

Flap operated flow switches

Series 1200... and 1220...



MODELS

- type 1200T/1200B
- type 1220T/1220B

USE

The type 1200 and 1220 flow switches are designed to detect any loss or excess of liquid flow within a horizontal pipe of minimum diameter 50mm.

PRINCIPLE

A hinged flap, positioned perpendicular to the direction of the fluid flow, actuates a rod, which holds a magnet at its upper end. This magnet actuates another magnet connected to an electrical switch, which delivers an alarm signal. The switch is set for a given flow named "the switch flow". (while ordering, customer must mention if this switching flow is needed while flow is increasing or decreasing").

DESCRIPTION

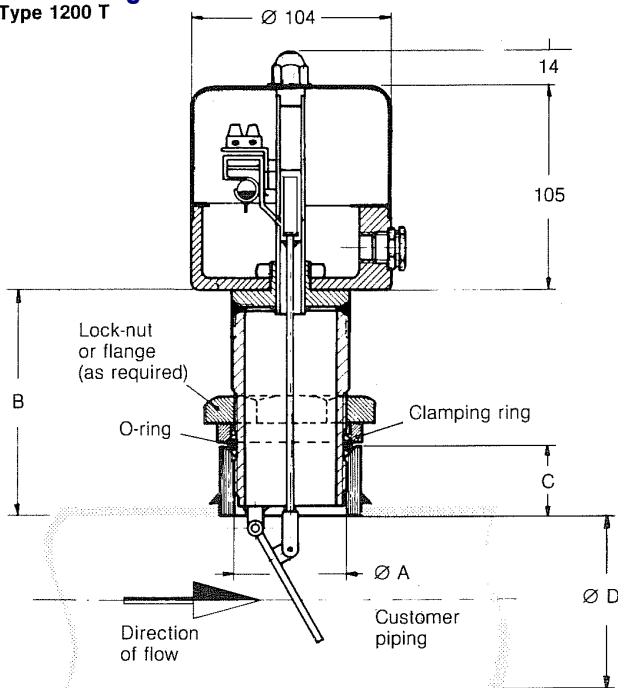
The instrument is available in two standard versions:

- TYPE 1200: This is the simplest design, directly connected to the customer piping, which must drill its pipe and weld a threaded or flanged supplied tube. 1200 is delivered either with a screwed connection mode to the pipeline (1200T), either a flanged connection type (1200B).
- TYPE 1220: Delivered already mounted on a connection bushing (pipe section), supplied complete with threaded or flanged connection type. This design should be simply bolted on an existing pipe line already fitted with flanges.

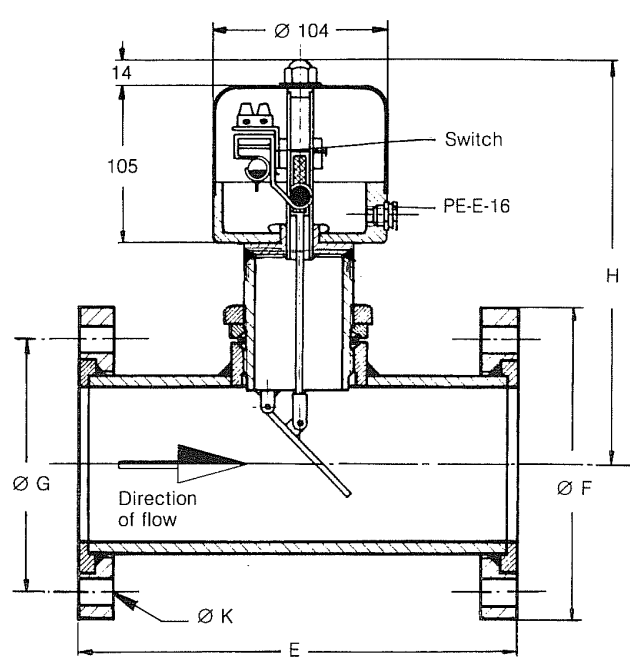
TECHNICAL DATA

Standard housing

Type 1200 T



Type 1220 T



FLOW RATES and DIMENSIONS

Nominal flow m ³ /h (water)	Switching flow m ³ /h* (water)	Pipe DIN 10 D mm	Type 1200				Type 1220						
			10 A BSP Inches	B mm	C mm	Flanged sleeve DIN	Flange DIN	10 F mm	10 G mm	K No	10 K mm	E mm	H mm
12 20	3 - 6 4 - 8	50 65	1 1/4	100	35	32	50 65	165 185	125 145	4 4	18 18	200 200	240 250
30 50 80	6 - 12 10 - 20 15 - 30	80 100 125	2	113	35	50	80 100 125	200 220 250	160 180 210	8 8 8	18 18 18	200 250 300	265 280 290
100 200 300	25 - 50 40 - 80 60 - 120	150 200 250	3	128	40	80	150 200 250	285 340 395	240 295 350	8 8 12	22 22 22	300 350 350	315 345 380

* The alarm is set for a flow within the specified limits.

Maximum operating conditions: Pressure 16 bar (higher value on request) / Temperature: 120°C (up to 250°C with heat screen option)

JUNCTION BOX

Standard H1

Light alloy box IP54; inlet through brass cable gland f/w neoprene diaphragm for electrical cable from 8 to 11 mm diameter.

SEALED: H3

Light alloy IP65, inlet through polycarbonate cable gland with neoprene ring and tension take-up for electrical cable from 8 to 10mm diameter

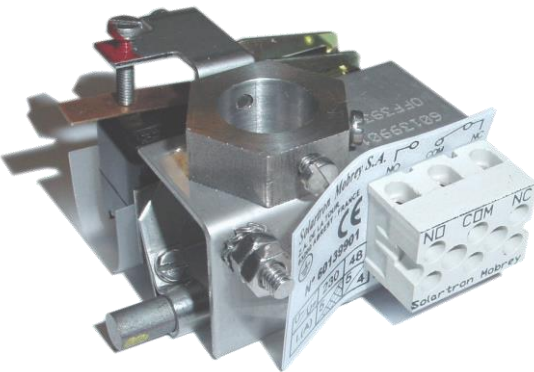
Explosion-Proof Box: H2

ATEX certified LCIE01ATEX6061X II2G EExdIICT6
Inlet through aluminium cable gland with cable lock. For cables from 8 to 11mm.

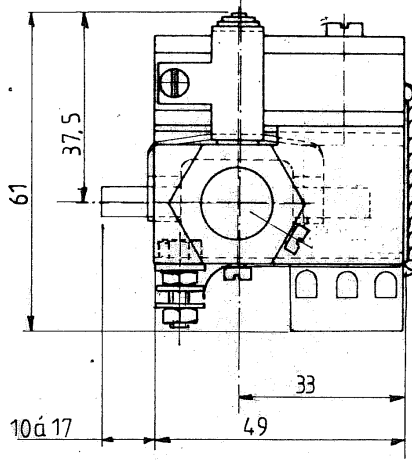
INSTALLATION AND MAINTENANCE:

The flow monitor must be installed on a horizontal section of piping. The only precaution necessary is to ensure that the instrument is as near as vertical as possible. In the version 1200, when welding the sleeve to the pipe, it should be ensured that the sleeve is perfectly vertical and when mounting the instrument that the flap is perpendicular to the direction of the flow. The instrument doesn't require any particular maintenance, although it should be kept in clean condition. For further details, refer to the instruction manual.

CONTACT TYPES



S3

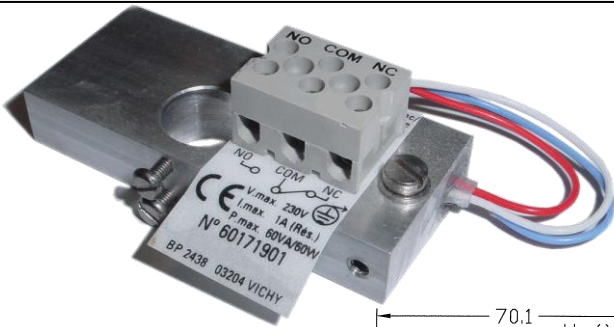


CARACTERISTIQUES

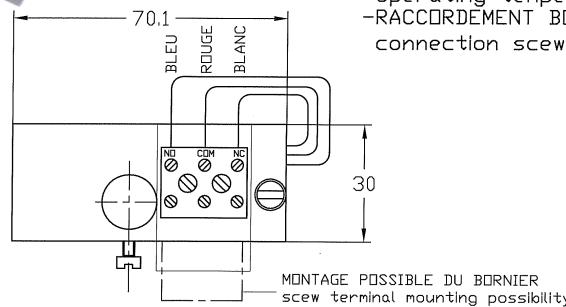
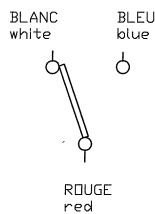
CHARACTERISTICS

- Tension maxi 230V (voir tableau)
- Max voltage 230v (see table)
- Courant maxi 15A (voir tableau)
- Max current 15A (see table)
- Temperature de fonctionnement -25°C à +85°C
- Operating temperature -25°C to +85°C
- Duree de vie 10⁶ manoeuvres
- Service life 10⁶ operations

Tension Voltage.	charge resistive resistive load	charge inductive inductive load
230Vcc/Vdc	0,2A	0,05A
110Vcc/Vdc	0,4A	0,1A
30Vcc/Vdc	8 A	4 A
110Vca/Vac	15A	
230Vca/Vac	10A	5 A



S1



- CONTACT contact
 - TENSION MAXI max voltage 230 Vca / 230 Vcc
 - COURANT MAXI max current 1A
 - PUISSANCE MAXI max power 60 VA 60W charge resistive
 - DUREE DE VIE service life 10⁶ operations
 - TEMPERATURE DE FONCTIONNEMENT operating temperature -50°C à +125°C
 - RACCORDEMENT BORNES A VIS connection scw terminal 1.5mm²
- INVERSEUR BISTABLE
bistable change over spdt
230 Vca / 230 Vcc
230 Vac / 230 Vdc
1A
1A
60 VA 60 W charge resistive
60 VA 60 W resistive load
10⁶ operations
10⁶ operations
-50°C à +125°C
-50°C to +125°C
1.5mm²
1.5mm²

SPARES:

Contact, Flap magnet assembly

ORDERING

Code	INSTRUMENT TYPE						
1200	FLOW alarm fitted directly to the customer pipe						
1220	FLOW alarm fitted to the customer pipe using a connection bushing (pipe section with flanges)						
	Code	CONNECTION					
	T	Threaded + welded connection					
	B	Flanged connection					
	Code	RATING					
	-	2" - 2"1/2 - 3" - 4" - 5" - 6" - 8" - 10" (for 1220T and 1220B types)					
	-	1"1/4 - 2" - 3" (for 1200 T and 1200B types)					
	Code	DESIGN					
		<i>BODY MATERIAL</i>	<i>FLAP MATERIAL</i>	<i>CONNECTIONS</i>			
	Series 1200T						
	C1	Carbon steel	316L ST.ST.	BSPP threaded			
	C2	316L ST.ST.	316L ST.ST.	BSPP threaded			
	Series 1200B						
	C3	Carbon steel	316L ST.ST.	ISO NP16			
	C4	316L ST.ST.	316L ST.ST.	ISO NP16			
	C5	Carbon steel	316L ST.ST.	ANSI B16-5 150#			
	C6	316L ST.ST.	316L ST.ST.	ANSI B16-5 150#			
	Series 1220T						
	C1	Carbon steel	316L ST.ST.	ISO NP16			
	C2	316L ST.ST.	316L ST.ST.	ISO NP16			
	C3	Carbon steel	316L ST.ST.	ANSI B16-5 150#			
	C4	316L ST.ST.	316L ST.ST.	ANSI B16-5 150#			
	Series 1220B						
	C5	Carbon steel	316L ST.ST.	ISO NP16			
	C6	316L ST.ST.	316L ST.ST.	ISO NP16			
	C7	Carbon steel	316L ST.ST.	ANSI B16-5 150#			
	C8	316L ST.ST.	316L ST.ST.	ANSI B16-5 150#			
	Code	SWITCHING MODE					
	M1	Standard not defined by customer					
	M2	Defined by customer					
	Code	HOUSING TYPE					
	H1	Light alloy box – IP54 -					
	H2	Flame-proof Box ATEX – Ex II2G ExdIICT6					
	H3	Aluminium Box – IP65					
	Code	ALARM TYPE					
	S1	Bistable Change over SPDT					
	S3	Bistable microswitch					
	S4	Pneumatic contact 1,6 bar brass connection					
	S5	Pneumatic contact 1,6 bar stainless steel connection					
	S6	Pneumatic contact 7 bar brass connection					
	S7	Pneumatic contact 7 bar stainless steel connection					
	Code	OPTIONS					
	Z1	Special cable gland for H2 processes					
	Z2	Thermal shield for T°>120°C					
	Z3	Exhaust collector, brass connection					
	Z4	Exhaust collector, stainless steel connection					
	Z9	Epoxy painting					
V	V	V	V	V	V	V	V
1220	B	2"	C5	M2	H1	S4	Z9

Houdec Innovation S.A.S.
 Z.A. de la Tour– ABREST– France
 Tel: +33 (0)4.70.59.81.81.
 Fax: +33 (0)4.70.59.96.37.
 Email : contact@houdec.com
www.houdec.com

