

FS-200 Series – General Purpose, Straight-Through Flow Path

Flow Rate Settings: Fixed: 0.5 GPM to 100.0 GPM

Adjustable: 1.0 GPM to 15.0 GPM

UL Approved Explosion-Proof

Port Size: 1" NPT to 2" NPT

Primary Construction Material: Bronze or Stainless Steel

Setting Type: Fixed or Adjustable

The FS-200 Series offers accurate flow detection, with 1% repeatability, over a broad range of flow settings and port sizes. Its durable construction delivers long-life reliability in either water or oil. Generous flow paths keep pressure drop low. These switches are ideal for detection of improper flow rates in high volume lubrication, cooling or process systems.

FS-200 Adjustable Series switches offer the same accuracy and are as rugged as those with fixed settings, but provide one additional feature: external adjustability. With these versatile switches your choice of flow settings is diverse within a given range. An ordinary, flat-blade screwdriver is all that's required for the actuation adjustment.

Specifications

Wetted Materials Housing		
FS-200	Bronze or 316 Stainless Steel	
FS-200 Adjustable	Bronze	
Shuttle	Teflon [®]	
Bonnet	Bronze or Stainless Steel	
Spring	316 Stainless Steel	
Other Wetted Parts	Viton®, Ceramic	
Pressure Rating Operating	400 PSIG (27.6 bar) @ 100°F (37.8°C)	
Proof	800 PSIG (55.2 bar) @ 100°F (37.8°C)	
Operating Temperature FS-200	-20°F to +300°F (-29°C to +148.9°C)	
FS-200 Adjustable	-20°F to +200°F (-29°C to +93.3°C)	
Repeatability	1% Maximum Deviation	
Set Point Accuracy	±10%	
et Point Differential 15% Maximum		
Switch*	SPDT, 20 VA	
Electrical Termination	No. 18 AWG, 24" L., Polymeric Lead Wires Red NC, Black Common, Orange NO	

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



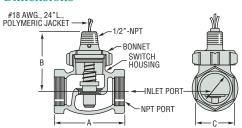
U.L. Recognized File No. E31926 CSA Listed — File No. LR30200 and LR22666 M Approved — File No. 0A8A3.AE and 1H3A2.AX

FS-200 Adjustable



U.L. Recognized File No. E31926 CSA Listed — File No. LR22666 FM Approved — File No. OQ2A8.AE

Dimensions



Model	Port Size NPT	A inch (mm)	B inch (mm)	C Hex inch (mm)
	1″	3-1/4 (82.6)	3 (76.2)	1-25/32 (45.2)
FS-200	1-1/4″	4 (101.6)	3-3/16 (80.9)	2-3/16 (55.5)
and FS-200	1-1/4" ss	4-1/2 (114.3)	3-3/16 (80.9)	2-3/16 (55.5)
Adjustable	1-1/2″	4-1/2 (114.3)	3-1/2 (88.9)	2-1/2 (63.5)
	2″	5-3/8 (136.5)	4 (101.6)	3-3/32 (78.5)

Notes:

- 1. Adjustable versions available in 1 inch port sizes only.
- 2. Standard calibration is in water with units in a horizontal position.
- 3. Viscosity changes will affect setpoints. Typically, as viscosity increases setpoints will decrease.
- Consult Gems for special applications.

How To Order - Standard Models

Specify Part Number for the FS-200 Series based on desired housing material, port size and flow setting, or based on flow setting range for FS-200 Adjustable versions.

FS-200 Series

Port Size	Flow Setting GPM	Part Numbers	
NPT		Bronze	Stainless Steel
	0.5	27051 🗲	27059 🗲
	1	27052*	27060
	2	27053*	27061
1"	3	27054	27062
I	4	27055 🗲	27063
	5	27056	27064
	6	27057 🗲	27065
	8	27058#	27066
	1	27067#	27076
	2	27068	27077
	4	27069	27078
	6	27070	27079
1-1/4"	8	27071	27080
	10	27072	27081
	12	27073	27082
	16	27074	27083
	20	27075	27084

Port Size	Flow	Part Numbers	
NPT	Setting GPM	Bronze	Stainless Steel
	1.5	27085 🗲	27093
	3	27086	27094
	5	27087	27095
1-1.2"	7.5	27088	27096
1-1.2	10	27089	27097
	15	27090	27098
	20	27091	27099
	30	27092	27100
	2	27101 🗲	27109
	4	27102	27110
	5	27103	27111
O"	10	27104	27112
2"	15	27105	27113
	25	27106	27114
	35	27107	27115
	50	27108	27116

FS-200 Adjustable

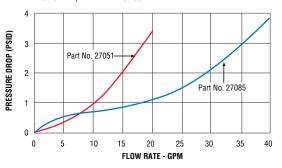
Port Size NPT	Flow Setting Adjustment Range GPM	Part Numbers
1"	1.0-6.0	26615 🗲
	5.0-15.0	26616 🗲
	2.0-8.0	26838 🗲

Notes:

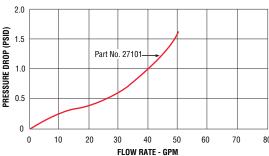
- 1. Flow settings for fixed versions are calibrated using water at +70°F on increasing flow, with units in a horizontal position (lead wires up). Consult factory regarding special flow setting calibration, or liquids other than water. Temperature changes will slightly affect the flow settings listed. Oil flow settings will vary with viscosity.
- 2. Adjustable units that are set to customer specification are subject to GEMS test stand accuracy.
- 3. Use of 150 micron filtration is recommended.
- 4. Minimum 5 PSI line pressure required.

Pressure Drop - Typical

1"NPT and 1-1/2"NPT Ports



2" NPT Ports



FLOW RATE - GPM Tests conducted with units in horizontal position (lead wires up) with water at $+70^{\circ}F$ (21°C).

FS-200 Series Flow Switches are U.L. Approved for Class I, Division 2, Groups A, B, C, D hazardous areas.



They are also available with FM-approved, explosion-proof junction box for Class I, Division 1, Group D hazardous locations. Units must be completely assembled at GEMS. U.L. Approved — File No. E183854

For Remote Alarms – See Page E-30

- · Adjustable Volume
- Indoor Outdoor
- Solid-State



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