

New perspectives with Danfoss Saginomiya FQS Flow Switches

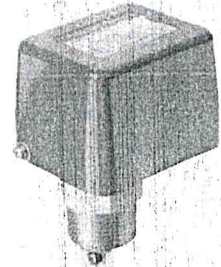
APPLICATION, BENEFITS AND MAIN FEATURES

The FQS flow switches are of the paddle type for general fluid line applications.

The SPDT contact mechanism makes or breaks an electric circuit when flow starts or stops. The FQS flow switch can be used for any fluid compatible with copper alloy materials, which are the parts of the switch which come into contact with the fluid.

The electrical contact block is completely sealed from the fluid.

The paddle consists of three segments that can be removed or trimmed and fixed to the switch for use in pipes from 1" to 6" in diameter. The standard paddles are made of copper alloy. Stainless steel paddles are also available.



Reliable Flow Control

STANDARD MODELS

Code number	Type number	Approvals	Paddle size	Usable line size	Contact type	Max. fluid pressure MPa (bar)	Connection	IP value
061H4000	FQS-U30G	CE, UL	consists of 1", 2" & 3" paddles ⁽¹⁾	1" - 6"	SPDT	0.98 (10)	1" MPT (R1)	20
061H4005	FQS-W30G	CE						42

Model	Standard	
Voltage (V)	125V AC	250V AC
Current (A)		
Full Load Amp.	3.5	2.5
Locked Rotor Amp.	21	15
Non-Inductive Amp.	15	15

Ambient temperature: -25°C to 80°C

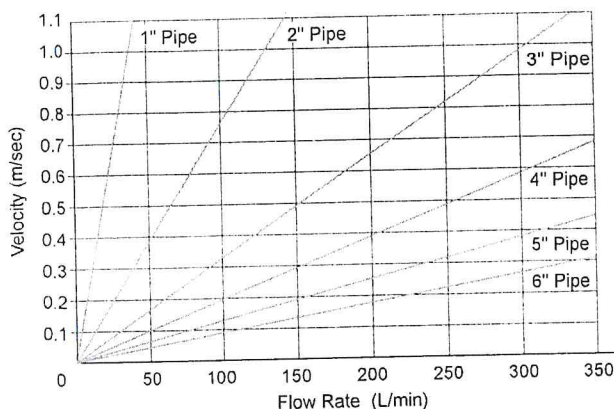
Fluid temperature: 5 to 80°C

Ambient humidity: FQS-U30G - 80%RH

FQS-W30G - 95%RH

⁽¹⁾ 6" paddle (material: stainless steel) is available upon request

FLOW AMOUNT - FLOW VELOCITY CHARACTERISTICS



Q : Flow Amount (liter/min.)

V : Velocity (m/sec.)

d : Pipe I.D. (mm)

$Q = \frac{\pi d^2}{4} \times V \times 6 \times 10^{-2}$ (liter/min.)

BENEFITS

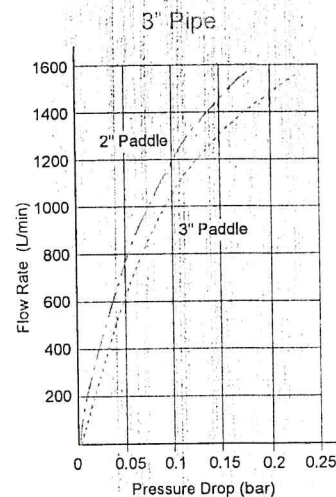
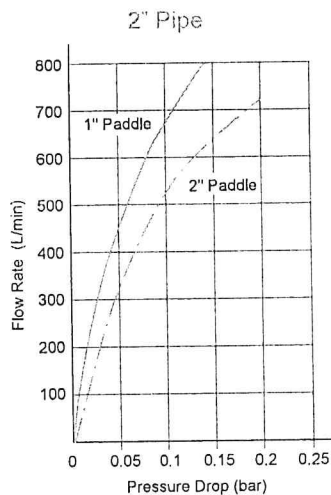
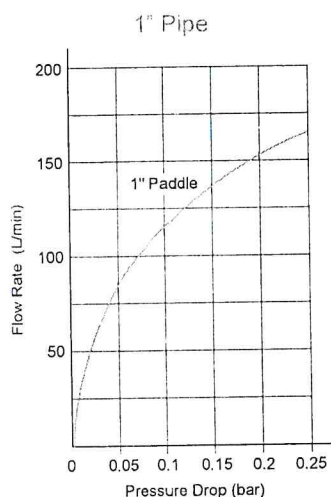
- simple mounting and wiring
- fast and easy to adjust to different pipe sizes
- water-proof version available if required
- installation in vertical or horizontal position possible
- CE and UL approval
- SPDT contact system

APPLICATIONS

- chilled water applications for air-conditioning systems
- water flow control for heat pumps
- hot-water supply systems
- fire-sprinkler systems

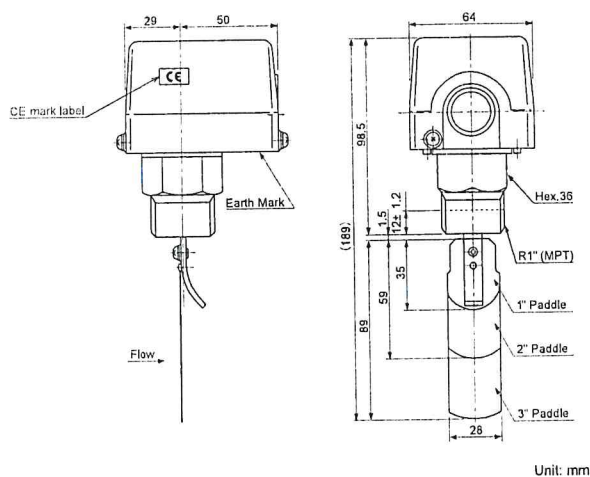
PRESSURE DROP CHARACTERISTICS

These charts show fluid pressure drop caused by 1", 2" and 3" paddles that are used for 1", 2" and 3" pipes.

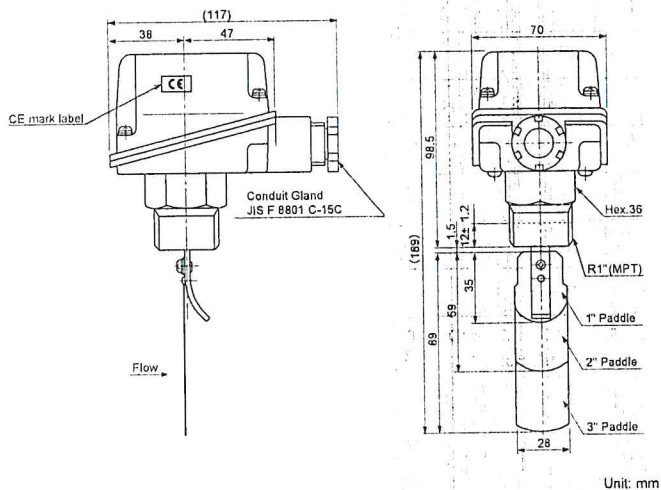


DIMENSIONS

FQS-U30G



FQS-W30G



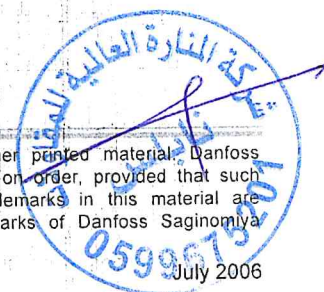
INSTALLATION INSTRUCTIONS

1. The switch should be screwed into a pipe to a depth of 12.0 ± 1.2 mm. Liquid flow direction should be in accordance with an arrow mark on the switch body.
2. Install the switch to a pipe where there can be a straight section of pipe with a length of at least five times the pipe diameter before the switch the upper-stream. (This is in order to avoid the risk of incorrect switching which can arise from turbulent flow.)
3. The switch (FQS) is supplied with the paddle consisting of 3 segments for pipe sizes ranging from 1" to 3" and set at the minimum flow rate unless otherwise specified.

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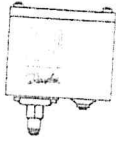
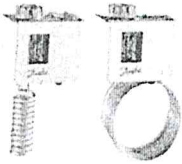


KP/KP-E/KPU/KP-A, pressure controls, standard applications

KP pressure controls are for use in refrigeration and air conditioning systems to give protection against excessively low suction pressure or excessively high discharge pressure. The controls are also...

- > Product Range
- > Drawings (4)
- > Approvals & certificates (5)
- > Contact

- > Photos (1)
- > Asset (3)
- > Literature (33)



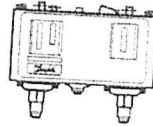
Ambient temperature: -40 + +65°C (+80°C for max. 2 hours). DIN-approved units: -40 + +65°C (+80°C for max. 2 hours). Max. working pressure = 17 barMax. te...

- > KP pressure control, low pressure



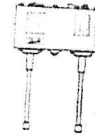
Ambient temperature: -40 + +65°C (+80°C for max. 2 hours). DIN-approved units: -40 + +65°C (+80°C for max. 2 hours). Max. working pressure = 32 bar, K...

- > KP pressure control, high pressure



KP Dual Pressure Controls are available in versions for regulation of high pressure on both left and right side or regulation of low pressure on left...

- > KP pressure control, dual

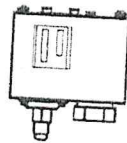


- > KP pressure control, failsafe (double bellows)



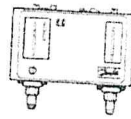
KP-A pressure controls for use in refrigeration and air conditioning systems with fluorinated refrigerants and ammonia (R717/RH3). Materials in con...

- > KP-A pressure control, for ammonia, low, high, dual versions



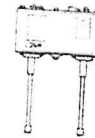
KPU pressure controls are for use on commercial refrigeration and air conditioning systems to give protection against excessively low suction pressure...

- > KPU pressure control, low pressure



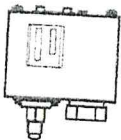
KPU dual pressure controls are for use on commercial refrigeration and air conditioning systems to protect compressor against excessively low suction p...

- > KPU pressure control, dual



KPU pressure controls are for use on commercial refrigeration and air conditioning systems to give protection against excessively low suction pressure...

- > KPU pressure control, failsafe (double bellows)



KPU pressure controls are for use on commercial refrigeration and air conditioning systems to give protection against excessively low suction pressure...

- > KPU pressure control, for fan cycling control



KP-E pressure controls for use in refrigeration and air conditioning systems with hydrocarbons are equipped with SPDT gold plated contacts and stainless...

- > KP-E, Pressure Controls for Hydrocarbons

