

FS-380 Series – Compact Flow Switch for High Inline Pressures

Flow Rate Settings: 0.15 GPM to 2.00 GPM

Port Size: Multiple

Primary Construction Material: Brass or Stainless Steel

Setting Type: Fixed

These rugged inline flow switches require 100 micron filtration and are less susceptible to clogging than other high-pressure inline flow switches. The one-piece magnetic PPS composite piston makes the FS-380 ideal for high-pressure applications such as industrial cleaning equipment. The FS-380 is also an excellent choice for semicon cooling applications where simple design and reliable operation are required.

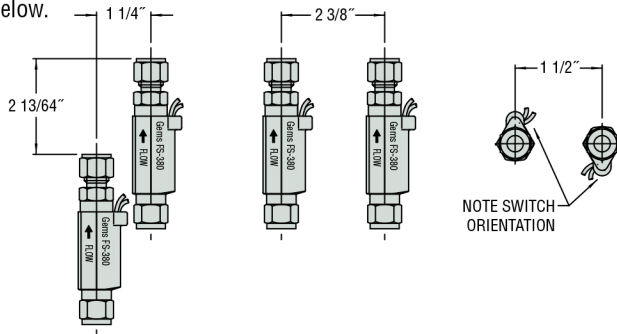
Specifications

Wetted Materials	
Housing	Brass or 316 Stainless Steel
Piston	PPS Composite, Epoxy
Spring	316 Stainless Steel
O-Ring	Fluorocarbon
Operating Pressure, Maximum	1500 PSI (107 bar); 500 PSI (34 bar) for 1/2" Barb Models
Operating Temperature	-20°F to +275°F (-28.8°C to +135°C)
Set Point Accuracy	±20% Maximum
Set Point Differential	20% Maximum
Switch*	SPST, 20VA, N.O. at no flow
Electrical Termination	No. 22 AWG, 24" to 26" Polymeric leads

*See "Electrical Data" on Page X-5 for more information.

Spacing

To prevent sensor to sensor magnetic field interference, follow the spacing guidelines below.



How To Order – Standard Models

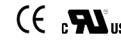
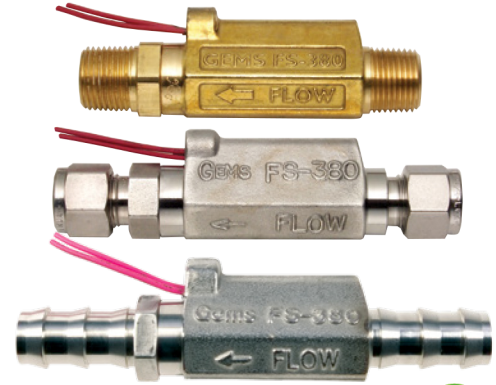
Specify Part Number based on flow settings.

Flow Settings GPM ¹	Brass		Stainless Steel		
	1/2" NPT Male	3/8" NPT Male	3/8" NPT Male	3/8" Compression	1/2" Barb
0.15	—	181130 ⚡	193482 ⚡	212136	239693
0.25	192562 ⚡	168432 ⚡	179992 ⚡	177592 ⚡	239692
0.50	192563	168433 ⚡	179993 ⚡	177593	239691
1.00	192564 ⚡	168434 ⚡	179994 ⚡	177594 ⚡	239690
1.50	192566	168435	179995 ⚡	177595 ⚡	239689
2.00	192567	178353 ⚡	179996	225525	239688

⚡ – Stock Items.

Note:

- Flow settings are calibrated using water @ 70°F on increasing flow with units in horizontal position. Consult factory for other fluid compatibility.

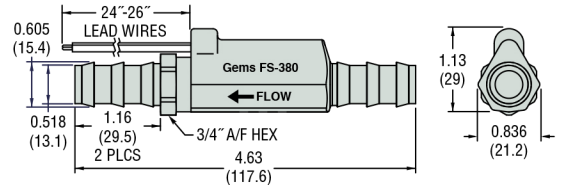


U.L. Recognized
File No. E31926

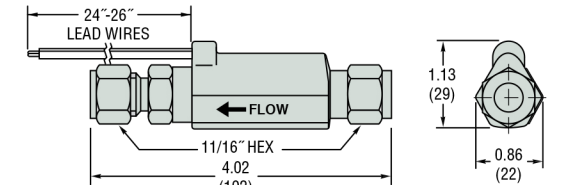


Dimensions

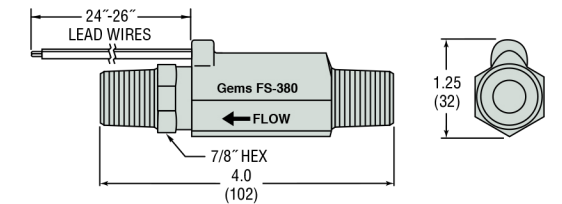
1/2" Hose Barb Fitting



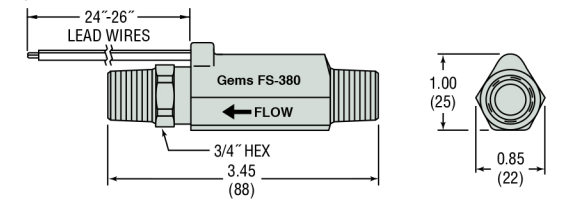
3/8" Tube End Compression Fitting



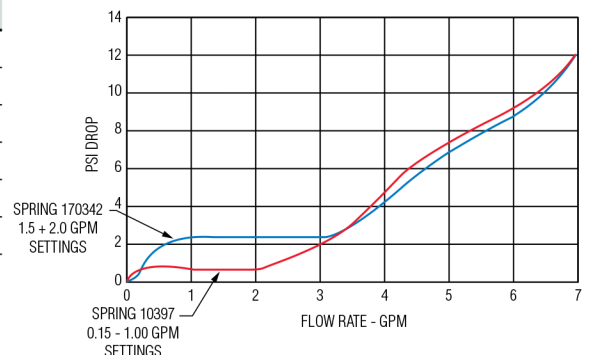
1/2" NPT Ports



3/8" NPT Ports



Pressure Drop – Typical



FS-380B Series – Compact Flow Switch 1/4" with Tube Fitting

Flow Rate Settings: 0.25 GPM to 2.00 GPM

Port Size: 1/2" NPT with 1/4" Tube Fitting

Primary Construction Material: Brass

Setting Type: Fixed

These rugged inline flow switches feature unique dual connection ports that provide 1/2" NPT and 1/4" tub fittings. They require 100 micron filtration and are less susceptible to clogging than other inline flow switches. The FS-380B is an excellent choice for semicon cooling applications where simple design and reliable operation are required.

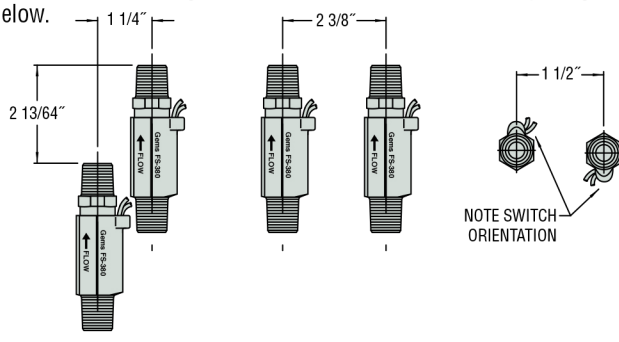
Specifications

Wetted Materials	
Housing	Brass
Piston	PPS Composite, Epoxy
Spring	316 Stainless Steel
O-Ring	Fluorocarbon
Cartridge O-Ring	EPDM
Cartridge Collet	Polypropylene
Operating Pressure, Maximum	150 PSI (10 bar)
Operating Temperature	-20°F to +275°F (-28.8°C to +135°C)
Set Point Accuracy	±20% Maximum
Set Point Differential	20% Maximum
Switch*	SPST, 20VA, N.O. at no Flow
Electrical Termination	No. 22 AWG, 24" to 26" Polymeric leads

*See "Electrical Data" on Page X-5 for more information.

Spacing

To prevent sensor to sensor magnetic field interference, follow the spacing guidelines below.



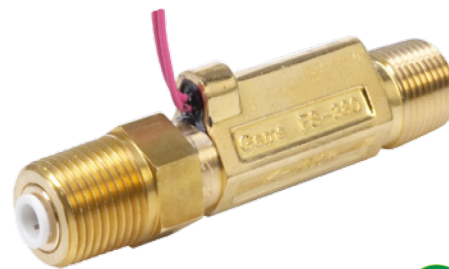
How To Order – Standard Models

Specify Part Number based on flow settings.

Flow Settings GPM ¹	Brass
	1/2" NPT Male with 1/4" Tube Fitting
0.25	248933
0.50	248934
1.00	248935
1.50	248936
2.00	248937

Note:

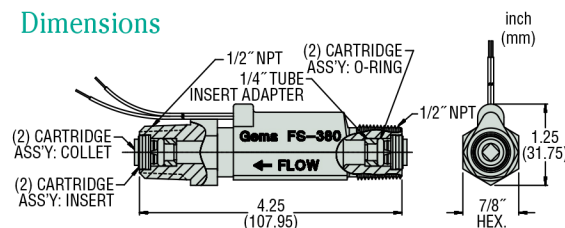
- Flow settings are calibrated using water @ 70°F on increasing flow with units in horizontal position. Consult factory for other fluid compatibility.



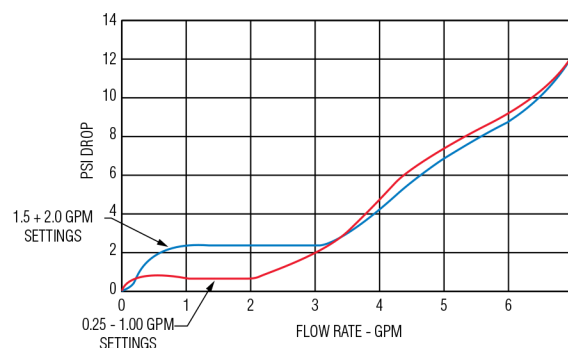
U.L. Recognized
File No. E31926



Dimensions



Pressure Drop – Typical



FS-380P Series – Industrial Strength Inline Plastic Flow Switch

Flow Rate Settings: 0.07 GPM to 2.00 GPM

Port Size: 3/8" NPT Male and 1/4" Quick Disconnect (QDC) Male

Primary Construction Material: Polypropylene

Setting Type: Fixed

This rugged inline flow switch offers the same superior performance to non-clogging as its metal cousin (FS-380). The fixed set point and simple design make it a dependable switch. The FS-380P is an ideal choice for coolant applications requiring reliable flow detection in HVAC, semiconductor, welding, medical and other industries. 1/4" quick disconnect units have a host of snap-on mating adapters to fit most piping requirements.

Specifications

Wetted Materials	
Housing	Glass Reinforced Polypropylene
Piston	PPS Composite
Spring	316 Stainless Steel
O-Ring	Fluorocarbon
Operating Pressure	125 PSI (8.6 bar) @ 70°F (21°C), 50 PSI (3.4 bar) @ 212°F (100°C)
Operating Temperature	0°F to 212°F (-18°C to +100°C)
Set Point Accuracy	20% of Set Point
Set Point Differential	20% Maximum
Switch*	SPST, 10VA, N.O. at no Flow
Electrical Termination	24" to 26" Polymeric Leads, 22 AWG
Filtration	100 Micron
Approvals	CUL, RoHS

* See "Electrical Data" on Page X-5 for more information.

How To Order

Specify Part Number based on flow settings. Adapters for the 1/4" Quick Disconnect (QDC) Male unit are listed in the table at right.

Flow Settings GPM	Part Numbers	
	3/8" NPT Male	1/4" QDC Male*
0.07	216445** ⚡	216446** ⚡
0.15	209876 ⚡	203206
0.25	197081 ⚡	197091 ⚡
0.50	197082 ⚡	197092
1.00	197083 ⚡	197093
1.50	197084 ⚡	197094 ⚡
2.00	197085 ⚡	197095

* See selection of adapters at right.

QDC = Quick Disconnect

** Set point accuracy 0.06 to 0.1 GPM

⚡ – Stock Items.



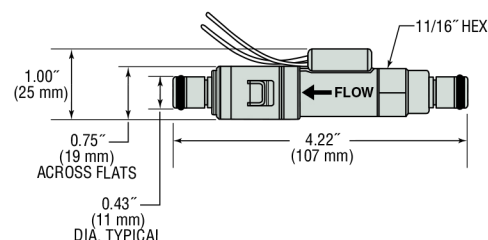
CE cULus File No. E31926



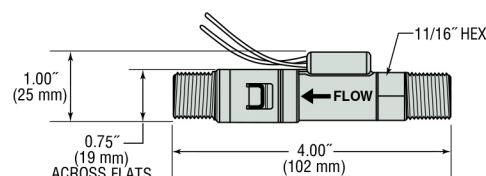
Dimensions

1/4" Quick Disconnect Male Adapter

See table at bottom right for adapter Part Numbers.



3/8" NPT Port



Acetal Adapters for 1/4" Quick Disconnect Male Tube Fitting Units (180°F max.)

These adapters are available with or without an integral shut-off valve. The shut-off valve will stop line flow when the adapter is removed from the unit. Flow resumes when connected.



Typical shown: 1/4" NPT Male
Pipe Thread with Shut-off Valve

Description	Part Numbers	
	Straight Through	with Shut-Off Valve
1/4" NPT Male Pipe Thread	195787 ⚡	198063
1/4" BSPT Male Pipe Thread	198064 ⚡	195788
3/8" NPT Male Pipe Thread	198065 ⚡	198066
3/8" BSPT Male Pipe Thread	198067	198068
1/4" O.D., .27" I.D. (6 mm O.D., 4.3 mm I.D.) Polytube	198096 ⚡	198097
3/8" O.D., 1/4" I.D. (9.5 mm O.D., 6 mm I.D.) Polytube	198099	198098
1/4" (6.4 mm) I.D. Barb	198401 ⚡	198402
5/16" (7.9 mm) I.D. Barb	198403 ⚡	198404
3/8" (9.5 mm) I.D. Barb	198408 ⚡	198405
1/4" O.D. (6.4 mm) O.D. JG®	198470 ⚡	198406
3/8" O.D. (9.5 mm) O.D. JG®	198459 ⚡	198407

JG® is a registered trademark of John Guest USA, Inc.