroPoint multi-channel indicator

Application

CSA approved intrinsically safe for use in hazardous area locations, the ultrasonic level switch is broadly applied in chemical, solvent, hydrocarbon and petroleum based liquids. Media examples include fuel, acetone and hydrochloric acid. The 1A relay provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. The submersible sensor is universally mounted through the wall or inside the tank.

Tech Tip

Switch-Tek ultrasonic is the best level switch for a wide range of liquids including corrosive chemicals, ultrapure water and solvents. Both the submersible sensor probe and cable are constructed of the same rugged PP or PFA Teflon® material per your order.

Specifications

- Orientation: Universal
- Repeatability: ± 0.5 mm in water
- Supply voltage: 12-36 VDC
- Contact type: (1) SPST relay (NO/NC)
- Contact rating: 60 VA
- Process temp.: F: -40° to 194°
- Pressure: 150 psi (10 bar)
- Sensor rating: NEMA 6 (IP68)
- Sensor material: PP / PFA Teflon®
- Cable length: Standard: 10 ft. Special order: 25 ft.
- Process mount: 3/4" NPT (3/4" Rp)
- Classification: Intrinsically safe

Part #	Description	Material	Size	Price
1974	Ultrasonic Sensor	PP	Short 3/4" NPT	$ 250.00
1975	Ultrasonic Sensor	PFA	Short 3/4" NPT	350.00
1976	Ultrasonic Sensor	PP	Long 3/4" NPT	260.00
1977	Ultrasonic Sensor	PFA	Long 3/4" NPT	360.00
Note: Longer cable lengths available, contact our Sales Office.				

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Switch-Tek™ SuperGuard Capacitance Level Switch

Features

- Rugged PP sensor and cable rated NEMA 6 or IP68
- 1A relay selectable NO or NC via power supply wiring polarity
- Compatible with Flowline alarm, controller & fitting accessories

Application

The general purpose guard capacitance level switch is a great choice for a wide range of aqueous based conductive liquids with light coating, crystallizing or scaling characteristics. Media examples include copper sulfate and brine. The 1A relay provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. The submersible sensor is universally mounted through the wall or inside the tank.

Tech Tip

The capacitance switch has a unique RF guard circuit which eliminates the coating signal path between the active and reference electrodes. For best performance in coating type liquids, install the sensor horizontally through the side wall of non-metallic tanks.

Specifications

- Orientation: Universal
- Accuracy: ± 1 mm in water
- Repeatability: ± 0.5 mm in water
- Dielectric range: > 20 constants
- Conductive: > 100 micromhos
- Supply voltage: 12-36 VDC
- Consumption: 25 mA maximum
- Contact type: (1) SPST relay
- Contact rating: 60 VA
- Contact output: Selectable NO/NC
- Process temp.: F: -40° to 194°
- Pressure: 150 psi @ 25°C
- Sensor rating: NEMA 6 (IP68)
- Sensor material: PP
- Cable jacket mat.: PP
- Cable type: 4-conductor, #22 AWG
- Cable length: Standard: 10 ft. Special order: 25 ft.
- Process mount: 3/4" NPT
- Classification: General purpose

Part #	Description	Material	Price
1986	SuperGuard Capacitance switch	PP	$ 230.00

Switch-Tek™ Optic Leak Detection Switch

Features

- PP or PFA Teflon® probe and cable rated NEMA 6
- 1A relay selectable NO or NC via power supply wiring polarity
- Fail-safe leak sensor inverts wet to alert user for maintenance

Application

The general purpose optic leak detection switch is an excellent choice for leak detection in and around secondary containment sumps, tanks and pipes. The submersible sensor may be universally mounted in the interstitial space of the tank. The internal 1A relay provides a reliable switch interface with indicators, PLCs, SCADAs and alarms.

Tech Tip

Both the submersible sensor probe and cable jacket are constructed of the same rugged PP or PFA Teflon® material per your order. This unique packaging design is completely sealed for maximum reliability and ease of installation within your secondary containment vessel.

Specifications

- Orientation: Universal
- Accuracy: ± 1 mm in water
- Repeatability: ± 0.5 mm in water
- Supply voltage: 12-36 VDC
- Consumption: 25 mA maximum
- Contact type: (1) SPST relay
- Contact rating: 60 VA
- Contact output: Selectable NO/NC
- Process temp.: F: -40° to 176°
- Pressure: 150 psi (10 bar) @ 25°C
- Sensor rating: NEMA 6 (IP68)
- Cable jacket mat.: PP or PFA
- Cable type: 4-conductor, #22 AWG
- Cable length: Standard: 10 ft. Special order: 25 or 50 ft.
- Process mount: 3/4" NPT
- Classification: General purpose

Part #	Description	Material	Size	Price
1987	Optic Switch	PP	3 x 3/4" NPT	$ 140.00
1988	Optic Switch	PFA	3 x 3/4" NPT	240.00
1989	Optic Switch	PP	4.5 x 3/4" NPT	150.00
1990	Optic Switch	PFA	4.5 x 3/4" NPT	250.00

Switch-Tek™ Intrusive Capacitance Level Switch

Features

- PP or PFA Teflon® sensor and cable rated NEMA 6 or IP68
- Available in short and long sensor lengths for flexible installation
- Compatible with Flowline alarm, controller & fitting accessories
- 1A relay selectable NO or NC via power supply wiring polarity

Application

The general purpose intrusive capacitance level switch is an excellent choice for a wide range of relatively clean, aqueous based conductive liquids with non-coating and/or scaling characteristics. Media examples include hydrogen peroxide and chromic acid. The 1A relay provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. The submersible sensor is universally mounted through the wall or inside the tank.

Tech Tip

The NO or NC relay state is selected via the power supply wiring polarity. Its level wiring made simple!

Specifications

- Orientation: Universal
- Accuracy: ± 1 mm in water
- Repeatability: ± 0.5 mm in water
- Dielectric range: > 20 constants
- Conductive: > 100 micromhos
- Supply voltage: 12-36 VDC
- Consumption: 25 mA maximum
- Contact type: (1) SPST relay
- Contact rating: 60 VA
- Contact output: Selectable NO/NC
- Process temp.: F: -40° to 176°
- Pressure: 150 psi @ 25°C
- Sensor rating: NEMA 6 (IP68)
- Sensor material: PP or PFA
- Cable jacket mat.: PP or PFA
- Cable type: 4-conductor, #22 AWG
- Cable length: Standard: 10 ft. Special order: 25 ft.
- Process mount: 3/4" NPT
- Classification: General purpose

Part #	Description	Material	Length	Price
1982	Level Switch	PP	Short	$ 185.00
1983	Level Switch	PFA	Short	285.00
1984	Level Switch	PP	Long	195.00
1985	Level Switch	PFA	Long	295.00

Switch-Tek™ Non-Intrusive Capacitance Level Switch

Features

- Level detection through plastic or FRP tank walls up to 1" thick
- PE, PVC, PP or PVDF mounting bracket designed for adhesive and plastic tack-weld installation

Application

The general purpose non-intrusive capacitance level switch is a great choice for highly corrosive or ultrapure, aqueous based liquids with non-coating and /or scaling characteristics. Media examples include deionized water and hydrochloric acid. The 1A relay provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. The sensor is bracket mounted on the exterior wall of non-metallic tanks.

Tech Tip

With two calibration adjustments, the non-intrusive switch set point will be customized to your specific tank wall thickness and application media.

Specifications

- Tank mounting: Non-intrusive
- Tank mat. comp.: Non-metallic
- Tank wall thick.: < 1" (25 mm)
- Accuracy: ± 1 mm in water
- Repeatability: ± 0.5 mm in water
- Dielectric range: > 10 constants
- Conductive: > 100 micromhos
- Supply voltage: 12-36 VDC
- Consumption: 25 mA maximum
- Contact type: (1) SPST relay
- Contact rating: 60 VA
- Contact output: Selectable NO/NC
- Process temp.: F: -40° to 176°
- Enclosure rating: NEMA 4X (IP65)
- Enclosure material: PSO
- Conduit entrance: Single, 1/2" NPT
- Bracket mounting: 3M adhesive / plastic thermal weld
- Cable jacket mat.: PP
- Cable type: 4-conductor, #22 AWG
- Cable length: Standard: 10 ft. Special order: 25 or 50 ft.
- Classification: General purpose

Part #	Description	Material	Length	Price
1978	Level Switch	PP	-	$ 195.00
1979	Level Switch	PVDF	-	215.00
1980	Level Switch	PE	-	195.00

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Switch-Tek™ High-Temp Float Level Switch

Features

- 316SS float and stem for high temp and pressure applications
- 20 VA dry contact with selectable NO or NC state via float orientation
- Offered in four configurations with pressures up to 750 psi

Application

Offered in both vertical and horizontal float configurations, the general purpose high-temp float level switches are an ideal choice for relatively clean water, diluted chemical or petroleum based liquids with non-coating and/or scaling characteristics. Media examples include hot deionized water and cooking oil. The dry contact closure provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm.

Specifications

- Orientation: LV3_: ± 20° vertical
  LH30: ± 20º horizontal
- Repeatability: ± 1 mm in water
- Contact type: (1) SPST reed
- Contact rating: 20 VA
- Process temp.: F: -40° to 300°
- Pressure: LV30: 100 psi (6.9 bar)
  LV31: 275 psi (18.9 bar)
  LV32: 750 psi (51.7 bar)
  LH30: 300 psi (20.7 bar)
- Cable length: 2' (60 cm)
- Sensor rating: NEMA 6 (IP68)
- Process mount: LV30/31: 1/8" NPT
  LV32: 1/4" NPT
  LH30: 1/2" NPT
- Sensor material: 316 ss
- Classification: General purpose

Part #	Description	Material	Price
2972	Switch-Tek LV30 Vertical Float Level Switch	316 SS	$ 65.00
2973	Switch-Tek LV31 Vertical Float Level Switch	316 SS	65.00
2974	Switch-Tek LV32 Vertical Float Level Switch	316 SS	70.00
2975	Switch-Tek LH30 Horizontal Float Level Switch	316 SS	165.00

EchoSwitch™ Multi-Point Ultrasonic Level Switch

Application

The general purpose ultrasonic switch provides non-contact level detection up to 26' or 8m with 3 relays. Each relay can be configured on a single set point alarm, automatic fill or empty including pump alternation or duplexing control, or two set points for out of bounds alarms. The switch is well suited for a broad range of corrosive, waste and slurry media, and is broadly selected for atmospheric day tank, process vessel, pump lift station and waste sump applications.

Features

- Non-contact level detection with integral 3-channel relay control
- Offered in four sensor ranges up to 8m with 1" and 2" transducers
- EasyCal target push button calibration with non-volatile memory
- 5cm minimum beam width for applications with restricted space
- Fail-safe intelligence with troubleshooting diagnostic feedback

Specifications

- Range: 2" to 26.2' (5cm to 8m)
- Repeatability: 0.25" (6mm)
- Hysterysis: LU72/75: 0.5" (1.2cm) single set point
  LU71/73: 1" (2.5cm) single set point
- Beam width: LU72/75: 2" (5cm) dia.
  LU71/73: 3" (7.6cm) dia.
- Dead band: LU75: 2" (5cm)
  LU71/72: 4" (10cm)
  LU73: 8" (20cm)
- Supply Voltage: 50_5: 95-250 VAC
  58_5: 12-28 VDC
- Contact type: (3) SPDT relays
- Contact rating: 60 VA
- Contact fail-safety: De-energizes during echo signal loss
- Calibration: Target, push button
- Process temp: F: -4º to 140º
- Pressure: 30 psi (2 bar)
- Enclosure rating: NEMA 4X (IP65)

Part #	Description	Size	Price
2970	EchoSwitch Level Switch-4' Range,95-250 VAC	1" NPT	$ 545.00
2968	EchoSwitch Level Switch-9.8' Range,95-250VAC	1" NPT	645.00
2971	EchoSwitch Level Switch-16.4' Range,95-250VAC	2" NPT	745.00
2969	EchoSwitch Level Switch-26.2' Range,95-250VAC	2" NPT	845.00

Switch-Tek Vertical Buoyancy Level Switch

Features

- PP or PVDF Kynar® sensor and cable rated NEMA 6 or IP68
- Baffle body and dynamically stabilized float eliminate turbulence switch chatter
- 15VA dry contact with selectable NO or NC state via wire selection

Specifications

Orientation: ± 20° vertical
Repeatability: ± 1 mm in water
Contact type: (1) SPDT reed
Contact rating: 15 VA
Process Temp.: F: -40° to 176°
Pressure: 25 psi@ 25°C, derated @ 1.667 psi per °C above 25° C
Sensor rating: NEMA 6 / IP68
Sensor material: PP or PVDF
Cable length: Standard: 10 ft.
Special order: 25 or 50 ft.
Process mount: 3/4" NPT
Classification: General purpose

Tech Tip

For years of reliable service in highly corrosive media, select the PVDF sensor. The rugged sensor features a Kynar® body with a PFA Teflon® cable jacket.

Application

The general purpose buoyancy level switch is a perfect choice for relatively clean water and chemical solutions with non-coating and/or scaling characteristics. Media examples include acetic acid and process water. The baffle body eliminates switch chatter caused by turbulence. The dry contact closure provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. The sensor mounts vertically inside tank on our Smart-Trak or Switch-Pak fittings.

Part #	Description	Material	Price
1900	Vertical Buoyancy Switch	PP	$ 85.00
1901	Vertical Buoyancy Switch	PVDF	185.00

Switch-Tek Vertical Float Level Switch

Features

- PP or PVDF sensor and cable rated NEMA 6 or IP68
- 50 VA dry contact with selectable NO or NC state via float orientation
- Baffle body reduces switch chatter caused by process turbulence
- Compatible with Flowline controller, alarm and fitting accessories

Specifications

Orientation: ± 20° vertical
Repeatability: ± 1 mm in water
Contact type: (1) SPDT reed
Contact rating: 50 VA
Process Temp.: F: -40° to 176°
Pressure: 25 psi@ 25°C, derated @ 1.667 psi per °C above 25° C
Sensor rating: NEMA 6 / IP68
Sensor material: PP or PVDF Kynar®
Cable type: 2-conductor, #22 AWG
Cable length: Standard: 10 ft.
Special order: 25 or 50 ft.
Process mount: 3/4" NPT
Classification: General purpose

Tech Tip

For convenient installation, package the vertical float with our Smart Trak or Switch Pak fittings. It's level installation made simple.

Application

The general purpose buoyancy level switch is a great choice for relatively clean water and chemical solutions with non-coating and/or scaling characteristics. Media examples include sulfuric and hydrobromic acids. The baffle body dampens switch chatter caused by turbulence. The dry contact closure provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. The sensor mounts vertically inside tank on our Smart-Trak or Switch-Pak fittings.

Part #	Description	Material	Price
1904	Vertical Float Switch	PP	$ 65.00
1905	Vertical Float Switch	PVDF	165.00

Switch-Tek Mini-Float Level Switches

Application

The general purpose mini-float level switches are a great choice for less critical applications with clean water and/or chemical solutions. Media examples include water and acetic acid. The dry contact closure provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm.

Specifications

Orientation: LV20: ± 20° vertical
LH23: ± 20º horizontal
Repeatability: ± 2 mm in water
Contact type: (1) SPST reed
Contact rating: 15 VA
Process Temp.: F: -40° to 149°
Pressure: 10 psi (0.7 bar)
Cable length: 2' (60 cm)
Sensor rating: NEMA 6 (IP68)
Process mount: LV20: 1/8" NPT
LH23: 1/2" NPT
Sensor material: PP / PVDF
Classification: General purpose

Part #	Description	Material	Price
1996	Mini-Vertical Float Switch	PP	$ 21.00
1997	Mini-Vertical Float Switch	PVDF	42.00
1908	Mini-Horizontal Float Switch	PVDF	21.00

Strobe Alert Compact Flash Alarm

Application

Offered in both AC and DC powered configurations, the compact flash alarm brings immediate attention to process conditions. The alarm is compatible with our round enclosures and my be actuated with any of our level switch, flow switch or relay control products. Specify the strobe supply voltage.

Specifications

Supply voltage:12-36 VDC/120-240 VAC
Strobe type: Xenon tube
Enclosure rating: IP65
Enclosure material: Polycarbonate

Part #	Description	Material	Price
LC09-1004	12-36 VDC Flash Alarm	NEMA 4X	100.00
LC10-1004	120 VAC Flash Alarm	NEMA 4X	100.00

Compact Junction Box

Application

Offered in small and large sizes, the junction box is ideal for compact sensor wiring and conduit termination. The junction box is universally compatible with our level switch, flow switch and fitting products. The small enclosure has 6 poles and is typically applied with a single level or flow switch sensor. The large enclosure has 12 poles for multiple level switches and is typically applied with Smart Trak. Select the size and appropriate mounting thread.

Specifications

Sensor inputs: 1 - 4 sensors
Terminal strip: 6 - 12 pole socket
Enclosure rating: IP65
Enclosure material: PP (UL94VO)

Part #	Description	Price
2037	Compact Junction Box-12 pole (1-4 sensors) 3/4" NPT	60.00
2038	Compact Junction Box-6 pole (1-2 sensors) 3/4" NPT	50.00

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Switch Pro™ with Compact Relay Controller Liquid or Gas Low-Flow Detection & Control

Features

- PP or PVDF Kynar® wetted material for challenging corrosive fluids
- Fail-safe relay control of pumps and valves with 0-60 second time delay
- Compact flash alarm indicates alarm status to on-site personnel
- Offered in liquid and gas configurations for broad application

Application

The general purpose liquid or gas switch package provides a complete solution for low flow pump or process protection with a 10A compact relay controller for actuation. The optional flash alarm brings immediate attention to low flow conditions. The short sensor is intended for use in pipe or ducting from 1/2" to 1 1/2"; the long sensor is applied in 2" and up. The product is broadly selected for low or no-flow applications. Specify the appropriate sensor technology, length and material.

Tech Tip

The AC powered relay controller has a 10A relay, adjustable time delay, LED indicators and NO or NC invert switch. The rugged NEMA 4X enclosure is made of UL approved fire retardant PP and features a 300° swivel base.

Specifications

Repeatability: ± .5% of set point
Response time: 1-10 seconds
Set point adjust.: Potentiometer
Supply Volt: 120/240 VAC @ 50-60 Hz.
Contact type: (1) SPDT relay
Contact rating: 250 VAC @ 10A
Contact delay: 0-60 seconds
Process temp.: F: 32° to 140°
Electronics temp.: F: -40° to 140°
Pressure: 150 psi @ 25° C, derated @ 1.667 psi per °C above 25°
Process mount: 3/4" NPT
Enclosure Rating: NEMA 4X (IP65)
Enclosure Material: PP (U.L. 94VO)
Conduit entrance: Single, 1/2" NPT
Classification: General purpose

Sensor technology: Liquid or Gas

AT12-1620 Shown

Part #	Switch Pro System	Price
2749	PP/ Liquid / Short Sensor, 3/4" NPT Mounting Thread	$ 365.00
2750	PP / Liquid / Long Sensor, 3/4" NPT Mounting Thread	375.00
2751	PP / Gas / Short Sensor, 3/4" NPT Mounting Thread	375.00
2752	PP / Gas / Long Sensor, 3/4" NPT Mounting Thread	385.00
2753	PVDF / Liquid / Short Sensor, 3/4" NPT Mounting Thread	465.00
2754	PVDF / Liquid / Long Sensor, 3/4" NPT Mounting Thread	475.00
2755	PVDF / Gas / Short Sensor, 3/4" Mounting Thread	475.00
2756	PVDF / Gas / Long Sensor, 3/4" Mounting Thread	485.00
Note: CE configuration and 240 VAC available upon request.		

Switch Pro™ with Compact Junction Box Liquid or Gas Low-Flow Detection

Features

- PP or PVDF Kynar® wetted material for challenging corrosive fluids
- 1A relay selectable NO or NC via power supply wiring polarity
- Offered in liquid and gas configurations for broad application
- PP enclosure rated NEMA 4X with 300° conduit swivel base

Application

The general purpose liquid or gas switch package provides a low detection solutions for pump or process protection with a 1A relay interface for remote devices such as a PLC, SCADA or alarm. The short sensor is intended for use in pipe or ducting from 1/2" to 1 1/2"; the long sensor is applied in 2" and up. The product is broadly selected for low or no-flow applications. Specify the appropriate sensor technology, length and material.

Tech Tip

For pump, valve or alarm automation, package your flow switch with our remote relay controllers. The controllers feature 10A relays, adjustable time delays, LED indicators, and NO or NC invert switches.

Specifications

Repeatability: ± .5% of set point
Response time: 1-10 seconds
Set point adjust.: Potentiometer
Supply Volt: 12-36 VDC
Contact type: (1) SPST relay
Contact rating: 60 VA
Contact output: Selectable NO/NC
Process temp.: F: 32° to 140°
Electronics temp.: F: -40° to 140°
Pressure: 150 psi @ 25° C, derated @ 1.667 psi per °C above 25°
Process mount: 3/4" NPT
Enclosure Rating: NEMA 4X (IP65)
Enclosure Material: PP (U.L. 94VO)
Conduit entrance: Single, 1/2" NPT
Classification: General purpose

Sensor technology: Liquid or Gas

AT17-1630 Shown AT17-3630 Shown

Part #	Switch Pro System	Price
2757	PP/ Liquid / Short Sensor	$ 250.00
2758	PP / Liquid / Long Sensor	260.00
2759	PP / Gas / Short Sensor	260.00
2760	PP / Gas / Long Sensor	270.00
2761	PVDF / Liquid / Short Sensor	350.00
2762	PVDF / Liquid / Long Sensor	360.00
2763	PVDF / Gas / Short Sensor	360.00
2764	PVDF / Gas / Long Sensor	375.00

Thermo-Flo™ Liquid Flow Switch

Features

- Adjustable set point with LED for flow or no-flow status indication
- Solid state sensor is not damaged by over-ranging flow velocities
- 1A relay selectable NO or NC via power supply wiring polarity
- Compatible with Flowline alarm, controller and fitting accessories

Application

The general purpose liquid flow switch is an ideal choice for a wide range of relatively clean water and chemical solutions with non-coating and/or crystallizing characteristics. Media examples include deionized water and sulfuric acid. The 1A relay provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. The short sensor is intended for use in pipe from 1/2" to 1 1/2"; the long sensor is applied in 2" and up. The switch set point may be adjusted from .04 to 3 fps.

Specifications

Set point range: .04 to 3 fps
Factory set point: 0.2 fps
Repeatability: ± .5% of set point
Response time: 1-10 seconds
Set point adjust.: Potentiometer
Supply Volt: 12-36 VDC
Contact type: (1) SPST relay
Contact rating: 60 VA
Contact output: Selectable NO/NC
Process temp.: F: 32° to 140°
Electronics temp.: F: -40° to 140°
Pressure: 150 psi @ 25° C, derated @ 1.667 psi per °C above 25°
Cable type: 4-conductor, #22 AWG
Cable length: Standard: 10 ft. Special order: 25 or 50 ft.
Process mount: 3/4" NPT
Sensor rating: NEMA 4X (IP65)
Classification: General purpose

Corrosive

Order the PVDF sensor and fitting for use in metering applications with highly corrosive chemicals such as nitric acid.

Part #	Description	Material	Size	Use w/ pipe size	Price
2346	Thermo-Flo Flowswitch	PP, Ryton	3 x 3/4"	1/4 to 1 1/2"	$ 160.00
2347	Thermo-Flo Flowswitch	PVDF	3 x 3/4"	1/4 to 1 1/2"	260.00
2348	Thermo-Flo Flowswitch	PP, Ryton	4.5 x 3/4"	2 to 12"	170.00
2349	Thermo-Flo Flowswitch	PVDF	4.5 x 3/4"	2 to 12"	270.00

Part #	Description Note: Use with 3" sensor only	Material	Range (gpm)	Use with pipe / tube ID	Price
2104	Flow Switch Fitting	PP	0.05-6.35	1/8 to 1/2"	$ 40.00
2105	Flow Switch Fitting	PVDF	0.05-6.35	1/8 to 1/2"	80.00

Thermo-Flo™ Gas Flow Switch

Features

- Adjustable set point from 1-90 fps with LED for flow or no-flow status
- Available in short and long sensor lengths for flexible installation
- 1A relay selectable NO or NC via power supply wiring polarity

Application

The general purpose gas flow switch is a great choice for a broad range of relatively clean gases with non-coating characteristics. Media examples include nitrogen and scrubber exhaust fumes. The 1A relay provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. The short sensor is intended for use in pipe or ducting from 1/2" to 1 1/2"; the long sensor is applied in 2" and up. The product is broadly selected for low or no-flow applications.

Specifications

Set point range: 1 to 90 fps
Factory set point: 10 fps
Repeatability: ± .5% of set point
Response time: 1-10 seconds
Set point adjust.: Potentiometer
Supply Volt: 12-36 VDC
Contact type: (1) SPST relay
Contact rating: 60 VA
Contact output: Selectable NO/NC
Process temp.: F: 32° to 140°
Electronics temp.: F: -40° to 140°
Pressure: 150 psi @ 25° C, derated @ 1.667 psi per °C above 25°
Cable type: 4-conductor, #22 AWG
Cable length: Standard: 10 ft. Special order: 25 or 50 ft.
Process mount: 3/4" NPT
Sensor rating: NEMA 4X (IP65)
Classification: General purpose

Set Point

The set point is easily configured with the adjustment knob located next to the cable. The clear knob doubles as an LED to indicate the media flow status.

Part #	Description	Material	Size	Use w/ pipe size	Price
2350	Short switch	PP, Ryton	3 x 3/4"	1/4 to 1 1/2"	$ 170.00
2351	Long switch	PVDF	3 x 3/4"	1/4 to 1 1/2"	270.00
2352	Short switch	PP, Ryton	4.5 x 3/4"	2 to 12"	180.00
2353	Long switch	PVDF	4.5 x 3/4"	2 to 12"	280.00

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Level Switch Isolation Remote Relay Controller

Features

- Built-in intrinsic safety barrier for hazardous level applications
- LED indicators provide user with power, sensor and relay status
- Fail-safe relay control of pumps and valves with 0-60 second time delay
- PP 35 mm DIN enclosure with removeable terminal strips

Application

The isolation controller has built-in intrinsic safety barriers and is CSA approved for use with associated apparatus. The controller is offered in three versions with 1 or 2 relays and 1-3 sensors inputs. The LC90 provides a high or low level switch with a single sensor input. The LC91 provides latched automatic fill or empty control with two sensor inputs. The LC92 provides latched automatic fill or empty control and an independent high or low level switch with three sensor inputs. Package the controller with our ultrasonic switch.

Tech Tip

The intrinsically safe ultrasonic level switch is CSA approved for use in hazardous areas.

Specifications

Supply Volt: 120/240 VAC @ 50-60 Hz
Consumption: 5 Watts max.
Sensor inputs:
LC90: (1) two-wire level switch
LC91: (2) two-wire level switches
LC92: (3) two-wire level switches
Sensor Supply: 13.5 VDC @ 27 mA
Contact type: LC90: (1) SPDT relay
LC91: (1) SPDT relay, latching
LC92: (2) SPDT relays, (one latching)
Contact rating: 250 VAC @ 10A
Contact latch: Selectable ON/OFF
Contact delay: 0-60 seconds
LED indication: Sensor, power and relay status
Electronics temp.: F: -40° to 158°
Enclosure type: 35 mm DIN rail
Encl. material: PP, UL94VO
Classification: Associated apparatus


LC92-1001 Shown


LM93-1001 Shown

NEMA Box Single or Two Meter

- Enclosure Rating: NEMA 4X
- Enclosure Window: Clear Polycarbonate

Part #	Description	Mat'l	Size	Price
1921	High / low controller	PP	3.9 x 2.8 x 3.7"	$ 295.00
1922	Auto fill / empty controller	PP	3.9 x 2.8 x 3.7"	350.00
1923	Auto fill/empty cont. w / high / low	PP	3.9 x 2.8 x 3.7"	395.00
2771	Single Meter NEMA Box			290.00
2772	Two Meter NEMA Box			380.00

DataSwitch™ Remote Relay Controller

Features

- 3.5 digit LED display indicates level in custom engineering units
- EasyCal push button calibration for span, display and relay set points
- Fail-safe design with security lock out calibration for process safety
- PP 35 mm DIN enclosure with removeable terminal strips

Application

The general purpose controller provides single tank level indication with 2 relays, 1-3 set points and an isolated 4-20mA repeater. Relay 1 is configurable on a single set point. Relay 2 can be configured on a single set point or latched on two set points for automatic fill or empty control. A LED bar graph indicates the level as a percentage of measured span.

Tech Tip

The NEMA 4X polycarbonate enclosure is a great choice for field mount installations and comes complete with DIN rail mounting hardware.

Specifications

Supply Volt: 120/240 VAC @ 50-60 Hz
Consumption: 5 Watts max.
Display type: LED, 3.5-digit
Display units: Engineering
LED bar graph: Span and set points
LED indication: Power and relay status
LED sensor alarm: < 4 mA = amber
> 20 mA = red
Calibration: Digital, push button
Memory: Non-volatile
Security: Set point lock out
Sensor input: (1) two or three wire 4-20 mA transmitter
Sensor Supply: 28 VDC @ 5 watts
Loop power: 4-20 mA, 24VDC
Repeater output: 4-20 mA, 12-36 VDC
Contact type: (2) SPDT relays, (one latching)
Contact rating: 250 VAC @ 10A
Contact latch: Selectable ON/OFF
Contact delay: 0-60 seconds
Electronics temp.: F: -40° to 158°
Enclosure type: 35 mm DIN rail
Encl. material: PP, UL94VO
Classification: General purpose


LC52-1001 Shown

Part #	Description	Mat'l	Size	Price
1916	Level Transmitter Controller	PP	3.9 x 2.8 x 3.7"	$425.00

DataView™ Universal Panel Meter

Features

- 4.5 digit LED display indicates level in custom engineering units
- 11-point linearization function for volumetric tank measurement
- Fail-safe design with security lock out jumper for process safety
- 1/8 DIN polycarbonate enclosure with NEMA 4X faceplate

Application

The general purpose meter reads engineering units with one level transmitter input channel and is offered in six configurations with optional 2 or 4 relays, 4 or 8 set points and an isolated 4-20mA repeater. Each relay can be configured on a single set point or two latched set points for automatic fill or empty control.

Tech Tip

For three-wire transmitters, package the meter with our external power supply rated 24 VDC @ 0.6A. The rail mounted power supply can support up to three LU30 level transmitters.

Specifications

Supply Voltage: 120/240 VAC @ 50-60 Hz
Consumption: 5 Watts max.
Display type: LED, 4.5-digit
Display units: Engineering
Display height: .56" digits
LED indication: Relay status
Calibration: Digital, push button
Linearization: (11) point function
Memory: Non-volatile
Sensor input: (1) two or three wire 4-20 mA transmitter
Sensor Supply: 24 VDC @ 25 mA
Contact rating: 250 VAC @ 2A
Contact delay: Hysterysis, full scale
Electronics temp.: F: -40° to 149°
Enclosure type: 1/8 DIN panel meter
Enclosure rating: NEMA 4X (faceplate)
Encl. material: Polycarbonate
Classification: General purpose
UL certificate: E 160849

NEMA Box Single or Two Meter

- Enclosure Rating: NEMA 4X
- Enclosure Window: Clear Polycarbonate

Part #	Description	Price
2765	Universal Panel Meter Only (LI10)	$ 355.00
2766	Meter with 4-20mA repeater (LI11)	495.00
2767	Meter with 2 relays (LI12)	445.00
2768	Meter with 2 relays and 4-20mA repeater (LI13)	585.00
2769	Meter with 4 relays (LI14)	605.00
2770	Meter with 4 relays and 4-20mA repeater (LI15)	685.00
2771	Single Meter NEMA Box (LM92-1001)	290.00
2772	Two Meter NEMA Box (LM93-1001)	380.00
Note: 240 VAC available upon request.		

DataLoop™ Powered Panel Meter

Features

- 3.5 digit LCD display indicates level in custom engineering units
- Simple potentiometer calibration for span and display set points
- 1/8 DIN panel or compact field mount polycarbonate enclosures
- Field meter has backlight for use outdoors or in poorly lit locations

Application

Offered in both panel mount and field mount enclosure types, the general purpose loop powered meter provides basic single tank level indication. Package the meter with any of our level transmitters and a 24 VDC loop power supply.

TechTip

For convenient loop power, package your meter and transmitter with our external power supply rated 24 VDC @ 0.6A. Offered in both 120 and 240 VAC versions, one power supply can support an entire tank farm of two-wire level transmitters.

Specifications

Display type: LCD, 3.5-digit
Display units: Engineering
Display range: 4 mA: ± 500
20 mA: 20-1999
Display height: .56" digits
Calibration: Potentiometer
Sensor input: (1) two-wire, 4-20 mA transmitter
Loop power: 12-24 VDC @ 30 mA
Electronics temp.: F: -40° to 149°
C: -40° to 65°
Enclosure type: 1/8 DIN panel meter
Enclosure rating: NEMA 4X
Encl. material: Polycarbonate
Classification: General purpose

Nema Meter

Part #	Description	Price
2773	Panel Meter	$ 235.00
2774	NEMA 4X Meter	285.00
2775	NEMA 4X Meter with backlight	360.00

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DataPoint™ Advanced Panel Meter

Features

- Relay alternation and lead lag control optimize pump performance and maintenance
- High intensity LED display is readable in direct sunlight for outdoor applications
- Rugged 1/8 DIN polycarbonate enclosure with splash proof NEMA 4x faceplate
- Compatible with analog, voltage and RTD thermocouple sensor inputs

Application

The general purpose 1/8 DIN single-channel meter is offered in three configurations. Select the meter only for indication, the meter with 2 relays for indication and automation, and the meter with 4-20 mA repeater for signal isolation. With the optional MeterView® PC calibration kit, users can conveniently program or clone meters, save meter profiles, datalog and export data to HTML or TXT file formats.

Specifications

Display type: LED, 4-digit
Display units: Engineering
Display output: 0-9999
Input channel: (1)4-20mA / 0-10 VDC
Supply voltage: 90-250 VAC, 50-60 Hz.
PC-cal. interface:* RS232 adaptor w/cable
PC-cal. software:* MeterView (Windows®)
Memory: Non-volatile
Sensor Supply: 24 VDC @ 200 mA
Repeater output: LI52: Isolated
Contact type: LI51: (2) SPDT relays
Contact rating: LI51: 750 VA
Contact output: LI51: Selectable NO/NC
Contact mode: LI51: Alarm,latched, pump-altern.,lead-lage
Operating temp.: F: -4º to 140º
C: -20º to 60º
Enclosure type: 1/8 DIN
Enclosure rating: NEMA 4X (IP65) faceplate
Enclosure mat'l: Polycarbonate FR
Classification: General purpose
* Requires the LI97-1001 MeterView calibration kit

NEMA Box Single or Two Meter

- Enclosure Rating: NEMA 4X
- Enclosure Window: Clear Polycarbonate

Calibration

Your indicator may be configured in less than a minute using the MeterView PC calibration kit. User configuration files are retained for indicator cloning and record keeping. The software also provides a convenient interface for data-logging.

Part #	Description	Price
LI50-1001	DataPoint, Meter Only	$ 370.00
LI51-1001	DataPoint, Meter with 2 Relays	460.00
LI52-1001	DataPoint, Meter with 4-20mA Repeater	520.00
LI97-1001	MeterView Calibration Kit/RS232 Cable and Adapter / MeterView Software	150.00

MicroPoint™ Multi-Channel Indicator with Alarms

Features

- Compatible with two-wire level transmitter, switch and leak detection sensors
- Alarms can be configured for high level, low level, out-of-bounds level or leak
- Compact NEMA 4X enclosure supports panel and wall mount installations
- Adjustable LED backlight for use at night or in dimly lit applications

Application

Factory calibrated, the general purpose indicator reads 0-100% of span with two or four sensor input channels. A single push button allows users to scroll through their active channels. With the optional MicroCal PC calibration kit, users can customize engineering units, configure FET alarm set points, and/or linearize the volumetric measurement of odd shaped tanks. Select the 2 channel for loop insertion with PLC's and the 4 channel for stand alone indications.

Specifications

Display type: LCD, 5-digit
Display units: Factory cal: % of span
PC cal: engineering*
Display output: Transmitter: 0-99999
Switch: Good / Alarm*
Display backlight: LED bar (adjustable)
Linearization:* 2-16 point function
Input channels: LI42: (2) 4-20mA
LI44: (4) 4-20mA
Supply voltage: 12-24 VDC
PC-cal. interface:* USB® adaptor w/cable
PC-cal. software:* MicroCal (Windows®)
Memory: Non-volatile
Alarm type:* LI42: (2) FET switches with opt. audible chirp
LI44: (1) FET switch with opt. audible chirp
Alarm set points:* 1 point: alarm
2 points: out of bounds
Switch rating: 1A @ 24 VDC
Switch output:* Normally open
Operating temp.: F: -4º to 140º, C: -20º to 60º
Cable length: 10' (3m)

Calibration

Your indicator may be configured in less than a minute using the MicroCal PC calibration kit. User configuration files are retained for indicator cloning and record keeping. It's level indication made simple!

Part #	Description	Price
LI42-1001	MicroPoint Indicator, 2-Channel	$ 395.00
LI44-1001	MicroPoint Indicator, 4-Channel	495.00
LI96-1001*	MicroCal Calibration Kit, RS385 Cable,TankCal software	150.00

Flow Switch Compact Relay Controllers

Specifications

Supply volt: 120/240 VAC @ 50-60 Hz
Consumption: 5 Watts max.
Sensor supply: 13.5 VDC @ 100 mA
Contact rating: 250 VAC @ 10A
Contact delay: 0-60 seconds
LED indication: Sensor, power and relay status
Electronics temp.: F: -40°F to 158°
Encl. rating: NEMA 4X (IP65)
Encl. material: PP, UL94VO
Encl. rotation: 300° swivel base
Conduit entrance: Single, 1/2" NPT
Classification: General purpose

Features

- Optional strobe brings immediate attention to flow alarm conditions
- Fail-safe relay control of pumps and valves with 0-60 second time delay
- PP enclosure rated NEMA 4X with 300° conduit swivel base
- Compatible with Flowline liquid or gas flow switch sensors
- LED indicators provide user with power, sensor and relay status

Application

The general purpose controller provides single channel low flow switch automation with one sensor input. The optional flash alarm brings immediate attention to flow alarm conditions. Package the controller with our liquid or gas flow switch sensors.

Tech Tip

The AC powered relay controller has a 10A relay, adjustable time delay, LED indicators and NO or NC invert switch. The rugged NEMA 4X enclosure is made of UL approved fire retardant PP.

Flow Switch Remote Relay Controllers

Specifications

Supply volt: 120/240 VAC @ 50-60 Hz
Consumption: 5 Watts
Sensor supply: 13.5 VDC @ 100 mA
Contact rating: 250 VAC @ 10A
Contact delay: 0-60 seconds
LED indication: Sensor, power and relay status
Electronics temp.: F: -40°F to 158°
Enclosure type: 35 mm DIN rail
Encl. material: PP, UL94VO
Classification: General purpose

Features

- LED indicators provide user with power, sensor and relay status
- Fail-safe relay control of pumps and valves with 0-60 second time delay
- PP 35 mm DIN enclosure with removable terminal strips

Application

The general purpose controller is offered in two versions with 1 or 2 relays and 1-2 sensor inputs. The LC80 provides a single channel low flow switch automation with one sensor. The LC82 provides a dual channel low flow switch automation with two sensor inputs. Package the controller with any of our liquid or gas flow switches.

Tech Tip

The controller provides a low flow shut off for pump or process protection. We recommend that an override switch be placed across the relay for momentary use during system restart.

Part #	Description	Mat'l	Size	Price
1912-1	Flow / no-flow controller	PP	2.8 x 4.5 x 3.4"	$ 185.00
1914-1	Flow / no-flow controller w/Strobe	PP	2.8 x 5.5 x 3.4"	235.00

Part #	Description	Mat'l	Size	Price
1918-1	Flow / no-flow controller	PP	3.9 x 2.8 x 3.7"	$ 185.00
1920-1	Dual flow / no-flow controller	PP	3.9 x 2.8 x 3.7"	265.00

Level Switch Compact Relay Controllers

Specifications

Supply volt:120/240 VAC @ 50-60 Hz
Consumption: 5 Watts max.
Sensor supply: 13.5 VDC @ 27 mA
Contact rating: 250 VAC @ 10A
Contact delay: 0-60 seconds
LED indication: Sensor, power and relay status
Electronics temp.: F: -40°F to 158°
Encl. rating: NEMA 4X (IP65)
Encl. material: PP, UL94VO
Conduit entrance: Single, 1/2" NPT
Classification: General purpose

Features

- Optional flash alarm indicates process condition to on-site personnel
- Fail-safe relay control of pumps and valves with 0-60 second time delay
- PP enclosure rated NEMA 4X with 300° conduit swivel base

Application

The general purpose controller is offered in two versions with 1 relay and 1-2 sensor inputs. The LC10 provides a high or low level switch with a single sensor input. The LC11 provides latched automatic fill or empty control with two sensor inputs and is typically integrated with Smart Trak. The optional flash alarm brings immediate attention to process conditions. Package the controller with any of our level switches.

Tech Tip

The AC powered relay controller has a 10A relay, adjustable time delay, LED indicators and NO or NC invert switch. The rugged NEMA 4X enclosure is made of UL approved fire retardant PP.

Level Switch Remote Relay Controllers

Specifications

Supply volt:120/240 VAC @ 50-60 Hz
Consumption: 5 Watts
Sensor supply: 13.5 VDC @ 27 mA
Relay rating: 250 VAC @ 10A
Contact delay: 0-60 seconds
LED indication: Sensor, power and relay status
Electronics temp.: F: -40°F to 158°
Encl. material: PP, UL94VO
Classification: General purpose

Features

- LED indicators provide user with power, sensor and relay status
- Fail-safe relay control of pumps and valves with 0-60 second time delay
- PP 35 mm DIN enclosure with removable terminal strips

Application

The general purpose controller is offered in three versions with 1 or 2 relays and 1-3 sensor inputs. The LC40 provides a high or low level switch with a single sensor input. The LC41 provides latched automatic fill or empty control with two sensor inputs. The LC42 provides latched automatic fill or empty control and an independent high or low level switch with three sensor inputs. Package the controller with any of our level switches.

Tech Tip

The controller measures the level switch current consumption via a two-wire loop and may be located up to 1000' from the sensor.

Part #	Description	Mat'l	Size	Price
1912	High / low controller	PP	2.8 x 4.5 x 3.4"	$170.00
1913	Auto fill / empty controller	PP	2.8 x 4.5 x 3.4"	200.00
1914	High / low controller w/ Strobe	PP	2.8 x 5.5 x 3.4"	220.00

Part #	Description	Mat'l	Size	Price
1918	High / low controller	PP	3.9 x 2.8 x 3.7"	$ 170.00
1919	Auto fill / empty controller	PP	3.9 x 2.8 x 3.7"	200.00
1920	Auto fill/empty cont. w / high / low	PP	3.9 x 2.8 x 3.7"	250.00

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Smart Trak™ Multi-Point Adjustable Fitting

Features

- Adjustable level sensor cars make process changes fast and simple
- Standard track lengths may be easily cut to length in the field
- Rugged PP construction for use in challenging corrosive liquids

Applications

The adjustable multi-point fitting enables users to install and adjust up to four Flowline level switches to any depth along the entire length of track. The fitting is typically applied in atmospheric day tanks, process vessels and small waste sumps. Select the appropriate track length based upon your application tank height and add one sensor car kit for each sensor to be installed on the track.

Specifications

Junction box

Sensor inputs:	1-4 sensors
Terminal strip:	12 pole socket
Enclosure rating:	NEMA 4X (IP65)
Encl. material:	PP, UL94VO
Encl. rotation:	300° swivel base
Conduit entrance:	Single, 1/2" NPT
Temp. rating:	F: -40° to 158°

Fitting

Track lengths:	2', 4', 6', 8', 10'
Adjustability:	Entire track length
Mixing velocity:	< 1.5 fps (.45 mps)
Process temp.:	F: -40° to 194°
Pressure:	Atmospheric
Fitting material:	PP (20% glass fill)

Side Mount

Bracket material:	PP
Female threads:	2" NPT
Tank installation:	Bolt or plastic weld

Tech Tip

The track kits are offered in std. lengths with a 2" process mount and 3/4" nipple for enclosure or conduit mount. One to four sensor cables are sealed via the internal neoprene and santoprene compression gaskets. At the heart of the fitting is the adjustable level sensor car. Each kit includes a 3/4" car with track mounting hardware. Order one car kit for each level sensor. For simple installation on open tanks, order the side mount bracket. The PP bracket is typically bolted to the side wall of the tank.

Part #	Description	Price
1924	2' Smart Track Kit	$ 35.00
1925	4' Smart Track Kit	55.00
1926	6' Smart Track Kit	75.00
2242	8' Smart Track Kit	95.00
1927	Switch Car Kit	80.00
1928	Side Mount Bracket	30.00
2037	Compact Junction Box 1-4 Sensors	60.00

Order the appropriate Smart Trak™ kit based upon the required track length. Each Smart Trak™ kit includes one 2" NPT plug fitting, and one track section with end cap. Order one switch car kit for each level switch to be installed on Smart Trak™. For integral power and signal termination with remote control devices, order one compact junction box for installation on top of Smart Trak™.

Switch Pak™ Single-Point High Alarm Fitting

LM45-1001-18" Shown

Applications

The single-point fitting enables users to install a Flowline level switch through the top wall of the tank. Offered in PVC, PP and PVDF materials, the fitting is typically applied in bulk storage tanks, day tanks, and waste sumps. Each fitting is built custom to your requirements. Select the appropriate material based upon your application liquid and specify the A-dimension. For integral wiring termination, add a compact junction box. For installation on open tanks or sumps, add a side mount bracket.

Specifications

Junction box

Sensor inputs:	1 sensor
Terminal strip:	6 pole socket
Enclosure rating:	NEMA 4X (IP65)
Encl. material:	PP, UL94VO
Encl. rotation:	300° swivel base
Conduit entrance:	Single, 1/2" NPT
Temp. rating:	F: -40° to 158°

Fitting

Track lengths:	6" to 10'
Process temp.:	F: -40° to 194°
Pressure:	150 psi @ 25° C., derated @ 1.667 psi per ° C. above 25° C
Fitting material:	PVC, PP, PVDF
Process mount:	2" NPT

Side Mount

Bracket material:	PP
Female threads:	2" NPT
Tank installation:	Bolt or plastic weld

Tech Tip

For easy field assembly, order the LM45-70_1-00" PVC plug fitting and sensor adapter. Solvent weld a 3/4" PVC schedule 40 pipe between the parts to the desired length. Its level installation made simple.

Part #	Description	Price
2243	Switch Pak™ , PP *	$ 30.00
2244	Switch Pak™ , PVC *	28.00
2245	Switch Pak™ , PVDF *	60.00
1928	Side Mount Bracket	30.00
2038	Compact Junction Box 1-2 Sensors	50.00

* The length must be specified with the part number at the time of your order. For PVC, add $3.00 per foot for each additional foot up to 10'. For PP, add $5.00 per foot for each additional foot up to 8'. For PVDF, add $25.00 per foot for each additional foot up to 10'. Specify in 1/2" increments.

EchoPump™ Ultrasonic Level Pump Controller

Application

The general purpose ultrasonic controller provides non-contact level measurement up to 33' with advanced display, tank shape linearization and control functions with 5 relays. Each relay can be configured as a single set point alarm, two latched set points for automatic fill or empty control or two independent set points for out of bounds alarming. Additionally, latched relay pairs can be configured for alternating, lead-lag and duplexing pump control. The sensor is ideally suited for challenging corrosive, slurry or waste liquids and is typicaly selected for large atmospheric bulk storage and waste pump transfer applications. Media examples include sodium hypochlorite and wastewater.

Features

- LCD digital display indicates level in distance or volumertric units
- Isolated 4-20 mA repeater output for integration with remote PLC
- Digital signal with standard cable between sensor and controller
- PC NEMA 4X enclosure with rugged Kynar® transducer
- 16-point linerization function for volumetric tank measurement
- Fail-safe intelligence and relay logic for maximum process safety
- Automatic temperature compensation over entire range

General Purpose	Yes
Integral Relay	Yes
Conductive	Yes
Non-Conductive	Yes
Δ Conductive	Yes
Non-Contact	Yes
Clean	Yes
Dirty	Yes
Coating	Yes
Non-coating	Yes
Ambient pressure	Yes
Low pressure	Yes
Intrinsically safe	No
Medium pressure	No
Foam	No
Contact	No
Vapors	No
Δ Gas density	No
Vacuum	No

Tech Tip

The wall mounted controller features a 2-line, 16-digit display with push button calibration. Ample wiring access and conduit knock outs are provided for sensor, power, relay and 4-20 mA signal connections. It's leve made simple!

Specifications

Sensor

Range: 0.5' to 33'
Accuracy: ±0.25% of span in air
Resolution: 0.125" (3 mm)
Beam width: 8° conical
Dead band: 0.5'
Process Temp.: F: -40°to 160°
C: -40°to 60°
Temp. comp.: Automatic
Pressure: 30 psi (2 bar) @ 25° C., derated @ 1.667 (.113 bar) psi per °C. above 25°C.
Enclosure rating: NEMA 4X / IP65
Enclosure material: PP, UL94VO
Transducer material: PVDF Kynar®
Cable length: 150' (48m) max.
Mount threads: 2" NPT
Conduit entrance: Single, 1/2" NPT

Controller

Display type: 2-line LCD, 16-digit
Display units: Distance: inch/cm
Volume: gallon/liter
Memory: Non-volatile
Supply voltage: 120/240 VAC @ 50-60Hz.
Signal output: 4-20 mA, two-wire
Current flow: Isolated, sinking
Signal invert: 4-20 or 20-4 mA
Calibration: Digital, push button
Linearization: 2-16 points
Contact type: (5) SPDT relay, latching
Contact rating: 250 VAC @ 10A
Contact fail-safety: Reverts to de-energized state during echo-loss
LED indication: Power & relay status
Electronics temp.: F: -40° to 140°
C: -40° to 60°
Enclosure: NEMA 4X (IP65)
Encl. material: Polycarbonate
Conduit entrance: 1/2" knock outs
Classification: General purpose

Beam

Depth Feet	Radius Inches
1	1.2
3	2.9
5	4.6
7	6.2
9	7.9
11	9.6
13	11.3
15	13.0
17	14.6
19	16.3
21	18.0
23	19.7
25	21.4
27	23.2
29	24.9
31	26.5
33	28.2

Part #	Description	Material	Size	Price From
2964	EchoPump LU60-1001	-	2" NPT	$ 1495.00

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EchoPod® Ultrasonic Level Switch, Controller and Transmitter

NEW

Introducing EchoPod

Flowline introduces EchoPod, an innovative level sensor that replaces floats, conductance and pressure sensors that fail due to dirty, sticking and scaling media in small tanks 49.2" (1.25m) or less. EchoPod, a general purpose sensor, combines non-contact switch, controller and transmitter capabilities in one package. Combining 4 relays, 4-20mA output and pump/valve control in one small sensor allows EchoPod to be your total solution. Maintenance free, EchoPod reduces tank system hardware throught simplicity and consolidation. Additionally, EchoPod is well suited for corrosive and dirty applications with its non-metallic housing and transducer. EchoPod provides a total solution for fluid handling and automation. The time to "Think Small and Win Big" is now, and it's with EchoPod.

Advantages

- Provides switch, controller and transmitter capabilities
- Replacement of multi-point float, conductivity and pressure level switches
- WebCal, an innovative PC user interface that provides fast and accurate configuration
- Compact sensor with 2" dead band and beam width optimized for small tank applications 49.2" (1.25m) or less

Description

EchoPod, a general purpose non-contact ultrasonic level switch, controller and transmitter for small tanks 49.2" (1.25m) or less. EchoPod enables flexible design applications for system integration or retrofit of floats, conductance and pressure sensors. Well suited for fluid handling and chemical feed applications integrating process or control automation of small tanks mounted on tools, skids or machines. The rugged PVDF enclosure is well suited for a wide range of corrosive, waste or slurry type media, and can be broadly selected for atmospheric day tank, process vessel or dispenser, pump lift station and waste sump applications. Level indication can be monitored via a local display or controlled through a PLC.

Specifications

Range: 49.2" (1.25m)
Accuracy: 0.125" (3 mm)
Resolution: 0.019" (0.5 mm)
Beam width: 2" (5 cm)
Dead band: 2" (5 cm)
Supply voltage: 24 VDC (loop)
Loop resistance: 400Ω max
Consumption: 35mA maximum
Signal output: 4-20mA, two-wire (when loop powered)
Contact type: (4) SPST relays 1A
Loop fail-safety: 4 mA, 20mA, 21mA, 22mA or hold last
Hysteresis: Selectable
Configuration: WebCal® PC Windows® software interface
Temp. comp.: Automatic over range
Temperature: F: 20º to 140º
C: -7º to 60º
Pressure: Atmospheric
Enclosure: NEMA 4X encapsulated, corrosion resistant & submersible
Encl. material: PC/ABS FR
Strain relief mat.: Santoprene
Trans. material: PVDF
Cable length: 48" (1.2m)
Cable jacket mat.: Polyurethane
Process mount: 1" NPT (1" G)
Mount gasket: Viton®
Classification: General purpose
Approvals: CE

Ordering Notes:

1) EchoPod can not be configured without the Fob USB interface tool (LI99-1001) and WebCal. One Fob will configure all EchoPods.
2) WebCal is a free download from www.flowline.com/webcal (Windows® XP Compatible).

Part #	Description	Material	Size	Price
DL14-00	EchoPod® without Fob	-	1" NPT	$ -
DL14-01	EchoPod® with Fob	-	1" NPT	-
LI99-1001	Fob Interface tool	-	-	-

Level Controls

FilterChem Float Valve ... for controlled liquid levels in all types of tanks.

Features

- Available in PVC or Polypropylene
- Sizes 1/4" through 2"
- 1/4" - 1" size maximum inlet pressure 80 PSI
- 1 1/2" - 2" size maximum inlet pressure 20 PSI
- PVC max temp 140º F
- PP max temp 180º F
- For Deionized water or corrosive chemicals
- Polypropylene Float
- Viton O-rings standard - EPDM optional

FPT Pipe Size	Part #	PVC Price Each	Part #	PP Price Each
1/4	1077	185.00	1078	233.00
3/8	1079	185.00	1080	233.00
1/2	1081	185.00	1082	233.00
3/4	1083	282.00	1084	312.00
1	1085	300.00	1086	346.00
1 1/2	1087	930.00	1088	1140.00
2	1089	1140.00	1090	1335.00

Chemline Ball Float Valve

Features

- All Plastic Construction
- All Parts are Replaceable
- Sizes 1/2" - 1 1/2"
- Threaded ends
- Easily Mounted to Tank Wall
- Polypropylene
- Will not Corrode
- Temp. range: 1/2" (-4 to 158ºF) 1",1 1/2" (-4 to 122ºF)

Note: 1/2" valve has a black polypro arm and orange polypro float and PP diaphragm, 1", 1 1/2" valves have grey polypro arms and floats and PE disc.

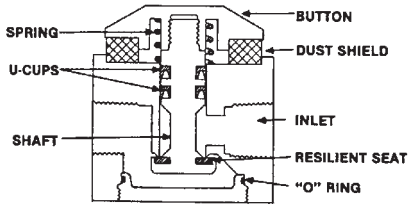
Part #	Description	Mat'l	Size	Price
2640	PP Ball Float Valve	PP	1/2" x 3/8"	$ 88.20
2641	PP Ball Float Valve	PP	1" x 1"	349.00
2642	PP Ball Float Valve	PP	1 1/2" x 1 1/4"	438.00

PLAST-*O*-MATIC Series MFR

Manual Shutoff Valve ... palm or foot operated valves are the answer for handling pure deionized rinse water where your hand or hands must be free to handle the part being rinsed. They are also ideal for handling corrosive or other ultra-pure liquids where economical performance is a prime consideration.

Features

- Available in PVC in sizes 1/2" or 3/4" with Viton® seal standard. Buna-N available
- Low pressure drop with high flow rates
- Hands are kept free for performing other functions
- Compact - requires minimum bench or floor space
- Isolated spring is not in the liquid
- Easy to install in any position with 1/4-20 mounting holes supplied
- Maximum working pressure 150 PSI x/ 10 Bar at @ 77°F



FPT Pipe Size	Part #	PVC Price Each
1/2	1014	$ 213.00
3/4	1015	338.00

ALSCO Industrial Products, Inc. • 1265 Mount Vernon Rd. • Lithia Springs, GA. 30122 • FAX 770-739-7549
770-941-3030 • 1-800-849-3030 • www.alscoplastics.com

Level Controls

TANK ALERT® 4X Alarm System

Industrial Duty, Versatile, Indoor or Outdoor, High or Low Liquid Level Alarm System

APPLICATIONS

- Lift Pump Chambers • Sump Pump Basins • Holding Tanks
- Sewage • Agricultural • Other non-potable Water Applications
- The Tank Alert 4X system serves as a high or low level alarm depending on the float switch model used.
- The stainless steel alarm horn sounds and red beacon illuminates when potentially threatening liquid level condition occurs.

FEATURES

- NEMA 4X enclosure rated for indoor or outdoor use
- Automatic alarm reset and alarm test / normal / silence switch
- Alarm system (when installed on separate circuit) operates even if the pump circuit fails
- System includes standard 15 feet Sensor Float® control switch with mounting clamp (other lengths available)

SPECIFICATIONS

Voltage for 120 VAC Model:
120 VAC 50/60 Hz
Alarm Enclosure: 6.4 x 5.3 x 5 inch, NEMA 4X, indoor-outdoor, weatherproof, UV stabilized thermoplastic
Alarm Horn: 88 decibels at 10 feet
Float Switch: Sensor Float® control switch with mounting clamp
Cable: 15 feet, flexible 18 gauge, 2 conductor (UL) SJOW, water resistant (CPE)
Float: 3.38 in. dia. x 4.55 in. long, high impact, corrosion resistant PVC housing for use with sewage and non-potable water up to 140°F
Switch: hermetically sealed steel capsule features mercury-to-mercury contacts

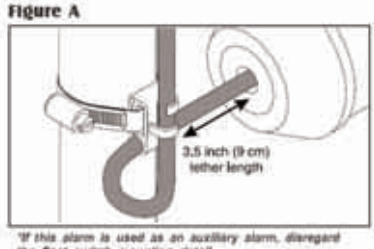
Part #	Description / Rating	Price
2554	120V with no Sensor Float	$ 235.01
2555	120V with 15' Cord Sensor Float High	265.96
2556	120V with 15' Cord Sensor Float Low	265.96

INSTALLING THE FLOAT SWITCH*

1. Place the float switch cord into the clamp as shown in Figure A.
2. Locate the clamp at the desired activation level and secure the clamp to the discharge pipe as shown in Figure A.
   Note: Do not install cord under hose clamp.
3. Tighten the hose clamp using a screwdriver. Over tightening may result in damage to the plastic clamp. Make sure the float cable is not allowed to touch the excess hose clamp band during operation.
4. Bring cable leads back to control device and wire according to Figure B.
5. Check installation. Allow system to cycle to ensure proper operation.

Note: All hose clamp components are made of 18-8 stainless steel material. See your SJE-Rhombus® supplier for replacements.

Figure A



*If this alarm is used as an auxiliary alarm, disregard the float switch mounting detail.

Standard and Heavy Duty Wide Angle Mercury Float Switch

General Description

The wide-angle single mercury float switch provides automatic control of pumps in non-potable and sewage applications. These switches are not sensitive to rotation but may be affected by turbulence. Mount Std. duty switches in a non-turbulent location.

FEATURES

- Junior Super Single - std. duty controls pumps up to 1/2HP at 120 VAC and 1HP at 230 VAC.
- Super Single - Heavy duty controls pumps up to 1HP at 120 VAC and 2HP at 230 VAC.
- Includes std. mounting clamp and boxed packaging.
- UL Recognized for use in non-potable water and sewage.
- CSA Certified
- Three-year limited warranty

SPECIFICATIONS

Std. Duty Cable: flexible 16 gauge, 2 conductor (UL,CSA) SJOW, water-resistant (CPE)
Heavy Duty Cable: flexible 14 gauge, 2 conductor (UL, CSA) SJOW, water-resistant (CPE)
Mercury Switch: mercury-to-mercury contacts, hermetically sealed in a steel capsule

Ordering Information

Part #	Description	Voltage	Price
1965	Standard Duty	120	$ 55.83
1966	Standard Duty	230	57.66
1967	Heavy Duty	120	93.44
1968	Heavy Duty	230	95.15

Heavy Duty Duplex Mercury Float Switch

FEATURES

- Controls pumps up to 1HP at 120 VAC and 2HP at 230 VAC.
- Adjustable pumping range of 1.75 to 48 inches with increased pumping range up to 6 feet available.
- Includes standard mounting clamps and boxed packaging.
- UL Recognized for use in non-potable water and sewage.
- CSA Certified
- Three-year limited warranty

SPECIFICATIONS

Cable attached to float housing: flexible 14 gauge, 2 conductor (UL, CSA) SJOW, water-resistant (CPE)
Cable above splice: flexible 14 gauge, 3 conductor (UL, CSA) SJTW, water-resistant, thermoplastic
Floats: 3.38" dia x 4.55" long high impact, corrosion resistant, PVC housing for use in sewage and non-potable water up to 140º F
Mercury Switch: mercury-to-mercury contacts, hermetically sealed in a steel capsule

General Description

The mercury activated, wide-angle pump switch provides automatic control of pumps in non-potable water and sewage applications. It is well-suited for confined applications requiring an accurate pumping range. It is not sensitive to rotation or turbulence. This switch is voltage sensitive - use with correct voltage. The Double Float pump switch consists of two floats and a splice tube. Each float contains a heavy-duty mercury switch. The splice tube contains a holding relay which enables the floats to function in series.

Ordering Information

Part #	Description	Voltage	Price
1969	Heavy Duty	120	$ 114.76
1970	Heavy Duty	230	117.74