

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 | 8-1,900+ GPM (30-7,192 L/m) |
| Working Temp | 200°F (93°C) Maximum |
| Working Pressure | 50 psig (690 kPa) @ 180°F (N) 50 psig (690 kPa) @ 200°F (CR) |
| Process Connection | 1" NPT |
| Electrical Switch | SPDT, ½hp 15A or Dry Circuit |
| Enclosure | NEMA 6P / IP 67 |

TYPICAL USES

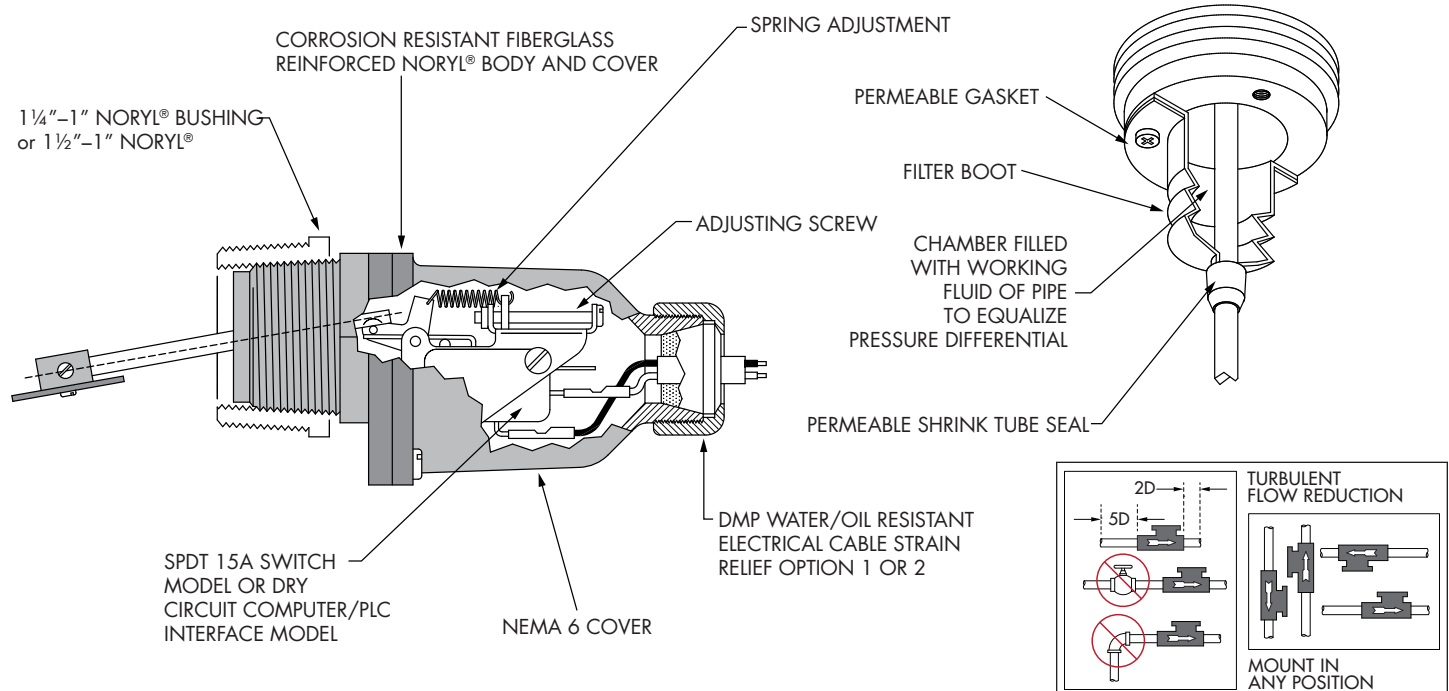
Monitoring fluid flow in:

| | |
|--------------------------|----------------------------------|
| 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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MODEL Q-8N Q-8CR

MODEL SELECTION CHART

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

| PIPE SIZE NPT | 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 |
| | 38 to 70 GPM | 2 | 1 |
| 2" | 30 to 50 GPM | 2 | 3 |
| | 44 to 65 GPM | 2 | 2 |
| | 67 to 90 GPM | 2 | 1 |
| 3" | 45 to 140 GPM | 3 | 3 |
| | 100 to 145 GPM | 3 | 2 |
| | 152 to 200 GPM | 3 | 1 |
| 4" | 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 | 0.5" straight | | F90° | 0.5" 90° | |
|---|---------------|--|------|----------|--|
| | | | | | |

SAMPLE PART NUMBERS

| OPTION 1: Q-8N | / 1 | / 1 | / B | OPTION 2: Q-8N | / 1 | / 1 | / F |
|----------------|-----|-----|-----|-----------------------------|-----|-----|-----|
| BASE MODEL | ↑ | ↑ | ↑ | BASE MODEL | ↑ | ↑ | ↑ |
| SHAFT LENGTH | | | | SHAFT LENGTH | | | |
| PADDLE SIZE | | | | PADDLE SIZE | | | |
| GROMMET SIZE | | | | ½" FLEXIBLE CONDUIT FITTING | | | |

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, Cover, and Bushing: Noryl® (PPO) (10% glass fibers)
- Shaft: 316 stainless steel
- Elastomer Seal: EPDM
- Optional Filter Boot: EPDM (Viton® available by special order)

Q-8CR (FORTRON®)

WORKING TEMPERATURE: 200°F max. continuous

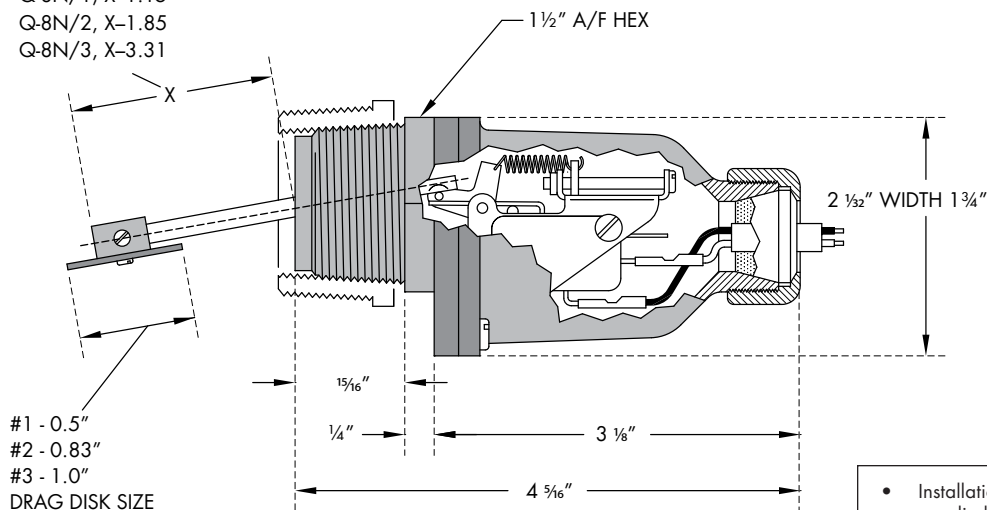
WETTED MATERIALS:

- Body and Cover: Fortron® (PPS) (40% glass fibers)
- Shaft: HASTELLOY® C
- Elastomer Seal: EPDM
- Optional Filter Boot: EPDM (Viton® or FKM 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



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