

FLOW SWITCH

MODEL Q-8DS QD-8DS DPDT



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.

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	5 - 80 GPM (18-302 L/m)
Working Temp	180°F (82°C) Maximum
Working Pressure	50 psig @ 180°F (466°F kPa)
Process Connection	1" NPT
Electrical Switch	SPDT, DPDT, ½hp 15A or Dry Circuit
Enclosure	NEMA 6P / IP 67

TYPICAL USES

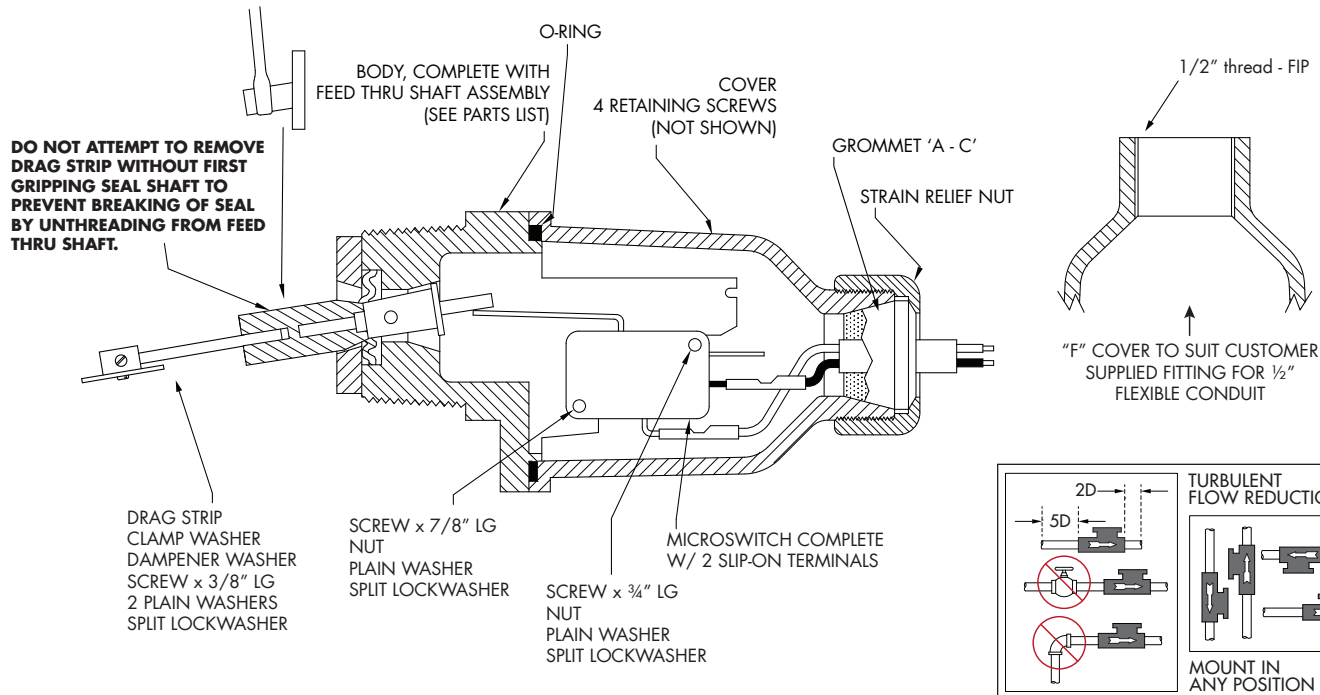
Monitoring fluid flow in:

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)
Potable Water	RO Water

PRODUCT DIAGRAM



**WEIGHT: 0.5 lb.
0.23 kg**



541 Kinetic Drive
Oxnard, CA 93030
www.harwil.com
17.169

Phone: (805) 988-6800
Fax: (805) 988-6804
Email: harwil@harwil.com

MODEL Q-8DS QD-8DS DPDT

MODEL SELECTION CHART			
Flow Range (Water calibrated at 70°F / 21°C) Accuracy ±10%			
PIPE SIZE NPT	NOMINAL ON/OFF SWITCH POINT RANGE (GPM)	SHAFT LENGTH	PADDLE NUMBER
1"	5.0 - 3.0	-	10512
	9.6 - 7.5	1	2
	18.0 - 15.4	1	1
1 1/2"	12.0 - 9.5	-	10502
	14.2 - 11.8	2	3
	19.0 - 13.5	-	10570A
	22.5 - 19.0	2	2
	34.4 - 30.4	2	1
2"	19 - 12	-	10593
	25.8 - 21.8	2	3
	39.8 - 33.6	2	2
	58.0 - 50.8	2	1
3"	42.4 - 37.0	3	3
	55.6 - 49.8	3	2
	80.6 - 65.2	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°	

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, DPDT 10,000,000 Operations Median
15A, 1/2 hp @ 125 or 250VAC
1/2A @ 125VDC
(tungsten lamp load)

Model Q-8DS can also be fitted with a SPDT Gold Cross Bar Switch for computer/PLC interface or 25A micro switch.

Q-8DS (NORYL®)

WORKING TEMPERATURE: 180°F @ ambient pressure

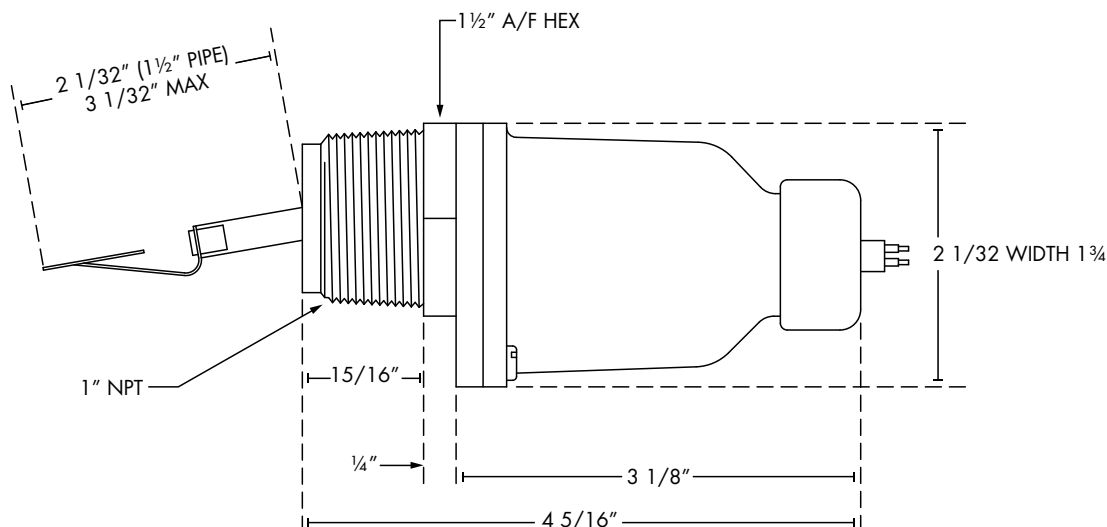
WETTED MATERIALS:

Body, Cover, and Bushing: Noryl® (PPO) (10% glass fibers)
Shaft: 316 stainless steel
Elastomer Seal: Viton®

SAMPLE PART NUMBERS

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

INSTALLATION DIMENSIONS



- Installation drawing and a numbered parts list is supplied with each unit.