

Flow Switch Operation Manual

Descriptions



- TF50-P flow switch use to sense the change of flow that passes the pipe line, playing a role to protect the torrential flow
- It can be adjusted to switch at various flow rate
- It employs a SPDT switch with high power rating, up to 3.5 A continuous, 21 A surge
- Non corrosive construction throughout plastic ABS cover, brass fittings, stainless steel paddle.
- Liquid temperature: 0~120°C(0~248°F)
- Max. working pressure: 13.5 bar(193 psig)

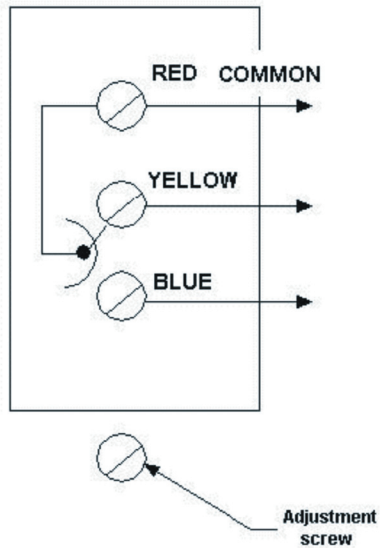
Electrical Data

Rated Voltage V		125V	250V
		AC	AC
Rated Current A		15A	15A
Non-inductive load current		3.5A	2.5A
Inductive load	Full load current	21A	15A
	Starting current		

Type	Pipe Size (in. / cm)	Pipe Thread	Max. Working Pressure	Flow Temp.	Weight	Flow Range				
						Pipe Size	Minimum		Maximum	
							Switch Opens	Switch Closes	Switch Opens	Switch Closes
TF50-P	1" (2.5cm) to 6"(15.2cm)	1" NPT	1000Kpa (145psi)	0~100°C 32~212°F	0.6KG (1.32lb)	1"	2.5	4.2	8.5	8.8
						2"	9.5	13.7	27	29
						3"	19	27.5	50	53

## Function of Contacts

As flow increases, Red common switches from normally close (Yellow) to normally open (Blue)



## Notes

- When going out of factory, the flow switch is equipped with 1", 2" and 3" paddle can be trimmed followed with the template in the principle that trimmed paddle should not touch with the pipe wall in the bottom.
- The flow switch must installed in the 1" pipeline and a 1" \* 1" \* 1" tee must be applied. If the flow switch is installed on the pipeline of the large diameter, a reducing tee must be used to cooperate with the flow switch and a paddle of the corresponding length should be equipped.
- The flow switch should be installed on the horizontal line or vertical line where the flow direction is upward. Never install the flow switch on the vertical line where the flow direction is downward. When installing the flow switch on the vertical line where the flow direction is upward, the data of runoff should be modified considering the affection of the gravity of the liquid.

		Flow Data for Action of Switch GPM (m <sup>3</sup> /hr)									
		1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"
Min. Adjustment	Switch Closes	4.2	5.8	7.5	13.7	18	27.5	65	125	190	375
	Red --> Yellow	-1	-1.3	-1.7	-3.1	-4.1	-6.2	-14.8	-28.4	-43.1	-85.2
	Close							37.0+	57.0+	74.0+	205.0+
								-8.4	-12.9	-16.8	-46.6
	Switch Opens	2.5	3.7	5	9.5	12.5	19	50	101	158	320
	Red --> Blue	-0.6	-0.8	-1.1	-2.2	-2.8	-4.3	-11.4	-22.9	-35.9	-72.7
	Close							27.0+	41.0+	54.0+	170.0+
								-6.1	-9.3	-12.3	-38.6
Max. Adjustment	Switch Closes	8.8	13.3	19.2	29	34.5	53	128	245	375	760
	Red --> Yellow	-2	-3	-4.4	-6.6	-7.8	-12	-29.1	-55.6	-85.2	-172.6
	Close							81.0+	118.0+	144	415.0+
								-18.4	-26.8	-32.7	-94.2
	Switch Opens	8.5	12.5	18	27	32	50	122	235	360	730
	Red --> Blue	-1.9	-2.8	-4.1	-6.1	-7.3	-11.4	-27.7	-53.4	-81.8	-165.8
	Close							76.0+	111.0+	135.0+	400.0+
								-17.3	-25.2	-30.7	-90.8

## Flow Switch Adjustment Procedure

- Remove the case of flow switch.
- Adjust flow value to max. clockwise rotates adjustment screw; on the opposition, flow value is adjusted min., anticlockwise rotates adjustment screw.
- Press down main lever for several times, and the lever has no "clatter" sound, namely flow switch is lower than set point value.