

# FLOW SWITCH

# MODEL Q-5 Q-5SS



Designed for extreme, long-term reliability.

Detects and signals flow change.

Continuously adjustable while in operation.

For use in particle contaminated fluids.

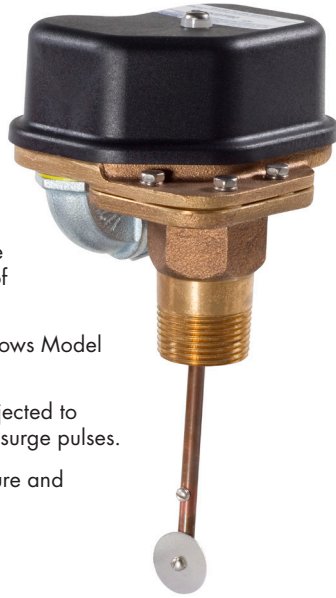
Multiple quick change paddles (and continuous spring adjustment) provide an incredibly wide operating range of flow rates and viscosities.

Use with an intrinsically safe relay allows Model Q-5 to be used in hazardous areas.

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

Calibrated independent of line pressure and temperature.

DPDT model available per request.



## KEY FEATURES

Flow Range	<b>5-102,000+ GPM (18.9-386.1 kL/m)</b>
Working Temp	<b>180°F (82°C) Maximum</b>
Working Pressure	<b>300 psig (2,068 kPa)</b>
Process Connection	<b>1" NPT</b>
Electrical Switch	<b>SPDT 15A or Dry Circuit</b>
Enclosure	<b>NEMA 4 / IP 66</b>

## TYPICAL USES

Monitoring flow of coolants and fluids supplied to:

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

Other Uses:

Fire Sprinkler Flow Alarms	Municipal Water Supply Systems
	Oil Supply to Bearing & Gear Systems

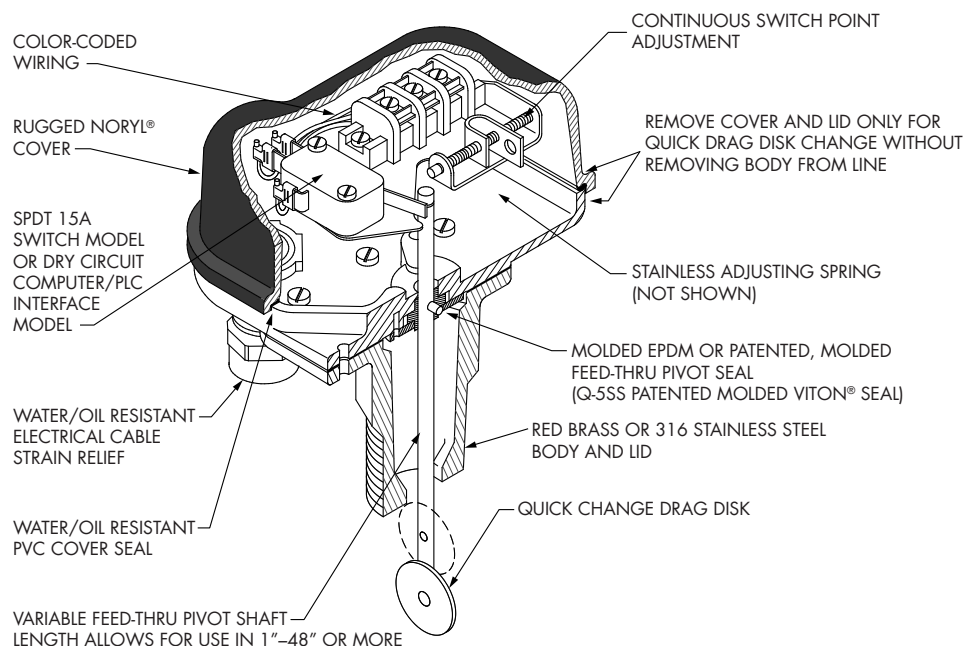
## TYPICAL WORKING FLUIDS

Filtered Sewage Water	Glycols
Hydrocarbons	Potable Water

## SAMPLE PART NUMBERS

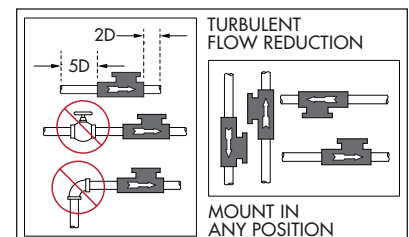
OPTION 1: Q-5	/ 3	/ 2	/ B	OPTION 2: Q-5	/ 3	/ 2	/ F
BASE MODEL	↑	↑	↑	BASE MODEL	↑	↑	↑
PIVOT SHAFT				PIVOT SHAFT			
PADDLE #				PADDLE #			
GROMMET SIZE				½" FLEXIBLE CONDUIT FITTING			

## PRODUCT DIAGRAM



## PADDLE (PADDLE/STRIP) NUMBER

NO. 1: 0.5" DIA ALL PIPE SIZES	NO. 2: 0.9" DIA ALL PIPE SIZES
NO. 3: 0.94 x 1.4" 1½" PIPES AND LARGER	
NO. 4: 0.9" x 2.0" 2" PIPES AND LARGER	
NO. 5: 0.9" x 4.0" 5" PIPES AND LARGER	
NO. 6: 0.9" x 6.0" 6" PIPES AND LARGER	



**WEIGHT: 3.5 lb.  
1.59 kg**



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# MODEL Q-5 Q-5SS

## MODEL SELECTION CHART

Flow Range (Water calibrated at 70°F / 21°C) Accuracy ±10%

PIPE SIZE NPT	CONTINUOUS SWITCH POINT ADJUSTMENT RANGE (GPM)		PIVOT SHAFT #	PADDLE #
	Red Brass	316 Stainless Steel		
1"	5 to 15	10 to 20	2	2
	12 to 36	20 to 60	2	1
1½"	7 to 21	14 to 42	3	3
	10 to 30	20 to 60	3	2
	20 to 75	30 to 90	3	1
2"	14 to 42	21 to 63	3	4
	20 to 60	30 to 90	3	2
	50 to 150	60 to 180	3	1
3"	27 to 81	45 to 135	5	4
	45 to 135	75 to 225	5	2
	110 to 330	130 to 390	5	1
6"	65 to 195	103 to 309	5	6
	80 to 240	125 to 375	5	5
	190 to 570	300 to 900	5	2
	450 to 1,350	550 to 1,650	5	1

Call our customer support for a wider range of pipe sizes. (805) 988-6800

## 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°	

## TECHNICAL SPECIFICATIONS

### HYSTERESIS (Δ FLOW RATE TO ACTIVATE/DEACTIVATE SWITCH)

- ≈ 10% at upper end of flow range
- ≈ 30% at lower end of flow range

### DIFFERENTIAL PRESSURE DROPS ACROSS UNIT

- Under normal operating conditions:
- ≈ 1"-3" pipe, less than 1 psi
  - ≈ 4"-48" pipe, negligible

### WORKING LINE PRESSURE:

300 psig max. @ 180°F max (Proof tested to 1200 psig @ 70°F)

### WORKING TEMPERATURE:

180°F max. continuous.

### ELECTRICAL SWITCH CHARACTERISTICS

SPDT 10,000,000 Operations Median  
 15A, ½ hp @ 125 or 250VAC Switch may be overloaded to 20A  
 ½A @ 125VDC, ¼A @ 250VDC @ 125 or 250VAC (min 20,000  
 5A @ 125VAC (W lamp load) operations.)

### Q-5N: WETTED MATERIALS:

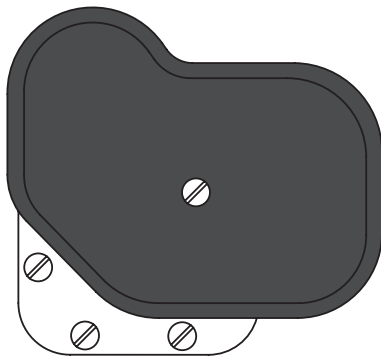
Body and Lid: Brass  
 Hardware: Noryl® (PPO) (10% glass fibers), 316 stainless steel  
 Working fluid "sees" red brass, phosphor bronze and EPDM  
 elastomer seal  
 Gasket: Cork/Nitrile blend *Optional Seal: Hypalon, Viton® or FKM*

### Q-5SS: WETTED MATERIALS:

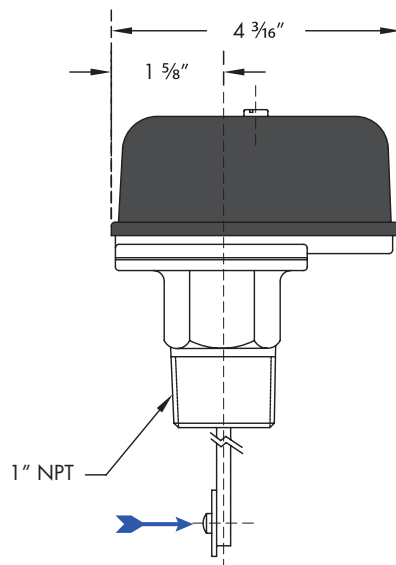
Body and Lid: 316 Stainless steel. Hardware: Noryl® (PPO) (10%  
 glass fibers), 316 stainless steel  
 Working fluid "sees" 316 stainless, Teflon® or PTFE gasket and  
 Viton® or FKM elastomer seal.

## INSTALLATION DIMENSIONS

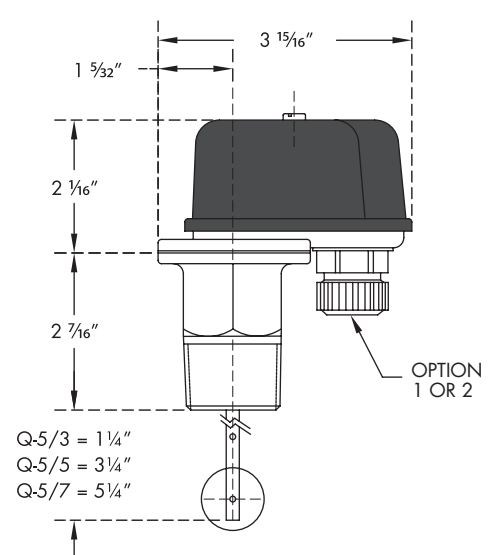
TOP VIEW



SIDE VIEW



FRONT VIEW



Model Q-5 can also be fitted with a SPDT Gold Cross Bar Switch for computer/PLC interface.

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