BCS-46 Series Flow Switch

Overview

The BCS-46 Series Flow Switch is mainly used to monitor the changes in the flow rate of the medium in the air - conditioning water system. When the flow rate of the medium exceeds (or is lower than) the set value, it can make one circuit conduct while cutting off another circuit.

Features

- Max liquid pressure up to 1.6MPa, wide-ranging applications
- Stainless steel paddle has 3 segments for use in pipes from 25mm to 200mm diameter
- Paddle segments can be removed or trimmed as needed
- Adjustable set point, the user may according to require to trim the flow value
- Fully enclosed housing and electrical switches, effectively protecting electrical components from dust and water vapor (including minor condensation)
- Spacious wiring space for easy installation

Specifications

Applicable Medium	Water, ethylene glycol, or other liquids suitable for brass
Medium Temp.	0℃~120℃
Ambient Temp.	0℃~60℃
Max. Operating Pressure	1.6MPa
Max. Allowable Flow Velocity	3m/s
Switch Type	SPDT
Contact Capacity	250VAC, 10A
Bellows Service Life	500,000 cycles
Connector	1 NPT
Protection Class	IP32
Weight	NW: 400g, GW： 460g
Material	Connector: Brass, Paddle: Stainless Steel, Housing: ABS

Ordering Information

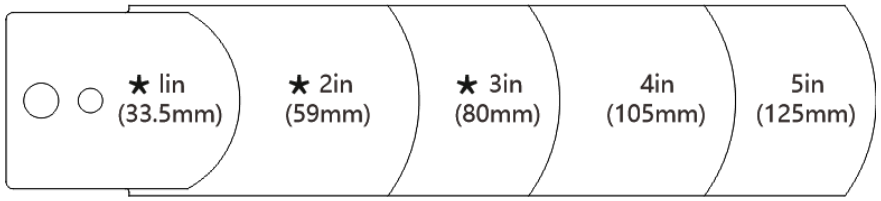
Model No.	Working Pressure	Connector
BCS-4610-0002	1.6MPa	1 NPT

Typical Flow Rates for Switch

GPM（m³/hr）Required to Actuate Switch																
Pipe diameter (mm)		25	32	40	50	65	80	100	125	150	200	125*	150*	200*	150*	200*
Paddle length (mm)		33.5				59		80				105			125	
Minimum Adjustment	Flow increase (1 to 2 Closes)	0.98	1.36	1.75	3.2	4.08	6.24	15.35	29.45	44.82	88.39	19.65	25.6	71	21.42	59.38
	Flow decrease (1 to 3 Closes)	0.58	0.86	1.17	2.22	2.84	4.31	12.92	23.76	37.23	75.42	14.18	18.68	58.83	15.62	49.21
Maximum Adjustment	Flow increase (1 to 2 Closes)	2.06	3.11	4.49	6.8	8.8	12	30.19	57.68	88.39	179.08	40.78	49.87	143.57	41.66	120
	Flow decrease (1 to 3 Closes)	1.99	2.9	4.2	6.3	7.24	10.38	28.71	55.38	84.86	172.04	38.39	46.69	138.33	39.06	115.71

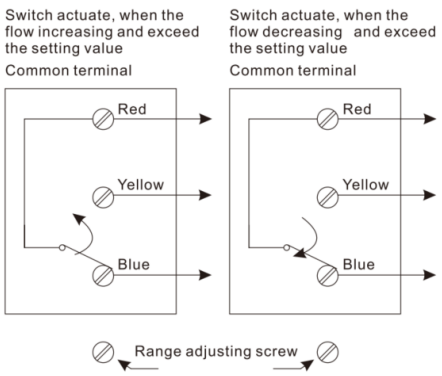
1. The paddles will be chosen according to the pipe diameter and flow increase where the flow switch is installed in.
2. (*) are the values for the ≥4 paddles (4in、5in), without (*) are for the ≤3 paddles (1in、2in、3in);

Switch Paddle Trimming

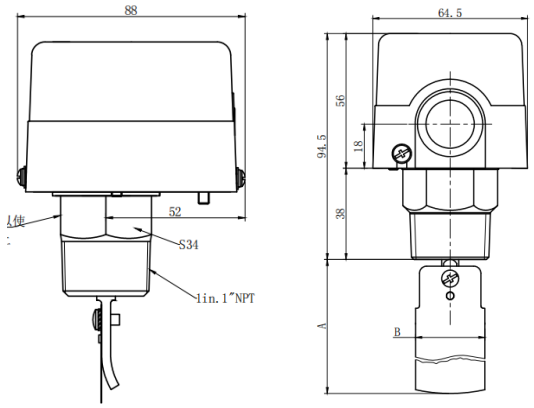


1. The paddles with (*) are installed in factory
2. Trimming paddle as above flow specification
3. The end of paddle should keep 5--10mm distance from the pipe end and no friction with the pipe, when install the trimmed paddles

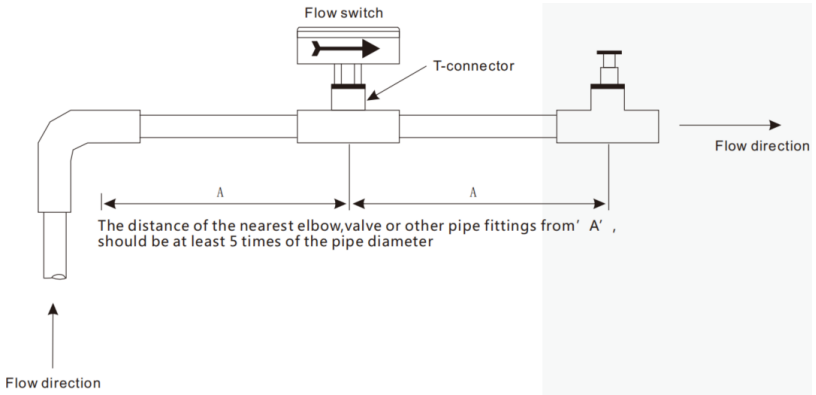
Wiring Diagram



Appearance Dimensions



Installation



1. Pipe connection: flow switch be provided with 1" NPT connections.
2. The arrow direction in the cover must be as same as the flow direction in the pipe.
3. The flow switch is suggested to be installed on horizontal pipes, if it has to be on vertical pipes, then the direction in the pipe must be upward flow. It is not allowed to be installed on the vertical lines with downward flow.
4. To avoid the paddle damage, flow reversal is not allowed when the flow switch is working.