

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.

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Piston-Type Flow Switches

AFS Series

Installation . . .

Install AFS models in piping system using standard pipe fitting procedures. Be sure to keep thread sealing compound out of unit. Install so that flow is in proper direction (marked "IN" and "OUT" on housing). Use of 50 micron filtration is recommended.

Specifications . . .

Materials	Housing	Brass or 316 SS
	Piston (In Brass Housing)	Polysulfone for Water Brass for Oil or Air
	Piston (SS Housing)	316 SS
	Other Wetted Parts	316 SS, Viton, Epoxy
Liquid Flow Adjustable Range - Water		0.5 to 20 GPM
Pressure Ratings	Operating	1000 PSIG
	Proof	2500 PSIG
	Burst	5000 PSIG
Operating Temperatures	With SS or Brass Piston	-20° to +300°F (-29°C to +148.9°C)
	With Polysulfone Piston	-20° to +225°F (-29°C to +107.2°C)
Repeatability		1% Max. Deviation
Set Point Differential		15% Max.
Set Point Accuracy (Constant Temperature) Factory-Set (Standard)		±10% Max.
Air/Gas Flow Adj. Ranges: (Dep. on Oper. Line Pressure)	For 5 PSIG Line*: 1 to 75 SCFM (Approx.)	
	For 100 PSIG Line: 3 to 160 SCFM Approx.	
Switch (See Electrical Data, Below)		SPDT, 20 VA
Lead Wires		No. 18 AWG, 24" L., Polymeric

Note: Temperature changes will slightly affect water or gas flow settings.
Oil settings will vary with viscosity.

*Minimum line pressure for positive actuation.

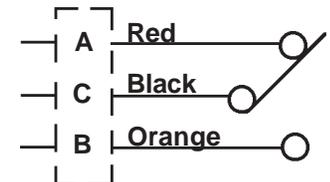
Electrical Data . . .

Switch Ratings - Max Resistive Load

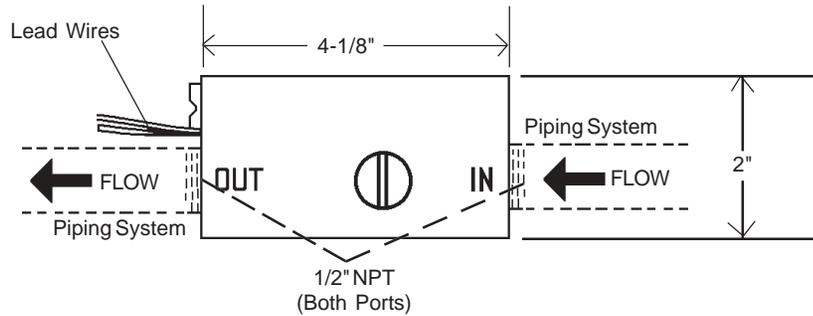
VA	Volts	Amps AC	Amps DC
20	0-30	.4	.3
	120	.17	.13
	240	.08	.06

Typical Wiring Diagram . . .

3-Pin Receptacle



Dimensional Data . . .

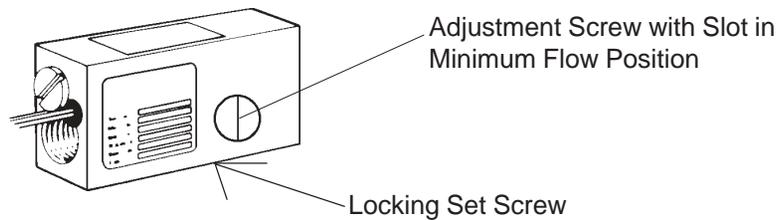


Unless otherwise specified, units are factory-calibrated in water for in-line installation; in horizontal position, as shown above.

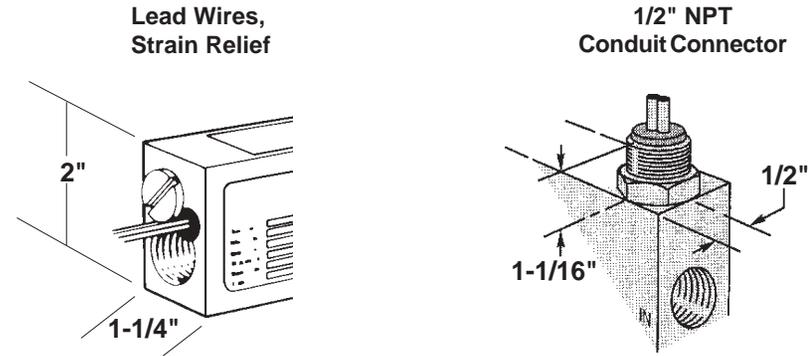
Flow Setting Adjustment...

Standard units are normally supplied with adjustment set at minimum flow - adjusting screw slot (and vane within unit) in vertical position, as shown below. Adjust unit on test stand or installed in system. With liquid (or gas) flow at desired rate, adjust unit until switch first actuates (opens or closes, as desired).

Note: Vane is locked at Factory with set screw and must be unlocked prior to any adjustment; then relocked after adjustment has been made.



Electrical Connection . . .



Maintenance . . .

Occasional cleaning when excessive contamination is present in the liquid is the only maintenance normally required. **To disassemble unit for cleaning:** With system shut down and no liquid in piping, remove piston plug from unit. Unit need not be removed from system.

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