RusAutomation

Piston-Type Flow Switches
Series P1

Dwyer

Installation . . .

Unless otherwise specified at time of purchase, units are calibrated in a vertical position, with lead wires up. Install unit in piping system, using standard pipe fitting procedures. Be sure to keep thread sealing compound out of unit. Make sure that flow is in proper direction - marked **"IN"** and **"OUT"** on housing. See wiring diagrams for electrical connections. **CAUTION:** See "Switch Ratings" before connecting power.

CAUTION: Flow settings for **P1** series switches are normally calibrated using water @ +70°F on increasing flow. If unit will be used to monitor liquids other than water, gas or air, Factory should have been consulted at time of purchase for special calibration. All air/gas units are factory-calibrated using a special piston. Water-calibrated units are not recommended for air/gas applications.

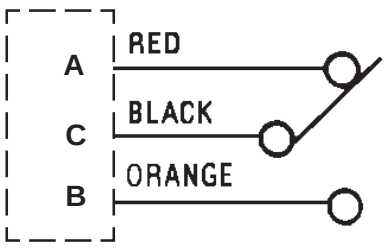
Specifications . . .

Wetted Materials	
Housing	Brass or 316 SS
Piston	
Brass Housing	Polysulfone/Water - Brass/Oil or Air
Stainless Steel Housing	316 SS
Spring	316 SS
O-Ring	Viton®
Other Wetted Parts	Epoxy
Pressure Rating	
Operating	1000 PSIG
Proof	2500 PSIG
Burst	5000 PSIG
Operating Temperature	
Brass or SS Piston	-20°F to +300°F (-29°C to +148.9°C)
Polysulfone Piston	-20°F to +225°F (-29°C to 107.2°C)
Repeatability	1% Maximum Deviation
Set Point Accuracy	±10%
Set Point Differential	15% Max.
Switch*	SPDT, 20 VA
Inlet/Outlet Ports	1/4" NPT
Electrical Termination	No. 18 AWG, 24" L., Polymeric Lead Wires

*** Switch Ratings**
Max. Resistive Load

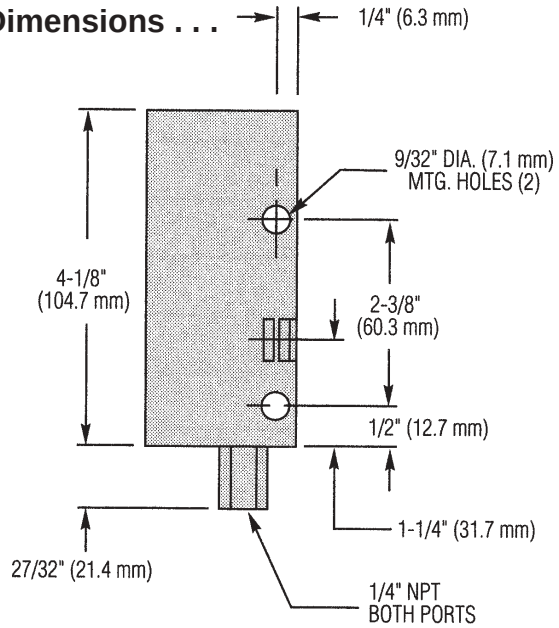
VA	Volts	Amps AC	Amps DC
20	0-30	.4	.3
	120	.17	.13
	240	.08	.06

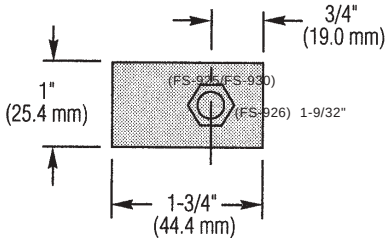
Typical Wiring Diagram



Pin Connections for
Units with MS Receptacle

Dimensions . . .

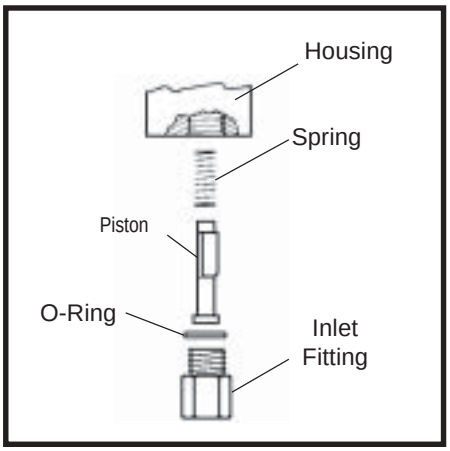




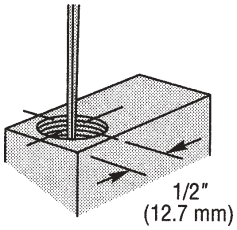
Maintenance . . .

Accumulation of foreign debris should periodically be removed from these switches. Occasional "wipe-down" cleaning when excessive contamination is present is all that is normally required. To clean: Remove unit from system and disassemble as shown below. Clean all parts, reassemble and reinstall unit.

Note: 50 micron filtration is recommended.



Electrical Connection (1/2" NPT Conduit)



MAINTENANCE/REPAIR...

Regular maintenance of the total system is recommended to assure sustained optimum performance. These devices are not field repairable and should be returned to the factory if recalibration or other service is required. After first obtaining a Returned Goods Authorization (RGA) number, send the unit freight prepaid to the following. Please include a clear description of the problem plus any application information available.

Dwyer Instruments, Inc.
Attn: Repair Department
102 Highway 212
Michigan City, IN 46360

Important Points!

Product must be maintained and installed in strict accordance with the National Electrical Code and Dwyer product catalog and instruction bulletin. Failure to observe this warning could result in serious injuries or damages.

For hazardous area applications involving such things as (but not limited to) ignitable mixtures, combustible dust and flammable materials, use an appropriate explosion-proof enclosure or intrinsically safe interface device.

The pressure and temperature limitations shown on the individual catalog pages and drawings for the specified flow switches must not be exceeded. These pressures and temperatures take into consideration possible system surge pressures/temperatures and their frequencies.

Selection of materials for compatibility with the media is critical to the life and operation of Dwyer products. Take care in the proper selection of materials of construction, particularly wetted materials.

Life expectancy of switch contacts varies with applications. Contact Dwyer if life cycle testing is required.

Ambient temperature changes do affect switch set points, since the specific gravity of a liquid can vary with temperature.

Dwyer Products have been designed to resist shock and vibration; however, shock and vibration should be minimized.

Filter liquid media containing particulate and/or debris to ensure the proper operation of our products.

Electrical entries and mounting points in an enclosed tank may require liquid/vapor sealing.

Dwyer Products must not be field-repaired.

Physical damage sustained by the product may render it unserviceable.