

HANWEST AQUA SYSTEMS “S” SERIES MINI FLOW SWITCHES

Hanwest Aqua Systems “S” series mini flow switches type HANWEO1 are suitable for use with a variety of liquids including salt water and acid solutions. They are available to fit 12mm (1/2”) to 19mm (3/4”) and 25mm (1”) size copper pipes.

Application

To ensure a minimum flow rate for water chillers, water source heat pump air conditioners, food processing plants lubricating oil flow. To start equipment when flow is verified or for flow indication.

Function

The flow monitoring switch comprises a flow lever system to whose end a permanent magnet is attached. Above this magnet is a reed contact, located outside the flow of fluid. A second magnet with opposing poles creates the force necessary to reset the switch back to the no flow position.

When the flow being monitored pushes against the flow lever system, the flow lever pushes away. This changes the position of the magnet in relation to the reed contact, and thus activates the contact.

As soon as the flow is interrupted, the flow lever moves back to its starting position, thus activating the reed contact once again. The force necessary to push the magnet back is provided by the two magnets repelling each other.

Using magnetic force instead of the usual leaf spring means that the switch is considerably more stable in the long term and much less sensitive to pressure peaks.

Benefits

- Low pressure drop
- High repeatability
- Switching function dependent on flow rate alone, not on temperature or pressure
- Instant response
- Can be used for liquid & gases
- Easy to move

The reed contact used as a sensing element consists of two ferro-magnetic contact blades located in a glass bulb filled with inert gas. This practically eliminates wear resulting from contact burning.

This construction allows a useful life of up to 100,000,000 switching cycles.

Factory settings are:

- Contact closes when liquid is flowing
- Contact opens if flow is interrupted

Options

- Specific set point adjustment
- Reed contact for high switching performance
- Operating pressure up to 250 bar
- OEM design, proven in numerous series applications

Specifications

Connection: Union nut 3/4” BSP
 Material: PPO/Noryl
 Max. Pressure: 1014 Kpa
 Max. Temperature: 60°C
 Reed Switch Unit:
 Max. Switch Current: 1A
 Max. Switch Voltage: 230 VAC / 48 VDC
 Max. Switch Rating: 26 VA / 20W



Settings

FLOW SWITCH	VKX15		VKX20		VKX25	
	CLOSE	OPEN	CLOSE	OPEN	CLOSE	OPEN
12 mm (1/2”)	0.055 L/S	0.045 L/S	0.125 L/S	0.095 L/S	0.75 L/S	0.05 L/S
19mm (3/4”)	0.155 L/S	0.138 L/S	0.271 L/S	0.243 L/S	0.185 L/S	0.15 L/S
22.2mm (7/8”)	0.26 L/S	0.21 L/S	0.42 L/S	0.41 L/S	0.256 L/S	0.225 L/S
25.4mm(1”)	0.33 L/S	0.24 L/S	0.48 L/S	0.475 L/S	0.355 L/S	0.295 L/S

The above settings are the standard flow switch contact open & close settings in fresh water at +5°C