S6022 Flow Switch

The S6022 flow switch responds to low fluid flow rates in applications with a pipe size below 1” to 3” in diameter.

The S6022 flow switch is a Single-Pole, Double-Throw (SPDT) flow switch that is used in liquid lines carrying water, ethylene glycol, or other liquids that are not classified as non-hazardous. It can be wired to energize one device and e-energize another device powered from the same source when liquid flow either exceeds or falls below the set flow rate.

Rated voltage V / Rated Current A		Power COS ø	125V AC	250V AC
No induced load current		1	15	15
Induced load	Full load current	0.75	3.5	2.5
Current	Instantaneous current	0.45	21	15

Figure1: Technological Parameter 1

Valve Size	Connector	Max Pressure (Mpa)	Protection	Allowable Medium Temp.	Weight (Kg)	Modulating Range of Flow				
						Pipe Size	Min.		Max.	
							Flow decrease	Flow increase	Flow decrease	Flow increase
3″	1″-11 ½ (NPT)	1.60	IP65	-30~120	0.6	1″	2.5	4.2	8.5	8.8
						2″	9.5	13.7	27	29
						3″	19	27.5	50	53

Figure 2: Technological Parameter 2

When there is sufficient fluid through the pipe, the loop closes up between red and blue contacts.

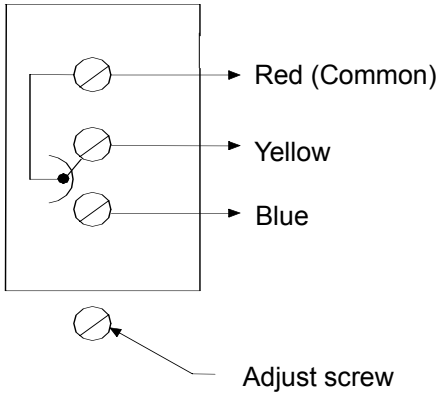

Figure 3: Switch action

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Mounting:

• Mount the S6022 in a section of pipe where there is a straight run of at least five pipe diameters on each side of the flow switch.

• The switch should be mounted so that the terminals or wire leads are easily accessible for wiring.

• Screw the flow switch into position such that the flat of the paddle is at a right angle to the flow. The arrow on the side of the case must point in the direction of the flow.

• The S6022 must be mounted in a horizontal pipeline or a vertical pipeline with upward
liquid flow. It is not recommended for installations where liquid flow is downward. When mounted in a vertical pipe with upward flow, the switch trips will operate at a slightly higher flow than shown in Figure 4: “Typical Flow Rates”, due to the effect of gravity on the switch mechanism.

• All wiring connections must be made using copper conductors only.

• All wiring must be installed in accordance with the National Electric Code and local regulations.

Figure 4: Typical Flow Rate

- \+ GPM figures are for a switch with a 6” paddle. For 4” and 5” line pipes, the 6” paddle is trimmed to a 4” and 5” length, respectively.
- ** For switching action, refer to Figure 3

GPM (m3/hr) Required to Actuate Switch											
Pipe Size （in.）		1	1-1/4	1-1/2	2	2-1/2	3	4*	5*	6*	8*
Minimum Adjustment	Flow increasing red→yellow closed**	4.2 (1.0)	5.8 (1.3)	7.5 (1.7)	13.7 (3.1)	18.0 (4.1)	27.5 (6.2)	65.0 (14.8) 37.0+ (8.4)	125.0 (28.4) 57.0+ (12.9)	190.0 (43.1) 74.0+ (16.8)	375.0 (85.2) 205.0+ (46.6)
	Flow decreasing red→blue closed**	2.5 (0.6)	3.7 (0.8)	5.0 (1.1)	9.5 (2.2)	12.5 (2.8)	19.0 (4.3)	50.0 (11.4) 27.0+ (6.1)	101.0 (22.9) 41.0+ (9.3)	158.0 (35.9) 54.0+ (12.3)	320.0 (72.7) 170.0+ (38.6)
Maximum Adjustment	Flow increasing red→yellow closed**	8.8 (2.0)	13.3 (3.0)	19.2 (4.4)	29.0 (6.6)	34.5 (7.8)	53.0 (12.0)	128.0 (29.1) 81.0+ (18.4)	245.0 (55.6) 118.0 + (26.8)	375.0 (85.2) 144.0 (32.7)	760.0 (172.6) 415.0+ (94.2)
	Flow decreasing red→blue closed**	8.5 (1.9)	12.5 (2.8)	18.0 (4.1)	27.0 (6.1)	32.0 (7.3)	50.0 (11.4)	122.0 (27.7) 76.0+ (17.3)	235 (53.4) 111.0 + (25.2)	360.0 (81.8) 135.0 + (30.7)	730.0 (165.8) 400.0+ (90.8)