Flow switch for liquids
604

Description

Safety-flow-control-device, against liquid flow interruptions.
Suitable for non-corrosive liquids such as: water, oil etc.

Technical features

MATERIALS	
Body:	brass
Paddles:	Stainless-steel AISI 316L
Case	ABS
Cover	PC
Male connection	Ø 1" R-UNI ISO 7/1

PERFORMANCE	
Max. working pressure	1100 kPa
Fluid temperature	-40 ÷ +120 °C
Working temperature	-40 ÷ +85 °C (10÷90% u.r.) without condensing
Power supply	15(8)A 24-250 Vac
Protection	IP 65 class I

Instruction for installation

It can be employed indifferently for pipings with diameters from 1" to 8", by using the right-sized paddle for each single diameter as here below indicated.
-The flow switch can be installed in any position (on the horizontal or on the vertical pipe), if it's installed on the vertical pipe, it must be resetted to compensate for the paddle's weight.
- pay attention to the direction of the liquid-flow, as indicated by the red-arrow.
- on the front and rear of the flow switch there must be a rectilinear pipe section equivalent to at least five diameters of the pipe itself - caution : the paddle should be completely and well immersed in the pipe and must not rub against the inner-walls of the pipe: to avoid the reduction or the block of the paddle's movement, there mustn't be deposit of detritus on the pipe's bottom or on the pipe's wall.

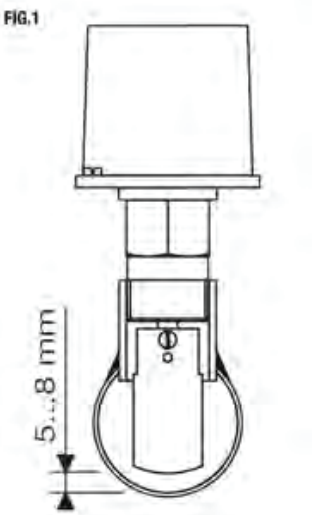
It is advisable to fit the flowswitch on the return tube of the heating water near the boiler, thus the lower temperature allows a longer life for the flowswitch, because of a minor thermic stress. It is however of paramount importance, at the installation stage, to be very careful, since the presence of a three-or four-way- thermoregulating valve may cause wrong intervention of the flowswitch in case of a variable, not constant water-flow.
This inconvenience occurs specially under conditions of maximum work of the whole plant, during the less cold season and it causes the stopped burner.

The reactivation of the combustion can be made only by a subsequent moving of the valve, in this way three will be a continuous pendular functioning of the valve with the whole hydraulic system.

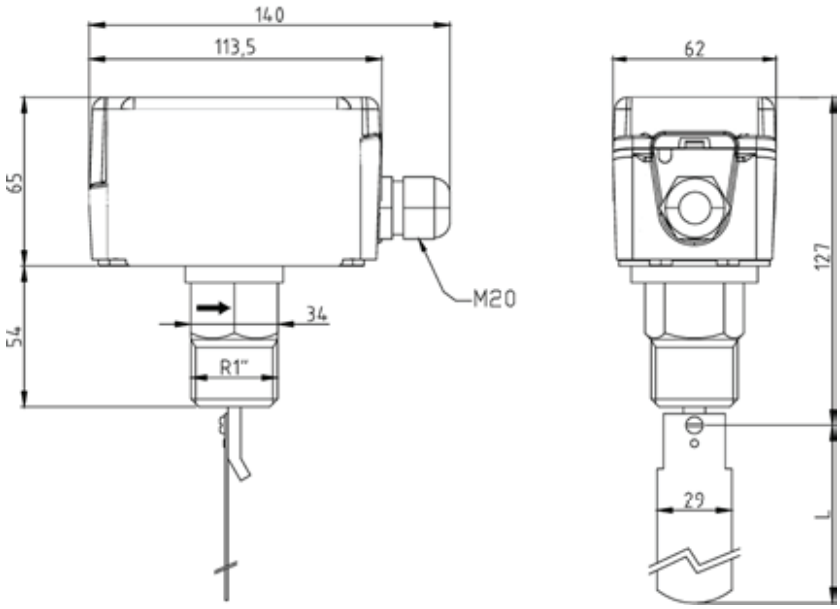
Placement of flow

Dip the scoop in the pipe up to a distance of between 5 and 8 mm (FIG.1).
If necessary, in case of interference, cut the thin plate forming the pallet, until the set distance.
To choose the most suitable blade consult the table of course.
The flow rate to be controlled should be in the range of action of the flow.
Note:
- The cut-out value must be ≥ the minimum flow necessary to protect plant.
- After re-calibration and verification of the switching point on the plant is necessary to seal the calibration screw and note the value.
- If you use the unit as a flow restrictor it must be situated in a valley further control device for the activation of the alarm condition.
This device must conform to DIN VDE 50156-1: 2005-03.
- Granted only used the seals and thread second DIN EN 10242.

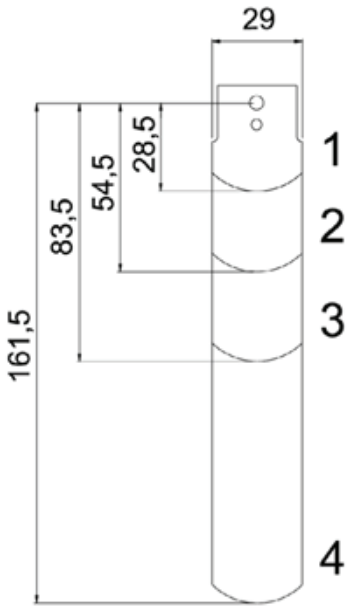
FIG.1



Dimensions



Paddles

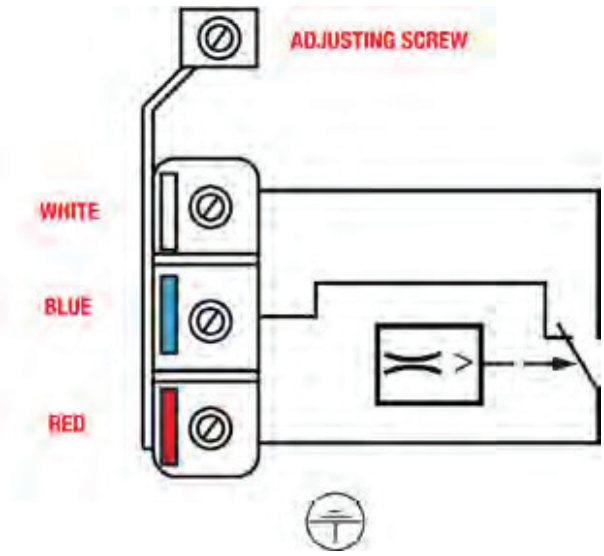


PADDLES	
PIPE	**PADDLES**
1”	1
1”1/4	1
1”1/2	1
2”	1,2
2”1/2	1,2
3”	1,2,3
4”	1,2,3
4”Z	1,2,3,4
5”	1,2,3
5”Z	1,2,3,4
6”	1,2,3
6”Z	1,2,3,4
8”	1,2,3
8”Z	1,2,3,4

Flow rate

FLOW RATE			
Pipe Connector Ø	**Q.max Recommended m^3/h**	**Min. Adjustment m^3/h**	**Max. Adjustment m^3/h**
1”	3,6	0,6 (1,0)	2,0 (2,1)
1”1/4	6,0	0,8 (1,3)	2,8 (3,0)
1”1/2	9,0	1,1 (1,7)	3,7 (4,0)
2”	15,0	2,2 (3,1)	5,7 (6,1)
2”1/2	24,0	2,7 (4,0)	6,5 (7,0)
3”	36,0	4,3 (6,2)	10,7 (11,4)
4”	60,0	11,4 (14,7)	27,7 (29,0)
4”Z	60,0	6,1 (8,0)	17,3 (18,4)
5”	94,0	22,9 (28,4)	53,3 (55,6)
5”Z	94,0	9,3 (12,9)	25,2 (26,8)
6”	120,0	35,9 (43,1)	81,7 (85,1)
6”Z	120,0	12,3 (16,8)	30,6 (32,7)
8”	240,0	71,6 (85,1)	165,7 (172,5)
8”Z	240,0	38,6 (46,5)	90,8 (94,2)

Electrical connection



The contact red/white opens in case of lack of flow.