

Models FS251 and FS254 General Purpose Liquid Flow Switches

Model FS251 and FS254 Flow Switches continuously monitor flow or no-flow conditions in a pipeline or system. They provide an electrical signal for starting or stopping signal lights, alarms, motors, automatic burners, metering devices and others.

Typical Applications

- Hot Water Heating Systems
- Hot Water Supply Systems
- Copper Tube Boilers
- Pump Systems
- Liquid Chiller Systems
- Water Cooled Equipment

Features

- 1" NPT pipe connection
- Adjustable flow set points
- Brass body
- EPDM O-ring sealed
- Brass paddle arms
- Four Stainless steel paddles included – 1", 2", 3" & 6" (25, 50, 80& 150mm)
- SPDT switch

Specifications

- NEMA 1 enclosure – Model FS251
- NEMA 4 enclosure – Model FS254
- Minimum temperature (fluid or ambient) 32°F (0°C)
- Maximum temperature (fluid) 250°F (121°C)
- Maximum pressure 160 psig (11.2 kg/cm)



Ordering Information

Model	Part Number	Description	Weight lbs. (kg)
FS251	120611	FS251 General purpose flow switch NEMA-1	1.9 (0.9)
FS254	120610	FS254 General purpose flow switch NEMA-4	1.9 (0.9)



ITT

McDonnell & Miller

Dimensions, in. (mm)

	A	B	C	D	E	F	G
FS251	3 (76)	1-1/2 (38)	2-7/32 (56)	7/8 (22)	6-3/8 (162)	2-15/16 (75)	3-3/8 (86)
FS254	3-1/4 (83)	1-5/8 (41)	3/4 (19)	1/2 NPTF	6-3/16 (157)	2-3/4 (70)	3-7/8 (98)

	H	J	K	L*	M	N	P Turn-in Radius (not shown)
FS251	1-11/16 (43)	1-1/2 (38)	1-1/8 (29)	3-7/16 (87)	2-1/16 (52)	1" NTPM	2-5/16 (59)
FS254	2-1/4 (57)	1-1/2 (38)	1-1/8 (29)	3-7/16 (87)	1-7/8 (48)	1" NTPM	2-5/16 (59)

* W/1" Paddle

Electrical Rating

Voltage	Motor Switch Rating (Amperes)		Pilot Duty
	Full Load	Locked Rotor	
120 VAC	7.4	44.4	125 VA at 120 or 240 VAC 50 or 60 cycles
240 VAC	3.7	22.2	

Flow Rates

Pipe Size NPT in.	Settings	Series FS250		
		FLOW	NO FLOW	Max. Flow Rate w/o Paddle Damage
		gpm (lpm)	gpm (lpm)	gpm (lpm)
1"	Minimum	5.8 22	5.1 19	27 102
	Maximum	12.6 48	11.9 45	
1-1/4"	Minimum	6.7 25	6.0 23	47 178
	Maximum	19.1 72	18.0 68	
1-1/2"	Minimum	8.4 32	7.0 26	63 242
	Maximum	25.3 96	24.1 91	
2"	Minimum	12.9 49	11.2 42	105 397
	Maximum	31.5 119	30.2 114	
2- 1/2"	Minimum	17.9 68	14.5 55	149 564
	Maximum	43.2 164	40.0 151	
3"	Minimum	26.2 99	20.2 76	230 871
	Maximum	54.9 208	49.8 188	
4"	Minimum	42.0 159	33.7 128	397 1503
	Maximum	75.6 286	68.0 257	
5"	Minimum	54.6 207	46.7 177	654 2475
	Maximum	109.4 414	98.4 372	
6"	Minimum	67.7 256	60.2 228	900 3407
	Maximum	131.1 496	123.5 467	

