FITZER

INTRODUCTION

FITZER Flow switches are designed to provide unique enginneering features and quality construction assuring long, trouble free service. Rugged construction design offers exellent durability even in the most severe services. Flow switches are employed in various industries to sense the start or stop of fluid flow in pipe line typically they are used in interlock systems to prevent equipments start up before sufficient flow exists in cooling system, to shut down equipments flow rate to a pre – determined value.

APPLICATION

- •To sense and control of coolin water to condensers, Oil Coolers, steel furnaces, Gas plant or any chemical & gases.
- ·Control of Jubricating oil to heavy machinery
- ·Control of chilled water systems
- •Remote indicating / alarm of flow / no flow condition
- ·Control of burner air flow
- · Pump protection in chemicals plant
- ·Oil blending system
- Starting of secondary pumpin system upon stopping / failure Of primary Pumping system.

SALIENT FEATURES

- Sensitive set point accuracy + $\underline{5}$ % of the set flow during operation.
- ·Simple mechanism and thus maintenance free.
- Even if the flow over shoots the set point, the switch does not get disturbed unlike in other type.
- Though horizontal installation is recommnded, FITZER flow switches can be mounted in vertical lines.
- · Easily adjustable set point at site.
- Can withstand high pressure & temperature because of magnetic Coupling principle used i.e. non use of diaphragm & bellow mechanism.

FLOW SWITCHES

FS-wp-310 FLOW switch Horizontal 'T' Connection 15 to 50 MB PSP(F)









FS-wp-200 Compact Miniature wheatr Proof Encloser

Series FS-300 Type Paddle type Flow Switch Body Brass, SS304, SS316, SS316L Element Magnetic Link with spring Magnet Rare Earth (Permanent) Range spring SS316, SS316L Enclosure Cast Aluminium, Weather proof/Flame proof Switch Microswitch NO-NC, 5Amp. 230 V.A.C. Cable Gland Rubber Gland / 3/4" ET		FLOW SWITCH	FIG. 1
Body Brass, SS304, SS316, SS316L Element Magnetic Link with spring Magnet Rare Earth (Permanent) Range spring SS316, SS316L Enclosure Cast Aluminium, Weather proof/Flame proof Switch Microswitch NO-NC, 5Amp. 230 V.A.C. Cable Gland Rubber Gland / 3/4" ET Process Connection 3/4", 1BSP.(M) Line Size Suitable for 1/2" to 16" Pipe Line Max op. Pressure Max op. Temp. DENCLOSUR FLOW FLOW ADJUST FLOW FLOW ADJUST FLOW PROCESS CONNE LINK PROCESS CONNE LINK PADDLE	Series	FS-300	CABLE C C C GREEN
Element Magnetic Link with spring Magnet Rare Earth (Permanent) Range spring SS316, SS316L Enclosure Cast Aluminium, Weather proof/Flame proof Switch Microswitch NO-NC, 5Amp. 230 V.A.C. Cable Gland Rubber Gland / 3/4" ET Process Connection 3/4", 1BSP.(M) Line Size Suitable for 1/2" to 16" Pipe Line Max op. Pressure 300 psi Max op. Temp. 200°C	Туре	Paddle type Flow Switch	NC BLACK
Magnet Rare Earth (Permanent) Range spring SS316, SS316L Enclosure Cast Aluminium, Weather proof/Flame proof Switch Microswitch NO-NC, 5Amp. 230 V.A.C. Cable Gland Rubber Gland / 3/4" ET Process Connection 3/4", 1BSP.(M) Line Size Suitable for 1/2" to 16" Pipe Line Max op. Pressure 300 psi Max op. Temp. 200 °C	Body	Brass, SS304, SS316, SS316L	— ENCLOSURE NO
Range spring SS316, SS316L Enclosure Cast Aluminium, Weather proof/Flame proof Switch Microswitch NO-NC, 5Amp. 230 V.A.C. Cable Gland Rubber Gland / 3/4" ET Process Connection 3/4", 1BSP.(M) Line Size Suitable for 1/2" to 16" Pipe Line Max op. Pressure 300 psi Max op. Temp. 200 °C	Element	Magnetic Link with spring	
Enclosure Cast Aluminium, Weather proof/Flame proof Switch Microswitch NO-NC, 5Amp. 230 V.A.C. Cable Gland Rubber Gland / 3/4" ET Process Connection 3/4", 1BSP.(M) Line Size Suitable for 1/2" to 16" Pipe Line Max op. Pressure 300 psi Max op. Temp. 200 °C	Magnet	Rare Earth (Permanent)	
Switch Microswitch NO-NC, 5Amp. 230 V.A.C. Cable Gland Rubber Gland / 3/4" ET Process Connection 3/4", 1BSP.(M) Line Size Suitable for 1/2" to 16" Pipe Line Max op. Pressure 300 psi Max op. Temp. 200 °C	Range spring	SS316, SS316L	FLOW FLOW ADJUSTING POINT
Cable Gland Rubber Gland / 3/4" ET Process Connection 3/4", 1BSP.(M) Line Size Suitable for 1/2" to 16" Pipe Line Max op. Pressure 300 psi Max op. Temp. 200 °C PADDLE	Enclosure	Cast Aluminium, Weather proof/Flame proof	
Process Connection 3/4", 1BSP.(M) Line Size Suitable for 1/2" to 16" Pipe Line Max op. Pressure 300 psi Max op. Temp. 200 °C PADDLE	Switch	Microswitch NO-NC, 5Amp. 230 V.A.C.	— BODY
Line Size Suitable for 1/2" to 16" Pipe Line Max op. Pressure 300 psi Max op. Temp. 200 °C PADDLE	Cable Gland	Rubber Gland / 3/4" ET	
Max op. Pressure 300 psi Max op. Temp. 200 °C LINK PADDLE	Process Connection	3/4", 1BSP.(M)	PROCESS CONNECTION
Max op. Temp. 200 °C — PADDLE	Line Size	Suitable for 1/2" to 16" Pipe Line	
FIC 2	Max op. Pressure	300 psi	LINK
FIG. 4 FIG. 2 FIG. 2	Max op. Temp.	200°C	— PADDLE
	FIG. 4	FIG. 3	FIG. 2
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FLOW SWITCH (LOW FLOW RANGE)									
Switch	Inlet & Outlet	Adjustmen	t Range LPM						
Series	Size	Com. To N/C	Com. To N/C	Maximum Operations	Maximum Operations				
Fitzer – PS–30	BSP / NDT (F) 3/4" × 3/4"	Flow Increase 1/2" x 1/2" Max. 5.0	Flow Decrease Min 2.8 Max. 4.0	Temp. C ^O F Min 1.4	Pressure ^O C 250150				

Flange Type in Line Mounted

FLOW RATES IN GPM/LPM REQUIRED TO ACTUATE SWITCH														
Pipe Size			1.1/4"	1.1/2"	2"	2.1/2"	3"	4"	5"	6"	8"	10"	12"	16"
Adjustment —	Flow	GPM	8.4	10.8	17.8	26.8	46.1	53.6	71.8	94.5	203.0	394.0	705.0	1140.0
	FIOW	LPM	32	41	67	101	174	203	271	357	767	1489	2665	4309
	No Flow	GPM	4.0	5.0	8.2	12.4	21.4	22.2	31.8	45.0	125.0	271.0	530.0	860.0
		LPM	15	19	31	47	81	84	120	170	472.5	1024	2003	3251
Maximum Adjustment	Flam	GPM	13.5	170.8	29.4	46.2	76.0	99.0	141.0	198.0	390.0	690.0	1120.0	1820.0
	Flow	LPM	51	67	111	175	287	374	533	748	1474	2608	4234	6880
	No Flow	GPM	12.5	15.2	25.2	37.3	66.8	71.0	100.0	140.0	280.0	516.0	880.0	1420.0
		LPM	47	954	95	141	252.5	268	378	529	1058	1950	3326	5368



FS-WP-310

Threaded Connection

FS-WP-300

Flange Mounted

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