

EasyLogic™ Sensors

Water Flow Switches

CP Series



Product Description

CP Series water flow switches are used to monitor the flow of liquid, such as water, glycol or other non-hazardous liquids, through pipes. When the liquid flow exceeds or falls below the default flow value, this Single-Pole, Double-Throw (SPDT) flow switch can open one circuit and close another at the same time.

In typical applications, the CP Series flow switch can stop the compressor current when cooling water in a refrigeration system is cut off, protecting both the refrigerator itself and the entire refrigeration system from damage.

Features

- Ideal for a wide variety of liquid pressure applications up to 10bar (1MPa)
- Supports DN25 to DN200 pipelines
- Stainless-steel paddles (4 sizes) can be removed or modified to suit the application
- Adjustable setpoint and flow values
- Fully enclosed housing protects electrical components from dust and water vapor
- Large wiring space for convenient installation

Available Products

Part Number	Description
CP-LI-FL-SW-BSP0	Water Flow Switch, DN25-DN200, BSP
CP-LI-FL-SW-NPT0	Water Flow Switch, DN25-DN200, NPT

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Safety Information

Important Information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it.

Please Note

Electrical equipment should be installed, operated, serviced and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

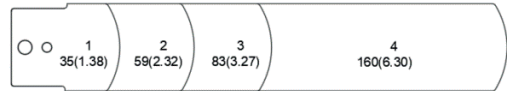
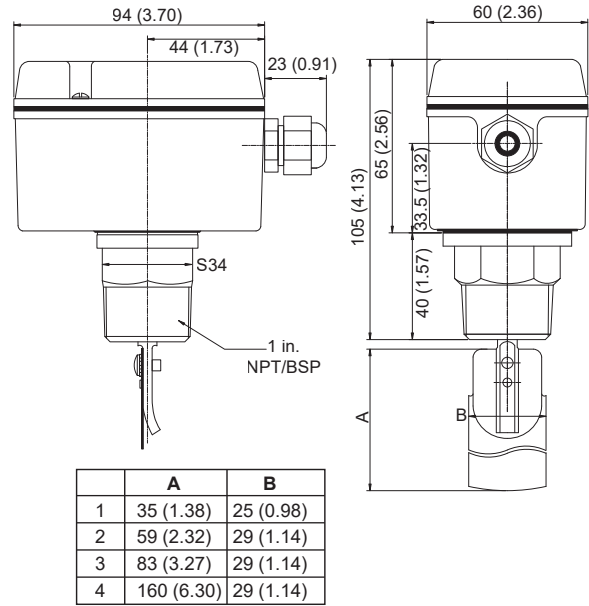
A qualified person is one who has the skills and knowledge related to the construction, installation and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Observe all applicable regulations from local electrical and water utilities.

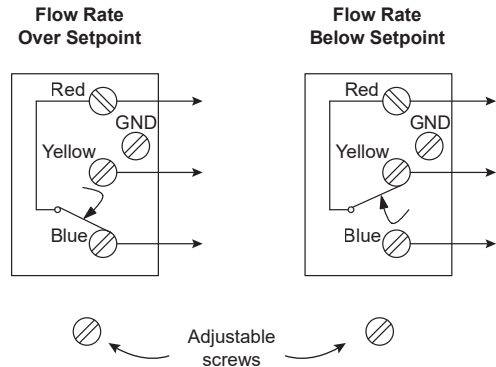
Specifications

Maximum pressure	10bar (1MPa)
Range	DN25 to DN200
Relay type	SPDT
Load rating	10 A resistive, 3 A inductive
Medium	Water, glycol
Medium temperature	0 to 120 °C
Operating temperature	0 to 60 °C
Operating humidity	0 to 95% RH (non-condensing)
Operating atmospheric pressure	86 to 106 KPa
Storage temperature	-20 to 70 °C
Storage humidity	0 to 95% RH (non-condensing)
Materials	Housing: ABS plastic Pipe: brass connections Bellows: Bronze Paddles: 301 Stainless steel
Wire connections	Screw terminals, 4x1.0 mm ² , PG9 connector
Pipe connection	1-inch with male NPT/BSP
Accessories	Paddle: 35 mm, 59 mm, 83 mm or 160 mm
Protection class	IP54
Bellow life	500,000 cycles
Weight	~ 400 g
Regulatory Information	
Agency approvals	European conformance (CE) EN 61326-1 according to 2014/30/EU directive, UKCA (UK), Green Premium: China RoHS 2.0, European RoHS, REACH

Dimensions mm (in.)



Wiring



Flow Reference

The table below shows the relationship between the pipe inner diameter, paddle dimensions and flow setpoint.

Pipe Diameter Nominal DN (mm)	Paddle Dimensions (mm)	Number of Paddles	Flow Rate with Min. Setting m ³ /h		Flow Rate with Max. Setting m ³ /h	
			Switch Action	Switch Return	Switch Action	Switch Return
25*	16x25	1	0.9	0.58	2.05	1.98
32	25x35	1	1.48	0.94	3.38	3.18
40	25x35	1	1.9	1.28	4.88	4.58
50	25x35	1	3.48	2.42	7.39	6.87
65	28x59	1+2	4.09	2.84	7.84	7.23
80	28x59	1+2	6.24	4.32	12	11.4
100	28x83	1+2+3	14.3	11	28	26.8
125	28x83	1+2+3	27.4	22.1	53.6	51.5
150	28x83	1+2+3	41.6	34.6	82.1	78.8
200	28x83	1+2+3	82.1	70	166.4	160
100*	28x92	1+2+3+4	8.4	6.13	18.4	17.3
125*	28x117	1+2+3+4	12.9	9.31	26.8	25.21
150*	28x143	1+2+3+4	16.8	12.26	32.7	30.66
200*	28x160	1+2+3+4	46.6	38.6	94.26	90.85

*Trim the paddle according to the Paddle Dimensions column in the table.

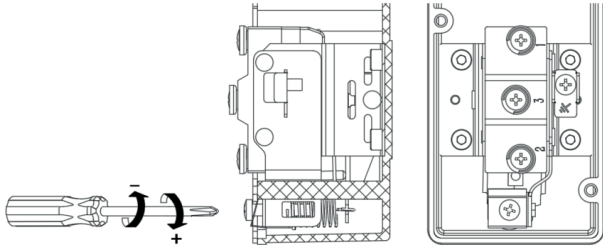
Notes:

Values in this table are for reference only.

The setpoint value can be changed using the adjustable screw.

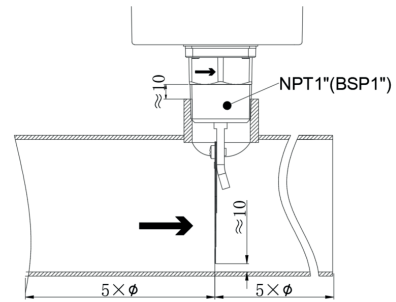
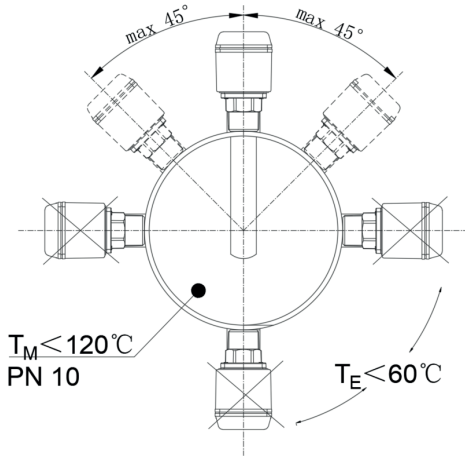
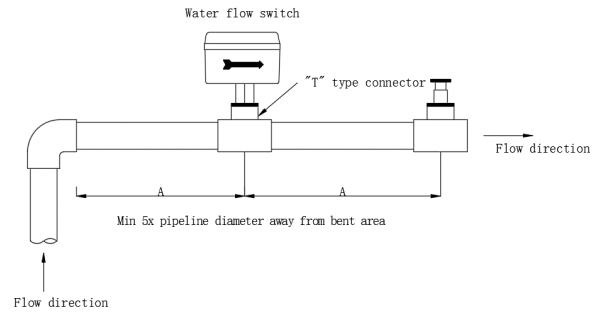
The product is delivered with four paddles. Paddle length is determined by the flow setpoint value and the inner diameter of the pipe. The installed number of paddles is based on the Number of Paddles column in the table.

Flow Setpoint Adjustment



Installation

- Note the temperature and ambient temperature of the medium.
- Install the flow switch vertically in horizontal piping.
- Note the flow direction during installation.
- Before and after the flow switch mounting location, a smoothing path of five times the nominal pipe diameter is required.



China RoHS Compliance Information Environment-Friendly Use Period (EFUP) Table

部件名称 Part Name	有害物质 / Hazardous Substances					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属 Metal	X	O	O	O	O	O
塑胶 Plastic	O	O	O	O	O	O
电子元器件 Electronics	O	O	O	O	O	O

本表格依据SJ/T11364的规定编制。

O: 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。
 X: 表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。
 本表中标有“X”的所有部件均符合欧盟RoHS法规

This table is made according to SJ/T 11364.

O: indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is below the limit as stipulated in GB/T 26572.

X: indicates that concentration of hazardous substance in at least one of the homogeneous materials used for this part is above the limit as stipulated in GB/T 26572.

All the parts with “X” comply with EU ROHS.

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