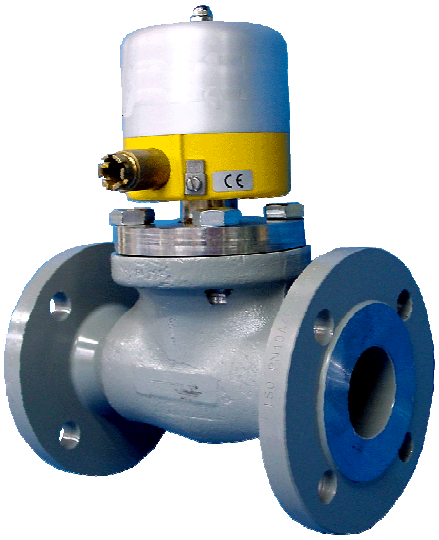
Float operated flow switches Series 1020...



MODELS

- type 1020T
- type 1020B

USE

The type 1020 flow switch is designed to indicate inadequate or excess fluid flow in a horizontal pipe. It has a numerous possible applications, of which the most common are:

- triggering alarm systems
- switching on security devices,
- starting and stopping auxiliary devices

Examples of uses

- flow monitoring in cooling circuits,
- the control of pump units,
- lubrication circuits

PRINCIPLE

A variable section float with a magnetic extension moves vertically inside a calibrated seat. Its deplacement is proportional to the rate of flow. The magnetic extension of the float acts on a mlagnet linked to an electric contact which delivers an alarm signal. The switch is set for a specified flow rate termed the “flow switching point”.

DESCRIPTION

This instrument consists of:

- A cast or mechanical welded body, inside which is the calibrated seat. The unit is connected either by tapped connectors or flanges
- a float fitted with a magnet extension
- A guide tube, on which the contact and terminal box are fixed
- A terminal box with gland for the electric cable

Technical Data Sheet
50466-628
July 2017

Flow Switches

TECHNICAL DATA

Flow rates

Connector		Normal max. flow rate Liq. d=1 1cPo	Standard switching flows* Liq. d=1 1cPo	Optimal switching flows** Liq. d=1 1cPo
DIN Flange	Tapping BSP			
15	½"	1m³/h	100 l/h	10 l/h to 400 l/h
20	¾"	1.5 m³/h	250 l/h	70 l/h to 1 m³/h
25	1"	2.5 m³/h	400 l/h	150 l/h to 2.5 m³/h
-	1"1/4	4 m³/h	600 l/h	250 l/h to 4 m³/h
40	1"1/2	6 m³/h	1 m³/h	400 l/h to 6 m³/h
50	2"	10 m³/h	1.5 m³/h	500 l/h to 7 m³/h
80	-	25 m³/h	4 m³/h	1.5 m³/h to 15 m³/h

** For lack of flow*
*** Value to be specified by the user within the defined range*

Maximum Operating pressure:
(up to 120°C)
16 bar for bronze model
(except 2": 10 bar)
25 bar for the steel model.
Up to 100 bar for stainless steel, depending on model.

Maximum operating temperature:
80°C up to 250°C with heat screen

Pressure drop:
200 to 400 mbar at nominal flow; less than 40mbar depending on dimensions for standard switching flow.

Contact:
- Microswitch inverter 15A, 250V.
- Reed type inverter 250Vdc or a.c., 60VA 30W
  Imax 1A maxi
  résistive charge

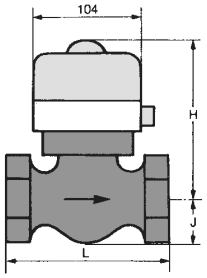
Material:
Material varies according to the connection method.

Terminal box:
Standard: light alloy IP¨54. Brass cable gland with neoprene membrane for cable from Ø8 to 11mm
Explosion proof: standard Ex **II 2G EXdIICT6Gb**
In light alloy IP67 ATEX certified. Light alloy flame-proof cable gland with cable lock for cables from Ø8 to 11mm.
Electric connection to screwed terminals for wires of section 1,5mm²

- *Tapped connectors*: from ½" to 2" BSP
  Moulded bronze or stainless steel body
  Brass or stainless steel float
  Brass or stainless steel guide tube
- *Plain flange*
  Moulded steel body, or mechanically welded stainless steel body
  Stainless steel float
  Stainless steel guide tube
  Threaded connections NPT or flanged connections according to EN1759

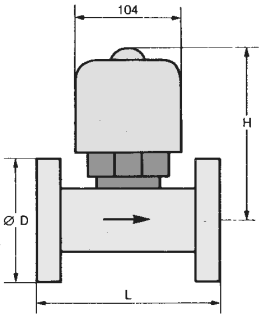
DIMENSIONS (standard housing)

1020 TAPPED



Tapping BSP	Bronze body			Stainless steel or carbon steel body		
	J	L	H	J	L	H
½"	21	68	159	22	82	176
¾"	27	80	164	22	82	176
1"	32	95	169	33	102	193
1"1/4	37	105	177	38	134	210
1"1/2	35	120	187	38	134	210
2"	50	145	196	45	150	230

1020 FLANGED



CARBON STEEL OR STAINLESS STEEL BODY							
ND		NP16/40		NP20 (150#)		NP50 (300#)	
	H	L	ØD	L	ØD	L	ØD
15	176	130	95	108	89	152.5	95
20	176	150	105	117.5	99	178	117
25	193	160	115	127	108	203.5	124
32	210	180	140	216	117	216	133
40	210	200	150	165	127	228.5	156
50	230	230	165	203.5	152	266.5	165

INSTALLATION AND MAINTENANCE

This instrument must be installed on a horizontal pipeline. The only necessary precaution is to ensure that the float is as perfectly vertical as possible. In addition, the liquid must be free of solid particle. This unit requires no particular maintenance with exception that it must be kept in general clean condition. The liquid to be monitored must contain no particle or substances in suspension. (for further information see instruction manual n° 50466- 023A)

SPARES

- contact
- Float
- Cap

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