

Paddle Bellows Flow Switch for Liquids



measuring
•
monitoring
•
analyzing

FPS



- Switching Ranges:
0.9... 4.4 GPM to
375... 760 GPM (Water)
- p_{\max} : 435 PSIG
- t_{\max} : 250 °F
- Process Connection: 1" NPT
- Material: Brass or Stainless Steel
- Micro Switch: 250 V, 15 (8) A
- Universal Mounting Position
- Switching Range Adjustable via
Easily Accessible Range Screw



Order from: **C A Briggs Company**
622 Mary Street; Suite 101; Warminster, PA 18974
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KOBOLD Instruments, Inc.
1801 Parkway View Drive
Pittsburgh, PA 15205



Paddle Bellows Flow Switch Model FPS

Description

The KOBOLD model FPS flow switch operates according to the proven paddle bellows principle. The flowing media acts upon the paddle, actuating a micro switch. The switching point may be freely adjusted and the device mated to different nominal pipe sizes by means of both the replaceable paddle and the easily accessible range screw located within the housing. The electrical switching cavity is separated hermetically from the process fluid by means of a bellows. The FPS-6000P version of the flow switch has been specially designed to accommodate lower switching values than standard. Although horizontal flow orientation is preferred, the devices may be installed in any orientation with some additional variation to the switching ranges indicated in the order details section seen below.



Applications

- Monitoring Cooling or Lubricant Circuits
- Dry-Run Protection for Pumps
- Prevention of Low Water Levels

Technical Details

Brass Design:	Bellows: MS 58 Bronze Paddles: 4 x Stainless Steel 316L
Stainless Steel Design:	Bellows: Stainless Steel 321 Paddles: 4 x Stainless Steel 316L
Process Connection:	1" NPT Male
Max. Media Temperature:	-40...250 °F
Max. Ambient Temp:	-30...150 °F
Max. Allowed Pressure:	Brass: 160 PSIG Stainless Steel: 435 PSIG

Max. Pressure Loss:	Approx. 0.15...0.44 PSIG
Inlet/Outlet Pipe Section:	5 x Nominal Pipe Size
Electrical Details	
Switch:	SPDT Contact
Switching Voltage:	Max. 24...250 V _{AC}
Switching Current:	Max. 8 A (Inductive Load) Max. 15 A (Resistive Load)
Electrical Connection:	Cable Gland
Case:	Base: ABS Cover: PC (Transparent)
Protection Type:	IP 65

Electrical Connection

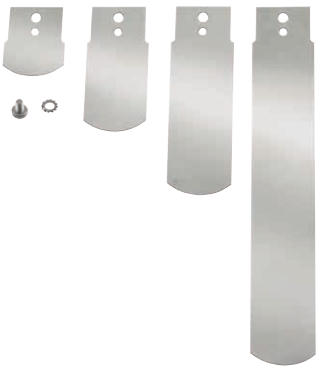
RED-WHITE opens with reduction in flow
RED-BLUE closes with reduction in flow

Order Details

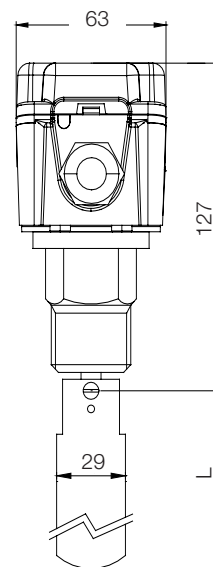
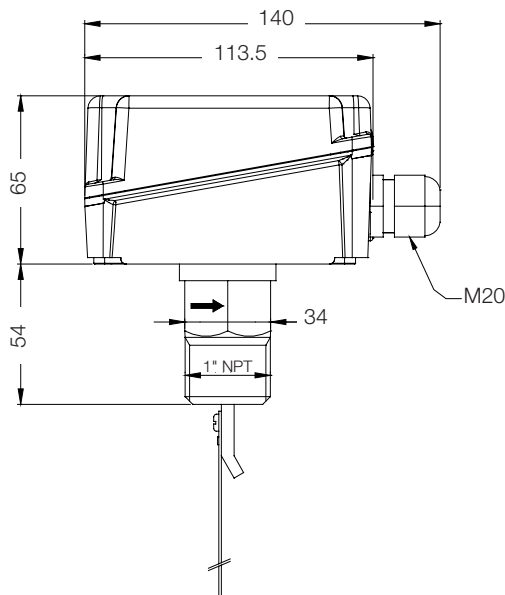
Pipe Size	Standard Switching Ranges Series FPS-5...					Special Switching Ranges Series FPS-6...				
	GPM (Water) De-actuating*	GPM (Water) Actuating*	Max. Flow Rate (Water)	Model Number		GPM (Water) De-actuating*	GPM (Water) Actuating*	Max. Flow Rate (Water)	Model Number	
				Brass	St. Steel				Brass	St. Steel
1"	2.6...8.8	4.4...9.3	15.8	FPS-5100P	FPS-5200P	0.9...4.4	2.6...4.8	15.8	FPS-6100P	FPS-6200P
1-1/4"	3.5...12.3	5.7...13.2	26.4			1.1...6.2	4.0...7.0	26.4		
1-1/2"	4.8...16.3	7.5...17.6	39.6			2.2...7.0	5.3...9.7	39.6		
2"	9.7...25.1	13.7...26.9	66.0			4.0...15.9	10.1...18.1	66.0		
2-1/2"	11.9...28.6	17.6...30.8	105			5.3...21.6	13.7...24.2	105		
3"	18.9...47.1	27.3...50.2	158			9.3...32.6	21.6...36.1	158		
4"	50.2...122.0 (26.9...76.2)	64.7...127.7 (35.2...81.0)	264			21.6...75.3 (14.5...51.0)	49.8...84.1 (33.9...57.2)	264		
5"	100.8...234.7 (41.0 - 111.0)	125.1...244.8 (56.8...118.0)	413			42.7...149.7 (22.0...77.0)	98.6...166.9 (50.6...86.3)	413		
6"	158.1...360.0 (54.2...134.7)	189.8...375.0 (74.0...144.0)	528			59.9...209.6 (26.9...94.2)	138.7...234.2 (62.1...105.2)	528		
8"	319.7...729.6 (170.0...400.0)	374.7...759.5 (204.7...414.8)	1056	113.2...396.7 (95.6...243.5)	262.4...443.4 (160.7...272.1)	1056				

* Stack all paddles together for the values in brackets. The longest paddle has to be shortened accordingly for service in 4"...6" pipes.

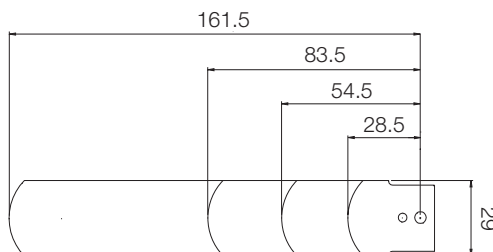
Order Details Spare Parts

Model	Description	Image
FPS-PPDSS	Set of Spares Paddles for FPS	

Dimensions (mm)



Paddles



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