

# FLOW SWITCH ADJUSTABLE

# MODEL Q-8N Q-8CR



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.

**Designed for long-term reliability and chemical resistance.**

Detects and signals flow change.

Particle contamination resistance is provided by a single convolute elastomeric seal which is continually flushed by working fluid flow.

**Continuously adjustable while in operation.**

Responds to flow only, independent of line pressure, temperature, environment

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

## KEY FEATURES

Flow Range	<b>8-1,900+ GPM (30-7,192 L/m)</b>
Working Temp	<b>200°F (93°C) Maximum</b>
Working Pressure	<b>50 psig (344 kPa) @ 180°F (N)</b> <b>50 psig (344 kPa) @ 200°F (CR)</b>
Process Connection	<b>1" NPT</b>
Electrical Switch	<b>SPDT, ½hp 15A or Dry Circuit</b>
Enclosure	<b>NEMA 6P / IP 67</b>

## TYPICAL USES

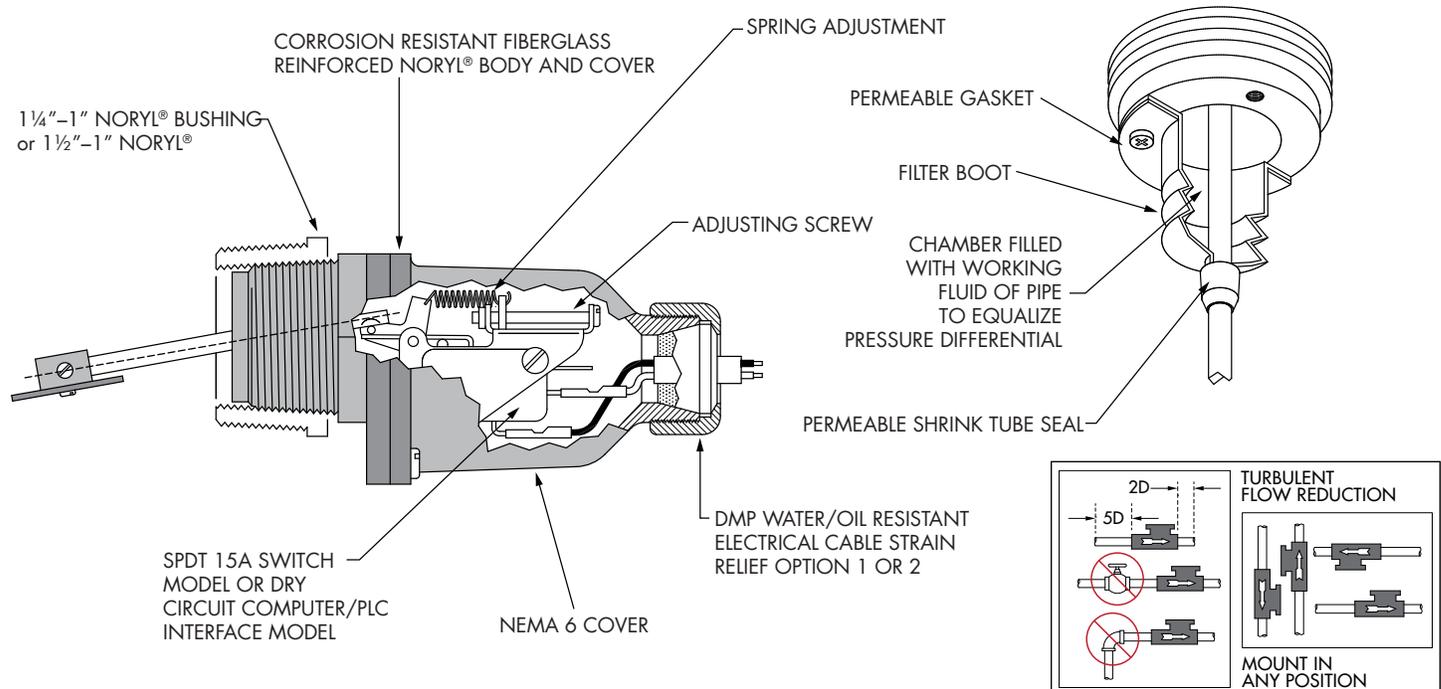
Monitoring fluid flow in:

Air Conditioning Systems	Industrial Refrigeration Systems
Cooling in Data Centers	Pools and Spas
Chillers	Scrubbers
Fluid Blending Systems	Water Treatment Systems
Natural Gas	

## TYPICAL WORKING FLUIDS

Filtered Sewage Water	Contaminated Ground Water
Mild Acids	Sulfolane
Rusty Coolant Water	Sea Water
Waste Water	Pool Water (low ppm Chlorine)

## PRODUCT DIAGRAM



**WEIGHT: 0.5 lb.**  
**0.23 kg**



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v8.01

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# MODEL Q-8N Q-8CR

## MODEL SELECTION CHART

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

PIPE SIZE	CONTINUOUS SWITCH POINT ADJUSTMENT RANGE	SHAFT LENGTH	PADDLE SIZE
1"	12 to 20 GPM	1	2
	24 to 34 GPM	1	1
1½"	16 to 28 GPM	2	3
	25 to 37 GPM	2	2
2"	38 to 70 GPM	2	1
	30 to 50 GPM	2	3
	44 to 65 GPM	2	2
3"	67 to 90 GPM	2	1
	45 to 140 GPM	3	3
	100 to 145 GPM	3	2
4"	152 to 200 GPM	3	1
	80 to 170 GPM	3	3
	175 to 240 GPM	3	2
	160 to 290 GPM	3	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 (AVAILABLE AT EXTRA COST)

F(STR) - 0.5" straight		F90° - (0.5" 90°)	
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## SAMPLE PART NUMBERS

OPTION 1: Q-8N	/ 1	/ 2	/ B	OPTION 2: Q-8N	/ 2	/ 3	/ F
BASE MODEL				BASE MODEL			
SHAFT LENGTH				SHAFT LENGTH			
PADDLE SIZE				PADDLE SIZE			
GROMMET SIZE							½" FIPT

## 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 0.5 psi
- ≈ 4"-10" pipe, negligible

### WORKING LINE PRESSURE:

50 psi max., operating @ 180°F  
100 psi max. non-operating @ 180°F  
Pressure over 50 psi can affect the switch point range

### ELECTRICAL SWITCH CHARACTERISTICS

SPDT  
10,000,000 Operations Median  
15A, ½ hp @ 125 or 250VAC  
½A @ 125VDC

(tungsten lamp load)

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

### Q-8N (NORYL®)

**WORKING TEMPERATURE:** 180°F @ ambient pressure  
**WETTED MATERIALS:** Body and Bushing: Noryl® (PPO) (10% glass fibers); Shaft: 316 stainless steel and EPDM Elastomer Seal  
Optional Filter Boot: EPDM (Viton® available by special order)

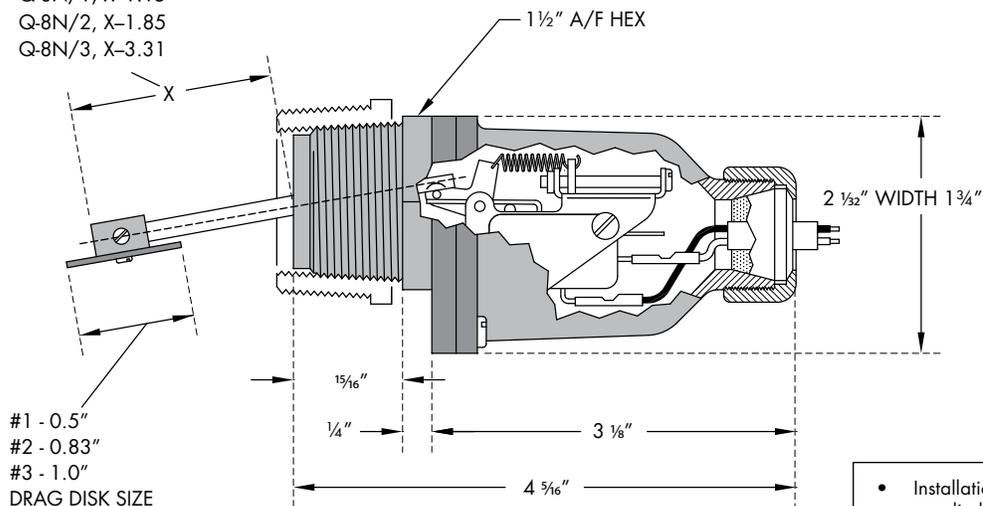
### Q-8CR (FORTRON®)

**WORKING TEMPERATURE:** 200°F max. continuous  
**WETTED MATERIALS:** Body and bushing: Fortron® (PPS) (40% glass fibers); Shaft: HASTELLOY® C and Viton® Elastomer Seal  
Optional Filter Boot: Viton® (EPDM available by special order)

## INSTALLATION DIMENSIONS

### DRAG DISK ARM LENGTH

- Q-8N/1, X-1.15
- Q-8N/2, X-1.85
- Q-8N/3, X-3.31



- #1 - 0.5"
  - #2 - 0.83"
  - #3 - 1.0"
- DRAG DISK SIZE

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