



Overview

This series paddle flow switch is designed on the basis of analyzing and researching the disadvantages of other paddle flow switch used in current market. It with simple design, reasonable price and reliable performance. Material that contact with liquid adopts reinforced nylon and PPO. Compared with target type flow switch, its performance is higher. It adopts plug-in installation, mechanical flow switch and permanent magnetic switch. Widely used in pool heat pump for monitoring and some other kind heat pump.

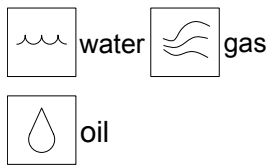
Features

Low pressure loss, good repeatability, hermetic separation of electrical and hydraulic components, not include the bellows, imported magnetic switch, material contact with liquid adopts reinforced nylon/PPO, connect UPVC T-fitting can apply to the UPVC pipe used on seawater or heat pump of swimming pool.

Application

Application: gaseous/ liquid. It is mainly applicable to industrial automation/mechanical equipment/air compressing industry/refrigeration and air-conditioner. The magnet not contact with water, so can normally work in sewage discharging system.

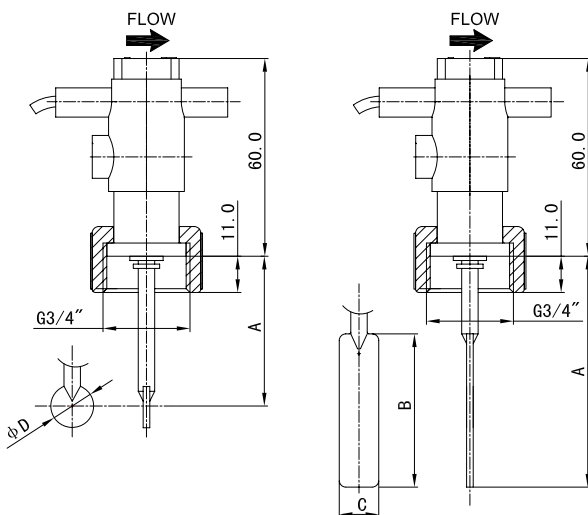
Metering substance



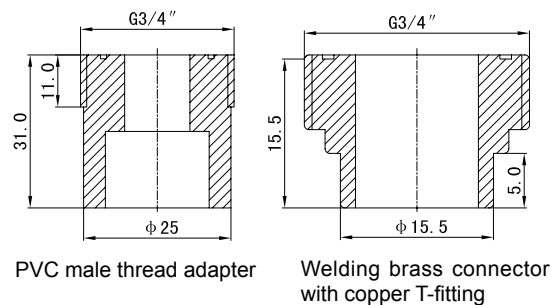
Technical parameters

- △ Max. voltage: 250VAC
- △ Max. current: 1A(50VA)
- △ Mode of connection: Direct connection
- △ Output: SPST magnetic switch (factory configure the N/O)
- △ Pressure: 10bar
- △ Average press loss: 0.01bar at Q.max
- △ Temperature: -10...85°C
- △ Protection class: IP65
- △ Material: Body: PPO plastic
Paddle: PPO plastic
Seal: NBR

Dimensional drawing(no T-fitting)



Optional connector

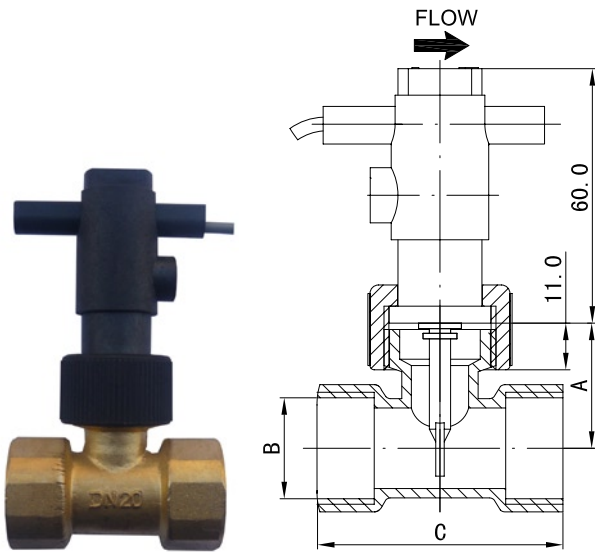


Remarks: "-A": welding brass connector
"-B": PVC male thread adapter

Model	A	B	C	D
WFS27020PD/F(30)	29.5	--	--	13
WFS27020PD/F(35)	35.5	--	--	13
WFS27020PD/F(45)	45.5	--	--	13
WFS27020PD/F(70)	70	46.5	12	--

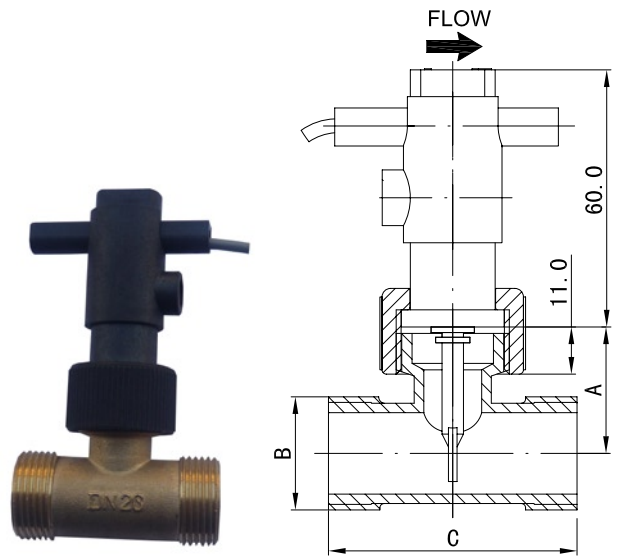
Attention: () indicates paddle length, just indicates in WFS27020PD (with connector) and WFS27020PF (no connector).

Dimensional drawing(with T-fitting)



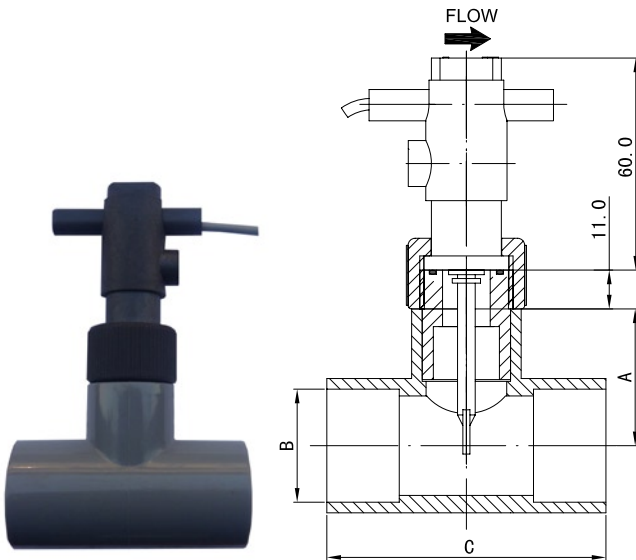
WFS270..PA with female thread T-fitting

Model	A	B	C
WFS27020PA	28	3/4"	58
WFS27025PA	34	1"	58
WFS27032PA	34	1 1/4"	72
WFS27040PA	34	1 1/2"	72
WFS27050PA	46	2"	72



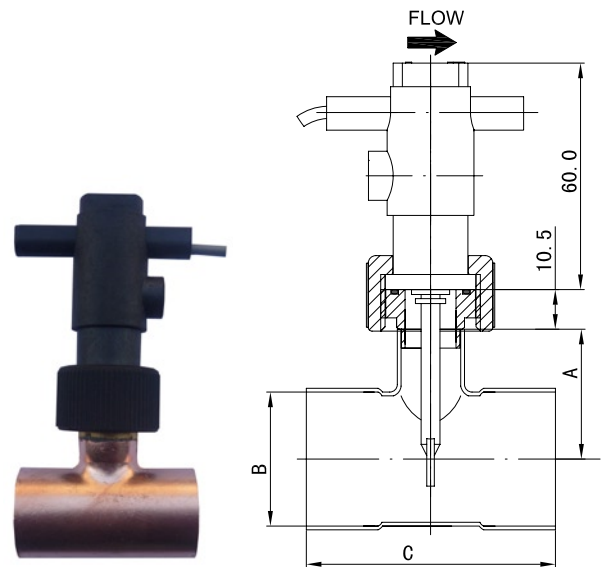
WFS270..PC with male thread T-fitting

Model	A	B	C
WFS27020PC	28	3/4"	58
WFS27025PC	34	1"	58
WFS27032PC	34	1 1/4"	68



WFS270..PH with PVC T-fitting

Model	A	B	C
WFS27025PH	34.5	φ 25	68
WFS27032PH	38.5	φ 32	80
WFS27040PH	42	φ 40	90
WFS27050PH	48	φ 50	98.5
WFS27063PH	55	φ 63	110

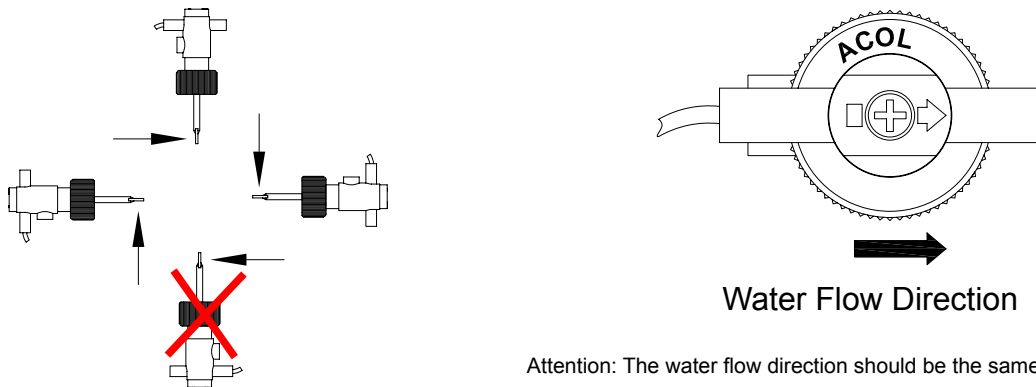


WFS270..PG with welding/soldering copper T-fitting

Model	A	B	C
WFS27022PG	25	φ 22.3	55
WFS27025PG	27.5	φ 25.5	53
WFS27028PG	28.5	φ 28.8	56.7
WFS27032PG	32.8	φ 32.2	63.7
WFS27035PG	34.4	φ 35.1	66
WFS27042PG	35.4	φ 42.2	81.3

Mounting position

Installation position may influence switch value. The paddle flow switch should be installed on the pipeline between water pump outlet and instrument outlet, should not be installed on the suction inlet of water pump, which easily made the pump and flow switch can not work normally. It can be installed in either horizontal or vertical position. It is, however, vital that the unit is not installed upside down. See the following schematic diagram:



Attention: The water flow direction should be the same as the arrow direction.

Nomenclature

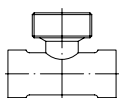
WFS27	008	P	A	010	Specification
WFS27					WFS27 Paddle flow switch
	008				Nominal size: G1/4" (T-fitting size)
	010				Nominal size: G3/8" (T-fitting size)
	015				Nominal size: G1/2" (T-fitting size)

		P			Body material: Engineering plastic
			A		Mode of connection: Female thread T-fitting
			C		Mode of connection: Male thread T-fitting
			D		Mode of connection: Welding/soldering glue connector
			F		Mode of connection: Male thread/ plug-in (no T-fitting), inlet thread:G3/4"
			H		Mode of connection: U-PVC plastic T-fitting
			G		Mode of connection: Red copper T-fitting
				010	Flow at Q.max L/min,specific data please see PARAMETERS.
			

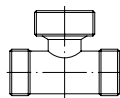
Important for your order

1. Please indicate flow indication, metering substance, nominal size and adjustable range with your order.
2. With viscous liquids, please indicate viscosity, temperature and metering substance.
3. With gaseous media indicate pressure (relative or absolute), temperature and metering substance.

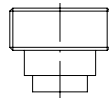
Optional T-fitting and connector



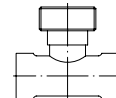
Female thread T-fitting
Brass
Stainless steel



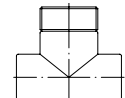
Male thread T-fitting
Brass
Stainless steel



Welding/soldering glue socket
Brass
Stainless steel
PVC



Welding T-fitting
Red copper



Glue T-fitting
PVC

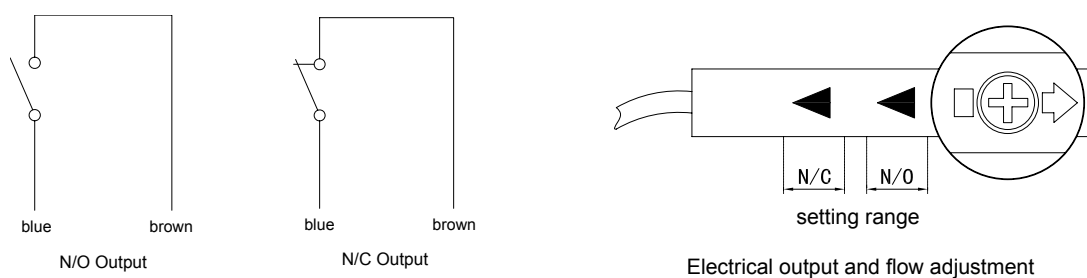
Electric output and Flow adjustment

Paddle flow switch, set N/O、N/C SPDT dry contact output according to the requirement, it is the N/O, unless noted otherwise. If need adjust in field, use cross spanner screw off the fastening screw counter-clockwise, pull out the switch unit and insert in opposite direction.

Usually, protection value has been calibrated, no need to adjust, and the fastening screw has been covered by red paint or glue, if necessary to adjust in field, remove the paint or glue and loose the fastening screw to set value by adjusting the switch unit (has magnetic switch).

It must re-set the protection value if the flow requirement is strict, if it is not so strict, just use Multimeter to measure, push paddle to observe the status, power pushing the paddle is the water flow rate.

Use cross spanner screw on the fastening screw, excessive power may lead to glass pipe broken.



Switching point setting

N/O contact

It refers to no flow or lack of flow, the switch is opened. Until flow increase to fixed value, it will closed. The minimum switching value is set by moving the switch unit in the flow direction. The maximum switching value is set by moving the switch unit against the flow direction.

N/C contact

It refers to no flow or lack of flow, the switch is closed. Until flow increase to fixed value, the switch is off. The maximum switching value is set by moving the switch unit in the flow direction.

The minimum switching value is set by moving the switch unit against the flow direction.

Problem

1. When debugging, if the flow switch not closed and the water flow is normal, can adjust the flow by adjusting switch unit.
2. If the flow switch always closed, can adjust the flow by adjusting switch unit.
3. As for other problems, please contact professionals of ACOL for solution.