FLOW SWITCH MODEL Q-1

Designed for extreme, long-term reliability.

Detects and signals flow change.

Continuously adjustable while in operation.

6 interchangeable orifices plus 2:1 continuous switch adjustment with each orifice.

Calibrated independent of line pressure and temperature.

Maintains calibration limits when subjected to reasonable line hydraulic hammer or surge pulses.

Super-simple maintenance and checkout for personnel using a standard test meter.

Model Q-1 can also be fitted with a SPDT gold cross-bar switch for computer/PLC interface.

DPDT model available per request.

CE NON-MAGNETIC

KEY FEATURES

Flow Range	**0.12–8 GPM (0.45– 30.4 L/m)**
Working Temp	**180˚F (82˚C) Maximum**
Working Pressure	**300 psig (2,068 kPa)**
Process Connection	**½" NPT**
Electrical Switch	**SPDT 15A or Dry Circuit**
Enclosure	**NEMA 4 / IP 66**

TYPICAL USES

Monitoring flow of coolants and fluids supplied to:

- Air Conditioning Systems
- Cooling in Data Centers
- Diodes, SCRs, Triacs, etc.
- High Power Transistors
- Fluid Blending Systems
- Plastic Molding Equipment
- Scrubbers
- Spot Welders
- Transformers
- Vacuum Systems

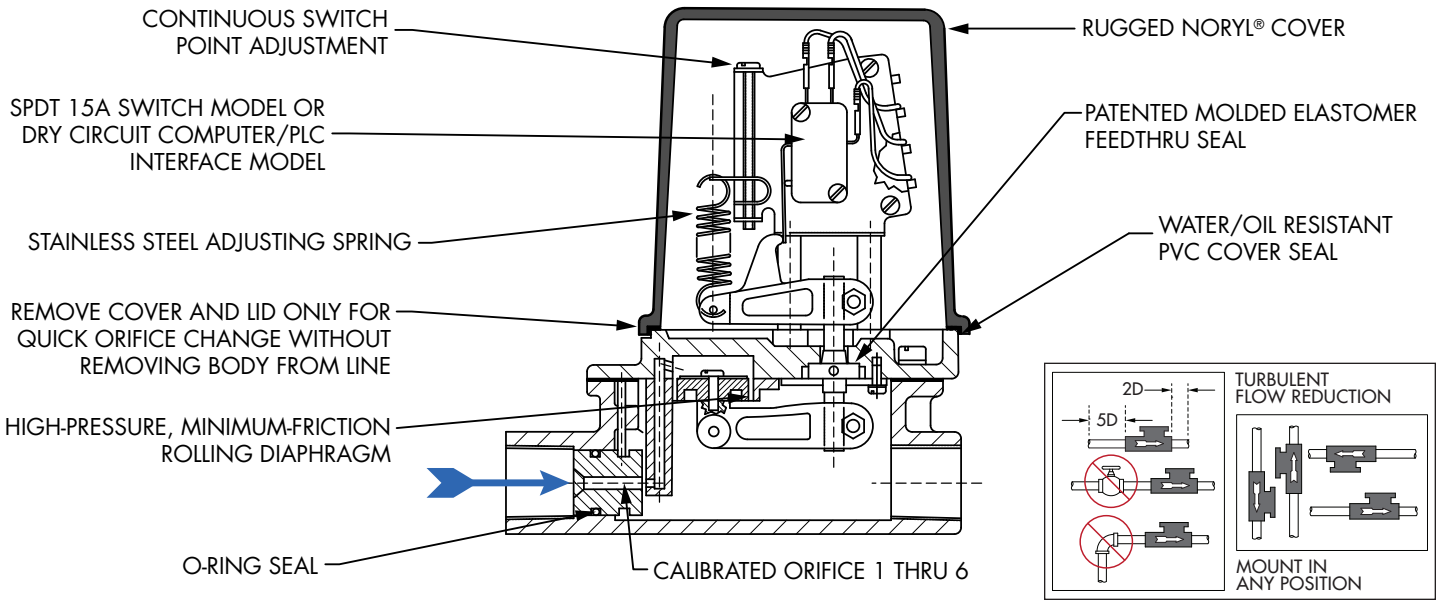
Other Uses:

- Starting Back-up Pumps
- Monitor Filter Clogging
- Oil Supply to Bearing & Gear Systems
- Metal Fabrication Systems

≋ TYPICAL WORKING FLUIDS

- Filtered Sewage Water
- Glycols
- Hydrocarbons
- Oils
- Potable Water

PRODUCT DIAGRAM



WEIGHT: 3.5 lb
1.59 kg

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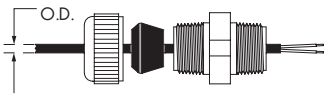
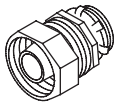
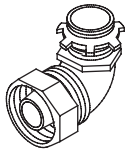
MODEL Q-1

MODEL SELECTION CHART	
Flow Range (Water calibrated at 70°F / 21°C) Accuracy ±10%	
ORIFICE #	**CONTINUOUS SWITCH POINT ADJUSTMENT RANGE**
1	0.12 to 0.25 GPM
2	0.25 to 0.50 GPM
3	0.50 to 1 GPM
4	1 to 2 GPM
5	2 to 4 GPM
6	4 to 8 GPM
Note: Maximum recommended flow rate for each orifice is four (4) times the upper-end of the adjustment range.	

ELECTRICAL CONNECTION		
GROMMET	**CABLE O.D.**	**DIAGRAM**
A	0.25″	
AA	0.30″	
B	0.37″	
C	0.50″	

CONDUIT FITTINGS					
F	0.5″ straight		F90°	0.5″ 90°	

SAMPLE PART NUMBERS							
OPTION 1:	**Q-1**	**/ 3**	**/ A**	**OPTION 2:**	**Q-1**	**/ 6**	**/ F**
BASE MODEL		↑	↑	BASE MODEL		↑	↑
ORIFICE				ORIFICE			
GROMMET SIZE				½" FLEXIBLE CONDUIT FITTING			

TECHNICAL SPECIFICATIONS

HYSTERESIS (Δ FLOW RATE TO ACTIVATE/DEACTIVATE SWITCH)

≈ 5% at upper end of flow range
≈ 25% at lower end of flow range

DIFFERENTIAL PRESSURE DROPS ACROSS UNIT

Under normal operating conditions:

≈ 1.0 psig at upper end of flow range
≈ 5.0 psig at lower end of flow range

WORKING LINE PRESSURE

300 psi max.

WORKING TEMPERATURE

180°F max.
(250°F model available)

WETTED MATERIALS

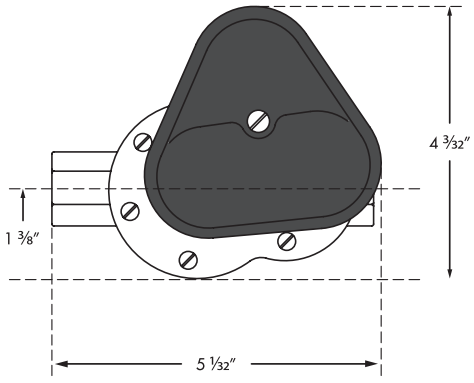
Body: Red brass
Hardware: Noryl® (PPO) (10% glass fibers), 316 stainless steel, Plastic
Working fluid "sees" red brass, 316 stainless steel, phosphor bronze, and EPDM elastomer seal
Gasket: Cork/Nitrile blend
Optional Seal: Hypalon, Viton® or FKM

ELECTRICAL SWITCH CHARACTERISTICS

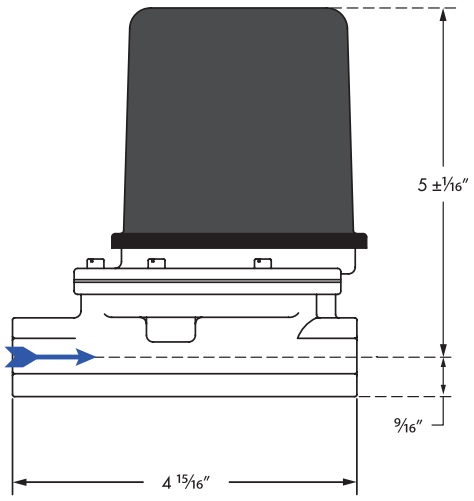
SPDT
15A, ½ hp @ 125 or 250VAC
½A @ 125VDC, ¼A @ 250VDC
5A @ 125VAC (tungsten lamp load)
10,000,000 operations, median
(Switch may be overloaded to 20A @ 125 or 250VAC for a minimum of 20,000 operations.)

INSTALLATION DIMENSIONS

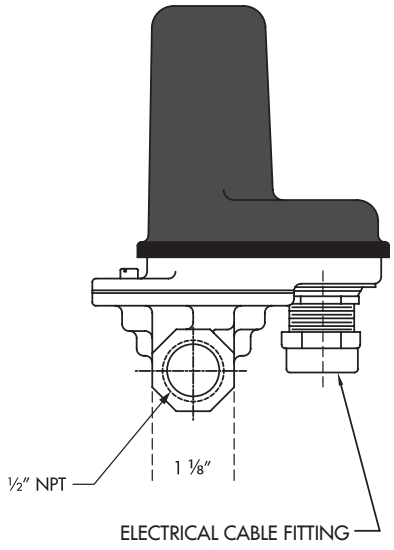
TOP VIEW



SIDE VIEW



FRONT VIEW



- Installation drawing and a numbered parts list is supplied with each unit.
- Special one-day delivery is available.