Flow switch for liquids
Series FLU25PL

Main features

- Suitable for piping from 1” to 8”.
- Adjustable tripping flow rates.
- Max. fluid pressure 10 bar.
- Max fluid temperature 110°C.
- 3-contact microswitch: 10 (5) A-230V.
- Protection IP64 .
- Plastic case.
- According to 2006/95/EC.

WATTS INDUSTRIES

A Division of Watts Water Technologies Inc.

Description

The flow switch Series FLU25PL is an electromechanical two-stage device (open-closed) for detection of flow rate on piping from DN 1" to DN 8".

FLU25PL

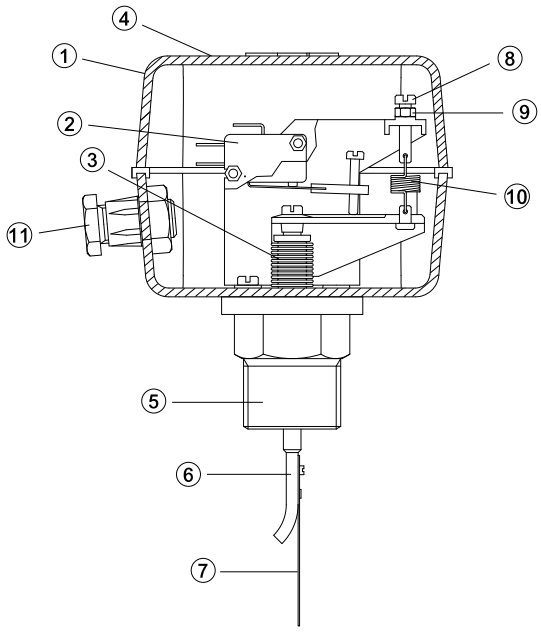
Flow switch for piping DN 1" to DN 8". Plastic case.
Brass pipe fitting. 3-contact microswitch: 10 (5) A-230V.
Max. fluid operating pressure: 10 bar. Max. fluid operating temperature: 110°C.
Max. Working temperature: 60°C.
Provided with setting screw of max. and min. tripping flow rate.

According to Directive 2006/95/CE.

Type	Part. No	Dn	Protection	Weight [Kg]
FLU25PL	0401225	1"	IP64	0,86

Operation and application

The flow switches **Series FLU25PL** are provided with a metallic blade (7) that drives a switch (2) when occurs the limit flow rate.
The flow switches are provided with a series of blades to use in function of different piping diameters.
The metallic bellow (3) ensures the separation between hydraulic and electric part that is inside a plastic case (1 and 4) having protection class IP64.
The tripping flow rate can be regulated (from a min. to a max. value) through a setting screw (8).
The flow switches are used as protection devices in systems in which the fluid circulation is necessary to ensure the correct operating of installed devices or to prevent the damages.
In the closed vessel heating systems the flow switches are used to interrupt the heat supply to the circuit in case of stopping of the circulation pumps.



Features

1 - Plastic case
2 - Microswitch
3 - Phosphor bronze bellow
4 - Aluminium casing
5 - Threaded fitting 1"
6 - Setting rod
7 - Blade
8 - Setting screw
9 - Locknut
10 - Return spring
11 - Cable Entry

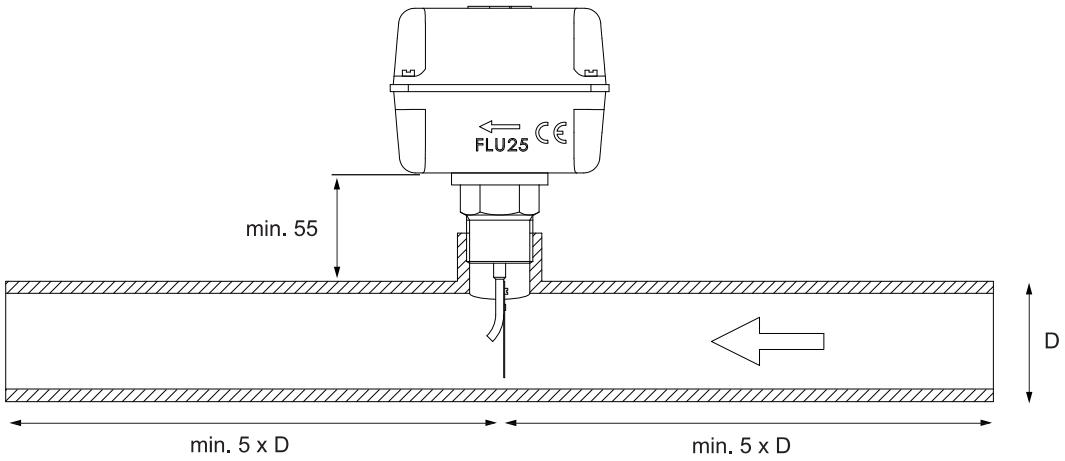
Technical characteristics

Technical features	
Contact load rating	10 (5) A - 230V - 50/60Hz
Max. fluid pressure	10 bar
Max. Fluid temperature	110°C
Max. room temperature	60°C
Degree of protection	IP 64

Design features	
Case and cover	Plastic reinforced with fiber glass
Bellow	Phosphor bronze
Blade	Stainless steel
Fitting	Brass, 1"M

Installation

In function of the diameter of piping it must be fitted on flow switch the appropriate blade choosing between the four lengths supplied (34, 57, 88, 167 mm) as shown in table in paragraph "tripping flow rate setting".

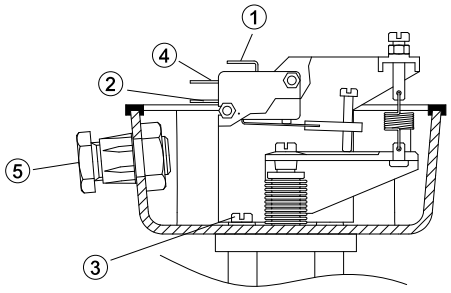


For a correct operation it is advisable:

- Install the FLU25PL with the fluid flow according to the direction indicated from the arrow onto the case.
- Install the FLU25PL onto horizontal pipe (with vertical blade).
- Foreseen a straight pipe with a length of 5 times the pipe diameter from sources of turbulence (elbows, valves, etc.).
- Foreseen a minimum distance of 55 mm between the pipe and the lower base of the FLU25PL.
- In heating system is advisable the mounting on the return pipe.

Electrical connections

Realize electrical connections using relative terminals and cable entry supplied with flow switch.
Fix the terminals to the microswitch contacts, choosing between normally open and normally closed contact in function of system requirements.
Note: fit the cable entry O-ring to guarantee the degree of protection declared.



Feature

1 - Common
2 - NC contact
3 - Earth terminal
4 - NO contact
5 - Cable Entry

Tripping flow rate setting

Setting of tripping flow rate is by means of setting screw.
- Fully tighten the screw to obtain minimum flow rate setting.
- Fully loosen the screw to have maximum flow rate setting.

The following table gives the values for the tripping flow rate in m3/h (both in opening and in closing) in relation to the pipe diameter and to the blades fitted.
The values shown are refers to horizontal appliances.

Pipe diameter inches	Blade length mm	Minimum flow rate setting (fully tighten screw) m³/h		Maximum flow rate setting (fully loosen screw) m³/h	
		close	open	close	open
1”	34	0,9	0,4	2,0	1,5
1” 1/4	34	1,2	0,6	2,6	1,9
1” 1/2	57	1,6	0,9	3,3	2,6
2”	57	3,2	2,3	7,1	5,1
2” 1/2	88	4,2	3,5	8,0	7,0
3”	88	6,3	5,7	12,0	10,5
4”	88	13,5	12,0	28,0	26,0
4”	167	8,0	7,1	20,0	18,0
5”	88	27,0	23,0	60,0	58,0
5”	167	12,1	9,0	30,0	28,0
6”	88	43,0	36,0	91,0	37,0
6”	167	17,2	12,0	35,0	32,0
8”	88	85,0	73,0	176,0	170,0
8”	167	42,0	36,0	90,0	85,0

ATTENTION! Remove the power supply before setting! Use a multimeter to check the tripping point.

Overall dimensions (mm)