

# FLUID FLOW SWITCH

## Tycona Fortron® (PPS) Polyphenylene Sulfide

During normal operations flow switches increase efficiency, save time and money by the continuous monitoring of deviations from optimum flow rates. During emergency conditions flow switches signal system malfunctions such as line breakage, pump failure, incorrect valve opening or closing, pipe, valve or filter clogging, etc.

### For use in highly particle-contaminated liquids such as:

- Contaminated Groundwater
- Machine Cutting Oils
- Medium Slurries
- Rusty Coolant Water
- Sea Water
- Sewage
- Waste Water

### Special Features

- Particle contamination resistance is provided by a single convolute elastomeric seal which is continually flushed by working fluid flow.
- Wetted surfaces of Fortron® PPS, Hastelloy® C, (Titanium, Tantalum, Special Order) and Viton®.
- Continuous adjustment while operating
- Responds to flow only, independent of line pressure, temperature, environment
- Temperature to 200°F continuous
- Line pressure to 50 psig operating; 100 psig non-operating
- SPDT 15 amp switching capacity model or Dry Circuit
- Computer/PLC Interface model
- Fortron® (PPS) test strips available for chemical environment testing.
- Extensive Chemical Corrosive List Available.
- Maximum flow range flexibility is provided by three adjustment options:
  - Option 1 - Continuous adjustment while operating via FORCE/BALANCE spring
  - Option 2 - Step incremental adjustment via drag disk size change
  - Option 3 - Continuous adjustment via drag disk moment arm change

# Model Q-8CR

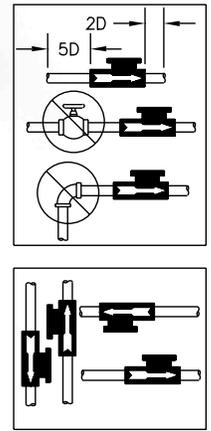
8 to 1900 GPM & Up  
for pipes 1" - 10" & Up

COMPONENT RECOGNIZED /c  (E85349)

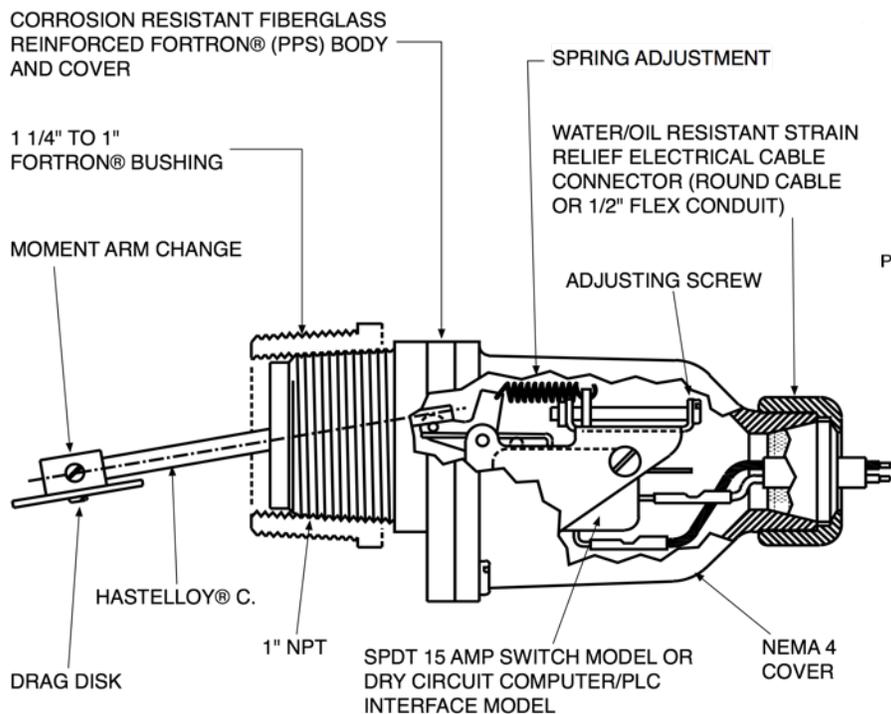
*Reliable, Inexpensive*



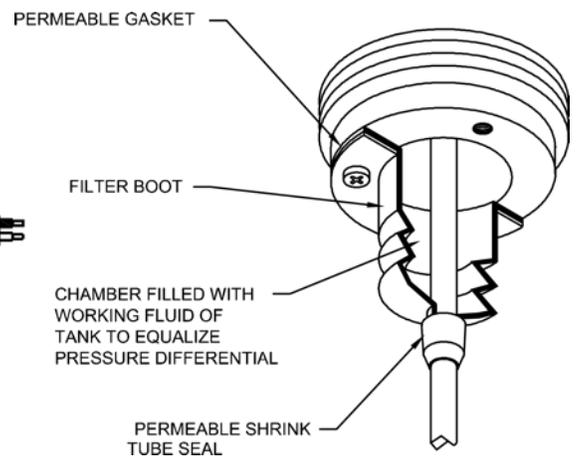
### TURBULENT FLOW REDUCTION



**MOUNT IN ANY POSITION**



**Available with Optional Filter Boot For Use In Highly Particle Contaminated Liquids**



Limited Warranty Page 7

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# Flow Range Water Calibrated @ 70°F

## Model Selection Chart

Pipe Size	Flow Limits Between Which Switch Point May Be Set GPM	Model Part Number (Power Cable Interface Option 1 or 2)
1	8-13	Q-8CR / 1 / 2 / ---
	18-28	Q-8CR / 1 / 1 / ---
1 1/2	15-30	Q-8CR / 2 / 3 / ---
	25-50	Q-8CR / 2 / 1 / ---
2	25-50	Q-8CR / 2 / 3 / ---
	50-105	Q-8CR / 2 / 1 / ---
2 1/2	35-80	Q-8CR / 2 / 3 / ---
	80-155	Q-8CR / 2 / 1 / ---
3	50-90	Q-8CR / 3 / 3 / ---
	90-180	Q-8CR / 3 / 1 / ---
4	75-155	Q-8CR / 3 / 3 / ---
	155-310	Q-8CR / 3 / 1 / ---
5	120-245	Q-8CR / 3 / 3 / ---
	245-480	Q-8CR / 3 / 1 / ---
6	180-350	Q-8CR / 3 / 3 / ---
	350-700	Q-8CR / 3 / 1 / ---
8	300-600	Q-8CR / 3 / 3 / ---
	600-1200	Q-8CR / 3 / 1 / ---
10	500-950	Q-8CR / 3 / 3 / ---
	950-1900	Q-8CR / 3 / 1 / ---

LARGE PIPE SIZE INFORMATION AVAILABLE BY REQUEST.

### A Four Part Model # Completely Defines Each Unit

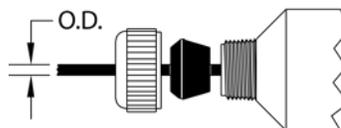
Basic Model #	Drag Disk Arm Length (See X)	Drag Disk Size	Input Power Cable Interface Option
Q-8CR	1 or 2 or 3	1 or 2 or 3	1 or 2
	1=1.15"	1=0.5" dia.	SEE BELOW
	2=1.85"	2=0.83" dia.	
	3=3.31"	3=1.0" dia.	
Q-8CR	/	/	/

### Input Power Cable Interface Options

#### Option No. 1

### Q-8CR / 1 / 1 / B

basic model # & body material
drag disk arm length
drag disk size
grommet size

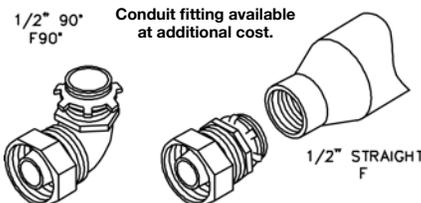


Grommet Size	Cable OD	Grommet Size	Cable OD
A	0.25"	B	0.37"
AA	0.30"	C	0.50"

#### Option No. 2

### Q-8CR / 1 / 1 / F

basic model # & body material
drag disk arm length
drag disk size
1/2" NPT Female Thread



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# Model Q-8CR

### Hysteresis (% Flow Change to Activate/Deactivate Switch)

- ≈ 10% @ upper end of range
- ≈ 30% @ lower end of range

### Differential pressure drops across unit (Normal Operating Conditions)

- 1" - 3" pipe - less than 0.5 psi
- 4" - 10" pipe - negligible

### Working Line Pressure

- 50 psig max. @ 200°F Max operating
- 100 psig @ 200°F Max non-operating

### Wetted Surfaces

- Fortron®, Hastelloy® C, and Viton®

### Electrical Switch Characteristics

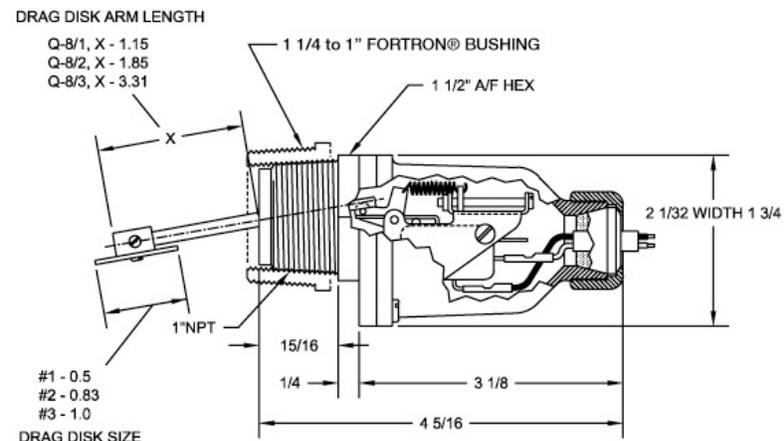
SPDT UL and CSA listed  
 15 amp, 1/2 HP @ 125 or 250 VAC  
 1/2 amp @ 125 VDC, 1/4 amp @ 250VDC  
 5 amp @ 125 VDC (Tungsten lamp load)  
 10,000,000 operations median

Model Q-8CR can also be fitted with a SPDT Gold Cross Bar Switch for computer/PLC interface.

Maximum Continuous Temperature: 200°F

Optional Filter Boot Available in EPDM, (Viton® Special Order)

Weight: 1/2 lb.



- Installation drawing and a numbered parts list is supplied with each unit.
- Current Price Information is Listed on Separate Sheet.
- Special One Day Delivery Available.