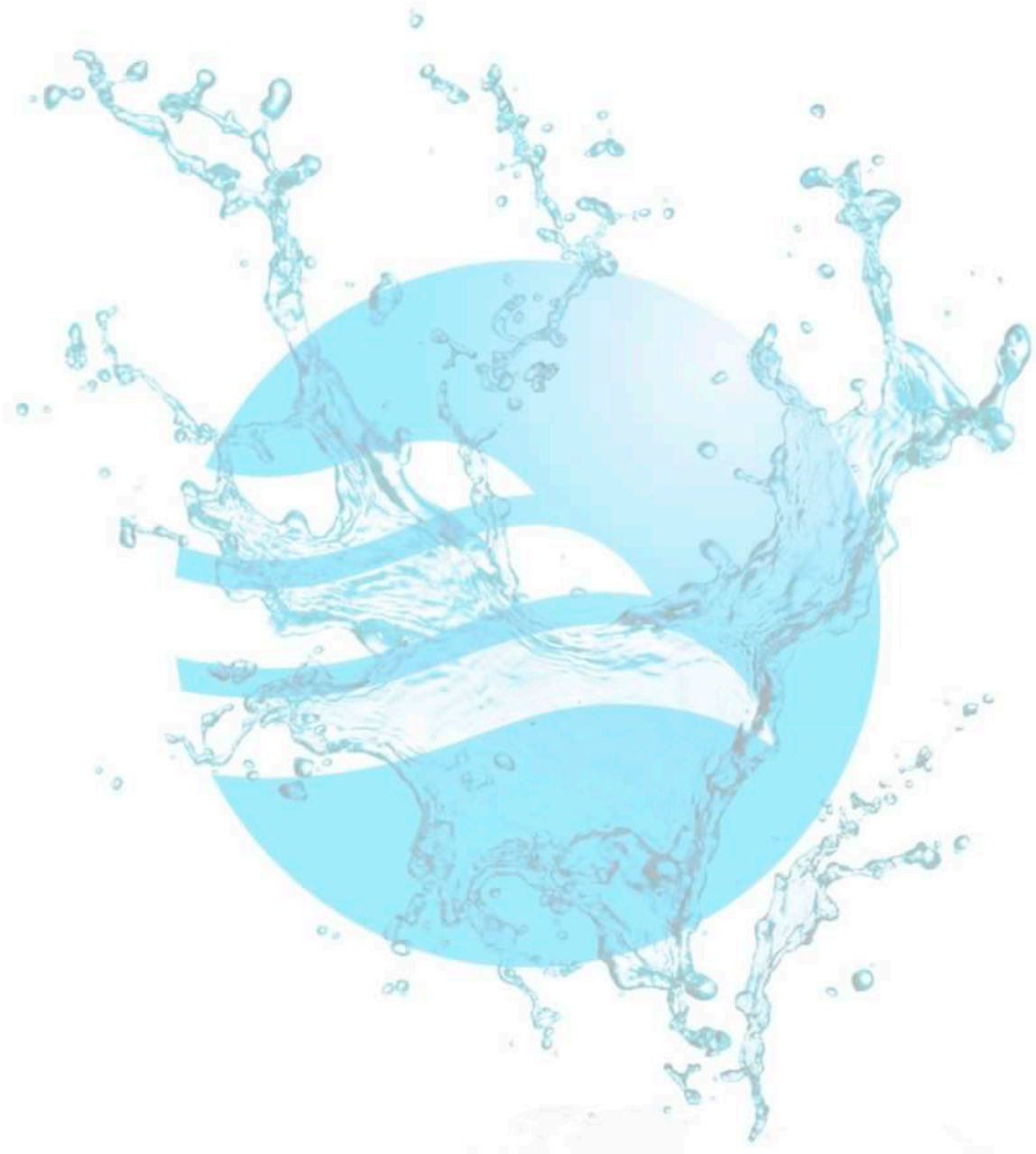

SOCLA
REGULATION
SOCLA



The Regulation Range

Controlling water distribution

Water distribution in networks is becoming more and more complex, because od urbanisation ; the quality service owed to the customer and the wish to improve efficiency by lowering energy consumption.
Socla proposes in the field of regulation a wide range of stabilisers but also different air control devices :

- The **AUTOMATIC CONTROL VALVES** range answers to upstream/downstream/differential pressures, altitude valves, float valves, electrically operated valves, with pilots ; discharge valves ; pump and flow protection valves

Pages 2 to 17

- The **WATER HAMMERS** and **AIR VALVES SYSTEMS** allow air control water distribution networks by ensuring continuous and automatic evacuation but also influx and release of air at fast rate

Pages 18 to 23

Desbordes : PRESSURE REDUCERS wide ranges

Desbordes literature*

- ✓ Any position installation
- ✓ Scale and dirtproof
- ✓ No filter and no maintenance
- ✓ Maximum upstream pressure of 25 bar
- ✓ Precise and permanent setting
- ✓ All type of connections
- ✓ A single model hot and cold water
- ✓ Bronze body
- ✓ Excellent acoustic and hydraulic performances

A multiplicity and various applications :

FLATS AND HOUSES INDIVIDUAL WATER SUPPLY

11 : male/male
11 BIS : female/female
11 EP : union-nut/male
11 DO : equipped with 2 plugs 1/4" on each side + 2 fittings removables

▶ Delivered pre-set at 3 bar

FOR WATER DISTRIBUTION DOMESTIC AND INDUSTRIAL

10 : male/male
10BIS : female/female
10TER : with flanges
10 RC : with flanges and compensating spring

▶ Delivered unset

WATER SUPPLY OF HOUSE BLOCKS, COLLECTIVE HOUSING

REDUNEUF
9 : threaded male/male
9 BIS : threaded female/female

▶ Non adjustable set at 3 bar

FLATS AND HOUSES INDIVIDUAL WATER SUPPLY

JUNIOR
7 BIS : threaded female/female
7 EP : union-nut/male
7 SP : male/union-nut

▶ Delivered pre-set at 3 bar

VERY LOW PRESSURE : AGRICULTURE, IRRIGATION, LABORATORY

11BIS RCBP : male/male

▶ Possible to set less than 1 bar

PROTECTION OF INDIVIDUAL DEVICE, WATER HEATER

SECURO
5 SP : male/union-nut

▶ Delivered pre-set at 3 bar

A Desbordes **WATER HAMMER ARRESTORS RANGE** is also available for plumbing to be placed at the closest

point to the water hammer generating area.

** Desbordes products are presented in a specific literature available on simple request to our commercial department.*

Select your specific control system

PRESSURE CONTROL

	C 101	C 101 C	C 101 DS	C 102	C 104	C 104 C	C 108	C 108 C	C 301	C 301 C	C 301 DS
Modulating*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Downstream reducing and stabilizing	✓	✓	✓		✓	✓	✓	✓			
Downstream reducing and stabilizing with 2 settings				✓							
Upstream sustaining					✓	✓			✓	✓	✓
Holding a differential pressure											
Backflow prevention feature		✓				✓		✓		✓	
Backflow prevention on the discharge circuit											
Double direction flow if upstream P. < downstream P.			✓								✓
Full opening at a preset upstream pressure							✓	✓			
Pages	4	4	4	4	5	5	4	4	5	5	5

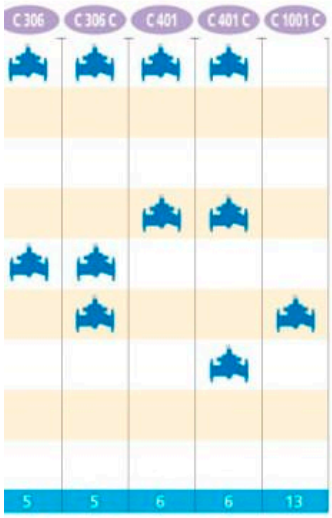
FLOW AND LEVEL CONTROL

	C 901	C 901 C	C902	C 902 C	C 903	C 903 C	C 904	C 904 C
Modulating*	✓	✓	✓	✓	✓	✓	✓	✓
Maintaining a maximum flow	✓	✓	✓	✓	✓	✓	✓	✓
Downstream reducing and stabilizing			✓	✓				
With upstream sustaining							✓	✓
Controlling the upper level					✓	✓		
Backflow prevention feature		✓		✓		✓		✓
Pages	11	11	11	11	11	11	12	12

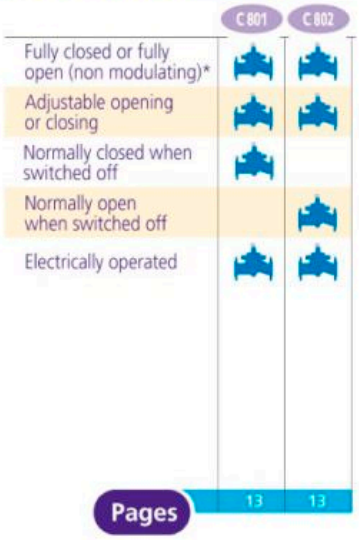
RESERVOIR CONTROL

	C 201	C 201 C	C 201 DS	C 221	C 221C	C 701	C 702	C 707	C 707 C	C 727	C 717	C 737
Modulating*	✓	✓	✓			✓	✓					
Non modulating (fully open or fully closed)				✓	✓			✓	✓	✓	✓	✓
Controlling the upper level	✓	✓	✓			✓	✓					
Opens at low level - Closes at upper level				✓	✓			✓	✓	✓	✓	✓
With upstream sustaining					✓		✓			✓		✓
With backflow prevention feature		✓							✓			
Upstream double direction flow if P < Tank P.			✓									
Float operated						✓	✓	✓	✓	✓	✓	✓
Mechanically operated						✓	✓				✓	✓
Electrically operated (2 ways solenoïd valve)								✓	✓	✓		
Pages	10	10	10	10	10	8	8	8	8	8	9	9

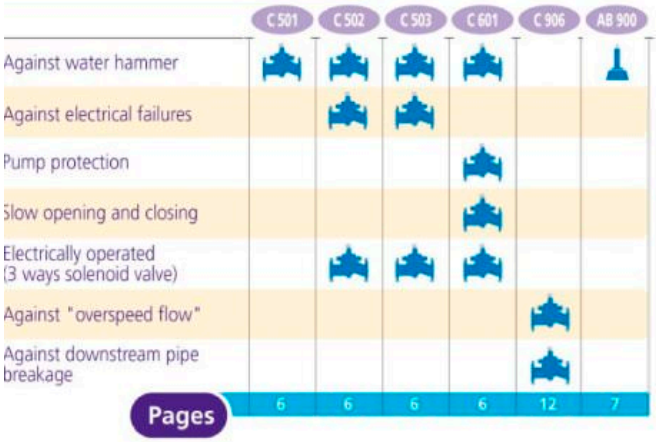
SOCLA



FAVOUR FUNCTION



OTECTION AND CONTROL



AIR CONTROL

*A "modulating" valve is positioned at a certain level of opening allowing to maintain the preset function parameters.

Water and air in canalizations

Whatever its purpose, domestic, urban, agricultural or industrial, the water we use every day is distributed by an increasingly complex pattern of pipeline networks.

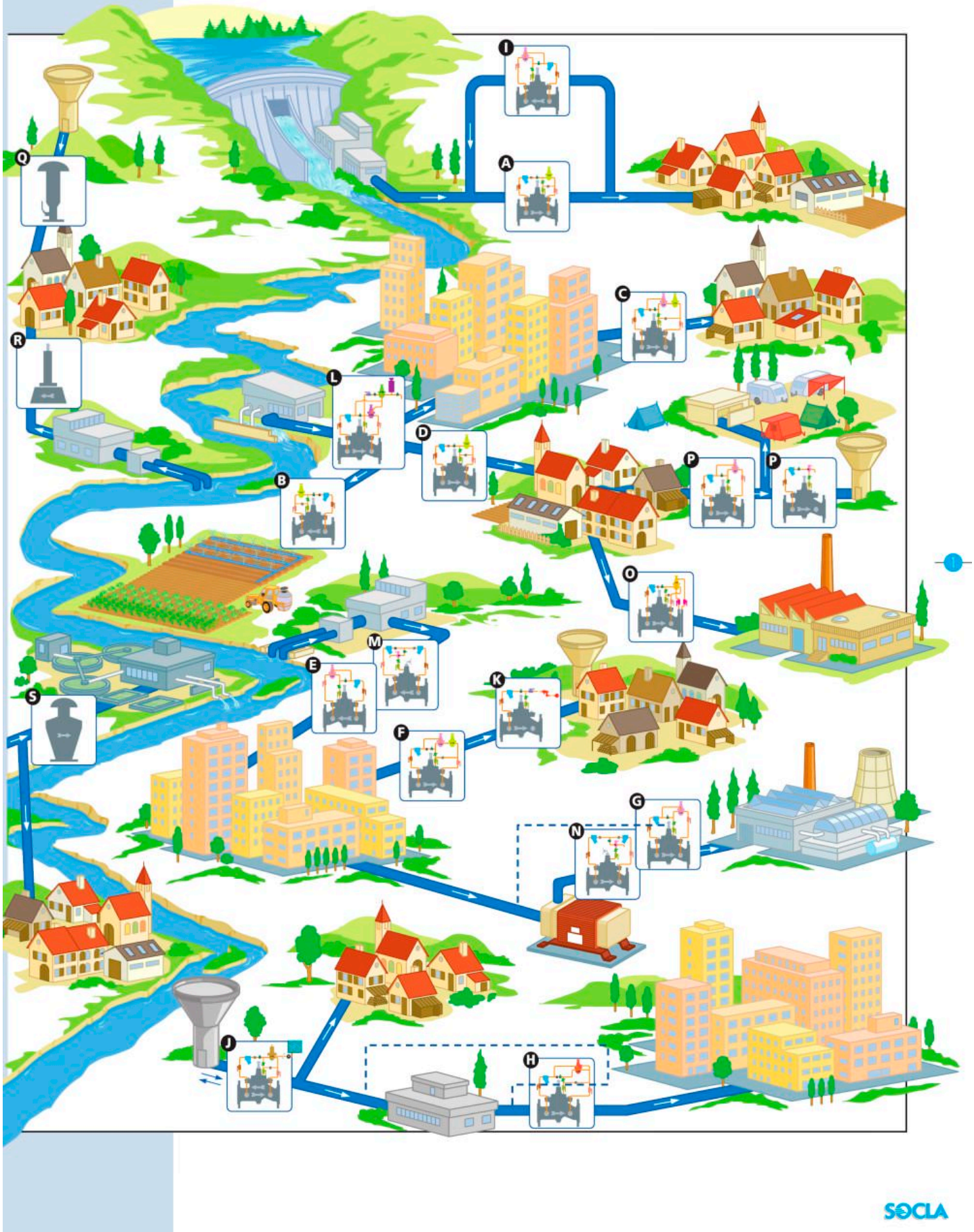
Every new installation, every development of, or addition to the network (buildings, industrial zone, etc...) creates imbalance of pressures or air pockets in piping systems.

The role of control valves in their many functions is to restore the balance by regulating water distribution according to pre-determined priorities.

Application examples
(LEGEND OF DRAWING)

- **A** → **C 101** Reduces pressure to a distribution system when gravity fed from a source with a relatively high elevation.
- **B** → **C 101** Reduces pressure in an irrigation system.
- **C** → **C 104** Maintains a preset upstream pressure and a preset downstream pressure reduction.
- **D** → **C 101** Reduces pressure to a low pressure zone when the pump discharge is too high.
- **E** → **C 301** Prevents over pumping of both deep well and booster pumps if the system demand exceeds the pumping capacity.
- **F** → **C 104** Guarantees maintenance of sufficient upstream pressure when supplying water to a low pressure zone.
- **G** → **C 301** Prevents a pump from lowering its suction pressure below a desired safe operating minimum.
- **H** → **C 306** Maintains a constant differential pressure across a pump to maintain a constant flow rate.
- **I** → **C 401** Protects the system against accidental overpressures (caused by a failure of the control valve C100, stop valve closing too quickly).
- **J** → **C 201** Double action altitude valve allowing filling of the tank and emptying back to the supply.
- **K** → **C 701** Controls the level of the tank by means of float regulation and allows distribution to the village.
- **L** → **C 501** Protects the pump station against surges due to start up, shut down and power failure.
- **M** **N** → **C 601** Eliminates pressure fluctuations when pump starts and shuts down.
- **O** → **C 901** Controls flow rate to the factory.
- **P** → **C 301** **C 801** Allows flow between two distribution systems (example : feeding a water storage tank for peak distribution time).
- **Q** → **VE 120** **VE 320** Allows the release of air in excess in clear water piping systems.
- **R** → **AB 900** Absorbs water hammering.
- **S** → **VE 330** Allows the release of air in excess in waste water systems.

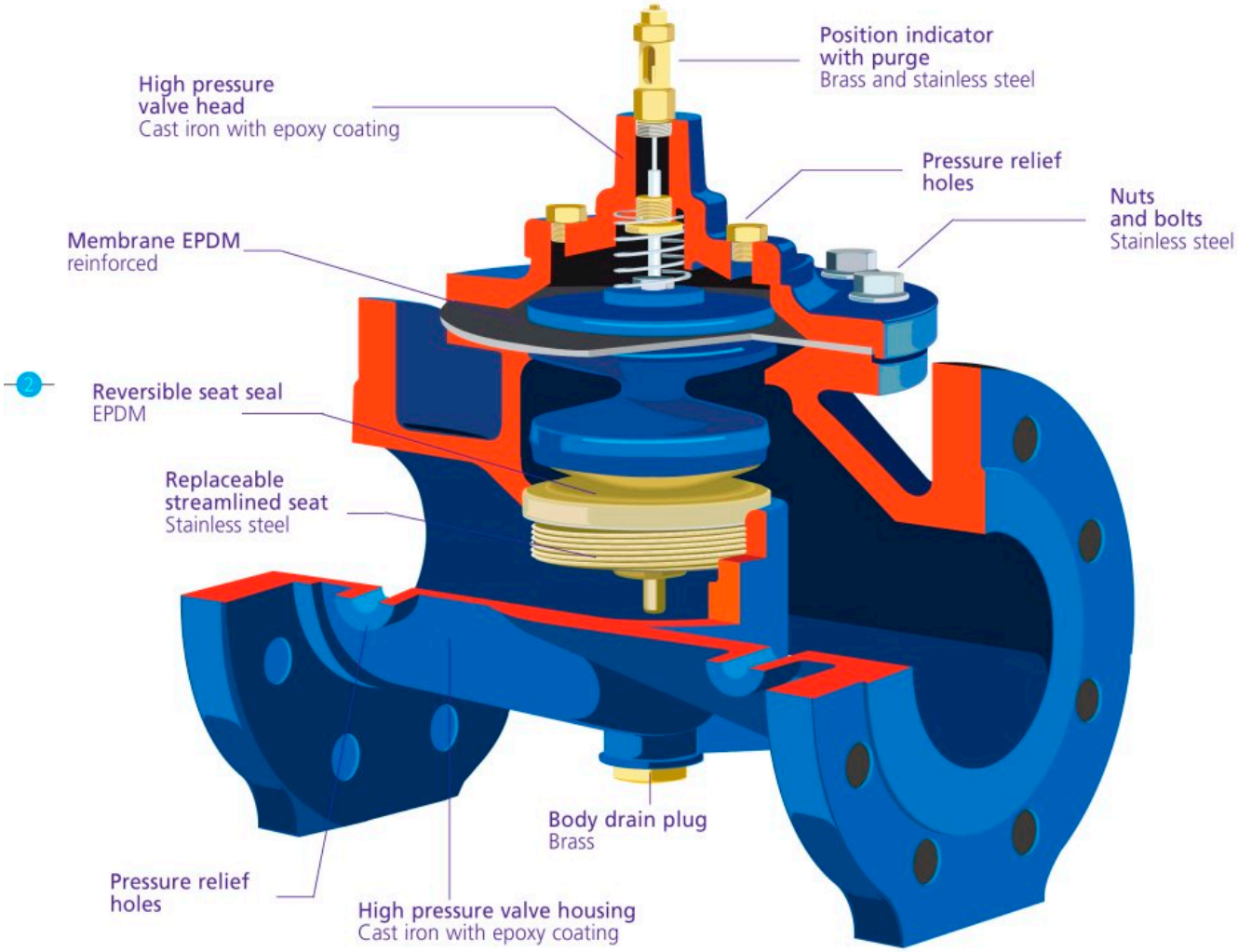
Self acting control systems in distribution networks



SOCLA

MAIN VALVE

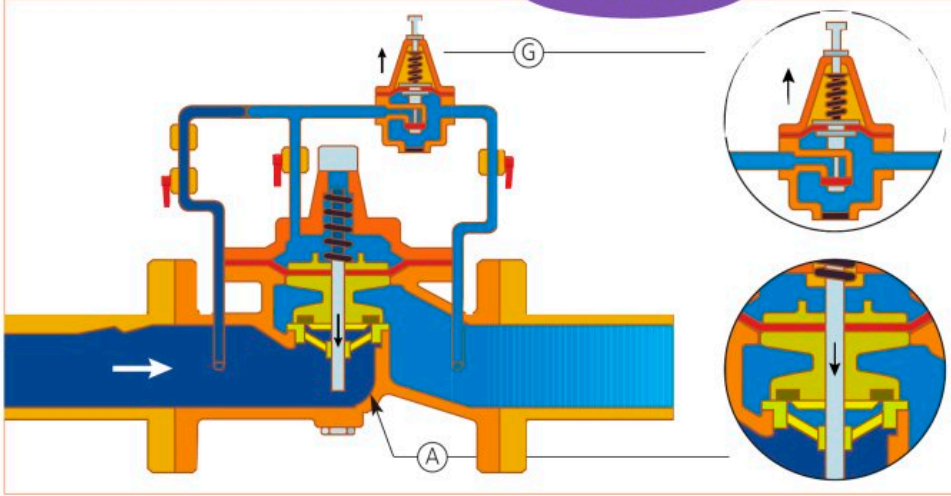
- Specific hydraulic profile
- Range ND 1“1/2 to 300 mm
- High pressure cast iron
- Tested and preset at assembly



WORKING PRINCIPLE

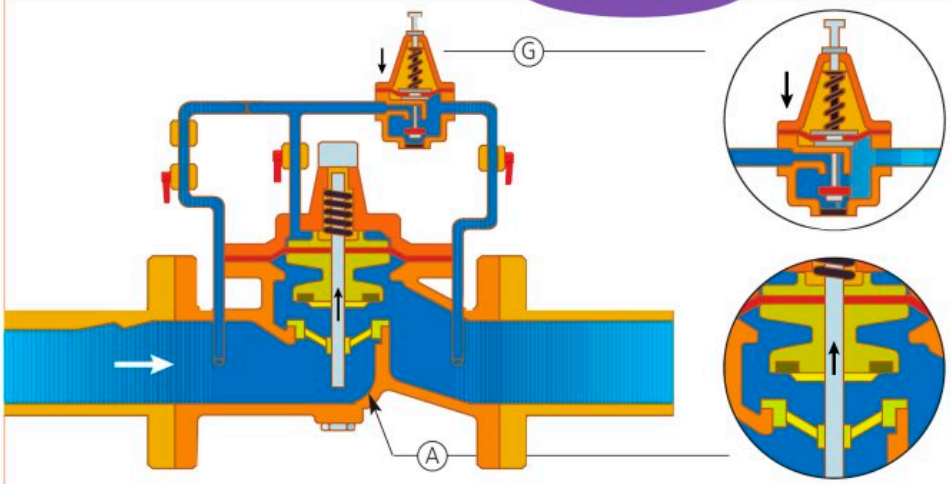
PRESSURE REDUCING VALVE TYPE C 101

CLOSING



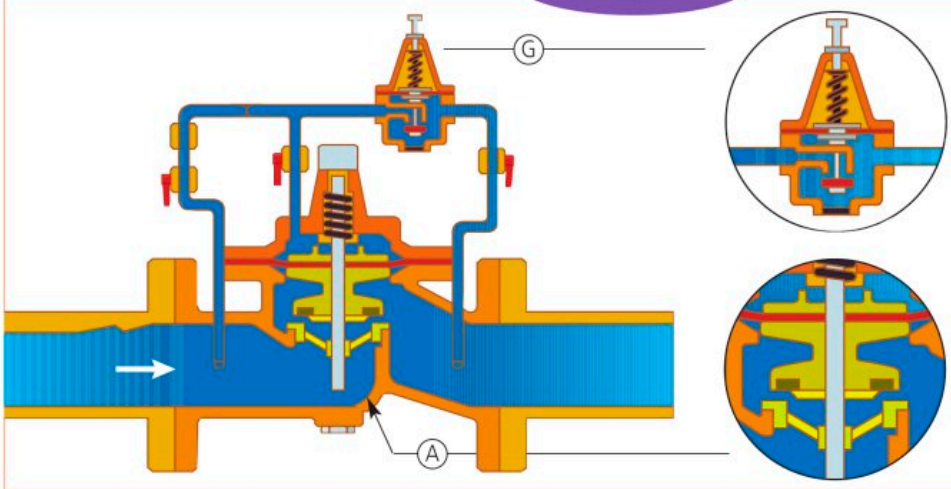
When the downstream pressure raises, the pilot G valve closes. Pressure in the upper chamber raises also and forces the membrane to close the main valve A which reproduces the movement of the pilot.

CLOSING



When the downstream pressure is too low, no pressure is acting on the membrane and the pilot G opens, pressure in the upper chamber is released and the valve A opens reproducing the movement of the pilot.

CONTROLLING



The pilot G is set at a given downstream pressure to be maintained. If the pressure downstream is higher than the setting pressure, the valve A works in closing phase until the setting pressure is reached.
When the downstream pressure is below the setting pressure the valve works in opening phase until the setting pressure is reached downstream.
The upstream pressure must be fairly higher than the setting pressure.

SOCLA

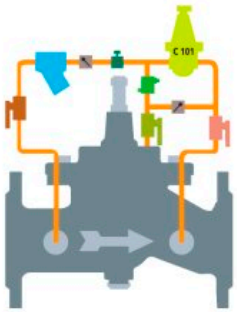
CONTROLLING DOWNSTREAM PRESSURE

C 101 **C 101 C** **C 101 DS**

Controls and maintains a constant preset reduced downstream pressure regardless of variations in downstream demand or upstream pressure.

This valve reduces :
- distribution pressure when the supply comes from a source situated at a relatively high level.
- distribution pressure to a working level for a given zone.
- the pressure at the discharge side of a pump when it is too high.
- pressure in an irrigation system.

Equipped with non-return valves (check valves) :
- it closes automatically in case of a return of water. (C 101 C)
- it opens automatically to reverse the direction of flow if the upstream pressure becomes less than the downstream pressure. (C 101 DS)



Setting ranges :
0.34 to 5.51 bar
1.72 to 8.5 bar
2.06 to 27.52 bar

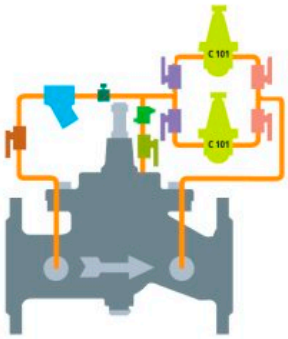
CONTROLLING DOWNSTREAM PRESSURE

C 102

Equipped with two pilot valves identical to C 101, valve C 102 controls and maintains a constant preset reduced downstream pressure regardless of variations in downstream demand or upstream pressure. The addition of a second pilot allows uninterrupted working while servicing one of the pilots or ease of change to a different preset pressure setting.

This valve reduces :
- distribution pressure when the supply comes from a source situated at a relatively high level.

- distribution pressure to one or two working levels for a given zone.
- the pressure at the discharge side of a pump when it is too high.
- pressure in systems required to function at low pressures (eg irrigation).



Setting ranges :
0.34 to 5.51 bar
1.72 to 8.5 bar
2.06 to 27.52 bar

CONTROLLING DOWNSTREAM PRESSURE

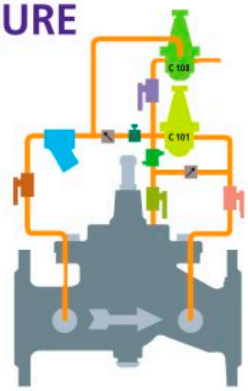
C 108 **C 108 C**

Controls and maintains a constant preset reduced downstream pressure regardless of variations in downstream demand or upstream pressure. The valve can open completely if the upstream pressure falls below a given level.

This valve reduces :
- distribution pressure when the supply comes from a source situated at a relatively high level,
- distribution pressure to a working level for a given zone,
- the pressure at the discharge side of a pump when it is too high,

- pressure in systems required to function at low pressures (eg irrigation).

Provided with check valves :
- it closes automatically in case of backflow. (C 108 C)



The same setting range for downstream pressure or open wide control :
0.14 to 2.41 bar
1.72 to 8.6 bar
6.89 to 17.24 bar
13.78 to 27.57 bar

For index of icones, see flap fold on the last page

SOCLA

CONTROLLING DOWNSTREAM PRESSURE

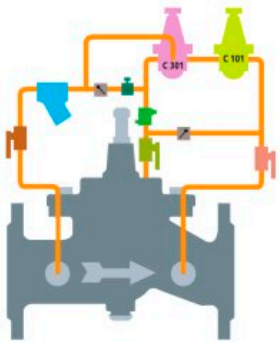
C 104 C 104 C

Controls and maintains a constant preset reduced downstream pressure together with a given upstream pressure whatever the variations in downstream demand and upstream pressure.

Equipped with non-return valves (check valves) it closes automatically in the event of a return of water. (C 104 C)

Setting ranges :

Upstream pressure :	0.34 to 4.13 bar
	1.72 to 7.57 bar
	2.06 to 17.22 bar
	13.78 to 27.51 bar



Downstream pressure :	0.34 to 5.51 bar
	1.72 to 8.5 bar
	2.06 to 27.52 bar

CONTROLLING UPSTREAM PRESSURE

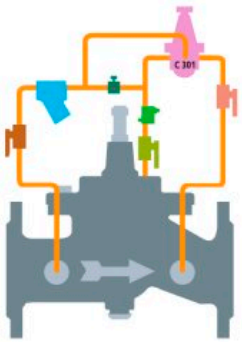
C 301 C 301 C C 301 DS

Controls and maintains a preset upstream pressure whatever the variations in downstream demand.

This valve guarantees the maintenance of pressure upstream. It can also prevent the flow rate intake in a pump from falling below a safe minimum. It prevents overstretching of pumping capacity when the demand is too great.

Equipped with non-return valves (check valves) :

- it closes automatically in the event of a return of water. (C 301 C)
- it opens automatically to reverse water flow if the upstream pressure becomes less than the downstream pressure. (C 301 DS)



Setting ranges :

0.34 to 4.13 bar
1.72 to 7.57 bar
2.06 to 17.22 bar
13.78 to 27.51 bar

DIFFERENTIAL PRESSURE CONTROL

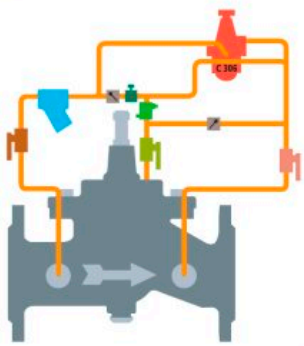
C 306 C 306 C

Maintains a constant preset differential pressure across the valve or across a pump.

This valve allows :

- the maintenance of a constant differential pressure between two parts of a water system whatever the upstream pressure.
- the maintenance of a constant differential pressure between upstream and downstream of a pump.

Equipped with non-return valves (check valves) it closes automatically in the event of a return of water. (C 306 C)



Setting ranges :

0.14 to 2.41 bar
1.72 to 8.6 bar
6.89 to 17.24 bar

For index of icones, see flap fold on the last page

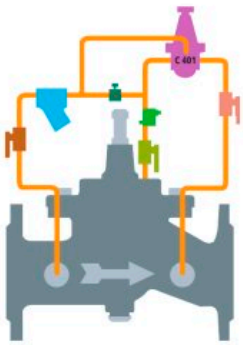
SOCLA

DISCHARGE VALVE

C 401 C 401 C

Installed on a bypass of the zone to be protected, this valve opens when the preset pressure is reached. It stays open for as long as the overpressure lasts and evacuates the surplus water into a tank, a drain or to a low pressure zone.

Equipped with non-return valves (check valves) it closes in the event of a return of water in the discharge network.
(C 401 C).



Setting ranges :

0.34 to 4.13 bar
1.72 to 7.57 bar
2.06 to 17.22 bar
13.78 to 27.51 bar

ANTI-WATER HAMMER VALVE

C 501

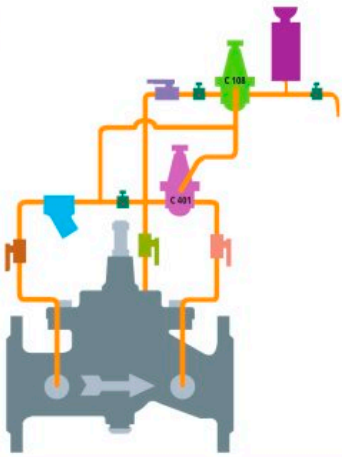
Eliminates pressure fluctuations due to start up, shut down or failure of a pump, or in case of power failure.

This valve, always installed on a bypass, drains a certain volume of water to waste or back to the feeding reservoir. This may happen in two phases :

a) the water hammer action creates in anticipation a drop in pressure which will release the corresponding volume of water.

b) if effect is not sufficient, the valve will react in real time to the following overpressure.

- C 502 is similar to C 501 but the anticipated surge protection pilot is replaced by a solenoïd valve.
- C 503 is a combination of both C 501 and C 502.



Setting ranges :

0.14 to 2.41 bar
1.72 to 8.6 bar
6.89 to 17.24 bar

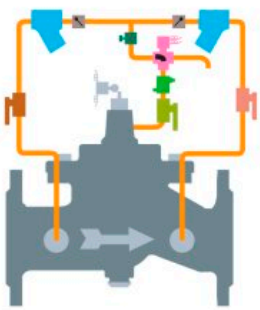
PUMP PROTECTION VALVE

C 601

Generally installed on the main line, this valve eliminates downstream pressure surges and water hammer during normal starting and stopping of a pump.

This valve, whose control is integrated into the electrical circuit of the pump, opens and closes at a slow, controlled speed during start up and shut down phases of the pump.

Set pressure depends on solenoid valve.



For index of icones, see flap fold on the last page

WATER HAMMER PROTECTION VALVE

AB 900

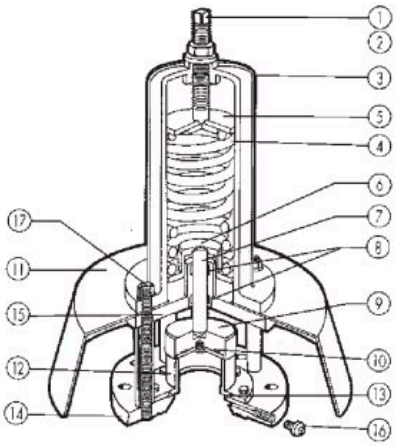
Its role is to protect systems against surges (water hammer), whatever their source, by evacuating the water in excess straightaway.

The mechanism consists of a spring which is adjustable to the correct weighting to hold the valve firmly in place against its seat, keeping it watertight.

When a pressure wave occurs this causes compression of the spring and the opening of the valve to allow evacuation of the water.

It should be noted that the stem (7) is designed to compensate for defect of alignment which could be caused by hydraulic pressure on the valve and by the force of the spring.

This avoids any instability and allows a self centering of the valve seat to centralize itself automatically when water passes.



1. Adjustable setting screw in stainless steel
2. With seal
3. Valve head in cast iron FGL 250 or steel (ND 150/200)
4. Steel spring NCD
5.6. Steel spring support
7. Stainless steel stem
8. Friction ring in PTFE
9. Steel valve plug
10. Valve plug sealing ring (polyurethane)
11. Steel cover
12. Stainless steel seat
13. O-ring (NBR) nitrile rubber
14. Steel flange
15. Steel top plate
16. Plug for manometer (1/4)
17. Stainless steel bolt

Powder epoxy coated inside/outside

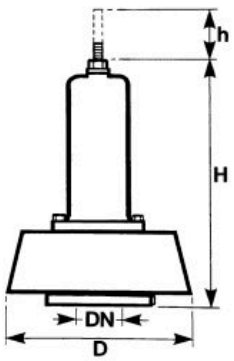
PN 10 A PN 16

REF.	DN	Spring	Setting range in bars	Overpressure in bars	Flow rate L/s max.
5891 A	60	A	1 to 7	2,5	45
5891 B		B	6 to 12	2,9	60
5891 C		C	10 to 17	3,3	68
5892 A	65	A	1 to 7	2,5	45
5892 B		B	6 to 12	2,9	60
5892 C		C	10 to 17	3,3	68
5893 A	80	A	1 to 7	1,5	55
5893 B		B	6 to 12	2,1	75
5893 C		C	10 to 17	2,8	90
5894 A	100	A	1 to 7	2,2	80
5894 B		B	6 to 12	2,7	110
5894 C		C	10 to 17	3,4	160
5895 A	125	A	1 to 7	2,3	120
5895 B		B	6 to 12	2,9	160
5895 C		C	10 to 17	3,5	200
5896 A	150	A	1 to 7	2,4	200
5896 B		B	6 to 12	3,2	280
5896 C		C	10 to 17	3,6	350
5897 A	200	A	1 to 7	2,7	580
5897 B		B	6 to 12	3,5	750
5897 C		C	10 to 17	4,5	900

PN 25

REF.	DN	Spring	Setting range in bars	Overpressure in bars	Flow rate L/s max.
5891DPN25	60	D	16 to 26	4,2	90
5892DPN25	65	D	16 to 26	4,2	90
5893DPN25	80	D	16 to 26	4,3	150
5894DPN25	100	D	16 to 26	4,4	280
5895DPN25	125	D	16 to 26	4,5	400
5896DPN25	150	D	16 to 26	4,4	550
5897DPN25	200	D	16 to 26	4,5	1200

* Flange bolt holes PN 10, please indicate for PN 16 holes.



DN	D	H	h	Weight kg
60	380	510	120	30
65	380	510	120	30
80	380	510	120	32
100	400	520	120	36
125	570	550	130	65
150	570	550	150	80
200	690	700	180	120

For index of icones, see flap fold on the last page

SOCLA

FLOAT VALVES

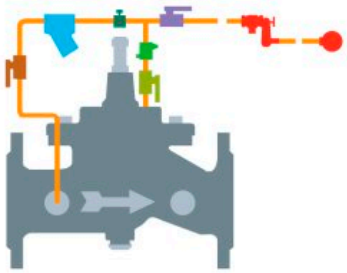
C 701

PROGRESSIVE OPENING AND CLOSURE

Prevents overflowing and maintains a constant level in a reservoir by means of a float tap. Opening and closure are very gradual over the few centimeters above and below the required level.

This valve should preferably be installed at the foot of a reservoir or the top of a tank.

Connecting pipe 10/12 mm from the float tap to the valve not included. (Must be adjusted on measure on site).

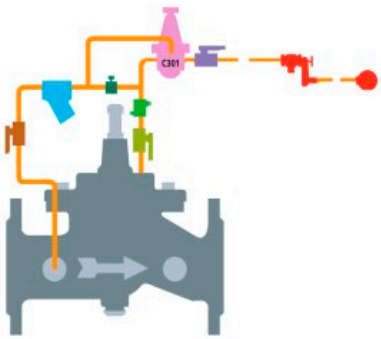


FLOAT VALVES

C 702

Identical to C 701, it guarantees the maintenance of sufficient upstream pressure while allowing the reservoir to be filled when the network permits. (diversion)

Connecting pipe 10/12 mm from the pressure float tap to the valve not included.
(Must be adjusted on measure on site).



Setting ranges :

Upstream pressure :

0.34 to 4.13 bar
1.72 to 7.57 bar
2.06 to 17.22 bar
13.78 to 27.51 bar

FLOAT VALVES

C 707 C 707 C C 727

NON-MODULATING WORKS FULLY OPEN-FULLY CLOSED

Valve controlled by a solenoid valve connected to a float switch*. The solenoid (normally closed) is activated when the float reaches the low level ; it then re-closes at the high level.

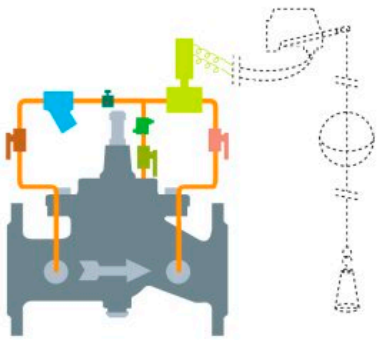
Regulated by volume not by level, this valve is suitable for night-time filling, since the "fullly open - fully closed" principle economizes on energy in the case of supply by a pump.

* not included

Equipped with non-return valves (check valves),

- it closes automatically in the event of a return of water. (C 707 C)
- it guarantees the maintenance of sufficient upstream pressure while allowing the reservoir to be filled when the pressure in the system allows it (C 727).

Working pressure depends on solenoid valve.



Setting ranges :

Upstream pressure :

0.34 to 4.13 bar
1.72 to 7.57 bar
2.06 to 17.22 bar
13.78 to 27.51 bar

For index of icones, see flap fold on the last page

SOCLA

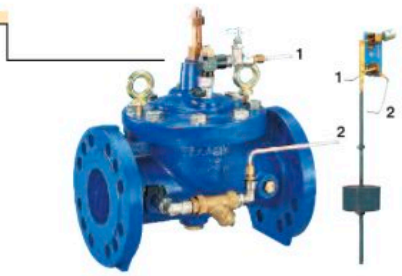
FLOAT VALVES

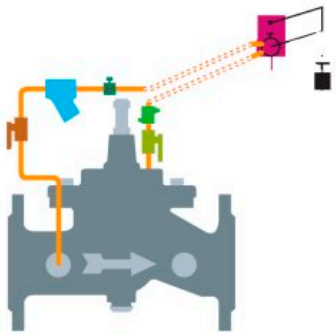
C 717

Regulates the volume of water in a reservoir by means of a 2 position mechanical float. It closes at a preset high level and opens at a given low level.

Connecting tubes 4/6 mm to the float are not supplied.

(Must be adjusted on measure on site).





Setting ranges :

High and low level : 0 to 3.6 m

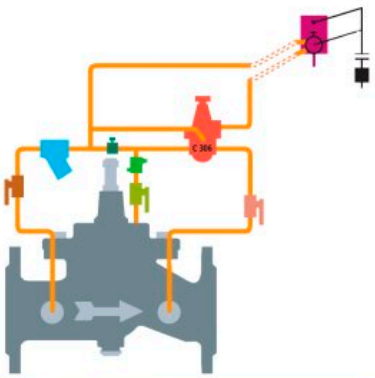
FLOAT VALVES

C 737

Identical to type C 717, it guarantees the maintenance of sufficient upstream pressure while allowing the reservoir to be filled when the system pressure allows it.

Connecting tubes 4/6 mm to the float are not supplied.

(Must be adjusted on measure on site).



Setting ranges :

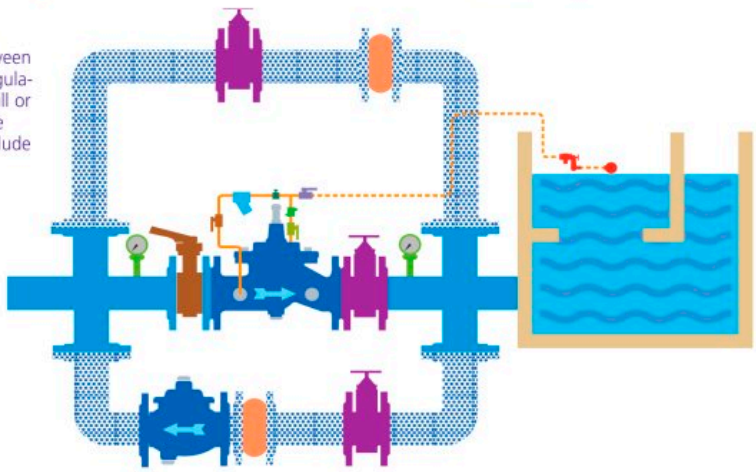
High and low leve : 0 to 3.6 m

Upstream pressure :

0.34 to 4.13 bar
1.72 to 7.57 bar
2.06 to 17.22 bar
13.78 to 27.51 bar

INSTALLATION EXAMPLES

A filter must be installed between the butterfly valve and the regulating valve. If the circuit is uphill or horizontal, include an air-valve upstream. If it is downhill, include an air-valve downstream.



Installation type
C701 - C702
C707 - C717

SOCLA

ALTITUDE VALVES WITH PILOTS

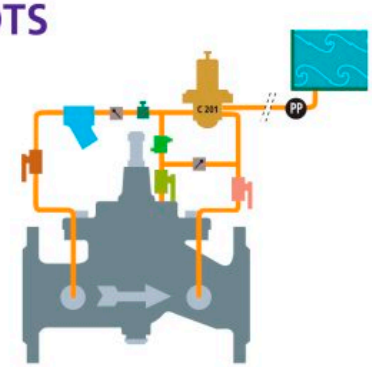
C 201 C 201 C C 201 DS

PROGRESSIVE OPENING AND CLOSURE

Prevents overflowing and maintains a constant level in a storage tank or reservoir by means of a pilot. Both opening and closure are very gradual over the few centimeters above and below the required level.

This type of valve should be used when the supply pressure is appreciably higher (about 1 bar) than the head developed by a full storage tank or reservoir.

Equipped with non-return valves (check valves)
- it closes automatically should any water return. (C 201 C)
- it opens automatically to reverse water flow if the upstream pressure becomes less than the downstream pressure. (C 201 DS)



Exists in top-fill or bottom-fill versions.

Setting ranges :

0.14 to 1.38 bar
1.38 to 2.75 bar
2.07 to 5.5 bar

ALTITUDE VALVES WITH PILOTS

C 207 C 227

ALTITUDE VALVE WITH 2 PILOTS

Regulates the volume of water in a reservoir by means of two pilots. It closes at a preset high level and opens at a given low level (minimum 1.5 m).

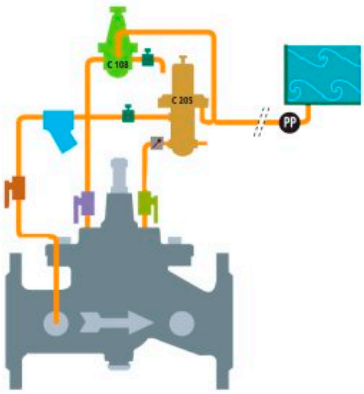
It guarantees the maintenance of sufficient upstream pressure while permitting the reservoir to be filled when the pressure in the system allows it. (C 227)

Working pressure : 6 bar

Exists in top-fill or bottom-fill versions.

Setting ranges :

High level : 0.13 to 2.4 bar
2.1 to 6.2 bar



Low level : 0 to 0,69 bar
0.14 to 2.41 bar
1.72 to 6 bar

For index of icones, see flap fold on the last page

SOCLA

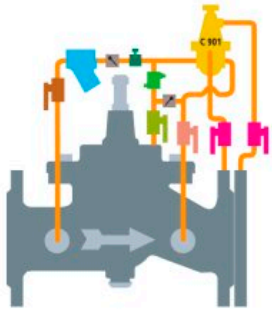
FLOW LIMITERS

C 901 C 901 C

Controls and maintains a preset maximum flow rate out of the valve regardless of variations in upstream and downstream pressure.

This valve can be used to control the flow from a pump into a distribution or irrigation system, or as a flow limiter to feed a secondary system.

Equipped with non-return valves (check valves) it closes automatically should any water return. (C 901 C)



Setting ranges :

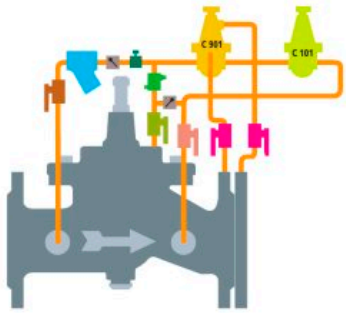
Flow rates available : 1 m/s to 4,5 m/s

FLOW LIMITERS

C 902 C 902 C

Controls and maintains a preset maximum flow from the valve and a reduced downstream pressure whatever the variations in upstream pressure.

Equipped with a non-return valve, it closes automatically should water return. (C 902 C)



Setting ranges :

Flow rates available : 1 m/s to 4,5 m/s

Downstream pressure regulations :

0.14 to 2.41 bar

1.72 to 8.6 bar

6.89 to 17.24 bar

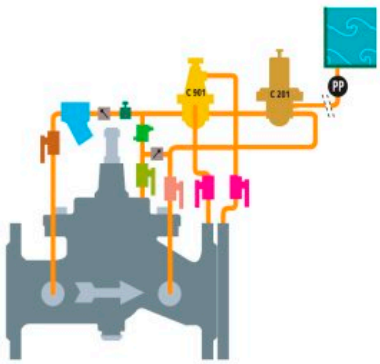
13.78 to 27.57 bar

FLOW LIMITERS

C 903 C 903 C

Controls and maintains a maximum flow rate and the high water level of a reservoir by means of a regulating pilot valve.

Equipped with a non-return valve (check valve) it closes automatically should water return. (C 903 C)



Exists in top-fill or bottom-fill versions.

Setting ranges :

Flow rate range : 1 m/s to 4,5 m/s

Altitude pressure ranges :

0.14 to 1.38 bar

1.38 to 2.75 bar

2.07 to 5.5 bar

For index of icones, see flap fold on the last page

SOCLA

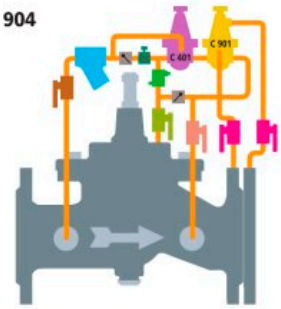
FLOW LIMITERS

C 904 C 904 C

Controls and maintains a maximum flow rate at the valve outlet and a preset upstream pressure.

Equipped with a non-return valve (check valve) it closes automatically should water return. (C 904 C).

904



Setting ranges :

Flow rate range : 1 m/s to 4,5 m/s
Upstream pressure range :

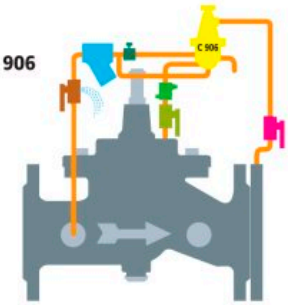
0.14 to 2.41 bar
1.72 to 8.6 bar
6.89 to 17.24 bar
13.78 to 27.57 bar

"OVER SPEED" VALVE

C 906

Safety valve which closes in the event of an unusual high speed of water downstream (protects against the consequences of a burst in the system downstream). Re-set manually.

906

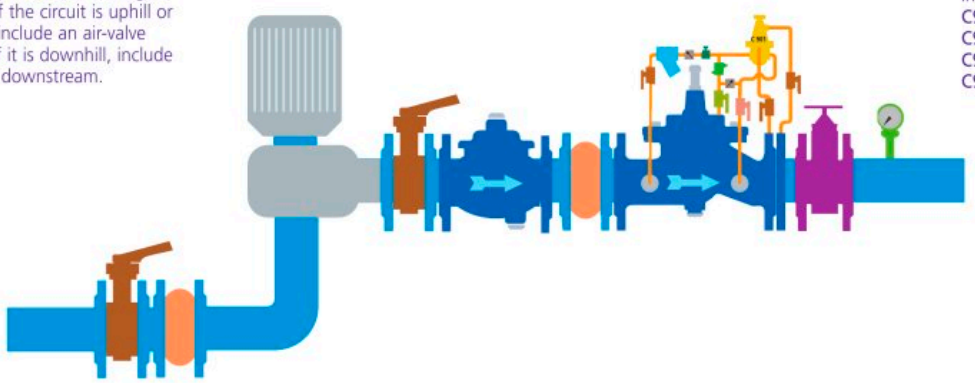


Setting ranges :

Flow rates range : 1 m/s to 4,5 m/s

INSTALLATION EXAMPLES

A filter must be installed between the butterfly valve and the regulating valve. If the circuit is uphill or horizontal, include an air-valve upstream. If it is downhill, include an air-valve downstream.



Installation type
C901
C902
C903
C904/906

For index of icones, see flap fold on the last page

SOCLA

ELECTRICALLY OPERATED VALVES

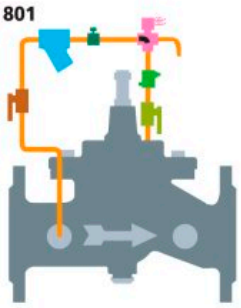
C 801 C 802

C 801 : Electrically controlled valve which is normally closed in the absence of power. Used whenever an on/off system is required.

C 802 : Identical to C 801 but normally open when switched off.

Working pressure depends on solenoïd valve.

801



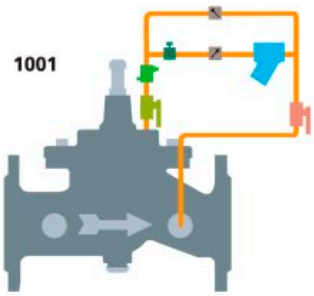
NON RETURN VALVE

C 1001 C

This control valve functions as a hydraulic check valve which opens and closes at a controllable and regulated speed, reducing sudden jumps in pressure.

The speed of closure can be regulated independently from the speed of opening.
Like a conventional non return-valve (check valve), it reduces sudden jumps in pressure should water return (C 1001 C). After pressure jumps have stopped, the normal flow is restored progressively.

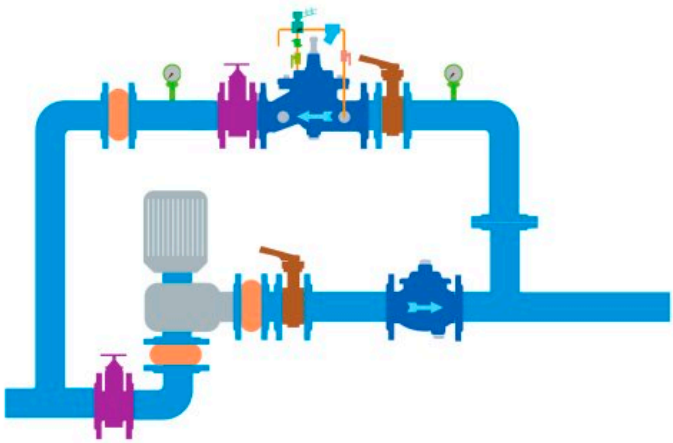
1001



13

INSTALLATION EXAMPLES

A filter must be installed between the butterfly valve and the regulating valve. If the circuit is uphill or horizontal, include an air-valve upstream. If it is downhill, include an air-valve downstream.



Installation type
C801
C802

For index of icones, see flap fold on the last page

SOCLA

OPTIONS

*Available for all versions

OPTION 1*

Pressure gauges with purge taps (10 bar, 16 bar, 25 bar)

OPTION 3

Two-way solenoid valve

OPTION 4*

Mechanical position indicator (indicates wether the valve is open or closed) (6A/300V)

OPTION 5

Motorized flow pilot Type C900 (Except C906)

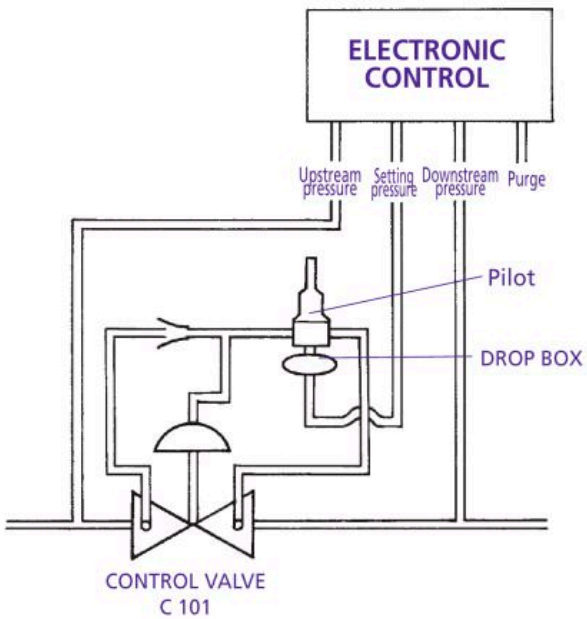
OTHER OPTIONS

- **PILOT PIPING ASSEMBLY,**
  - stainless piping system and pilot.
- **FLANGES DRILLING DIFFERENT FROM STANDARD.**

OPTION 6

DROP BOX FOR TYPE C 101 :
Connecting box for hydro-electronic control.

To be connected to the pilot for transfer of information from electronic memory. (Electronic control not included).

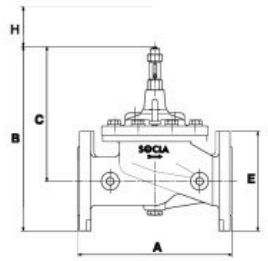


For index of icones, see flap fold on the last page

SOCLA

MAIN VALVE : TECHNICAL INFORMATION

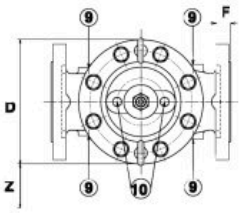
Minimum upstream pressure : 1 bar
Temperature maxi : 90°C
Version with flanges : PFA 25 if not indicated
Threaded version : 1"1/2 F/F except C900
Vertical installation : on request



DIMENSIONS (except type 900)

DN	A mm	B mm	C mm except C501	C mm C501	Ø D mm	Ø E mm	F mm	H mm	Z mm	Weight kg	Ø 9"	Ø 10"
1" 1/2(F/F)	230	267	210	594	170	6 pans (1)	-	55	254	8	1/4	1/4
40	230	285	210	594	170	152	23	55	254	12	1/4	1/4
50	230	285	210	594	170	161	23	55	254	13	1/4	1/4
65	290	352	257	641	200	185	24	76	254	21	3/8	1/4
80	310	372	272	565	217	200	26	90	254	26	3/8	3/8
100	350	423	302	686	241	235	28	90	254	39	3/8	3/8
125	400	506	371	755	296	270	30	100	254	59	3/8	3/8
150	480	551	401	905	363	300	20	100	254	73	3/8	3/8
200	600	709	529	987	467	360	22	114	254	122	3/8	3/8
250	730	844	631	1089	587	425	24	127	254	208	1/2	1/2
300	850	975	730	1188	680	486	27	140	254	328	1/2	1/2

(1) 78 / on flats



⑨ ⑩ BORES FOR PRESSURE GAUGES

DIMENSIONS TYPES 901 - 902 - 903 - 904 - 906

DN	A mm	B mm	C mm	Ø D mm	Ø E mm	F mm	H mm	Z mm	Weight kg	Ø 9"	Ø 10"
40	274	285	210	170	152	23	55	254	15	1/4	1/4
50	274	285	210	170	161	23	55	254	16	1/4	1/4
65	314	352	257	200	185	24	76	254	24	3/8	1/4
80	334	372	272	217	200	26	90	254	29	3/8	3/8
100	374	423	302	241	235	28	90	254	42	3/8	3/8
125	430	506	371	296	270	30	100	254	63	3/8	3/8
150	512	551	401	363	300	20	100	254	77	3/8	3/8
200	626	709	529	467	360	22	114	254	127	3/8	3/8
250	760	844	631	587	425	24	127	254	218	1/2	1/2
300	880	975	730	680	486	27	140	254	348	1/2	1/2

Connection : flanges drilled (GN 10 - GN 16 - GN 25 : to be specified).

HOW TO SELECT THE RIGHT SIZE

A control valve is a modulating valve which throttles depending on the application to maintain a preset upstream or downstream pressure, a preset flow, a preset fluid level...
To correctly size this valve and avoid undesirable operating characteristics (noise, excessive wear, poor regulation) which result from oversizing (or undersizing), use the sizing guide and choose the smallest valve size compatible with the indicated flow rates.
NOTA :

1 - For a throttling valve application requiring a large fluctuant flow rate, a dual valve installation should be used.

2 - The maximum flow rates listed above were calculated by using a velocity of 4,5 m/second. The throttling valve is capable of handling larger flows for short periods of time ; however, the increase in maximum flow should be limited to 25% of the above values.

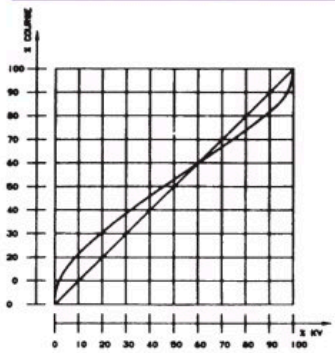
3 - For C900 series : min. flow 1m/s.

Size	Mini m³/h		Maxi m³/h
	except C 900	C 900	
1" 1/2	0,52	-	20,34
40	0,675	4,5	32,00
50	0,675	7	32,00
65	0,855	12	54,00
80	1,6	18	82,00
100	2,72	28	127,00
125	4,4	44	199,00
150	5,28	64	286,00
200	13,5	113	509,00
250	25,00	177	795,00
300	40,9	255	1145,00

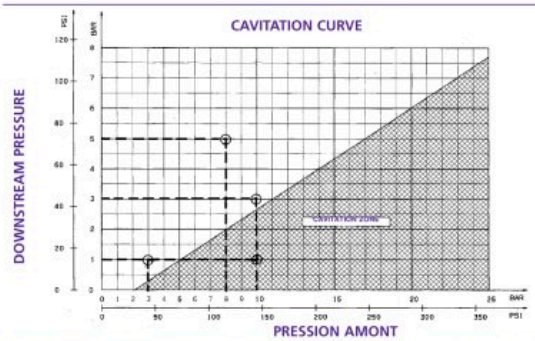
KV FACTOR

m³/h	L/s	ζ
26,35	7,32	5,78
45,66	12,68	1,93
45,66	12,68	4,70
57,75	16,04	8,39
80,00	22,22	10,00
136,00	37,78	8,47
220,00	61,11	7,90
264,00	73,33	11,38
600,00	166,67	6,96
900,00	250,00	7,56
1224,00	340,00	8,47

FLOW RATE/OPENING



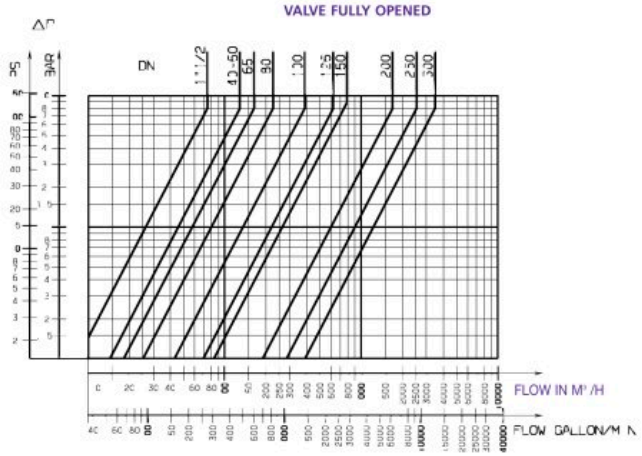
CAVITATION



A too large differential pressure and a low downstream pressure may result in damage to the valve by cavitation. To avoid it, refer to the cavitation curve.

To avoid cavitation please refer to above diagram and if needed reduce the differential pressure by installing and connecting two or more control valves in same line (consult us).
Stainless steel seat and counter seat are standard

HEADLOSS CHART

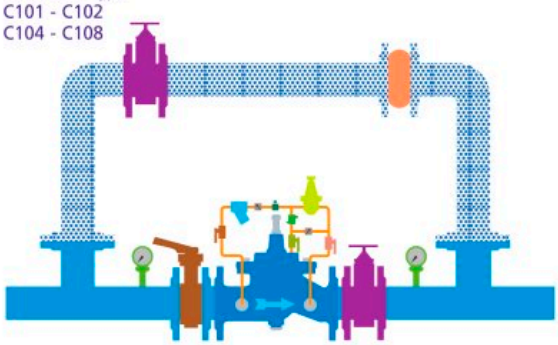


INSTALLATION EXAMPLES

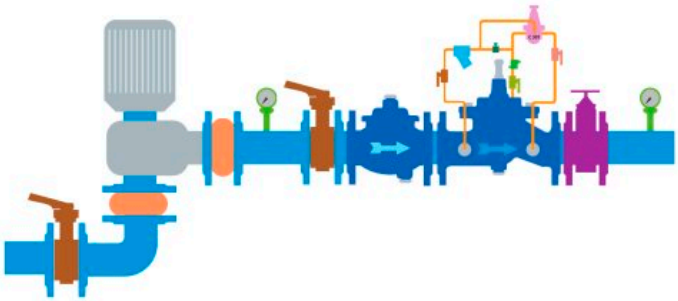
A filter must be installed between the butterfly valve and the regulating valve. If the circuit is uphill or horizontal, include an air-valve upstream. If it is downhill, include an air-valve downstream.

Butterfly valve SOCLA | Gate valve ESCO | Check valve SOCLA | Rubber expansion joints SOCLA | Pump | Pressure gauge

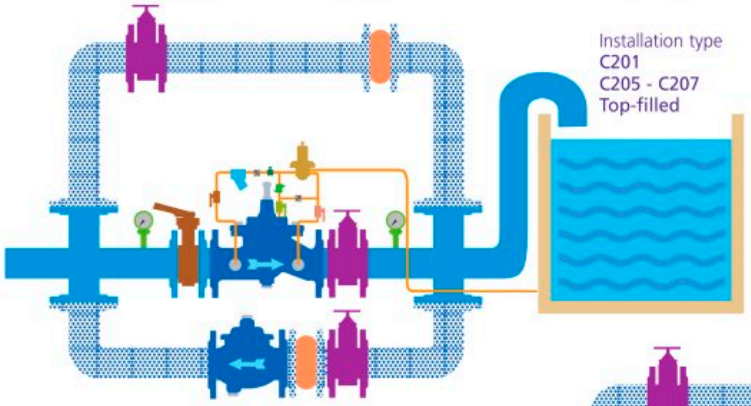
Installation type
C101 - C102
C104 - C108



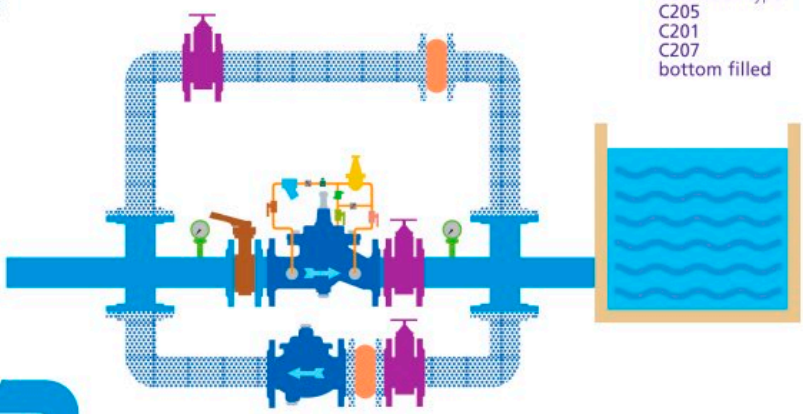
Installation type
C301



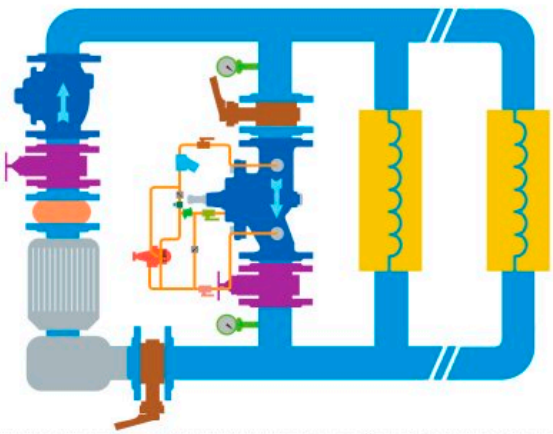
Installation type
C201
C205 - C207
Top-filled



Installation type
C205
C201
C207
bottom filled



Installation type
C306



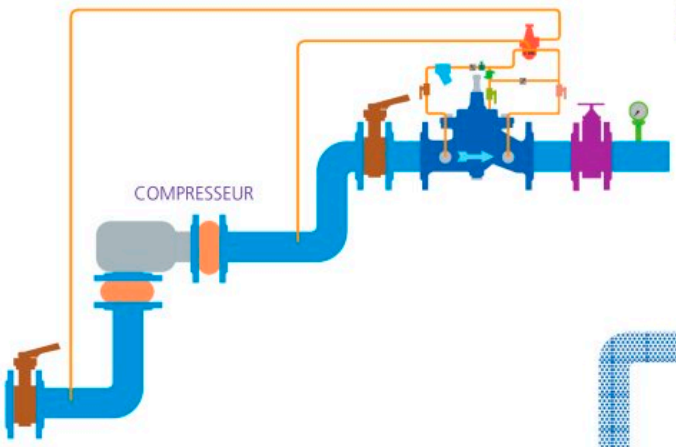
For index of icones, see flap fold on the last page

INSTALLATION EXAMPLES

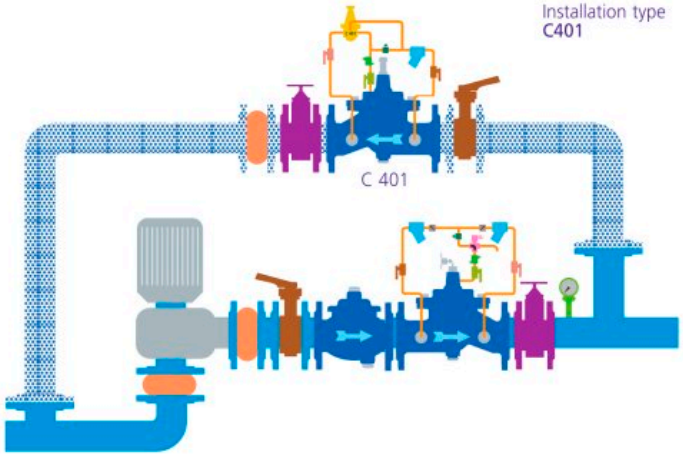
A filter must be installed between the butterfly valve and the regulating valve. If the circuit is uphill or horizontal, include an air-valve upstream. If it is downhill, include an air-valve downstream.

Butterfly valve SOCLA | Gate valve ESCO | Check valve SOCLA | Rubber expansion joints SOCLA | Pump | Pressure gauge

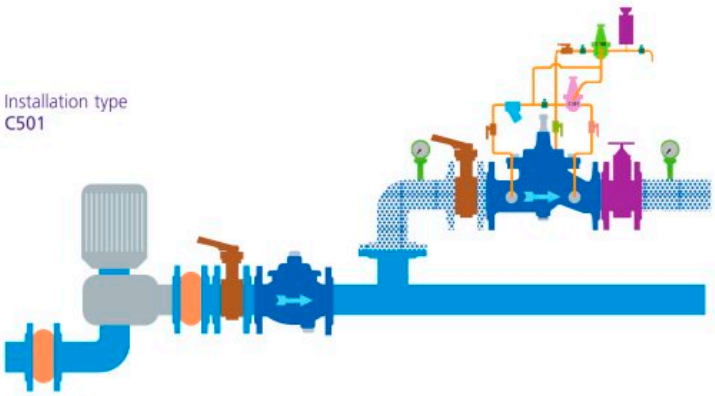
Installation type
C306



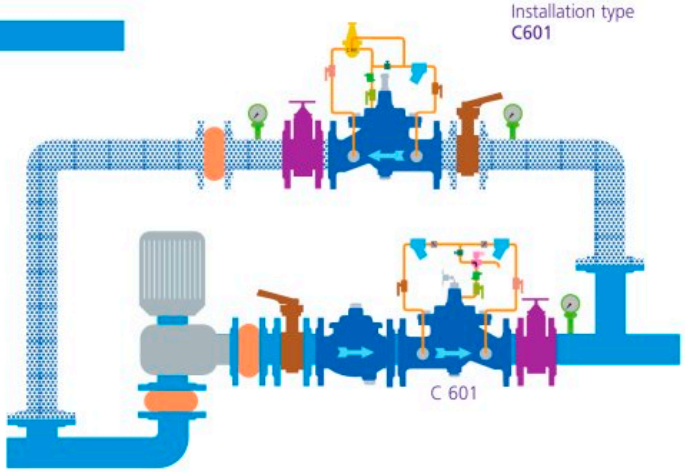
Installation type
C401



Installation type
C501



Installation type
C601



For index of icones, see flap fold on the last page

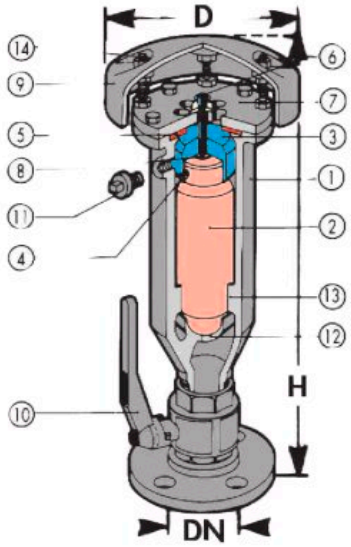
SOCLA

CLEAR WATER AIR VALVES

VE 320

TRIPLE FUNCTION AIR VALVE FOR CLEAR WATER

This model ensures continuous and automatic evacuation but also influx and release of air at a fast rate.



Ref. PN 16	Ref. PN 25	DN	For pipe diameter mm	D mm	H kg	Weight kg
5884	5884PN25	40/50/60	≤ 200	200	320	12
5885	5885PN25	65	≤ 200	200	320	12
5886	5886PN25	80	≤ 500	225	320	19
5887	5887PN25	100	≤1000	255	370	22

1. Valve housing in cast iron FGS 400-15
2. Float in PE (polyethylene)
3. PVC closing head
4. Polyamid retaining sleeve
5. Large orifice sealing ring in polyurethane or NBR (nitrile)
6. Small air orifice (stainless steel)
7. Top plate (stainless steel)
8. Air orifice seal (NBR nitrile)
9. Valve cover (cast iron)
10. Ball valve (optional)
11. Drain plug (to check mechanism is in good working order))
12. Sheild profile
13. Float guides
14. Stainless steel screws

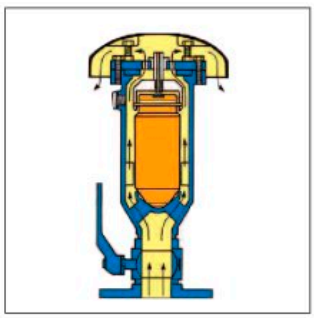
Interior/exterior epoxy coated.

WITH STOP VALVE

Ref. PN 16	Ref. PN 25	DN	For pipe diameter mm	D mm	H kg	Weight kg
5884R	5884RPN25	40/50/60	≤ 200	200	460	13
5885R	5885RPN25	65	≤ 200	200	460	13

All water pipes carry air... This air may have been introduced at the time the water system was filled, or during maintenance works, but can also arise from the working of pumps or dissolved air in reservoirs...

The installation of automatic equipment such as air valves and anti-water hammer valves allows most of the problems caused by air to be resolved.



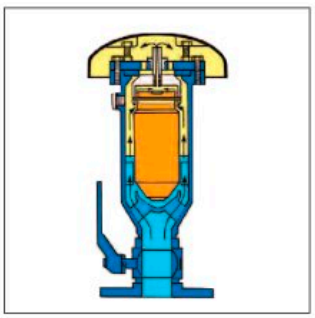
1. FAST RELEASE OF AIR

When a system is filled, the air contained in the pipes must be evacuated.

The primary function of the air valve is therefore to allow a large quantity of air to be evacuated.

Because in the beginning the pipes are full of air, the mobile float/valve seat assembly is resting on the shield profile.

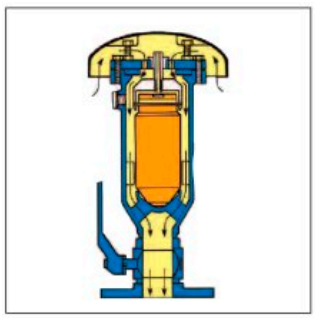
Thus the air can be evacuated rapidly through the large orifice without involving the float/valve seat mechanism.



2. RELEASING AIR UNDER PRESSURE

When the network is under pressure, the closing head stays flat against the seal. The float alone rises with the level of the water because of the clearance gap in the sleeve of the float.

Thus, as air accumulates in the air valve the float falls with the level of the water which frees the small orifice which acts as a drain. This evacuates the air.



3. RAPID INFLUX OF AIR

During emptying or a burst in the system, there will be sudden loss of pressure in the pipework.

The 3rd function is to allow a large quantity of air to enter in order to avoid problems associated with such a pressure loss. (Vacuum effect).

A rapid drop of water level occurs in the pipework.

The float/valve seat mechanism falls to rest on the aerodynamic shield allowing the air to enter.

For index of icones, see flap fold on the last page

SOCLA

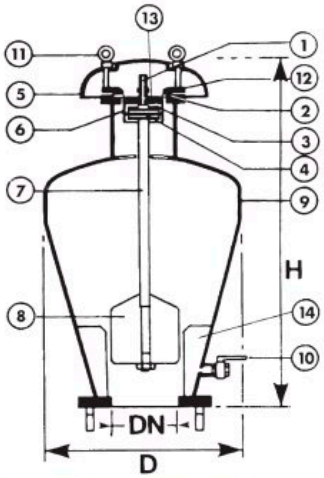
WASTE WATER AIR VALVES

VE 330

3 FUNCTION AIR VALVES FOR WASTE WATER

This model functions in the same way as VE 320.

The body of the valve is simply over-sized to avoid contact between waste water and the top part of the moving section.



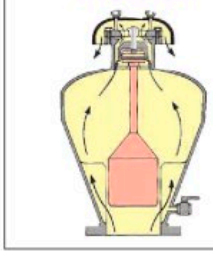
Ref. PN 16	DN	For pipe diameter mm	D mm	H kg	Weight kg
5888	80	80 to 200	325	580	35,5
5889	100	200 to 600	325	580	35,5
5890	150	> 600	360	650	55

1. Small orifice drain in stainless steel
2. Large orifice seal in polyurethane
3. Support for the PVC seal
4. Spindle in polyamide
5. Cap in cast iron FGL 250
6. Valve head in PVC
7. Rod in polyamide
8. Float in polyethylene
9. Valve housing in steel
10. Decompression valve
11. Lifting rings
12. Steel top plate
13. Polyurethane drain seal
14. Float guides in steel

Screws in stainless steel
Steel parts epoxy coated inside/outside

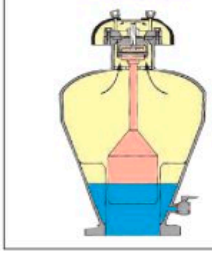
19

1. FUNCTION



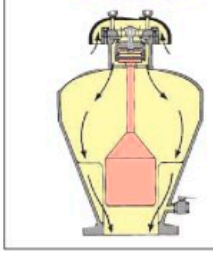
FAST RELEASE OF AIR

2. FUNCTION

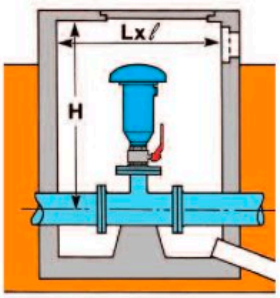


RELEASING AIR UNDER PRESSURE

3. FUNCTION



RAPID INFLUX OF AIR



INSTALLATION

The air valves must be installed according to the following parameters.

VE 320

DN	50-40 / 60-65	80	100
H mm	1,100	1,200	1,300
L x l mm	600 x 600	600 x 600	600 x 600
Air inlet (filter) mm	150 x 150	200 x 200	300 x 300

VE 330

DN	80 - 100	150
H mm	1,200	1,500
L x l mm	1,000 x 1,000	1,200 x 1,200
Air inlet (grille) mm	300 x 300	300 x 300

WHERE TO INSTALL AN AIR VAVLE

Air valves are installed at the high points of a piping system where air is accumulated.
- Triple function air valves : at the highest levels
- Single function air valves : at intermediary high points, between the triple function air valves.

For index of icones, see flap fold on the last page

SOCLA

CLEAR WATER AIR VALVES

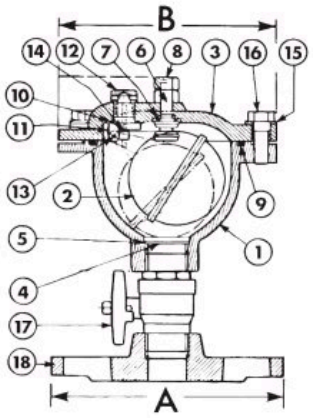
VE 120

SINGLE FUNCTION AIR VALVE FOR CLEAR WATER

continuously and automatically evacuates accumulated air from the high points of installations.

RANGE AVAILABLE

1. Air valve female thread 1"
2. Air valve with flange DN 40/50/60/65 mm
3. Air valve with male thread nipple 1"
4. Air valve with male ball stop valve 1"
5. Air valve with ball stop valve flange DN 40/50/60/65



1. Cast iron valve housing FGS 400-15 epoxy coated inside/outside
2. Float in polyphenylene oxide (PPO)
3. Cast iron valve head (FGS 400-15) epoxy coated
4. Stainless steel filter
5. Stainless steel clips
6. Manual drain screw (brass)
7. O-ring NBR (nitrile)
8. Plug drain screw (brass)
9. O-ring NBR (nitrile)
10. O-ring NBR (nitrile)
11. Drain
12. Drain nut (brass)
13. Float spindle (stainless steel)
14. Float seal NBR (nitrile)
15. Washer
16. Screw (stainless steel)
17. Valve (nickel plated brass)
18. Cast iron flange FGS 400-15 epoxy coated

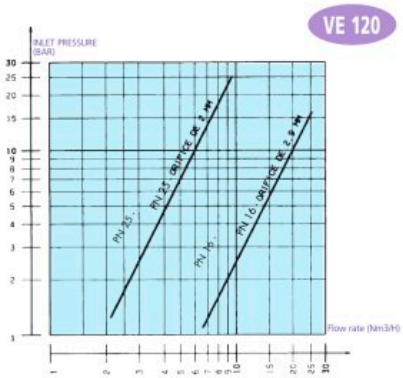
DESCRIPTION	PN16 XX	PN25 X	CONNECTIONS	A (mm)	B	TOTAL HEIGHT	WEIGHT Kg
1) Air valve female thread 1"	2867	2868	1"F	-	175	158	5,160
2) Air valve with flange DN 40/50/60/65 mm	2867BR	2868BR	40/50/60/65	185	175	216	8,400
3) Air valve with male thread nipple 1"	2867RM	2868RM	1"M	-	175	192	5,300
4) Air valve with male ball stop valve 1"	2867VA	2868VA	1"M	-	175	222	5,600
5) Air valve with ball stop valve flange DN 40/50/60/65	2867VB	2868VB	40/50/60/65	185	175	246	8,700

TECHNICAL PARAMETERS FLOW / PRESSURE GRAPHS

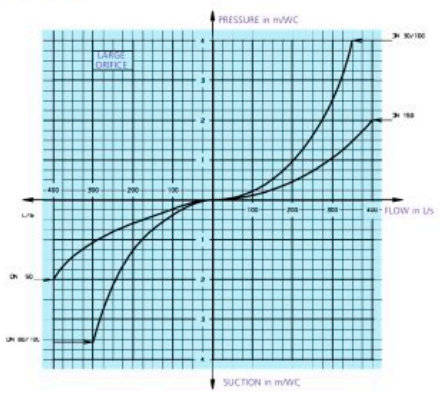
These graphs indicate the flow of air evacuated or sucked in by the large orifice of the air valves.

The choice of preset flow rate of the air valve is a function of the loss of pressure which can be sustained by the system.

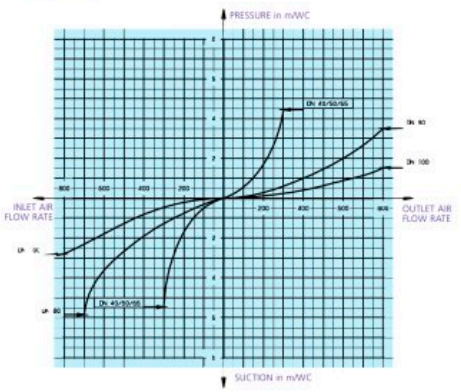
VE 120



VE 330



VE 320



MAINTENANCE OF AIR VALVES

To check that an air valve is functioning correctly, simply unscrew the drain plug :

- a jet of water indicates that the apparatus is working correctly.
- an air leak under pressure indicates that the air valve is not performing correctly and should be cleaned.

For index of icones, see flap fold on the last page

SOCLA

TO PLACE AN ORDER/CHECK LIST

Please complete the details below which we require to process your order correctly :

Type : _____ Size : _____ End connections PN 10 ☐ PN 16 ☐ PN 25 ☐

Inlet pressure (min/max) : _____ Upstream pressure setting : _____

Outlet pressure : _____ Downstream pressure setting : _____

Differential pressure setting : _____ Flow rate setting : _____

Difference in level between the horizontal axis of the valve and the level required in the reservoir
Difference between high level and low level (for regulation between top and bottom in a reservoir)

Distance of the valve from the reservoi _____ Top-filled ☐ Bottom-filled ☐

Maximum flow rate : _____ Minimum flow rate : _____

Voltage : _____ Current : Direct ☐ Alternating ☐

Normal pump discharge pressure : _____ Pump shut off head : _____

Should valve be open or closed when power switched of (electrically controlled valves) : _____

Installed position of valve : horizontal ☐ vertical ☐ other : _____

Other requirements : _____

Installation scheme, indicate particularities (diversions - elbows - etc...) : _____

CUSTOMER

Name _____ Position _____

Fax _____ Telephone _____

SOCLA

Protection

Non return

Regulation

Shut Off

Socla SAS
365 rue du Lieutenant Putier
71530 VIREY-LE-GRAND
BP10273 - 71107 Chalon S/Saône Cedex
Tel. +33 3 85 97 42 42 - Fax +33 3 85 97 97 42
e-mail:commer@socla.com
http://www.socla.com

Working hours
Monday to Thursday 8 a.m. to 5.30 p.m.
Friday 8 a.m. to 1.30 p.m.

2686619 - 12/2011

Socla - Desbordes - Sylax

SOCLA

BUTTERFLY VALVES

sylax

Butterfly valves

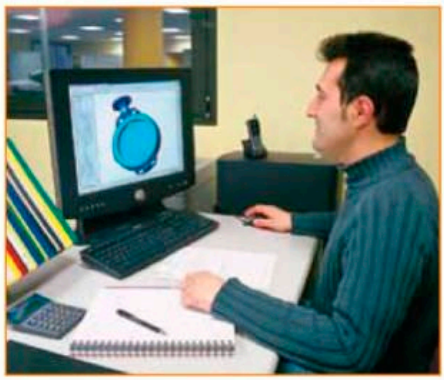
SOCLA, MANUFACTURER...

THE BUTTERFLY

DESIGN, INNOVATE

Specialist in the control of fluids in movement, our R&D team integrates in its studies all networks parameters...

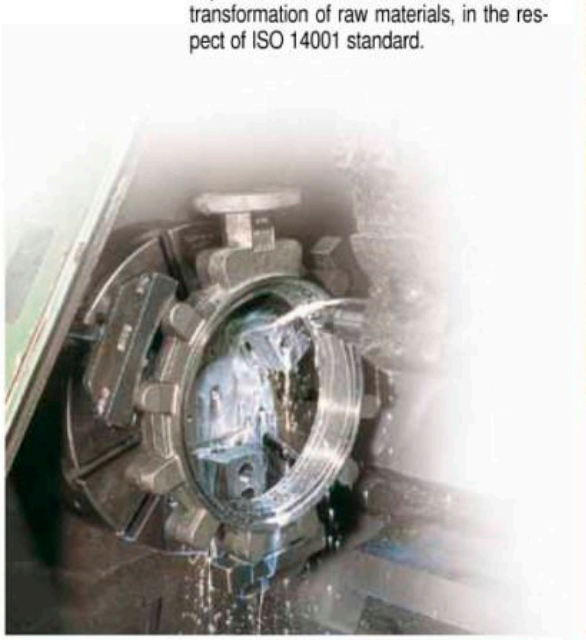
Assisted by a powerful date processing, served by the most recent softwares, its objective is the design of innovating products, research of competitiveness and reliability, in respect of environment.



PRODUCE

Our specialised units, ISO 9001 certified (2000 version) work on recent conception multiposts CNC machines, driven by a sophisticated CAD system.

A particular care is taken to selection and transformation of raw materials, in the respect of ISO 14001 standard.



TEST, MEASURE

Beyond theorical date-processing and technical calculations, Socla integrates in Virey-le-Grand one of the most important hydraulic laboratory.

This tool, amont the most powerful ones in Europe, consolidates Socla in its position of expert in the control of fluids in movement.

SERVICE

Since Virey-le-Grand, near Chalon-sur-Saône in France, the Socla logistic centre delivers all orders around Europe, quickly, guaranteeing the efficient service required by the customer.

A MULTIPLICITY OF SOLUTIONS FOR SHUT OFF

VALVE

Butterfly valve is a matchless element on fluids in movement networks.

Technical adequacy with installation characteristics and carried fluids, reliability, high level of safety are the main features guaranteed by Socla.

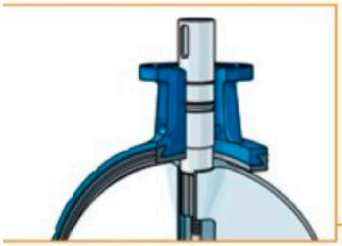
Butterfly valves

THE PERFORMANCE OF TECHNOLOGY

SYLAX - ENODIA

By concentrating the technologies in the field, and by integrating technical solutions of highest standard, Socla propose the competitiveness of a standard range, reliability and a comprehensive approach, affering a multiplicity of solutions.

- Safety anti-ejection circlip keeps shaft in place and allows easy maintenance.
- Safety reinforced by double watertightness.
- Spline driven one piece shaft connected to floating disc guarantees :
  - long term reliability
  - watertightness optimised
  - better high torque transmission



- High power transmission with robust grooved connection between the shaft and the disc.
- Reliability of movement with self-lubrificating.
- Complete protection of the shaft and valve body from fluids.

LYCENE

Very high level of working safety for chemical media, food processing industries and pure water thanks to quality components :

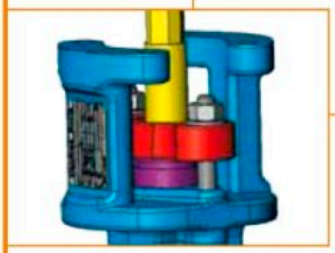
- PTFE liner (3mm thick).
- Stainless steel 316L, mirror polished 316L and SS 316L PFA coated (2,5mm thick).

- Liner back-up enclosed in the body ensures perfect disc tightness.
- Tightness at shaft location with bearing and spring.
- PFA moulding up the stem ensuring zero leakage.
- One piece blow out proof shaft and disc.

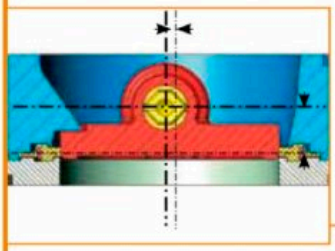
EMARIS

Butterfly valve fulfils th rements of industrial a

- DN65 to 200 r
- Stainless steel
- Pressure ratin



- Long



- Larg

- Dou

- Bi-directional sealing :
  - Wide range of industrial applications and high corro media suitability thanks to the use of reinforced PTFE stainless steel and PTFE materials
  - Bi-directional tightness
  - No use of springs for reliable sealing
  - Metallic insert / soft seal design for high performance sea at variable temperature conditions
  - Asymmetric design of the seal for trouble free re-assemb and maintenance

THE WIDENESS OF THE STANDARD RANGE

Various construction materials for specific applications :

VALVES BODIES

• EN-GJL-250 cast iron	• 316 stainless steel (1.4408)
• Gr.WCB carbon steel	• EN-GJS-400-15 ductile iron
FLANGE RATING	PN6 - PN10 - PN16 - PN25 - ASA 150 ASA300 - PN40

A multiplicity of solutions, combining different flange rating, sizes, pressures and construction materials ; other materials are also available on request.

centering lugs | tapped lugs | central lugs | double flange | ring shaped

LINERS

The indicated temperatures are the maximum service temperatures.

For working temperatures, see catalogue price-list.

High temperature EPDM -20°C -> +120°C	High content NITRILE -15°C -> +90°C
EPDM PTFE -20°C -> +120°C	SILICONE -40°C -> +240°C
CARBOXYLATED NITRILE -10°C -> +115°C	HYPALON -25°C -> +95°C
SILICONE PTFE -30°C -> +240°C	FLUORED ELASTOMERE -10°C -> +200°C
White EPDM -20°C -> +85°C	STAIN. STEEL PTFE -50°C -> +220°C

CA 296 DISCONNECTOR

DISCONNECTOR WITH DIFFERENT NON CONTROLLABLE PRESSURE ZONES

General characteristics :

Compact

High performance

Competitive

F/F Connections : demountable Female/Female unions

T Maximum working temperature 65°C

P Maximum working pressure 10 bar

kiwa NF BELGAQUA

To protect low risk or intermittent risk installations which nevertheless require a backflow prevention system : domestic heating units < 70 Kw, vending machines, certain laboratory equipment...

Special versions in M/M and nickel plated in M/M or F/F

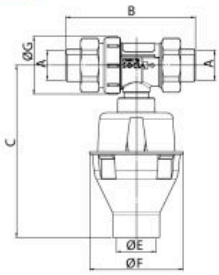
Nomenclature

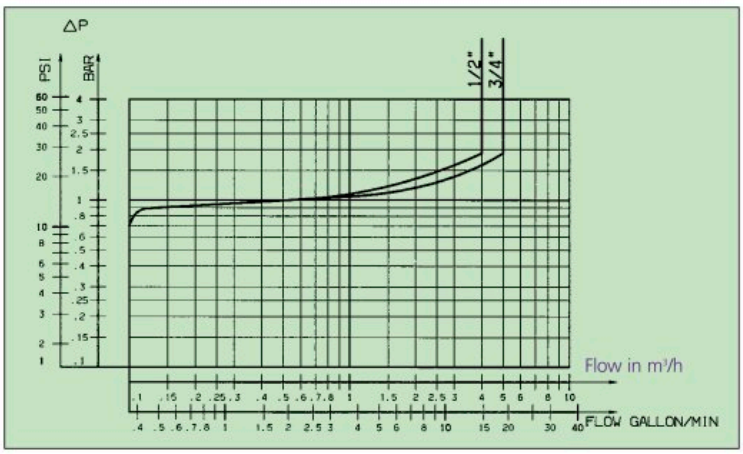
Membrane NBR (nitrile)
Upstream check valve : brass and polyacetal (POM)
Springs : stainless steel
Downstream check valve : polyacetal (POM)
Valve casing : brass
Funnel : polyamide (PA 6.6)
Filter

TECHNICAL INFORMATION

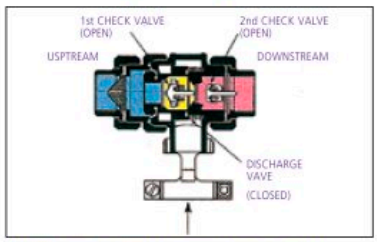
TYPE CA 296

Ref.	A "	B mm	C mm	E mm	F mm	G mm	Weight kg
149B**2885**	1/2	105	140	32	76	47	0,595
149B**2886**	3/4	105	140	32	76	47	0,580



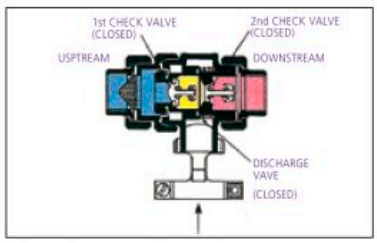


Functionning principle



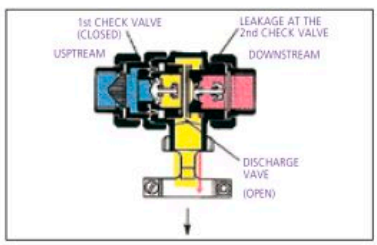
Normal operation under pressure

In normal conditions, the discharge valve remains closed while the upstream check valve and downstream check valve are open, allowing water to flow through the device.



Flow interrupted, static pressure

The backflow preventer is under pressure, flow has stopped, upstream and downstream check valves close, the discharge valve remains closed.



Water returns back in case of pressure loss upstream or overpressure downstream

In the case of loss of pressure, the upstream check valve and the downstream check valve remain closed. The pressure loss causes the discharge valve to open and releases air into the middle section. In the case of overpressure upstream and if the upstream check valve is worn, the discharge valve opens, any leak from downstream is evacuated by the discharge valve.

MAINTENANCE OF BA BACKFLOW PREVENTERS

Control kits for maintenance of BA backflow preventers

In accordance with antipollution standard and hygiene regulations, BA backflow preventers must undergo an annual performance check for which the user is responsible.

For this purpose Socla proposes a maintenance kits allowing these periodic checks to be made.

A check list included with the kit describes the procedure which must be followed scrupulously and effected on the device itself.

The following are tested, one by one :

- *the watertightness of the upstream stop valve*
- *the watertightness of the upstream check valve*
- *the watertightness of the discharge valve*
- *the watertightness of the downstream stop valve*
- *the watertightness of the downstream check valve*
- *the value of differential pressure which triggers the disconnection (as read on the differential manometer ; this should not be less than 140 mbar when the first drops reach the discharge valve).*

In this way the condition of the component parts of the device and the correct functioning of the back flow preventer is thoroughly controlled.

List of french organism for certification

Organisms which certificate the maintenance backflow preventers :

AFORTECH
10 rue du Débarcadère - 75017 PARIS
Tél : 01 40 55 14 14

PRO FORM TECH
3 rue Réaumur - 77380 COMBS LA VILLE
Tél : 01 60 18 91 98

AFPI RHODANIENNE
10 boulevard Edmond Michelet - 69008 LYON
Tél : 04 78 77 05 70

OFFICE INTERNATIONALE DE L'EAU
22 rue Edouard Chamberland - 87065 LIMOGES
Tél. 05 55 11 47 00

LEGOURD CONSEIL FORMATION
108 avenue Paul-Vaillant Couturier - 91700 STE-GENEVIEVE-DES-BOIS
Tél./Fax 01 69 51 36 85

Electronic kit

All-electronic control unit for backflow preventer of 15 to 250 mm diameter, delivers in a shockproof case with manual, calibration certificate of the electronic manometer and maintenance procedure. Dimensions approx 300 x 400 x 110.

Ref. 1020

Contractual Replacement Annually Notified

EXCLUSIVE

Backflow preventer BA 2760
with controllable reduced pressure zone

With the C.R.AN.

Contractual Replacement Annually Notified

Socla ensure a complete service !

With this contract, the yearly maintenance recommended is free thanks to the standard exchange of the BA 2760 annually on the commissionning date.
However, the plants where theses devices are mounted, must be verified by qualified personnel, according to article R. 1321-59 of the legislation, published in the 27 Mai 2003.

Advantages :
- you save time,
- easy management of the maintenance,
- controlled costs,
- an installation under annual warranty.

Do not hesitate to contact us.

**ıe highest performance and reliability requi-
pplications.**

nm
body & disc / cast steel body & stainless steel body
ı up to 50 bar ; temperature de -50°C to +220°C

ı neck body and cast on Iso Top Plate :
- Designed to allow insulation
- Easy access to the packing gland without removing the actuator
- Cast on ISO plate for direct assembling of actuators

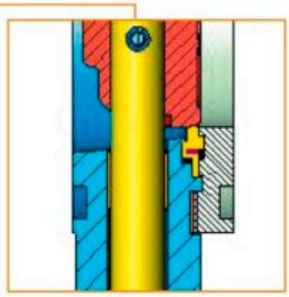
ıe range of flange connections :
- Wafer and tapped lugs bodies PN10-16-25-40-ASA 150/300
- 4 lugs, to screw the seat retaining plate on to the valve body, located to offer a larger flange contact surface
- Groove end connection

ble eccentric disc :
- Long life durability due to double offset operating principle minimizing seat wear
- Reduced operating torques
- High efficiency tightness by full sealing ring

ısive
: by

ılıng

ılıng



DISCS

A selection of materials of different characteristics

GJS POLYAMIDE

STAINLESS STEEL 316 or 316L

STAINLESS STEEL 316L PFA Coated

ALUMINIUM BRONZE

GJS DUCTILE IRON EPOXY

STAINLESS STEEL 316L POLISHED MIRROR

And also Uranus B6, Hastelloy C, Titanium T40, etc...

ACTUATIONS AND ACCESSORIES

THE MULTIPLICITY

HANDLEVERS

PCX
Composite lever

PCF
Notched lever in ductile iron 2 or 10 positions

PRF
Adjustable ductile iron or stainless steel handlever

PRI
Multipurpose 17 positions handlever

PCF
Notched handlever in ductile iron with mechanical limit switches

PCF
Notched handlever in cast iron with a switchbox

MANUAL GEAR BOXES

RM
Cast iron manual gear box

RM
Manual gear box with mechanical switchbox

RM
Stainless steel manual gear box

RM
Manual gear box with chain-wheel

PNEUMATIC ACTUATORS

Double and single acting with or without emergency handwheel

Adjustable travel stop device

SOCLA

Standard equipment :
- ❑ Pneumatic actuations by a adjustable travel stop device
- ❑ Operating temperature from -20°C to +90°C
- ❑ Torques from 16 up to 1100 Nm
- ❑ Air supply 2 to 10 bar (in standard, air supply 6 bar)
- ❑ Mechanical stops enabling of opening or closing to ±10°
- ❑ Dry or lubricated air supply
- ❑ ATEX 2II DG c
- ❑ Flanges in accordance with EN ISO 5211, VDI/VDE 3845
- ❑ Visual position indicator
- ❑ In standard, NF single acting version (NO on request)

AIR TORQUE + REMOTE CONTROL + SERVOVALVES

«SCOTCH YOKE» mechanism

High torque with «SCOTCH YOKE» mechanism

«SCOTCH YOKE» mechanism with emergency handwheel

High torque with emergency handwheel

ELECTRIC ACTUATORS

serie ER+ **serie VS**

Multivolt 100-240V 50/60Hz • 100-350V DC
15-30V AC 50/60Hz • 12-48V DC

SOCLA

Actuator serie ER+ - Standard equipment :
Electric actuators on/off duty, On/Off or 3 modulating points control, IP66, Possible rotation angles : 90° ; 180° ; 270°, Duty rating 50%, Polyamide cover UL94V0 approved, Modular position indicator, Available voltages : 100-240V 50/60Hz (100-350V DC) or 15-30V AC 50/60Hz (12-48V DC), Manual override by handle (ER10 and ER20) or by external shaft (ER35 to ER100), 4 adjustable limit switches, Self regulated anti-condensation heaters, Electronic torque limiter, Failure report relay, RS485 connection, Mechanical travel stops, Working temperature from -10°C to +55°C, 3P+T DIN43650 connector, Electric connection 1 x ISOM20, Declutching system for secured manual override

Actuator serie VR-VS-VT - Standard equipment :
Electric actuators on/off duty, On/Off or 3 modulating points control, IP67, Possible rotation angles : 90° ; 180° ; 270°, Duty rating 50%, Polyamide cover UL94V0 approved or aluminium cover, Position indicator, Available voltages : VR/VS : 100-240V 50/60Hz (100-350V DC) or 15-30V AC 50/60Hz (12-48V DC), 400V tri VT : 400V tri, 230V 50/60Hz, Manual override by hand wheel, 4 adjustable limit switches 5A (VT=16A), Self regulated anti-condensation heaters 10W (except VT and 400 tri), Torque limiter monitored by software (except VT and 400 tri), Failure report relay (except VT and 400 tri), RS485 connection (except VT and 400 tri), Mechanical travel stops, adjustable for VS and VT, Working temperature from -10°C to +55°C, 3P+T DIN43650 connector, Electric connection 2 x ISOM20, Plates F05/F07, F07/F10 or F10/F12 according to ISO 5211

L. BERNARD

Triphase multiturn with gear box.

ROTORK

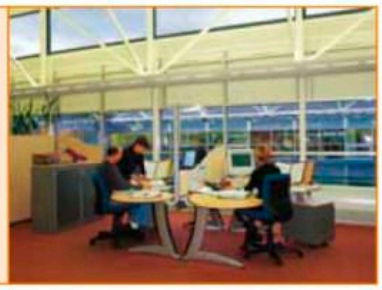
AUMA

BELIMO

Socla

LISTEN

- A team of sales assistants and technicians listen to you, give you an answer and help you in the choice of product, follow-up of orders. Competent professionals, they take care of making you save time.



INFORM

- From technician to technician, a dense and accessible information.
  Price-list catalogue - Technical date sheets
  Price-list manuals - Interactive CD-ROM with research criterias, demonstration videos, web site.
  Tools are as various as user-friendly

Operating instructions are available on our web site www.socla.com or on request details with our Sales Department

A SIMPLE CHOICE
BY APPLICATION FAMILIES

Seven families in accordance with the Pressure Equipment Directive 97/23/CE.
To simplify your approach and make your choice easier, Socla has classified its products according to 7 families, each of them designed for a specific series of applications.

SYLAX CE

> GENERAL SERVICES AND INDUSTRIAL PROCESSES
DN 25 to 350 mm

ENODIA CE

> GENERAL SERVICES AND INDUSTRIAL PROCESSES
DN 400 to 1200 mm

BOMBYX CE

> FIRE PROTECTION CNPP and FM versions
DN 32 to 300 mm

APORIA CE

> GAS
DN 40 to 300 mm

TILIS CE

> FOOD AND CHEMICAL INDUSTRIES
DN 32 to 300 mm

LYCENE CE

> CHEMICAL, FOOD PROCESSING AND PURE SUBSTANCES
DN 32 to 300 mm

EMARIS CE

> DISTRICT HEATING, STEAM, INDUSTRIAL PROCESSES, PETROCHEMISTRY, INDUSTRY
DN 50 to 300 mm

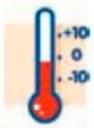
IN BRIEF, AN ANSWER
TO EACH OF YOUR NEED

MAIN ADMISSIBLE FLUIDS

- Water: Drinking
  - Salt
  - Waste
- Gas
- Air
- Food products
- Pulverulents
- Inflammables
- Toxic liquids
- Explosives
- Volatile liquids
- Polymerisables
- Cristalline liquids
- Corrosive liquids
- Abrasives
- Heat-carrying liquids
- Radioactive liquids
- Hot liquids
- Cold liquids
- Granular liquids
- Viscous liquids
- Paste
- Agressive liquids
- Steam

Note : temperature and/or pressure depending upon the concentration of certain fluids may require a special adaptation. Please consult us.

ADMISSIBLE TEMPERATURE



in the standard range of products

- Peak temperatures between –50°C and + 250°C
- Working temperatures between –50°C and + 220°C

PRESSURES

Torques at PS 50 bar.

NOMINAL DIAMETERS

From **25 mm** to **1 200 mm** in standard.

DN

APPROVALS

DNV · WRAS · DVGW · ABS · Lloyd's Register · AIB VINCOTTE · BUREAU VERITAS · CSTB · RINA · CNPP · PUB SINGAPORE · FM · NF ROB-GAZ · CARELA · STROJÍRENSKÝ ZKUŠEBNÍ ÚSTAV · TOTAL · ACS AGREMENT MINISTERIEL · RENAULT Automobiles · SVGW SSIGE SVGW · GROUPE PSA · SNCF · CE

Silicone-and grease free butterfly valves (Technical data sheet on resquest).

THE PED REQUIREMENTS CLEARLY DISPLAYED

PRESSURE EQUIPMENT DIRECTIVE 97/23/CE

Manufacturing in accordance with the directive requirements for pressure, DN and nature of fluids.

FAMILY		LINERS	DN mm	Cat.	MOUNTING	PFA water	PS L1	PS L2	PS G1	PS G2
SYLAX	6 bar	EPDM, Nitrile (CC333G disc), White EPDM	32 to 150	3.3	Flanges	6	6	6		6
					End of line	4	4	4		4
			200 to 350	I	Flanges	6	6	6		6
					End of line	4	4	4		4
		Nitrile (except CC333G disc), Neoprene, Butyl, Hypalon, Natural rubber, White Natural rubber	32 to 100	I	Flanges	6	6	6	6	6
					End of line	4	4	4		4
			125 to 350	II	Flanges	6	6	6	6	6
					End of line	4	4	4		4
	10 bar	EPDM, Nitrile (CC333G disc), White Nitrile, Carboxylated nitrile, White EPDM	25 to 100	3.3	Flanges	10	10	10		10
					End of line	6	6	6		6
			125 to 150	I	Flanges	10	10	10		10
					End of line	6	6	6		6
			200 to 350	I	Flanges	10	10	10		10
					End of line	6	6	6		6
		Nitrile (except CC333G disc), FKM	25	3.3	Flanges	10	10	10	10	10
					End of line	6	6	6		6
			32 to 100	I	Flanges	10	10	10	10	10
					End of line	6	6	6		6
			125 to 350	II	Flanges	10	10	10	10	10
					End of line	6	6	6		6
		Silicone	32 to 100	I	Flanges	10	10	10	10	10
					End of line	6	6	6		6
			125 to 150	II	Flanges	10	10	10	10	10
					End of line	6	6	6		6
			200 to 350	II	Flanges	6	6	6	6	6
					End of line	4	4	4		4
	16 bar	EPDM, Nitrile (CC333G disc)	32 to 100	3.3	Flanges	16	16	16		10
					End of line	12	12	12		10
			125	I	Flanges	16	16	16		10
					End of line	12	12	12		10
			150	I	Flanges	16	10	16		10
					End of line	12	6	12		10
			200 to 300	I	Flanges	16	10	16		10
					End of line	10	6	10		10
			350	I	Flanges	16	10	16		10
					End of line	8	6	8		8
		Nitrile (except CC333G disc), Neoprene, Butyl, Hypalon, Natural rubber, White natural rubber	32 to 100	I	Flanges	16	16	16	10	16
					End of line	12	12	12		12
			125 to 150	II	Flanges	16	16	16	10	16
					End of line	12	12	12		12
			200 to 300	II	Flanges	16	16	16	10	10
					End of line	10	10	10		10
			350	II	Flanges	16	16	16	10	10
					End of line	8	8	8		8
	20 bar	EPDM, Nitrile (CC333G disc)	32 to 250	3.3	Flanges	20		20		
					End of line	12		12		
			300 to 350	I	Flanges	20		20		
					End of line	12		12		
		Nitrile (except CC333G disc), Neoprene, Butyl, Natural rubber, White natural rubber	32 to 100	3.3	Flanges	20	20	20		
					End of line	12	12	12		
			125 to 350	II	Flanges	20	20	20		
					End of line	12	12	12		
	25 bar	EPDM, Nitrile (CC333G disc)	32 to 150	3.3	Flanges	25		25		
					End of line	16		16		
		Nitrile (except CC333G disc)	32 to 80	3.3	Flanges	25	25	25		
					End of line	16	16	16		
			100 to 150	II	Flanges	25	25	25		
					End of line	16	16	16		
ENODIA	6 bar	EPDM, Nitrile, White EPDM, White Nitrile, Carboxylated nitrile	400 to 500	I	Flanges	6	6	6		6
					End of line	4	4	4		
			600	I	Flanges	6	6	6		5
					End of line	4	4	4		
			700 to 800	I	Flanges	6	6	6		4
					End of line	4	4	4		
			900 to 1000	I	Flanges	6	6	6		3,5
					End of line	4	4	4		
			1200	I	Flanges	6	6	6		2,5
					End of line	4	4	4		
		Silicone, Neoprene, Butyl, Hypalon, FKM, Natural rubber, White natural rubber	400 to 500	I	Flanges	6	6	6		6
					End of line	4	4	4		
			600 to 800	II	Flanges	6	6	6		6
					End of line	4	4	4		
			900 to 1000	II	Flanges	6	6	6		5
					End of line	4	4	4		
			1200	II	Flanges	6	6	6		4
					End of line	4	4	4		
	10 bar	EPDM, Nitrile, White EPDM	400 to 1200	I	Flanges	10	10	10		
					End of line	6	6	6		
		Hypalon, FKM	400 to 1200	I	Flanges	10	10	10		
					End of line	6	6	6		
	16 bar	EPDM, Nitrile	400 to 1200	I	Flanges	16		16		
					End of line	8		8		
		Neoprene, Butyl, Natural rubber, White natural rubber	400 to 1200	I	Flanges	16	16	16		
					End of line	8	8	8		
BOMBYX	16 bar	EPDM (APSAD approval), EPDM (FM approval)	32 to 300	3.3	Flanges	16		16		
					End of line	12		12		
APORIA	6 bar	Nitrile	32 to 100	I	Flanges	6			6	6
					End of line	4				4
			125 to 300	II	Flanges	6			6	6
					End of line	4				4
	8 bar	Nitrile	32 to 100	I	Flanges	8			8	8
					End of line	6				6
			125 to 300	II	Flanges	8			8	8
					End of line	6				6
TILIS		EPDM/PTFE, Silicone/PTFE	32 to 100	I	Flanges	10	10	10	10	10
					End of line	6	6	6		6
			125 to 150	II	Flanges	10	10	10	10	10
					End of line	6	6	6		6
			200 to 300	II	Flanges	6	6	6	6	6
					End of line	4	4	4		4
LYCENE		PTFE/Silicone	40 to 100	I	Flanges	10	10	10	10	10
					End of line	6	6	6		6
			125 to 300	II	Flanges	10	10	10	10	10
					End of line	6	6	6		6
EMARIS	50 bar	PTFE reinforced	50 to 100	II	Flanges	50	50	50	50	50
					End of line	36	36	36	36	36
			125	II	Flanges	50	50	50	28	40
					End of line	36	36	36		36
			150	II	Flanges	50	50	50	23	33
					End of line	36	36	36		33
			200	II	Flanges	25	25	25	17,5	25
					End of line	18	18	18		18
	25 bar		250	II	Flanges	25	25	25	14	20
					End of line	18	18	18		18
			300	II	Flanges	25	25	25	11,5	16,5
					End of line	18	18	18		16,5

END OF LINE FOR BUTTERFLY VALVES

Body	DN	Materials	End of line
Ring shaped	50 to 100	GJS	NO
Centering lugs	25 to 600	GJL	NO
Centering lugs	25 to 150	GJS	YES
Centering lugs	200 to 1000	GJS	NO
Centering lugs	32 to 300	Steel	NO
Centering lugs	32 to 300	Stainless steel	NO
Central flange	80 to 200	GJS	YES
Tapped lugs	32 to 500	GJL	YES
Tapped lugs	32 to 500	GJS	YES
Tapped lugs	32 to 300	Steel	YES
Tapped lugs	32 to 300	Stainless steel	YES
Double flange	200 to 1000	GJS	YES

For end of line use, the indicated pressures have been derated and are shown on the valve identification plate.

Important notice :
The indicated pressures and temperature for the different categories of fluids (L1/L2/G1/G2) are not a guarantee of use.
Therefore, it is essential to validate the use of products under given operating conditions to our technical department.

TRACEABILITY

Identification and traceability ensured by riveted metal tag.

Protection

Non-return

Regulation

Shut Off

Socla SAS
365 rue du Lieutenant Putier - 71530 Virey-Le-Grand
BP10273 - 71107 Chalon S/Saône Cedex
Tel. +33 3 85 97 42 42 - Fax +33 3 85 97 97 42
e-mail:commer@socla.com
http://www.socla.com

Working hours
Monday to Thursday 8 a.m. to 5.30 p.m.
Friday 8 a.m. to 1.30 p.m.

2698774 - 12/2011

Socla - Desbordes - Sylax

SOCLA

Non return

SOCLA

Non return valves

SOCLA, MANUFACTURER ...

DESIGN, INNOVATE

- Specialist in the control of fluids in movement, our R&D team integrates in its studies all networks parameters...
Assisted by a powerful date processing, served by the most recent softwares, its objective is the design of innovating products, research of competitiveness and reliability, in respect of environment.

TEST, MEASURE

- Beyond theorical date-processing and technical calculations, Socla integrates in Virey-le-Grand one of the most important hydraulic laboratory.

This tool, amont the most powerful ones in Europe, consolidates Socla in its position of expert in the control of fluids in movement.

PRODUCE

- Our specialised units, ISO 9001 certified (2000 version) work on recent conception multiposts CNC machines, driven by a sophisticated CAD system.

A particular care is taken to selection and transformation of raw materials, in the respect of ISO 14001 standard.

SERVICE

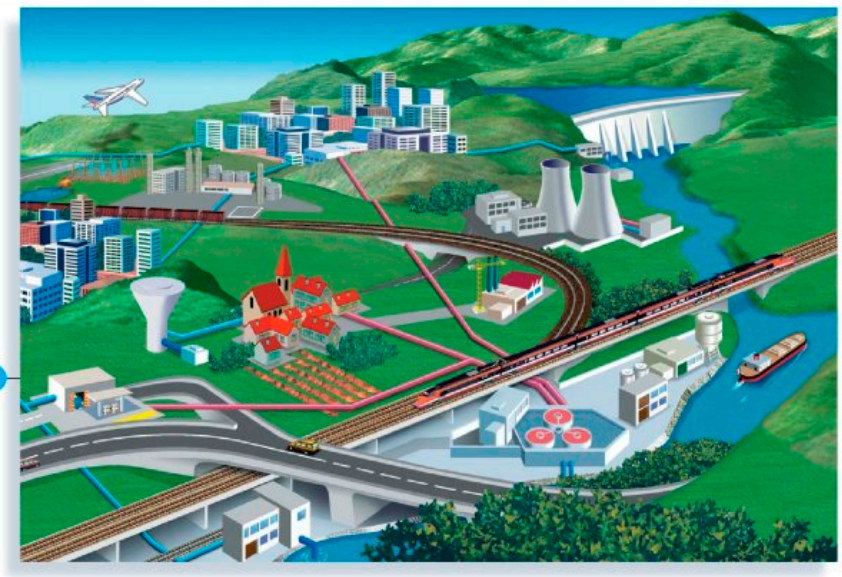
- Since Virey-le-Grand, near Chalon-sur-Saône in France, the Socla logistic centre delivers all orders around Europe, quickly, guaranteeing the efficient service required by the customer

SUMMARY

Most of our models are approved by Veritas (France); specific approvals in different countries are given alongside information on each type of valve.

Certificates of approval for the materials used in manufacture can be supplied on request. An additional charge may be applied for NF 1024- 31B certificates.

HOW TO SELECT



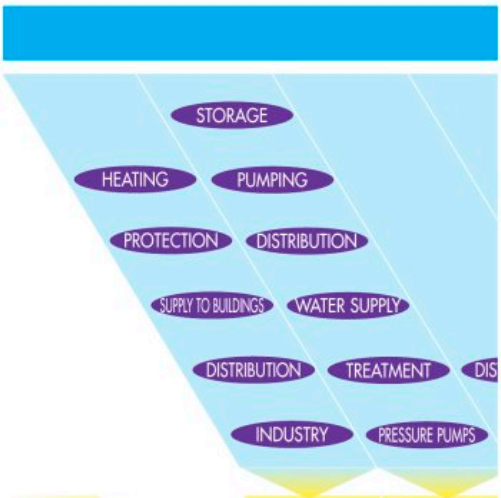
THERE IS NO UNIVERSAL CHECK VALVE

The check valve might appear to be a simple device.
Broadly speaking, it functions like a door.

In truth, the valve has to adapt to many different kinds of fluid, to an enormous variety of installations each with their own particular constraints - mechanical, hydraulic, physical or chemical.

To help you in your selection we have listed the broad parameters within which to make your choice.

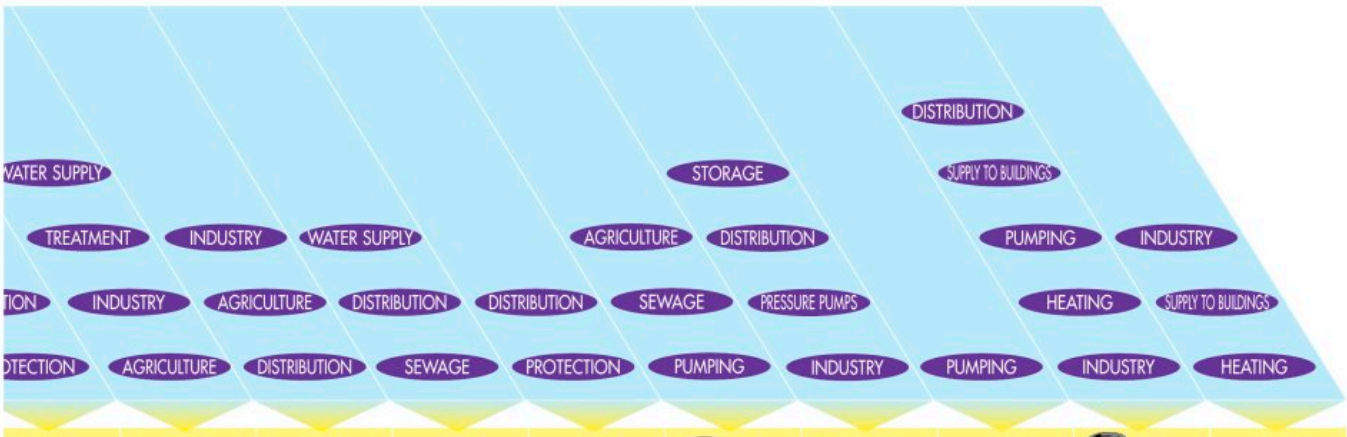
To meet your selection criteria, we offer 11 types of closing system, each system being more or less compatible.



		CLOSING SYSTEM 01	CLOSING SYSTEM 02
FLUID TYPE	CLEAR	●	●
	SLURRY		
	GAS	●	●
	STEAM		
	AGGRESSIVE		●
	FOOD & DRINKS*	●	●
OPERATING POSITION		❄	❄
T°C		60°/80°	80°/140°
PN (PS acc. to PED)		10	16/25/40
CONNECTIONS	THREADED	1/4" - 2 1/2"	2 1/4" - 8"
	FLANGED		40 - 500 mr
	OTHER		

A CHECK VALVE

APPLICATIONS



03 (+ 03HP)	05 double plate	05 single plate	05 with flanges	06 with flanges	B	M (+MI)	TJ	TJO (+04 +FL)	W
●	●	●	●	●		●	●	●	●
				●	●				
●	●		●			●			●
									●
	●		●	●	●			●	●
●	●	●		●		●			●
80°/90°	100°/130°	110°/180°	70°	90°	60°/150°	60°/100°	60°	60°/80°	100°/350°
16	16/25	16	16	16	10	6(MI),16(M), 25(M)	6/10	10	16/40
1/2" - 2"					1" - 3"	3/8" - 4"		1/4" - 2"	1/2" - 2"
0 - 250 mm			65 - 300 mm	50-150 mm	50 - 350 mm	40 - 200 mm Non return 40 - 300 mm foot valve	200 - 600 mm		
	Wafer 50 - 600 mm	Wafer 40 - 600 mm							Wafer 15 - 200 mm

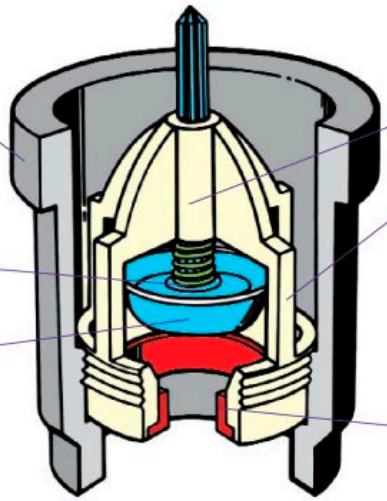
* Some finishes are appropriate for drinking water or can be adapted for alimentary use. Please consult us.

NON-RETURN VALVES

01 SYSTEM with double (axial and lateral) guide

PROTECTION BUILDINGS DISTRIBUTION INDUSTRY HEATING

- **Excellent sealing for high or low pressure**
- **Antipollution approved in the majority of European countries**
- **Many special versions available**



Many different casing shapes available for many different applications

Anti-incrustation materials

Many types of connections

Return spring allowing the valve to function at all angles

Special hydraulic profile for minimum energy loss

Double (axial and lateral) guide ensures a perfect centring of the closing system on the seat

Lipped joint guaranteeing an excellent water-tightness at both high and low pressure

The closing system of the 01 series non-return valves has been developed to meet the requirements of NF P 43 007 and 43 008 anti-pollution standards. The characteristics of EA and EB valves are governed by these standards. Overall, these valves are watertight under a column of 3 cm of water and have been subjected to endurance tests of 80,000 cycles with water at 65° C and a pressure of 10 bar. NF type EA valves have 2 x 1/4"bosses. EB valves do not necessarily have the two bosses. Installation requirements are explained in the corresponding technical details.

SOCLA

01 SYSTEM

231/601/601V/601P

3/8" to 2" valves with brass casings, female/female
PN 10 - Guide and closing system in POM (polyacetal) or PPO (polyphenylene oxide), nitrile rubber (NBR) seal, stainless steel spring, NBR seal for sanitation, heating circuits (anti-thermo syphon), general installations, protection of pumps for burners (601 V 3/8" and 1/2" with FKM fluorised rubber seal) and some gas.
Temperature 80°C

* NF ACS **

251/251S FOR WATER METERS

Male/female valve with brass casing, equipped with two drilled and plugged bosses, guide and closing system in POM (polyacetal), seal in NBR (nitrile) with captive nut to ensure easy dismantling. Valves with elbow connections available for use in corners.
251S version : lenght 58mm NF ACS

Available in different versions :
- **251 PU** : with drain cock
- **251 PP** : with cylindrical drainpoints
- **251 SPU** : short version with purge
- **251 SPP** : short version with cylindrical drainpoints
- **251 CC** : with POM plugs

Température : 80°C

221B/271/291 FOR PROTECTION OF DRINKING WATER NETWORKS

Female/female valves with brass casing and two drilled bosses, guide and closing system POM (polyacetal) : 221B and 291 NF seal in EPDM, spring in stainless steel. The bosses allow watertightness checks and the draining of the installation.
- **271 :** male/male brass casing with union nut connection, guide and closing system in PAR (polyarylamide) or POM (polyacetal)

Temperature : 80°C NF ACS

2231/2211 FOR PROTECTION OF DRINKING WATER NETWORKS

- **2231 :** double valve female/female of 231 type with boss between the two valves.
Temperature : 100°C
- **2211 :** double valve with compression connections, same style.
Temperature : 80°C ACS

281 FOR SANITATION

Male/female connection **also exists in 2 other versions :**
- **281 C :** in chrome-plated brass
- **281 P :** in POM (Polyacetal)

Temperature 281 C : 80° C - 281 P : 65°C

901/911/921/931 INSERT CHECK VALVES

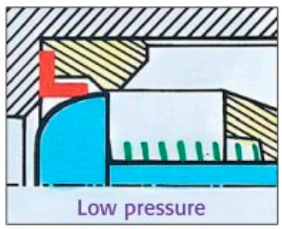
Insert check valves with casing in POM (polyacetal), or PA12 (polyamide) or brass.
901 type valves are designed to be inserted at the outlet of water meters ; the other types are designed to be inserted in a variety of other systems.
- **901-911 :** NF

Temperature : 80°C and 95°C for 931 type

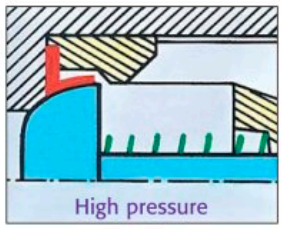
Guaranteed sealing under all conditions

with the lipped seal

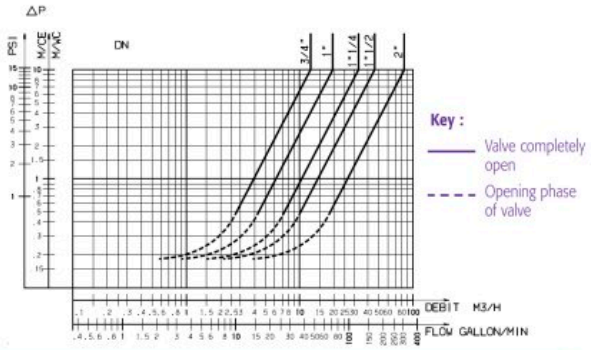
At low pressure water tightness is achieved by the contact between the closing system and the edge of the I-shaped seal



At high pressure the sealing takes place between the closing system and the I-shaped seal all along its internal length. The closing system is then in the closed position on the casing, safeguarding the seal and allowing re-opening at a low pressure (no risk of blocking).



Headloss chart (Type 221 B)



The 01 system range

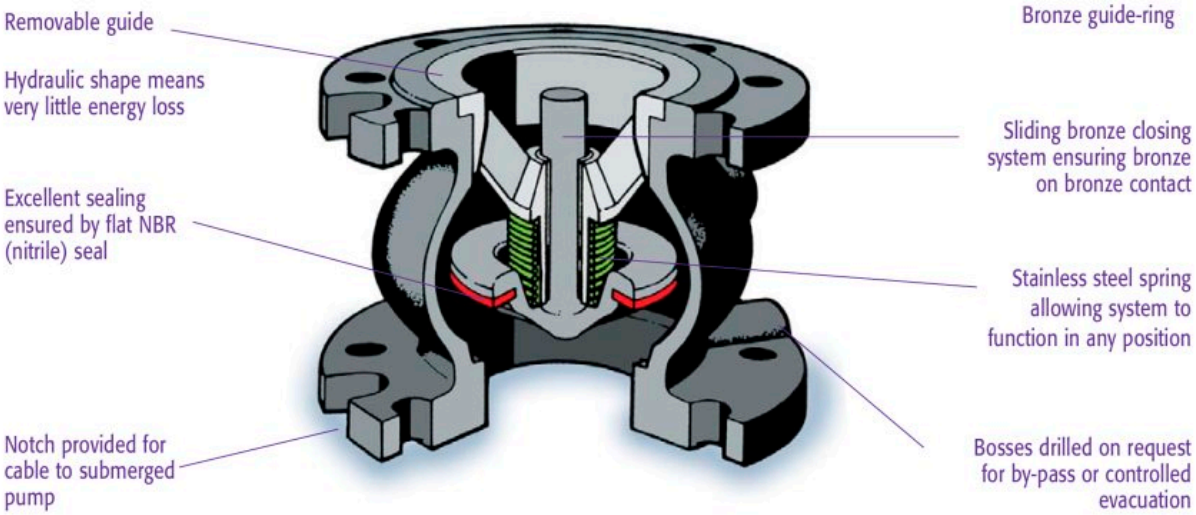
221 B	BRASS	THREADED F/F	3/4 to 2"
231	BRASS	THREADED F/F	3/8 to 2"
291 NF	BRASS	THREADED F/F	1/2 to 2"
601	BRASS	THREADED F/F	3/8 to 2"
601 V	BRASS	THREADED F/F	3/8 to 2"
2231	BRASS	THREADED F/F	1/2 to 2"
201	BRASS	THREADED F/M	1/2 to 1"
251	BRASS	THREADED F/M	3/4 to 2"
251 PP	BRASS	THREADED F/M	3/4 to 2"
251 PU	BRASS	THREADED F/M	3/4 to 2"
251 CC	BRASS	THREADED F/M	3/4 to 1"
251 S	BRASS	THREADED F/M	3/4
251 SPU	BRASS	THREADED F/M	3/4
251 SPP	BRASS	THREADED F/M	3/4
281	BRASS	THREADED M/F	3/8 to 1"
281 C	CHROMED BRASS	THREADED M/F	1/2 to 3/4"
281 P	PLASTIC	THREADED M/F	1"
241	BRASS	THREADED M/M	1/4 to 3/4"
261	BRASS	THREADED M/M	3/4 to 1"
271*	BRASS	THREADED M/M	3/4 to 2"
211	BRASS	COMPRESSION FITTING	8 to 28"
2211	BRASS	COMPRESSION FITTING	15 to 28"
901	PLASTIC	INSERT	3/8 to 1"
911	PLASTIC	INSERT	C15
921	BRASS	INSERT	C15 to 50
931	BRASS	INSERT	C15 to C25

F = Female ; M = Male - * Thread Ø

NON-RETURN VALVES AND FOOT VALVES

02 SYSTEM simple guiding

- **Valve with very wide range of applications**
- **Prevents water hammering**
- **Noiseless operation**
- **A quality, value for money choice**



The 02 system represents the best combination of hydraulic efficiency, robustness, sealing and price for use with clear liquids : pumping, circulation, supply, general pipeline networks.
This versatile range is available from 40 to 500 mm in both non-return and foot valve versions, and is particularly useful where there may be a risk of water hammer.

SOCLA

02 SYSTEM simple guiding

402/202

Diameter 40 to 500 mm
PN 16 drilled PN 10
The most universal of Socla's valves for the protection of pumps, general pipeline networks, pressure pumps, water distribution.
Temperature 100°C
Flanged or threaded

Available in many types :

- **402V** : with FKM flat seal (100° C)
- **402TTP** **202TTP** : all anti-incrustation PTFE coating, internal/external
- **402S** : in GS cast iron for high pressures (40 bar)
- **402RR** **202RR** : with polyamide anti-corrosion coating
- **422** : seat and closing system in bronze to resist corrosion

402Z/402X FOR AGGRESSIVE LIQUIDS

- **Bronze** : for aggressive substances and environments
- **Stainless steel** : for industrial processes, food industry, etc...

PN : 25

- **402Z** approvals : CE ACS
- **402X** approvals : CE

402B/202B PROTECTION OF WATER SUPPLY

Valves with drilled and plugged bosses, allowing water quality to be checked, the circuit to be drained and water-tightness to be checked, or the installation of a by-pass.
PN : 16

- **402B** approvals : VD kiwa CE ACS WRAS

412/212 FOR PUMPING

For drilling and mounting on submersible pumps, space-saving design.

Available in versions :

- **Ductile iron** : **412S and 212S** for pressures up to 40 bar - PN : 40
- **Bronze : 412Z and 212Z** for aggressive environments and salt water - PN : 25

- **412** approvals : VD ACS WRAS
- **212** approvals : CE

302/102 FOR PUMPING

Foot valve with strainer in polyamide or galvanised steel, available in a variety of materials (bronze, ductile iron, etc...)
PN : 10 (125 to 400 mm) - PN : 16 (50 to 100 mm)

Available in versions :

- **302P & 102P** with PP (polypropylene) strainer

Temperature : 100° for 302 & 80° for 302 P

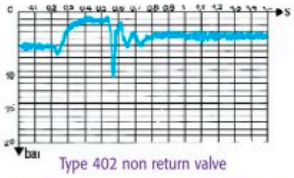
- **302** approvals : CE ACS

882 FOR WATER DISTRIBUTION AND BOOSTING PUMPS

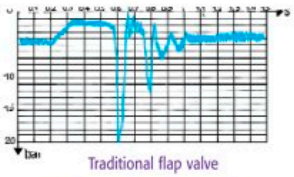
Between flanges, very compact, casing and head in ductile iron - PN : 40

- **882** approvals : CE ACS

Dynamic characteristics of valve closure



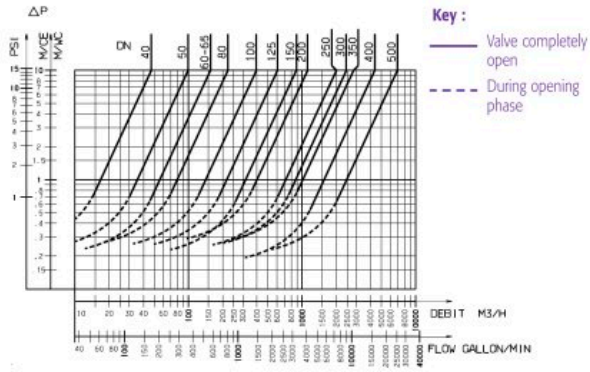
Type 402 non return valve



Traditional flap valve

Overpressure measured downstream of 150mm check valves when the pump stops.
The valves can carry a load of 50m/wc.
Output 150m3/h (according to tests carried out by the CETIM)

Headloss chart (Type 402)



The 02 system range

NON-RETURN VALVES			
202	CAST IRON FGL 250	THREADED F/F	2 1/2 to 4"
202 B	CAST IRON FGL 250	THREADED F/F	2 1/2 to 4"
202 RR	CAST IRON FGL 250 + RILSAN	THREADED F/F	2 1/2 to 4"
202 TT	CAST IRON FGL 250 + Teflon	THREADED F/F	2 1/2 to 4"
202 TTP	CAST IRON FGL 250 + Teflon	THREADED F/F	2 1/2 to 4"
202 V	CAST IRON FGL 250 + FKM seal	THREADED F/F	2 1/2 to 4"
202 W	CAST IRON FGL 250	THREADED F/F	2 1/2 to 4"
202 X	STAINLESS STEEL +FKM seal	THREADED F/F	2 1/2 to 4"
202 Z	BRONZE	THREADED F/F	2 1/2 to 4"
212	CAST IRON FGL 250	THREADED M/F	2 1/2 to 8"
212 S	CAST IRON GS 400-15	THREADED M/F	2 1/2 to 8"
212 Z	BRONZE	THREADED M/F	2 1/2 to 8"
402	CAST IRON FGL 250	FLANGED	40 to 500 mm
402 B	CAST IRON FGL 250	FLANGED	40 to 500 mm
402 S	CAST IRON GS 400-15	FLANGED	40 to 500 mm
402 TTP	CAST IRON FGL 250 +PTFE	FLANGED	50 to 500 mm
402 V	CAST IRON FGL 250 + FKM seal	FLANGED	40 to 500 mm
402 W	CAST IRON FGL 250	FLANGED	40 to 500 mm
402 X	STAINLESS STEEL AISI 304 + FKM seal	FLANGED	40 to 500 mm
402 Z	BRONZE	FLANGED	40 to 400 mm
412	CAST IRON FGL 250	FLANGED	125 to 300 mm
412 S	CAST IRON GS 400+15	FLANGED	125 to 300 mm
412TT	CAST IRON FGL 250 + TEFLON	FLANGED	125 to 300 mm
412 X	STAINLESS STEEL + FKM seal	FLANGED	125 to 300 mm
412 Z	BRONZE	FLANGED	125 to 300 mm
422	CAST IRON FGL 250 +BRONZE	FLANGED	50 to 400 mm
882	CAST IRON FGS 400.15	BETWEEN FLANGES	65 to 250 mm
FOOT VALVES			
102	CAST IRON FGL 250	THREADED F	2 1/2 to 8"
102 P	CAST IRON FGL 250	THREADED F	2 1/2 to 4"
102 PV	CAST IRON FGL 250 + FKM seal	THREADED F	2 1/2 to 4"
302	CAST IRON FGL 250	FLANGED	50 to 400 mm
302 P	CAST IRON FGL 250	FLANGED	50 to 100 mm
302 PV	CAST IRON FGL 250 + FKM seal	FLANGED	50 to 100 mm
302 X	STAINLESS STEEL AISI 304 + FKM seal	FLANGED	50 to 400 mm
302 Z	BRONZE	FLANGED	50 to 100 mm
312	CAST IRON FGL 250	FLANGED	125 to 400 mm
322	CAST IRON FGL 250 +BRONZE	FLANGED	50 to 400 mm

F = Female ; M = Male

SOCLA

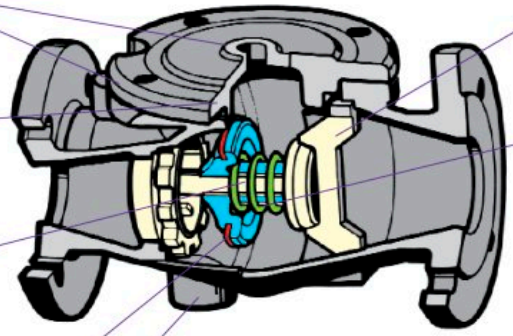
NON-RETURN VALVES

03 SYSTEM with axial guide

DISTRIBUTION PROTECTION

COATING EPOXY Internal External

• NF (French national standard) and antipollution approved in most European countries
• Perfect water tightness at high and low pressures
• Easy to maintain



1/2" diameter bosses with test cock allowing checks and sampling

Inspection cover for checks and replacement of internal parts without dismantling the device

Axial guide at the head of the closing system ensures perfect centring guaranteeing water-tightness under 3 cm of water column whatever the angle of the valve

Water tightness guaranteed by flat seal

Drain plug

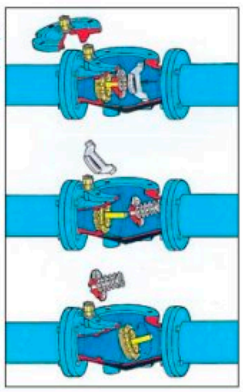
Removable locking system allows the entire closing system to be replaced without special tooling

Return spring allows the device to function in any position

Seat and guide in bronze for anti-corrosion

This non-return valve which is certified by the French NF antipollution mark is designed to protect drinking water systems against polluted water returning to the supply, particularly when sited after the meter.
Patent pending. This valve should be chosen wherever perfect water-tightness and on-site dismantling are required, together with excellent hydraulic performance and little energy loss.

Ease and performance :
Easy on-site maintenance



1 - Remove top access cover and draw the stop guide away from its two location points (in direction of arrow)

2 - Remove the stop guide

3 - Remove the whole spring, closing system and seal. If necessary remove the seat by unscrewing

423 RE — FOR DISTRIBUTION WITH BOOSTING PUMPS

Diameter 40/50 to 250 mm
PN 16 drilled PN 10
(possibility of PN 16 drilling)
Can be mounted with 4 holes
or 8 holes for 80 mm diameter
40 and 50 diameter bronze casing ;
above this cast iron casing FGL 250
Temperature : 90°C
Approved : NF DVGW VdS CE

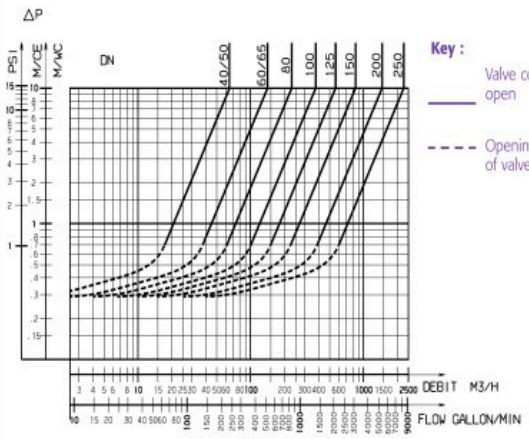
423RE

EB 223 — FOR DISTRIBUTION WITH BOOSTING PUMPS

Can also be used in general and sanitary circuits
Casing and closing system in brass
PN 16
Diameter 1/2" to 2"
(threading 3/4 to 2"1/2 male/male)
Connection by union nipple
Temperature 80°C
Approved : NF kiwa VdS ACS

223

Headloss chart (Fig. 423)



The 03 system range

223	BRASS	THREADED M/M	3/4" to 2 1/2"
423 RE	BRONZE OR CAST IRON FGL 250	FLANGED	40 to 250 mm

F = Female ; M = Male

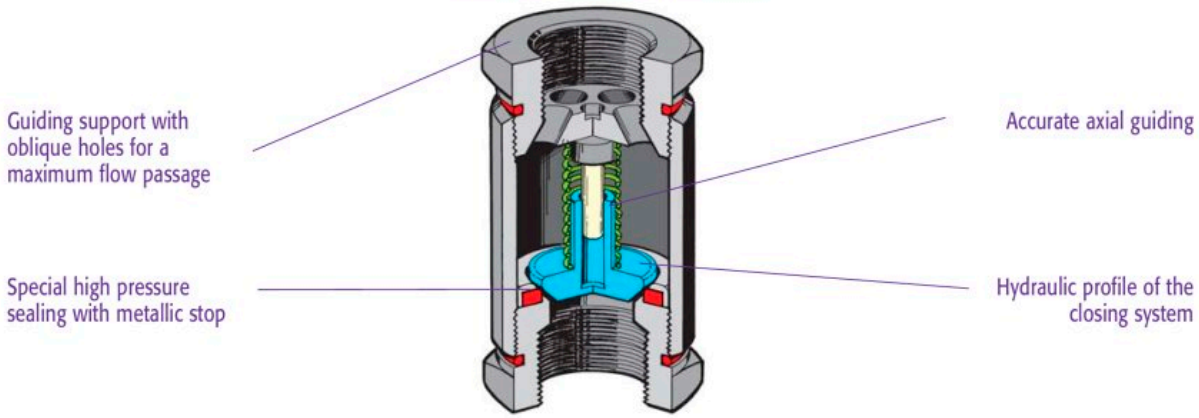
SOCLA

NON-RETURN VALVES

03HP SYSTEM with axial guide

DISTRIBUTION PROTECTION

- **High mechanical and hydraulic performances**
- **Adapted materials**
- **Various industrial applications**



233 FOR HIGH PRESSURE FLUIDS

Diameter 1/4 up to 2"
High pressure check valve in carbon steel and seal in NBR (nitrile)
Opening pressure 0,5 bar
For high pressure fluids, water, hydrocarbons, gas, general industrial applications...
Female/female connection
Temperature : 110°C

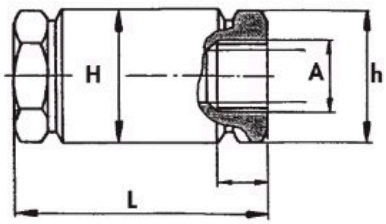

233

233X FOR HIGH PRESSURE FLUIDS

Diameter 1/4 up to 1 1/2"
High pressure check valve in stainless steel AISI 304 and PTFE & FKM seal.
Opening pressure 0,5 bar
For high pressure fluids, water, hydraocarbons, gas, general industrial applications...
Female/female connection
Temperature : 230°C


233X

TECHNICAL INFORMATION



A		L	H	h	Weight
"	mm	mm	mm	mm	kg
1/4	6	73	24	22	0,17
3/8	10	76	30	27	0,28
1/2	15	77	38	32	0,41
3/4	20	92	48	41	0,78
1	25	109	57	50	1,26
1 1/4	32	123	70	65	2,12
1 1/2	40	141	80	70	3,07
2	50	164	100	90	5,54

The 03 HP system range

233	CARBON STEEL	THREADED F/F	1/4" to 2"
233X	STAINLESS STEEL 304	THREADED F/F	1/4" to 1 1/2"

F = Female ; M = Male

SOCLA

NON-RETURN VALVES

05 SYSTEM with double plate (between flanges)

- **Excellent hydraulic performance**
- **Wide range : from 50 to 600 mm**
- **Compact**

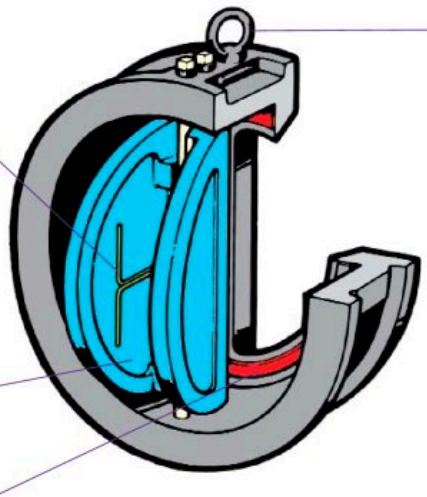
Watertightness ensured by the spring which pushes against the two plates, maintaining pressure on the valve seat seal

Very little energy loss

Gradual opening controlled by double contact spring

Stainless steel or bronze plates

Vulcanised NBR seal in mouth of the valve seat



Lifting ring for easy positionning pusches against the two plates, maintaining pressure on the valve seat seal

Can be installed horizontally or vertically facing upwards. Can be adapted for different connection types : PN 10 - 16 - 25 - ASA B 16-1 125 Class and ASA B 16-5 150 series

This system is perfectly adapted to installations where limited space is available (NF E 29377) but where excellent hydraulic performance is necessary, and especially where the dimensions are large.

SOCLA

05 SYSTEM

895

Diameter 50 to 300 mm
Mounted between flanges PN 10 - PN 16
Temperature 100°C
Valve with cast iron casing FGL 250,
plates stainless steel AISI 304
spring stainless steel, EPDM seal,
extra-watertight
Approvals : WRAS CE ..... ACS


895

895V FOR HYDROCARBONS AND INDUSTRIAL APPLICATIONS

With FKM or equivalent seal
Temperature 130°C
Other features as 895

Approvals : CE .....


895V

805 FOR SEAWATER AND NAVAL CONSTRUCTION

Casing in FGL 250 cast iron with
aluminium bronze plates, seal EPDM/NBR (nitrile)
spring stainless steel
Diameter 50 to 600 mm
PN 16
Temperature100°C
Approvals : CE ..... ACS


805

815 FOR GENERAL CIRCUITS

Valve with ductile iron casing FGS 400-15
and aluminium bronze plates,
seal EPDM/NBR, stainless steel spring
Diameter 50 to 600 mm
PN 25
Temperature 100°C
Equally suitable for sea water and naval construction
Mounted between PN 25 flanges but can be mounted between PN 16 flanges for installations with higher pressure
Approvals : CE ..... ACS


815

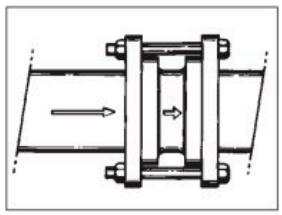
825 FOR INDUSTRIAL PROCESSES

Valves with stainless steel casing
and plates AISI 316, FKM seal,
stainless steel spring PN 25
but can be mounted between PN 16
flanges for very high performance installations
Diameter 50 to 350 mm
Temperature 130°C
Approvals : CE .....

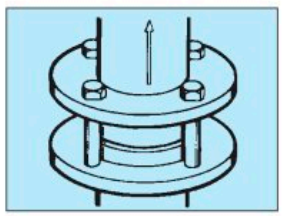

825

Installation precautions :

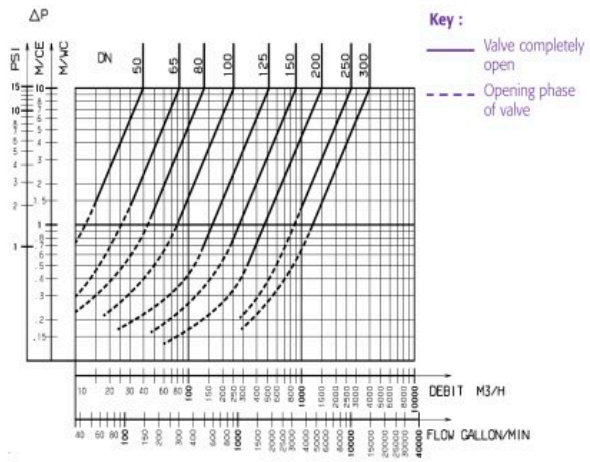
1° case : horizontal pipe-work, the arrow must point in the direction of flow, the axis of the valve must be vertical.



2° case : vertical pipework : the arrow must point in the direction of upward flow.



Headloss chart (Type 895)



The 05 system range

805	CAST IRON FGL 250	BETWEEN FLANGES	50 to 600 mm
815	CAST IRON FGS 400 15	BETWEEN FLANGES	50 to 600 mm
825	STAINLESS STEEL 316	BETWEEN FLANGES	50 to 350 mm
895	CAST IRON WITH STAINLESS STEEL	PLATES	50 to 300 mm
895 V	CAST IRON WITH STAINLESS STEEL	PLATES	50 to 300 mm

SOCLA

NON-RETURN VALVES

05 SYSTEM with single plate (between flanges)

INDUSTRY IRRIGATION DISTRIBUTION

- **Space-saving**
- **Simple and reliable**
- **Competitive price**

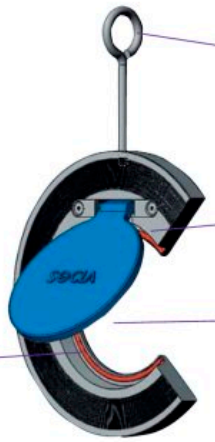
COATING EPOXY Internal External

This range of valves is the obvious choice where simplicity and low cost are the priorities

Compact

Seal incorporated in casing

Installed horizontally or vertically facing upwards



Lifting ring

Stainless steel axis, fixed by screws

Hinged, zinc-coated steel plate

635V - 635E

DN 40 to 300 mm
Between flange PN 10-16
Extra-flat valve for water distribution & irrigation
- **635V** body & plate in zinc plated steel ; seal in FKM on seat ; temperature 150°C
- **635E** with seal in EPDM on seat ; temperature 110°C
- **696V** body & plate in aluminium copper ; seal in FKM on seat ; temperature 150°C for sea water, salted & aggressive solutions, general industrial circuits

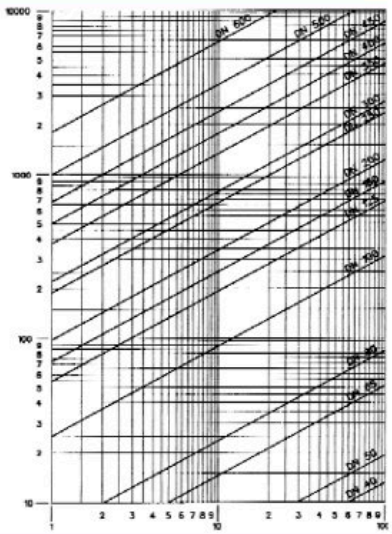
635V - 635E

627V - 627E FOR GENERAL AND INDUSTRIAL CIRCUITS

DN 40 to 300 mm
Between flange PN 10-16
Extra-flat valve for water distribution & irrigation, hydrocarbons, industrial processes
- **627V** body & plate in 316 stainless steel seal in FKM on seat ; temperature 150°C
- **635E** with seal in EPDM on seat ; temperature 110°C

627V - 627E

Headloss Chart



The single plate system range

635 V	ZINC-PLATED STEEL	FKM seal	40 to 300 mm
635 E	ZINC-PLATED STEEL	EPDM seal	40 to 300 mm
627 V	STAINLESS STEEL	FKM seal	40 to 300 mm
627 E	STAINLESS STEEL	EPDM seal	40 to 300 mm

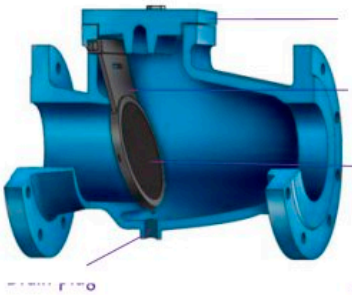
SOCLA

NON-RETURN VALVES

05 SYSTEM single plate (with flanges)

WATER SUPPLY · DISTRIBUTION · WASTE WATER

• Simple, strong construction
• Wide range of applications for all kinds of liquids
• Effective, reliable operation



Inspection cover for ease of dismantling

late moves freely without wear

Closing disc may be removed without special tools. Entire closing system protected against corrosion by NBR

Plate tucked away when open and may be lifted by external screw if required.

405

Diameter 65 to 300 mm
PN 16 standard drilling PN 10,
PN 16 possible
Temperature 70°C
Casing in ductile iron FGS 500.7
Length DIN 3202-F6
Plate and hinge entirely coated in NBR (nitrile)
Bolts in galvanised steel

- Excellent hydraulic performance because the plate tucks away completely.
- Unrestricted passage out through the valve means that it can be used for all kinds of water including waste and sewage.
- Integral coating of closing system with nitrile NBR guarantees toughness and long life.
- Plate angled at 15 degrees on the valve seat to ensure closure.

06 SYSTEM with flanges

WATER SUPPLY · DISTRIBUTION · WASTE WATER

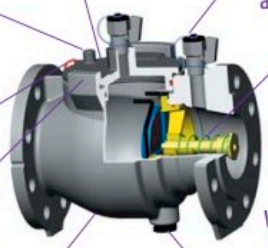
• NF (French national standard) and antipollution in most European countries
• Perfect water tightness at high and low pressure
• Easy to maintain

Inspection cover for checks and replacement of internal parts without dismantling the device

Stud for moving the cover without need of a particular tool

Padlock

Bayonet system to open the cover rapidly. System patented by Danfoss Socla



Bosses with test cock allowing checks and sampling

Return spring

Axial guide at the head of the closing system

Watertightness guaranteed by flat seal

Drain plug

Removable locking system allows the entire closing system to be replaced without special tooling

EA 426

DN 50 to 150 mm
PN10,
Temperature 65°C
Casing in ductile iron with external and internal epoxy coating equipped with 2 test cocks and 1 drain cock 1/2"

- Axial guide at the head of the closing system ensures perfect centring guaranteeing water tightness under 3 cm of water column whatever the angle of the valve
- Bosses with test cock allowing checks and sampling

NF CE ACS

SOCLA

NON-RETURN VALVES AND FOOT VALVES

B SYSTEM with ball

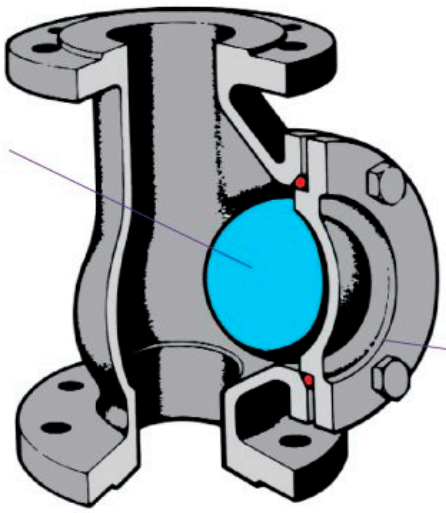
AGRICULTURE | WASTE WATER | PUMPING

- **Straightforward, sturdy design**
- **Ball moves aside to allow unrestricted flow**
- **Designed for waste water, viscous water and slurries**

Anti-incrustation materials

Self-cleaning ball in specially adapted materials

Very little energy loss (unrestricted flow)



Can be installed horizontaly or verticaly, upwards

COATING · EPOXY · Internal · External

Inspection cover for access and maintenance

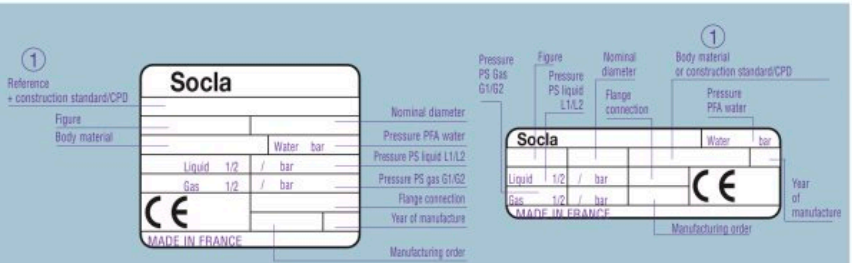
The closing system consists of a self-cleaning ball which is lifted by the fluid and guided to a lateral housing, completely out of the way.
This system ensures an unrestricted flow, even for liquids carrying waste materials, without risk of a blockage.
This all-purpose range is also suitable for use with aggressive liquids and in industrial processes

REGULATION

89/106/CEE DIRECTIVE

(CPD : Construction Product Directive)

Applies to building industry products and especially to their ability to ensure their function during a reasonnable life time from an economical point of view.
Building industry products in accordance with specific standards are CE marked with indication in (1) of the corresponding construction standard.



SOCLA

B SYSTEM

408/508/50

Diameter 1" to 350 mm
PN 10
Casing in cast iron FGL 250
up to 125 mm
and ductile iron FGS 400-15 above 125 mm
• **408 :** with flanges diameter 50 to 350 mm, ball coated with NBR/NR (natural rubber), temperature 60°C
• **508 :** threaded female/female from 1" to 2 1/2", ball in synthetic resin, seat in NBR (nitrile)
In 3" diameter, this valve has no inspection cover (ref 50)
Temperature : 60°C
Approvals : CE

408D FOR DRAINAGE SYSTEMS

Equipped with a special system allowing the ball to be lifted by a screw from the valve seat
PN : 10
Temperature : 60°C
Diameters 80 - 100 - 150 - 200
To allow the release of gases and equilibration of pressure
CE

408X FOR AGGRESSIVE LIQUIDS

Stainless steel casing
Ball and seal FKM coated
PN : 10
Temperature : 150°C
Approvals : CE

408F/508F/50F ANTI FLOODING

Valve with floating ball used to check rising water levels and allowing gases to be released
PN : 10
Temperature : 60°C
(See installation diagram opposite)

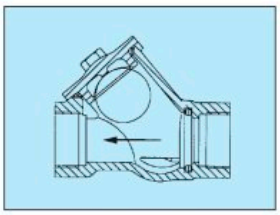
208P FOR PLASTIC PIPEWORK

PVC casing (female/female) coated in NBR (nitrile), particularly suitable for drainage systems.
PN : 6
Temperature : 60°C
Approvals : CE

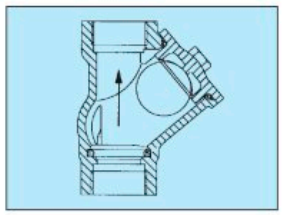
308/30 FOR PUMPING WASTE WATER

Flanged foot valve of 408 type with galvanised steel strainer.
Temperature 60° C.
Threaded valve of 508 type with stainless steel strainer
PN : 10
Temperature : 60°C
CE

Installation diagram



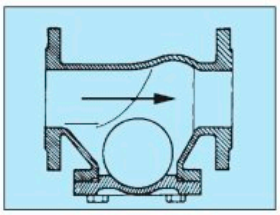
Horizontal :
The ball lodges above the axis



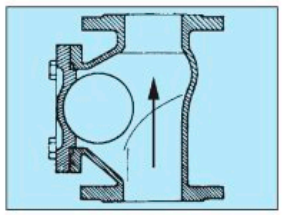
Vertical :
pointing upwards

The arrow shows the flow direction

Movement of the ball



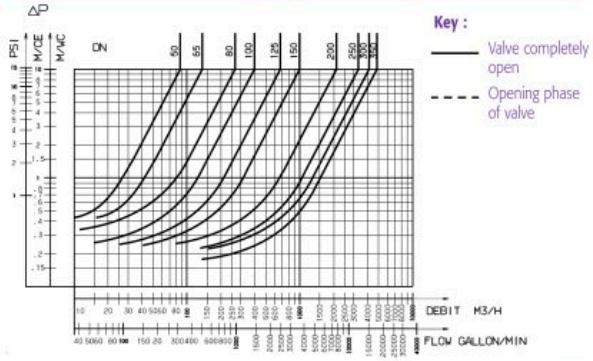
Horizontal :
The ball rises above the axis



Vertical :
The ball rises to the high position

The arrow indicates the direction in which the liquid is rising

Headloss chart (Type 408)



The B system range

NON-RETURN VALVES			
50	CAST IRON FF	THREADED F/F	1"to 3"
50 F	CAST IRON FF	THREADED F/F	1"to 3"
208 P	PVC	THREADED F/F	11/4 to 2"
408	CAST IRON FT	FLANGED	50 to 350 mm
408 F	CAST IRON	FLANGED	50 to 350 mm
408 X	STAINLESS STEEL	FLANGED	50 to 350 mm
408 Z	BRONZE	FLANGED	50 to 350 mm
508	CAST IRON FGS	THREADED F/F	1" to 3"
FOOT VALVES			
308	CAST IRON FGL 250	FLANGED	50 to 350 mm
30	CAST IRON FGL 250	THREADED F/F	1"to 3"

F = Female ; M = Male

SOCLA

NON-RETURN VALVES AND FOOT VALVES

M SYSTEM with membrane

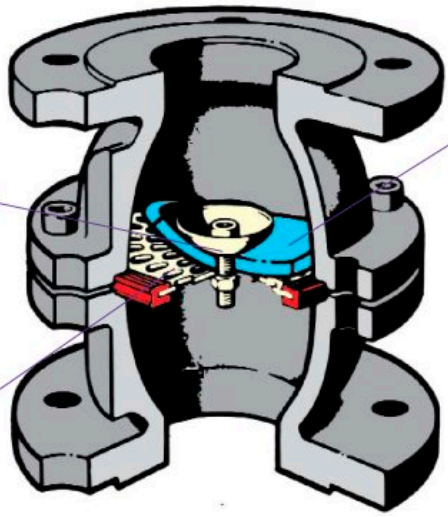
- **Noiseless operation (in all positions)**
- **Protects against water hammering**
- **Very reliable**
- **Adapts for fluctuant flow rate**

No moving mechanical part

Closing system, a flexible membrane which changes shape with the flow, held at its centre on a perforated steel seat

Water tightness ensured by the automatic closure of the membrane

Valve seat, a steel polyamide coated grille allowing flow equivalent to the nominal cross-section



The thickness and the elasticity of the membrane allow progressive opening and closing, particularly suitable for variable flow pumps and pulsatory operation

Several concentric membranes are used for wide membrane diameters. A thin-membraned version is available for special applications eg gases, vacuums

The M system has been conceived for installations susceptible to severe water hammering. It is very reliable and particularly quiet (no moving mechanical part, anti-incrustation closing system).
Perfectly suited for pressure pumps, fire hydrants, engine-driven pump units or electro-pump units and compressed air circuits.

COATING · EPOXY · Internal · External

SOCLA

M SYSTEM

407/207

Diameter 3/8" to 200 mm
PN 16 drilled PN 10
Cast iron casing, seat in polyamid coated steel, membrane in natural rubber
200 mm drilled PN 16 on request
Temperature : 60°C
Flanges ASA on request

207 : threaded F/F 3/8" to 3"

Also available :

- **For vacuum pumps** and industrial vacuum cleaners, a thin-membraned version is available in the 407/207 model
- **407 RR** : with interior/exterior anti-corrosion polyamid coating

407V/207V FOR HYDROCARBONS AND INDUSTRIAL APPLICATIONS

With FKM membrane and seal ; also available for use with compressor with FKM membrane and seal
PN : 16
Temperature : 100°C CE

407V 207V

407B WITH DRILLED BOSSES

Two drilled and plugged bosses for by-pass, pressure control, emptying etc.
PN : 16 drilled PN 10
Temperature : 60°C CE

407B

407RR FOR AGGRESSIVE FLUIDS

Cast iron casing, PTFE-coated inside and outside, membrane in natural rubber
PN : 16 drilled PN 10
Temperature : 60°C CE

407RR

417 FOR HIGH PRESSURES

With cast iron casing FGL 250 ; PN 25, drilled flanges PN 25, membrane in EPDM for water distribution in high buildings ; boosting pumps and vacuum pumps
PN : 25
Temperature : 60°C CE ACS

417

447 STANDARD LENGTH DIN 3202 F6

EPDM membrane.
Available in two versions :

- **447 B** with two drilled bosses
- **447 RR** with polyamide coating

PN : 16 drilled PN 10
Temperature : 60°C CE

447

317/327/337 MI SYSTEM FOR PUMPING

Foot valve with tubular membrane in EPDM, which flexes towards the middle of the strainer on intake ; particularly suitable for irrigation pumps with flexible hoses, delivered already primed on request
PN : 6
Temperature : 60°C ACS
Connections - sleeved (317) ; flanged (327) ; threaded (337)

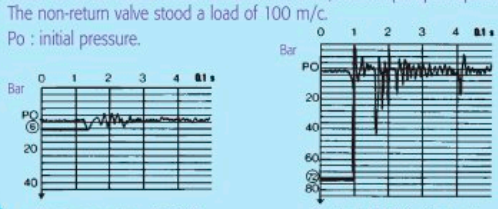
317

Opening pressure

On membrane non-return valves the opening regulated by the elasticity and the thickness of the membrane is very gradual and can be obtained as a result of a few centimeters of water column.

Comparative study of overpressures

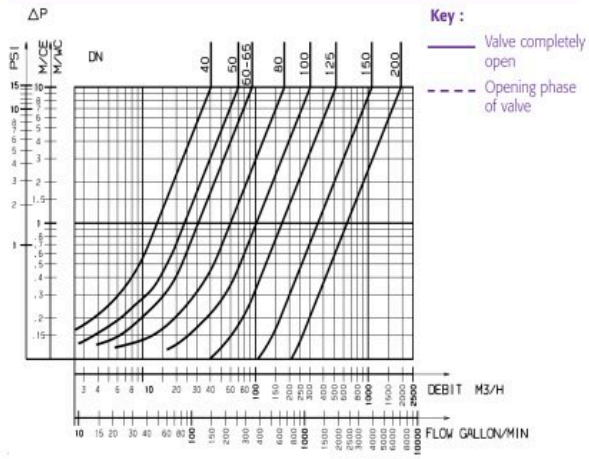
Water hammer detected downstream of a valve, when a pumps stops suddenly.
The non-return valve stood a load of 100 m/c.
Po : initial pressure.



Membrane valve, 1"1/4 Ø
Over-pressure 6 bar

Standard 1"1/4 (swing type)
Over-pressure 72 bar

Headloss chart (Type 407)



The M system range

NON-RETURN VALVES			
207	CAST IRON FGL 250	THREADED F/F	3/8 to 3"
207 V	CAST IRON FGL 250 & FKM	THREADED F/F	3/8 to 3"
407	CAST IRON FGL 250	FLANGED	40 to 200 mm
407B	CAST IRON FGL 250	FLANGED	40 to 200 mm
407TB	CAST IRON & TEFLON	FLANGED	40 to 200 mm
407RR	CAST IRON & RILSAN (POLYAMIDE)	FLANGED	40 to 200 mm
407V	CAST IRON FGL 250 & FKM	FLANGED	40 to 200 mm
417	CAST IRON FGL 250	FLANGED	40 to 150 mm
447	CAST IRON FGL 250	FLANGED	65 to 200 mm
447RR	CAST IRON & TEFLON	FLANGED	65 to 200 mm
FOOT VALVES			
317	CAST IRON FGL 250	SLEEVED	40 to 300 mm
327	CAST IRON FGL 250	FLANGED	50 to 300 mm
337	CAST IRON FGL 250	THREADED F	2" to 4"

F = Female ; M = Male

SOCLA

FOOT VALVES

TJ SYSTEM with tripod axial guiding

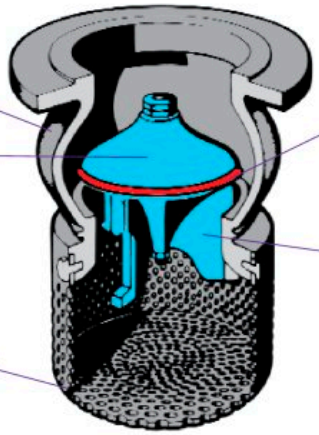
PUMPING

- **Excellent hydraulic performance**
- **For pumping systems with substantial flow**
- **Robust and reliable**

One-piece casing profiled for excellent hydraulic performance

Cast iron closing system, integrated in the body of the valve to guarantee low energy losses.

Galvanised steel strainer with perforated area equivalent to twice the nominal diameter



Water tightness ensured by flat seal shouldered by the valve head and a valve seat with a collar preventing any impurities from depositing on the valve seat

Designed to function in a vertical position

Tripod shaped axial guide ensures self-centring on the valve seat for water tightness

COATING EPOXY Internal External

For clear water pumping systems with substantial flow, requiring large valves, for supply systems, irrigation, industry.

144

Valve with cast iron casing, drilled flange PN 10, guide and valve in cast iron, seal EPDM, strainer in galvanised steel, diameters 200 to 600 mm
PN 10 up to 200 ; PN 6 from 280 to 400
PN 4 above this strainer (may be in stainless steel)
Temperature : 60°C

CE ACS

The TJ system range

144	CAST IRON FGL 250	FLANGES	200 to 600 mm

SOCLA

STRAINERS WITHOUT VALVE

PUMPING

A strainer acts as a sieve in the pumping of water of different qualities ; each type of strainer has a different application depending upon the choice of materials used in its construction.

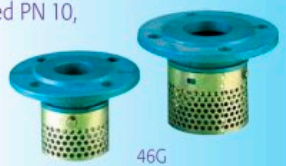
46 FOR PUMPING AND IRRIGATION

Diameter 50 to 100 mm
Epoxy-coated cast iron flange drilled PN 10,
strainer in PP (polypropylene)
Temperature : 80°C ACS


46

46G

- Diameter 50 to 400 mm
Epoxy coated cast iron flange, drilled PN 10,
strainer in galvanised steel
- Diameter 450 to 1000 mm
All in galvanised steel : strainer and flange drilled PN10,
Temperature : 100°C ACS


46G

46X

Diameter 40 to 1000 mm
All in stainless steel AISI 304L : strainer and slim flange drilled PN10
Also available on request
special versions in AISI 316L stainless steel, for use with corrosive liquids,
at high temperatures and in industrial applications
Temperature : 350°C ACS


46X

191D FOR DOMESTIC PUMPS

One piece casing and strainer in POM (polyacetal) in 3/8" and 1/2" sizes
casing PPO (polyphenylene oxide) and strainer in PE (polyethylene) for 3/4" and 1" 1/4 sizes
casing POM and strainer PE for 1" 1/2 to 2" sizes
Temperature : 60°C ACS


191D

Nipples

Diameter 3/8 to 2"
Grooved sleeves in different plastics for connection of flexible tubes from 9/12 to 59/62 (inside diameter of tube) male connection
Temperature : 70°C

101

Diameter 3/8 to 2"
Male connection PA 6 (polyamide),
strainer in AISI 304 stainless steel
can be adapted for any non-return valve of the same diameter to convert it to foot valve with strainer
Temperature : 60°C


101

STRAINERS

PROTECTION

Y333 FOR PROTECTION OF PUMPS

Diameter 40 to 300 mm, with flanges PN10
Water filters in cast iron internal/external epoxy coating with strainer in stainless steel
For protection of pumps, valves, pressure reducing valve
Temperature : 150°C CE ACS WRAS

Y222 FOR PROTECTION OF PUMPS

Diameter 1/2" to 2", female/female
Water filters in brass with strainer in stainless steel
For protection of pumps, valves, pressure reducing valve
Temperature : 110°C

Y666 FOR INDUSTRIAL PROCESS

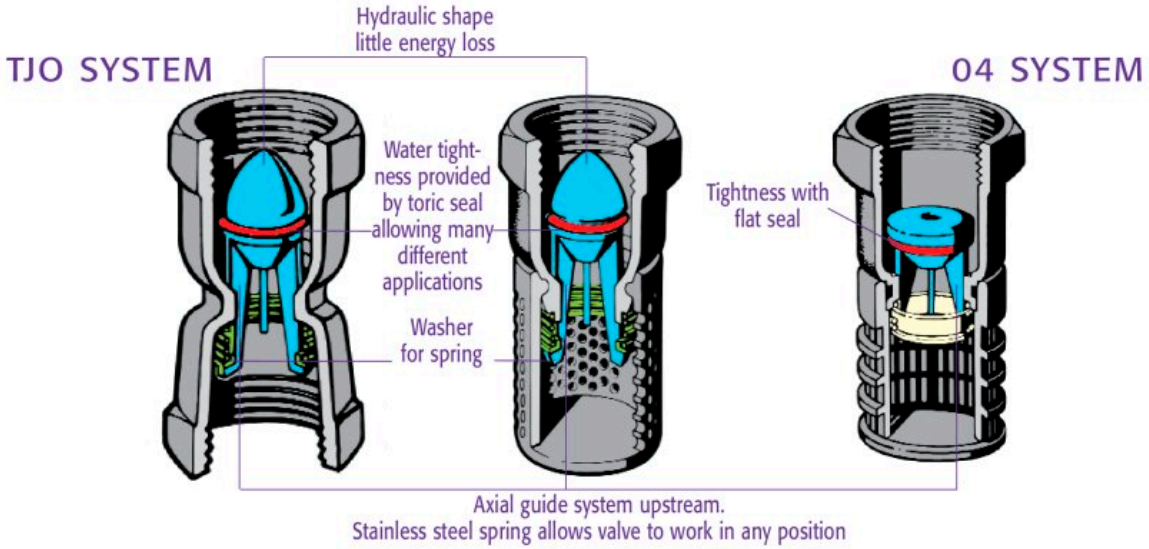
Diameter 1/4" to 2", female/female
FIlters in AISI 316 stainless steel. Threaded with purge plug.
For industrial process, corrosive liquids, high pressure, high temperature
Temperature : 175°C

SOCLA

NON-RETURN VALVES - FOOT VALVES

TJO + 04 + FL SYSTEMS

- **Comprehensive range, many versions available**
- **Good hydraulic performance**



The TJO system because of its outstanding hydraulic performance the TJO system is particularly suitable for use with small diameter check and foot valves (1/4"to 2"diameter).
It is available in a large range of materials for applications from domestic water distribution circuits, heating, industrial applications (chemical industry, pharmaceuticals).

SOCLA

TJO + FL + 04 SYSTEMS

290/297

Diameter 1/4" to 2" - PN 10
Casing in brass, valve PA in 12 or 11 polyamid, EPDM (290) o-ring seal for distribution in buildings, pumping, water distribution, or seal in FKM (297) for hydrocarbons and industrial fluids ; with two bosses, not drilled. Temperature 80°C
ACS


290

290D/297D FOR WATER OR INDUSTRIAL APPLICATIONS

Casing in POM (polyacetylene)
Other specifications identical to types 290/297


290D


297D

290P/290X FOR INDUSTRIAL LIQUIDS AND INDUSTRIAL APPLICATIONS

- **290P** : casing and closing system PP (polypropylene), FKM o-ring
- **290X** : casing AISI 304 stainless steel, closing system PA 11,12 or Tefzel (on request) FKM o-ring

PN : 10 - Temperature : 80°C


290P


290X

209 TWO DRILLED BOSSES

With polyamid plugs allowing control or emptying, other specifications as type 290
PN :10
Temperature : 80°C ACS


209

190/190D FOR DOMESTIC PUMPING

- **190** : foot valve with brass casing and PE strainer
- **190D** : casing in POM (polyacetal) and strainer in POM or PE (polyethylene)

Closing system PA 12, EPDM o-ring
Temperature : 60°C ACS


190


190D

190P/190X FOR CORROSIVE PRODUCTS

Industrial applications and the food industry
Foot valves version of type 290 P and 290 X

- **190 P** : strainer in PP
- **190X** : strainer in PE

Temperature : 60°C


190P


190X

193/193D FOR THE PUMPING OF HYDROCARBONS

Designed for heating fuel strainer in micromesh PE (polyethylene)
Identical to valves 190 and 190D but with FKM seal
Temperature : 60°C


193D

60S FOR PUMPING HARD OR AGGRESSIVE WATER

Foot valve with bronze casing and stainless steel strainer
connection DN : F 3/4 to 4"
casing in POM (polyacetal) 3/4" to 2"
casing in bronze 2" 1/2 to 4 "
PN 16 - Temperature 80°C


60S

104/104P FOR DOMESTIC PUMPING

Foot valve for domestic pumping

- **104** : casing in brass
- **104P** : casing in PPO (polyphenylene oxide) or POM (polyacetal)

Temperature : 65°C


104


104P

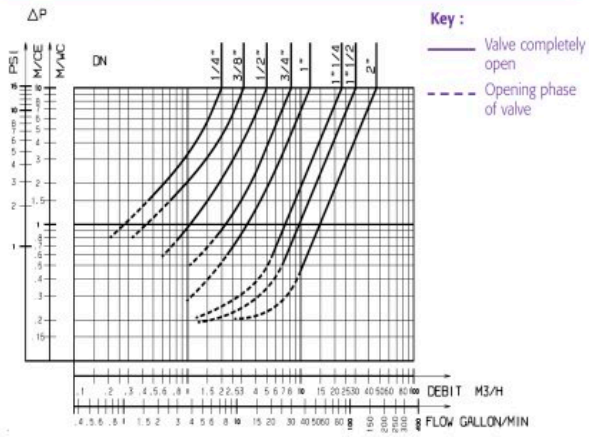
Many special versions

For your specific application needs, we can propose in the TJO series :

- custom-coiled springs
- casings in different materials
- closing system in Tefzel®
- special seals
- NPT connections

For industrial applications... chemicals... corrosive fluids

Headloss chart (Type 290)



TJO + 04 system range

NON-RETURN VALVES				
209	BRASS	THREADED	F/F	1/2 to 2"
290	BRASS	THREADED	F/F	1/4 to 2"
290 D	POM	THREADED	F/F	3/8 to 1"
290 P	PP	THREADED	F/F	3/8 to 3/4"
290 X	STAINLESS STEEL	THREADED	F/F	1/4 to 2"
297	BRASS	THREADED	F/F	1/4 to 2"
297 D	POM	THREADED	F/F	3/8 to 1"
FOOT VALVES				
190	BRASS	THREADED	F	11/2 to 2"
190 D	POM	THREADED	F	3/8 to 2"
190 P	PP	THREADED	F	3/8 to 3/4"
190 X	STAINLESS STEEL	THREADED	F	3/4 to 2"
193	BRASS	THREADED	F	1/2 to 1"1/2
193 D	POM	THREADED	F	3/8 to 1"1/4
104	BRASS	THREADED	F	3/4 to 1"1/4
104 P	PPO or POM	THREADED	F	3/4 to 1"1/4
60 S	BRONZE, STAINLESS STEEL STRAINER	THREADED	F	3/4 to 4"

F = Female ; M = Male

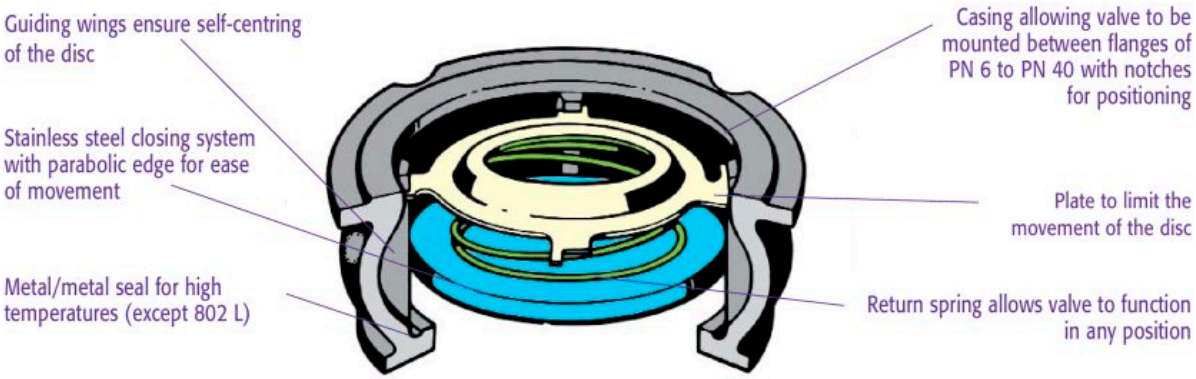
SOCLA

NON-RETURN VALVES

W SYSTEM with disc wafer type

INDUSTRY BUILDING HEATING

- **Performs well at high pressure and temperature**
- **Easy to connect**
- **Space-saving**



Designed for industry, this range gives an excellent hydraulic performance in a limited space (DIN 3202 part 3, K4 length except type 882). Universal connections, to DIN, ANSI, BS standards....
Suitable for handling a wide variety of fluids used in industries ranging from foods and chemicals to power stations, steam circuits, industrial heating systems, high pressure and high temperature installations.

SOCLA

W SYSTEM

812/812X

Diameter 15 to 200 mm
PN 6 - 40
Valve casing and closing system
in stainless steel - Temperature 370°C
available as : **812** with casing in stainless steel AISI 304
812X with casing in stainless steel AISI 316L
Closing system in stainless steel 316L up to 100 mm ;
stainless steel AISI 314 above this
Suitable for steam circuits, the food industry, general circuits
and industrial processes.

CE ACS

802 FOR GENERAL CIRCUITS AND PUMPING

802

Diameter 15 to 200 mm
PN 6-16 up to 100mm ; 10-16 above this
Valve with DZR brass casing from 15 to 50 mm
Temperature : 150°C for DN 65 to 200 mm
200°C for others
and FGL cast iron above this
Closing system in stainless steel 316L up to 100 mm ;
Cast iron FGL 250 above this available in two versions :
• **802L** : with EPDM seal for extra water-tightness ;
temperature 100°C
• **802 Z** : in bronze for high temperatures, salt water
and aggressive fluids ; temperature 230°C

CE ACS

802T/812XB/XT/XS FOR INDUSTRIAL CIRCUITS AND THE FOOD INDUSTRY

812T

802 and 812X versions mounted between flanges :
• **T** : threaded flanges
• **B** : flanges butt welded
• **S** : flanges socket welded
Same applications as 802 and 812X
Temperature : 220°C

812XT

812XB

812XS

CE ACS

712XT FOR PUMPING SPECIAL FLUIDS

712XT

Industrial fluids and the food industry,
all-stainless steel foot valve,
female connection 15 - 50 mm,
same characteristics as 812X
Temperature : 220°C

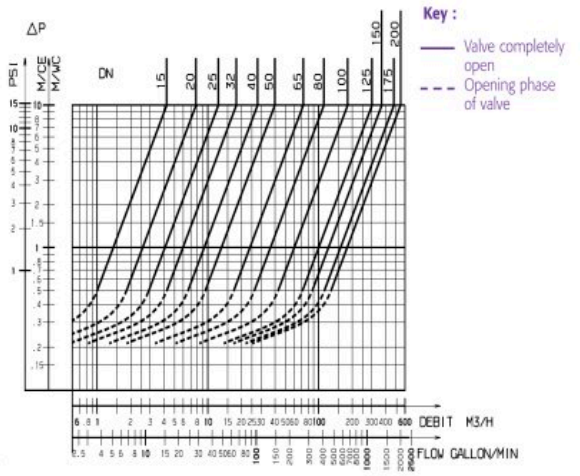
Advantages

• Valve with a wide range of applications because of its materials and robust construction.

• Pressure ranges PN6 - PN 40 covered by some models, reducing the number of versions.

• Easy to install, saves valuable time.

Headloss chart (Type 802)



The W system range

NON RETURN VALVES			
802	CAST IRON	BETWEEN FLANGES	15 to 200 mm
802 L	CAST IRON	BETWEEN FLANGES	15 to 100 mm
802 Z	BRONZE	BETWEEN FLANGES	15 to 200 mm
802 T	BRASS	THREADED F/F	15 to 50 mm
812	STAINLESS STEEL	BETWEEN FLANGES	15 to 200 mm
812 X	STAINLESS STEEL	BETWEEN FLANGES	15 to 200 mm
812 XB	STAINLESS STEEL	TO BE BUTT WELDED	15 to 50 mm
812 XS	STAINLESS STEEL	TO BE SOCKET WELDED	15 to 50 mm
812 XT	STAINLESS STEEL	THREADED F/F	15 to 50 mm
882	CAST IRON GS	BETWEEN FLANGES	65 to 250 mm
FOOT VALVES			
712 XT	STAINLESS STEEL	THREADED	15 to 200 mm

F = Female ; M = Male

SOCLA PUTS POWERFUL TOOLS AT YOUR FINGERTIPS

Socla on the WEB

- Information on request and with follow-up on all products in the range.
- Real-time interactive response : customer-friendly speed of access and fast response time.
- Always envolving, alongside and in anticipation of your needs.
- Local service : throughout the world, but on your doorstep and in your language.
- Contact us on : **www.socla.com**

PRICE-LIST CATALOGUE and PRICE-LIST MANUAL / interactive CD-ROM : the quickest way to find information and make a decision

- A listing by valve type and range.
- Sums up the advantages of each product.
- Prices clearly indicated.
- Connections, references and approvals.
- Pressures, temperatures etc

PRODUCT DATA SHEETS : to make sure your choice is the best

Most of our valves have their own full and detailed data sheet :
- Product information table (temperature, type of fluid, approvals, etc.).
- Headloss chart.
- Nomenclature with materials specified.
- Dimensions, references and performance.
- Special adaptations.

Your applications are our inspiration ; consult us !

Photocopiez, complétez et faxez votre demande spéciale au : 03 85 97 97 42

Customer : _____

Name : _____ Department : _____

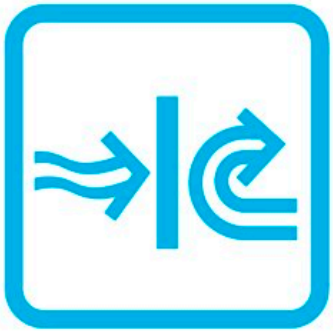
Telephone : _____ Fax : _____

Essential criteria :

- Diameter : _____
- Connection type : _____
- Maximum pressure : _____
- Service pressure : _____
- Operating temperature : _____
- Nature of fluid : _____
- Energy loss : _____
- Watertightness : _____
- Operating position : _____

Installation diagram or description

TOGETHER LETS CHOOSE THE RIGHT VALVE FOR YOU



There is no universal check valve !

We can help you to choose the right one from a multitude of possibilities. In order to do this we need to define your priorities together.

1st - The essential given criteria for your installation

- The diameter : in general, this is prescribed. Be careful, it may be prudent to choose a smaller size even if it means fitting a convergent cone ; this can help avoid premature wear and reduce possible water hammer. This is why it is so important to specify minimum and maximum flow rates. Put them down !
- The connection type : flanged or threaded.
- The maximum service pressure : be careful, even if certain of our valves are designed for PN 16, for example, our standard drilling of flanges is PN 10. In this case, from 200 mm diameter, PN 10 and PN 16 drilling are different : please indicate your drilling gauge in all cases. This way we avoid unpleasant surprises !
- The operating temperature range, both average and peak : we will then confirm whether the materials are appropriate.
- The nature of the fluid : we do not recommend a guided closing system for a slurry ! If the fluid is a chemical product, knowing the concentration is vital. Some weak concentrations can be more aggressive than strong ones !

2nd - The criteria which are most important for you !

- You must not exceed a certain energy loss level ? Indicate as much specifying the flow rate and diameter, we will recommend the right choice.
- You require the highest standards of sealing , tell us so.
- Your valve must fonction at any angle ? Consult our chart on pages 4 and 5.
- More generally speaking, you know that your installation has particular characteristics : variable flow rates, a tendency to pulsate ? Indicate as much.
- You need a special execution ? Describe it to us, giving details of the criteria.
- Your installation seems complicated (peculiar pipework, narrow space, positioning problems ?) A good diagram can sometimes avoid misunderstandings !

REGULATION

97/23/CE DIRECTIVE : Equipment under presure (PED : Pressure Equipment Directive)

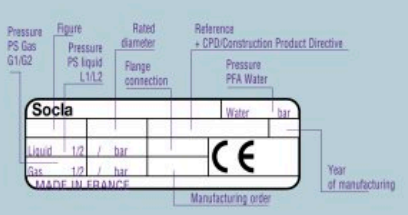
Applies to the design, manufacturing and the assessment of the conformity of pressure equipment, the maximum allowable pressure of which is 0.5 bar. Pressure equipment for water supply, distribution, and disposal of water is excluded.
Depending on the type of pressure equipment, maximum allowable temperature (PS), DN, physical nature of the fluid (liquid, gas or vapour) and the degree of danger of the fluid (group1/2)*, the directive classifies this same equipment into different categories (article 3.3, I, II, III, IV), required for the assessment of conformity with CE marking.
The equipment defined in article 3.3 of the directive must not bear the CE marking.
(*) Group 1 : hazardous fluids (directive 67/548/EEC) / explosive / highly flammable /easily flammable / flammable / very toxic / toxic / combustion agents.
Group 2 : all other fluids.
In order to facilitate your choice regarding these new regulatory requirements, Socla has put the necessary information concerning products with CE marking, specification sheets and product identification plates at your disposal in the price list (+ see additional explanations on the detachable slip).
Important notice : the indicated pressure for the different categories of fluids (L1/L2/G1/G2) is under no condition a guarantee of use.
Therefore, it is essential to validate the use of products under given operating conditions. Socla is not responsible for non-adaptation of the products to working conditions not previously specified by the customer. In addition, the operating instructions are available on our web site www.socla.com or by simple request from our sales department.

89/106/CEE DIRECTIVE : (CPD : Construction Product Directive)

Applies to building industry products and especially to their ability to ensure their function during a reasonnable life time from an economical point of view.

Building industry products in accordance with specific standards are CE marked with indicatio of the corresponding construction standard.

METAL TAG of Socla products :



Protection

Non return

Regulation

Shut Off

Socla SAS
365 rue du Lieutenant Putier
71530 VIREY-LE-GRAND
BP10273 - 71107 Chalon S/Saône Cedex
Tel. +33 3 85 97 42 42 - Fax +33 3 85 97 97 42
e-mail:commer@socla.com
http://www.socla.com

Working hours
Monday to Thursday 8 a.m. to 5.30 p.m.
Friday 8 a.m. to 1.30 p.m.

2698640 - 12/2011

Socla - Desbordes - Sylax

SOCLA

Protection

SOCLA

Summary

Protecting drinking WATER NETWORKS

Why and against what risk ?

WATER is the most precious of our natural resources, source of life and health, today we use water for multiple needs.

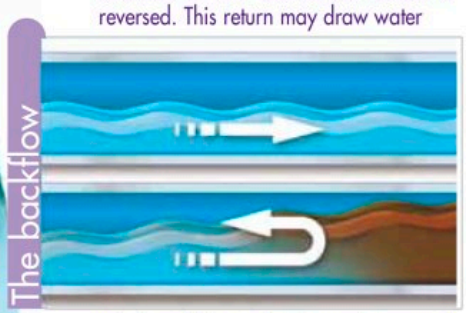
Whatever its destination - domestic, urban, agricultural or industrial, the water we use every day is distributed by interlinking networks of pipelines which are becoming more and more complex.

In this network,

the risk of pollution by "backflow" is always present.

By siphoning or overpressure,

backflow may occur when the usual direction in the distribution circuit is reversed. This return may draw water



which could be polluted into the general water system thereby contaminating the drinking water.

The risk of pollution is even greater when the different pipeline networks are closely linked.

The risks from the occurrence of back flow are more or less serious depending upon how "dangerous" the fluids which could have come into contact are.

The choice of protection systems and devices, more or less sophisticated, should be made according to the presence of more or less "dangerous" fluids.

Today, different European standards, currently being harmonised, govern these choices.

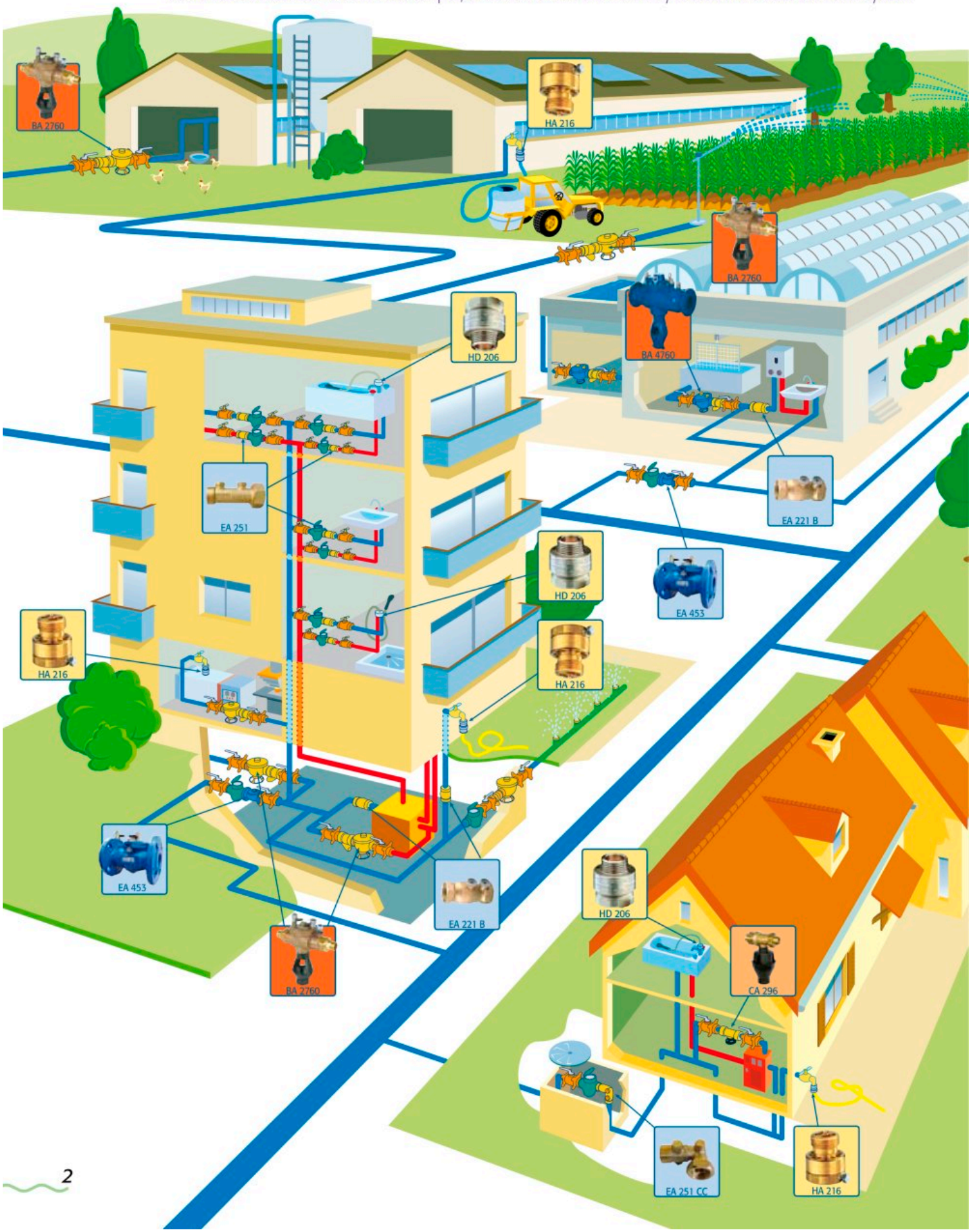
EN1717 Standard

Protection of drinking water against the pollution in indoor distribution systems and general requirements for protective devices against pollution by return.

NF *Requirements for the standard available on our web site : www.socla.com or simply resquest details from our sales Department.*

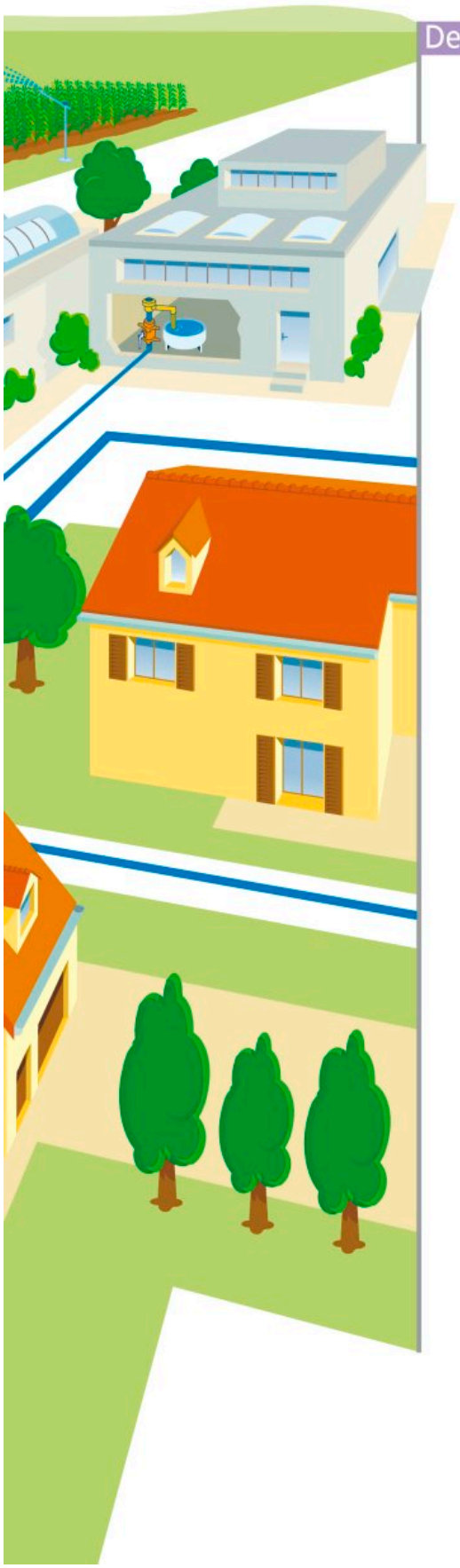
Protection systems for drinking water networks...

Agriculture, chemical or agricultural industries, collective or individual housing, workshop or business, all kinds of user are served by and linked to the same network : the risks of telescoping multiply.
As the network becomes more and more complex, an incident is more and more likely to occur in the water distribution system.



Incidents may occur of various degrees of seriousness when pumping a polluted liquid, siphoning a tank of chemical product, disposing of a dangerous product or rejecting waste water.

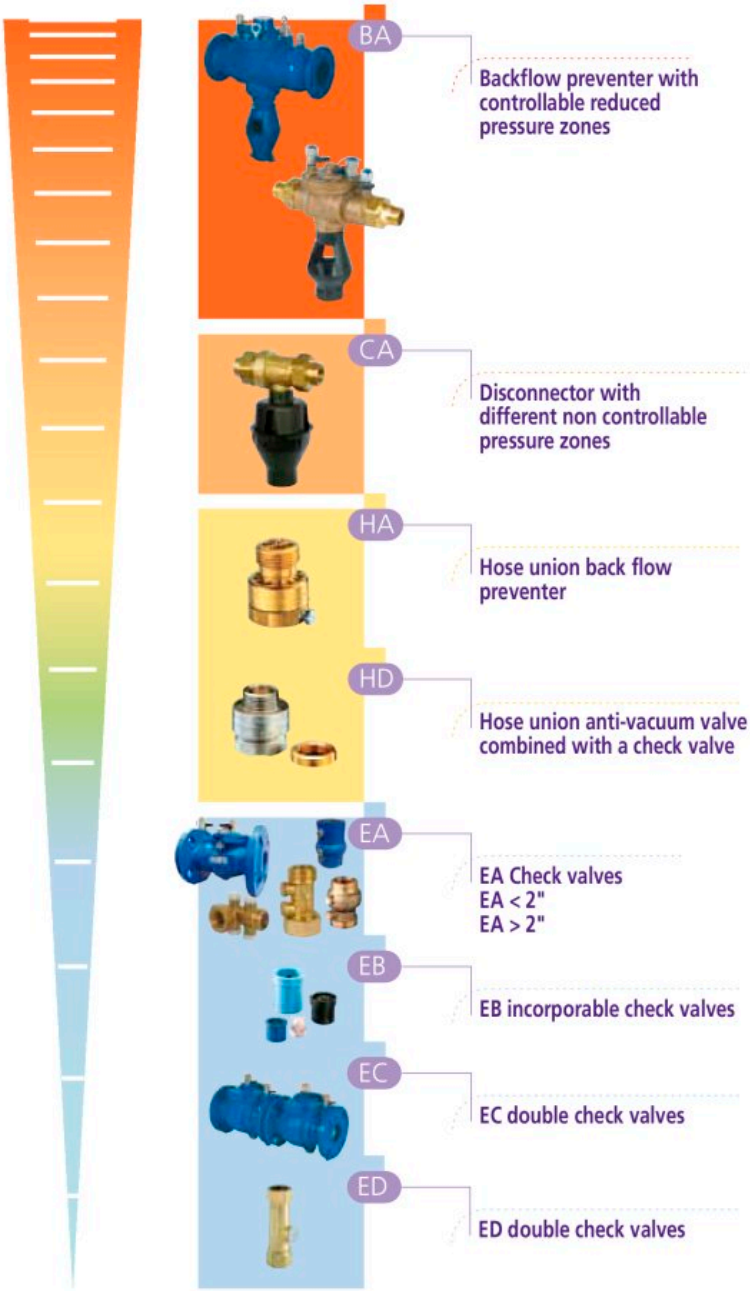
...The Antipollution range



Degrees of protection

To be **TRULY EFFECTIVE** the protection system must contain no weakness : at every juncture the link must be totally adapted to its function.

Socla is the only European manufacturer to offer a complete range of **anti-pollution** products responding to every kind of incident which may occur.
For each level of risk Socla ensures perfect safety.



BA BACKFLOW PREVENTERS - Functioning principle

BACKFLOW PREVENTERS WITH CONTROLLABLE REDUCED PRESSURE ZONES

A BA backflow preventer protects the drinking water network by interrupting the continuity of the supply to the user, emptying and evacuating to waste in case of danger of water being turned back into the main pipeline.

NORMAL WORKING UNDER PRESSURE

IN FLOW

The two check valves are open ; the discharge valve is held closed by the dominant upstream pressure pushing the membrane from above. The downstream installation is served.

FLOW INTERRUPTED (static pressure)

The two check valves are closed and the discharge valve is closed by the positive differential pressure pushing down on the membrane. The downstream installation is no longer served.

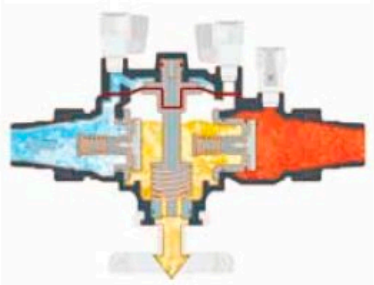
IN CASE OF INCIDENT : HOW THE SAFETY MECHANISM WORKS

No reversal or indeed balance of pressure is permitted between the middle chamber of the back flow preventer and upstream.

The design of the device ensures that upstream pressure must always be 140 mbar higher than pressure in the middle chamber. This differential pressure controls the opening of the discharge valve and emptying of the back flow preventer.

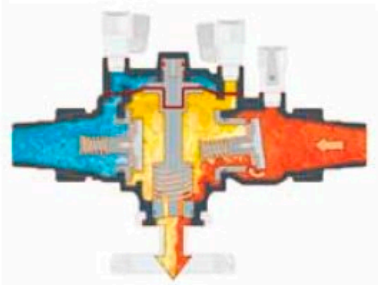
A controllable back flow preventer activated by reduced pressure protects itself against its own possible malfunctions.

The safety mechanism of the device comes into play when the pressure is static. In this case the discharge valve evacuates. This occurs in the following cases.



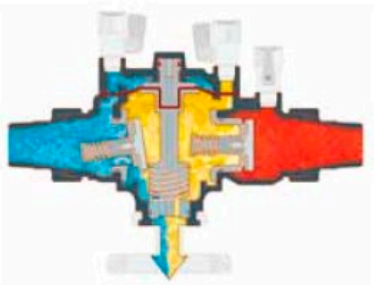
LOSS OF PRESSURE UPSTREAM

The two check valves are closed. The discharge valve opens because of the drop in pressure above the membrane even if the check valve upstream is watertight. The middle chamber empties.



OVERPRESSURE DOWNSTREAM

If the downstream check valve is watertight this will not cause an incident. If the downstream check valve is not watertight the overpressure will reach the middle chamber and will open the discharge valve.



UPSTREAM CHECK VALVE NOT WATERTIGHT

The upstream pressure reaches the middle chamber under the membrane and opens the discharge valve.

A TOOL TO INCREASE YOUR KNOWLEDGE IN ANTIPOLLUTION...

Videos at your disposal :

- a new version of the antipollution video
- a technical guide for the installation and maintenance of backflow preventers

BACKFLOW PREVENTERS WITH CONTROLLABLE REDUCED PRESSURE ZONES

Optimal performance

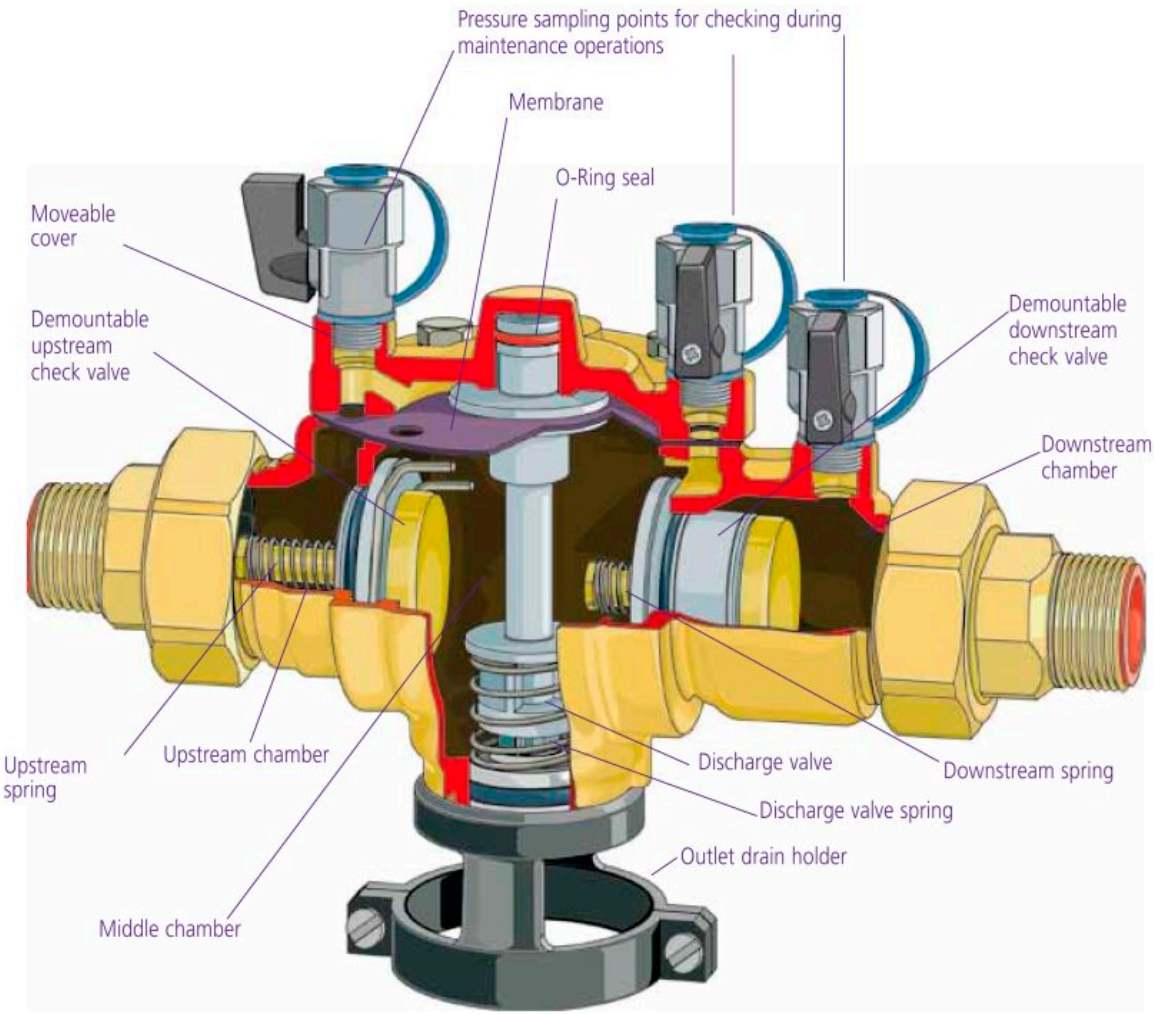
- **Total accessibility**
  of working parts on-site (by removing the valve head/discharge valve section, the check valves can be reached instantly).
- **Longer reliability**
  non-incrustation discharge valve and check valves

non-incrustation discharge valve and

Valve sections removable
without special tools

Easy maintenance
sub-sections easily exchanged

High performance materials
casing in bronze, NBR (nitrile) membrane, silicone seals



BA 4760 and BA 4660

BACKFLOW PREVENTERS WITH CONTROLLABLE REDUCED PRESSURE ZONES

General characteristics :

Easy maintenance

Compact

High performance materials

M/M Connections : union male BSP connections

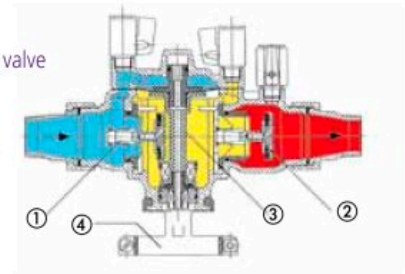
T Maximum working temperature 65°C

P Maximum working pressure 10 bar

Nomenclature

Valve casing and cover : bronze
Check valves : brass + PPO (polyphenylene oxide)
Valve seat and discharge valve : PPO (polyphenylene oxide)
Spring, screws, ring, discharge valve seat : stainless steel
Membrane and seal : NBR (Nitrile) and silicone
Funnel : polyamide (PA 6.6) or polycarbonate (PC)
Drain cock : Ø 1/4" brass

① Upstream check valve
② Downstream check valve
③ Discharge valve
④ Outlet drain holder



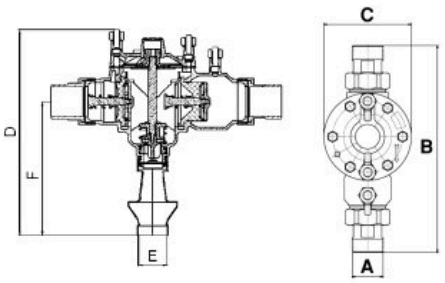
EN12729

BELGAQUA kiwa NF WRAS SVGW SSIGE PV VD UNI ACS

EN12729

BA 2760

OPERATION : HORIZONTAL POSITION



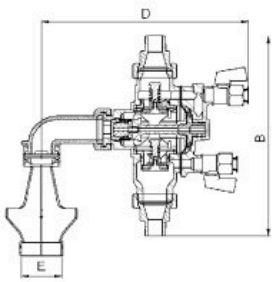
TECHNICAL INFORMATION

TYPE 2760 MALE/MALE

Ref.	A "	B mm	C mm	D mm	E mm	F mm	Weight kg
149B**3680**	1/2	130	62,5	191	20	116,5	1,05
149B**3481**	3/4	200	77	245,5	40	153,5	1,8
149B**3082**	1	262	104	285	50	185,5	3,7
149B**3083**	1 1/4	277	116	308,5	50	205,5	5
149B**3086**	1 1/2	330	130	330	50	215	7
149B**3085**	2	396	146	425	50	230,5	9,8

BA 2760 CD

OPERATION : VERTICAL POSITION FLOW UP TO DOWN



TECHNICAL INFORMATION

TYPE 2760 CD MALE/MALE

Ref.	A "	B mm	C mm	D mm	E mm	Weight kg
149B**3481CD**	3/4	200	77	186	40	2,1
149B**3082CD**	1	262	104	211	50	4,2
149B**3083CD**	1 1/4	277	116	235	50	5,5
149B**3086CD**	1 1/2	330	130	254	50	7,5
149B**3085CD**	2	396	146	282	50	10,3

DISCONNECTEURS BA 4760

BACKFLOW PREVENTERS WITH CONTROLLABLE REDUCED PRESSURE ZONES

General characteristics :

M/M Connections : drilled flanges PN 10
T Maximum working temperature 65°C
P Maximum working pressure 10 bar

Highly reliable - Maximum accessibility
High performance materials

Nomenclature

Valve casing, cover : epoxy-coated (int/ext) cast iron
Check valves : stainless steel / DZR brass
Valve seat and discharge valve : PPO (polyphenylene oxide)
Membrane and seal : NBR (nitrile) and silicone
Spring, screws, ring, discharge valve seat : stainless steel
Drain cocks : 1/4" brass
Funnel : cast iron

NF
BELGAQUA
UNI
kiwa
SVGW SSIGE
ACS

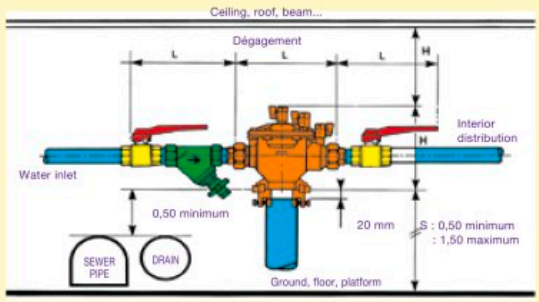
EN12729

Installation advice for BA backflow preventer

The backflow preventers (type BA 2760 and BA 4760) must due to present regulations be equipped with accessories such as :

UPSTREAM, a stop valve and strainer ;
DOWNSTREAM, a stop valve.

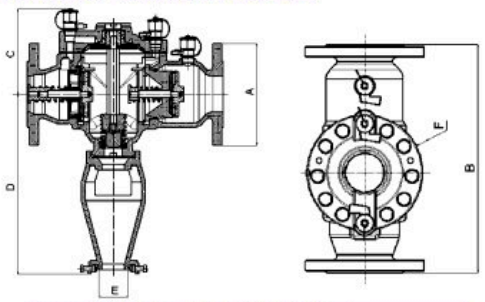
All these accessories are available at Socla :
- Full bore ball valves DN 1/2" to 2".
- Butterfly valves DN 65 to 250 (please consult us)
- Threaded strainer with drain cock DN 1/2" to 2" for BA 2760 and BA 2760 CD
- Filters with flanges PN 10 DN 65 to 250
- Incorporated outlet drain holder
- Horizontal installation



- In the case of an upstream diversion in the area right in front of the RPZ, it is necessary to install a checkvalve between the diversion and the RPZ.
- Always manipulate the upstream valve slowly.

Backflow preventer BA 4760

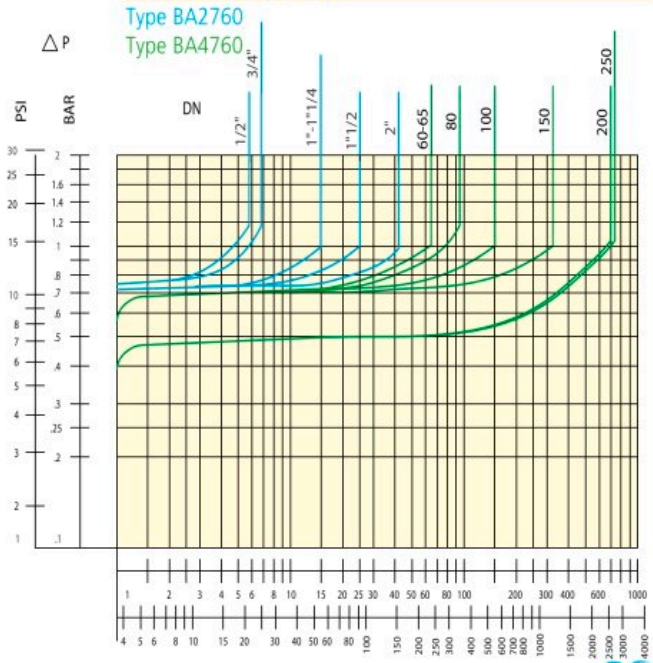
OPERATION : HORIZONTAL POSITION



TECHNICAL INFORMATION

TYPE 4760 FLANGES								
Ref.	DN mm	A mm	B mm	C mm	D mm	ØE mm	ØF mm	Weight kg
149B**3486**	60/65	185	356	155	326	63	180	25
149B**3097**	80	200	440	173	337	63	200	29,5
149B**3098**	100	220	530	201	434	80	255	58
149B**3400**	150	285	630	230	456	80	310	83,5
149B**3401**	200	340	763	272	499	80	390	141
149B**3402**	250	395	763	272	499	80	390	151

Headloss chart



BA BACKFLOW PREVENTERS

SET OF PROTECTION WITH OR WITHOUT SUPPORT RAIL

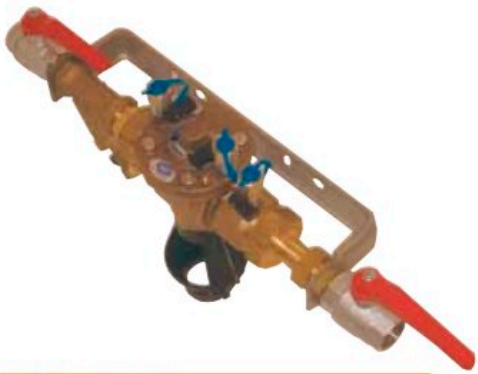
DISCORAILS

General characteristics :

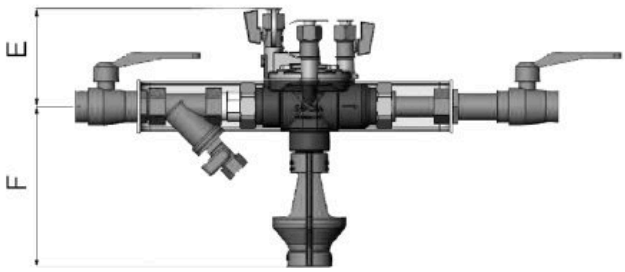
The set is composed by :
- a backflow preventer type BA 2760,
- 2 isolating valves type VABS, V3000 ,
- and a filter type Y222P

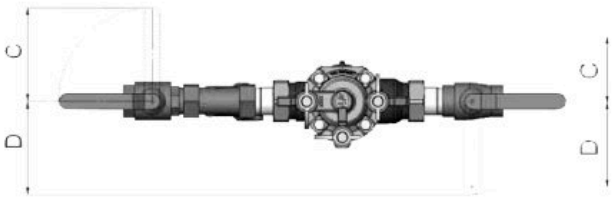
The set is composed by :
- a backflow preventer type BA 2760,
- 2 isolating valves type VABS, V3000 ,
- and a filter type Y222P
- and a support rail

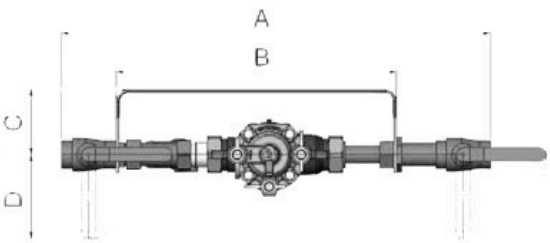
Without support



With support







TECHNICAL INFORMATION

DISCORAILS WITHOUT SUPPORT RAIL

Ref.	DN mm	A mm	B mm	C mm	D mm	E mm	F mm	Weight kg
149B**22259**	1/2	294	*	90	90	74,5	116,5	1,14
149B**21060**	3/4	435	298	70	90	92	153,5	3,0
149B**21081**	1	520	360	70	115	99,5	185,5	5,4
149B**21082**	1¼	575	387	135	115	103	205,5	7,8
149B**21083**	1½	715	510	135	150	115	215	14,3
149B**21084**	2	815	576	135	180	194,5	230,5	17,3

* Consult us

TECHNICAL INFORMATION

DISCORAILS WITH SUPPORT RAIL

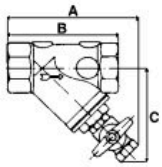
Ref.	DN mm	C mm	D mm	E mm	F mm	Weight kg
149B**97397**	1/2	90	90	74,5	116,5	*
149B**95098**	3/4	70	90	92	153,5	3,5
149B**95099**	1	70	115	99,5	185,5	6,0
149B**95100**	1¼	135	115	103	205,5	10,0
149B**95101**	1½	135	150	115	215	16,2
149B**95102**	2	135	180	194,5	230,5	19,2

* Consult us

BACKFLOW PREVENTER BA - ACCESSORIES

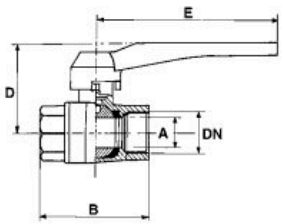
Accessories

For backflow preventers BA 2760



Y222P FILTER
Cast iron water filter with a stainless steel strainer and brass drain cock. For protection of pumps, valves, pressure reducing valves, backflow preventers.

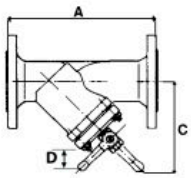
TYPE Y222P								
Ref.	Ø mm	A mm	B mm	C mm	Mesh	Weight kg	KV m/h	ζ
149B**5950**	15/21	63	60	40	0,5	0,185	2,7	10,33
149B**5160**	20/27	93	69	69	0,5	0,370	5,1	9,50
149B**5161**	26/34	101	87	73	0,5	0,540	11,3	4,70
149B**5191**	33/42	125	106	84	0,5	0,874	17,2	5,50
149B**5162**	40/49	129	117	91	0,5	0,990	23,0	7,50
149B**5163**	50/60	145	147	103	0,5	1,290	46,8	4,50



V3000 BALL VALVE
Hard chromed brass ball valve, full bore, ball hard chrome-plated brass, PTFE seal. For general process, heating and multi-fluid applications

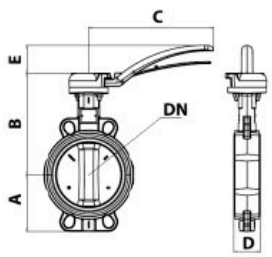
TYPE V3000						
Ref.	DN "	A mm	B mm	D mm	E mm	Weight kg
149B**5040**	1/2	14	54	45	90	0,195
149B**5041**	3/4	19	55	48	90	0,265
149B**5042**	1	25	68	60	115	0,445
149B**5043**	1 1/4	31	82	65	115	0,640
149B**5044**	1 1/2	39	89	81	150	0,920
149B**5045**	2	49	107	93	180	1,545

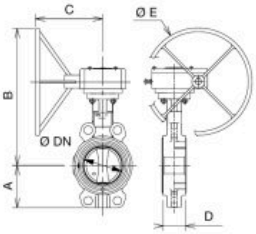
For backflow preventers BA 4760



Y333P FILTER
Cast iron water filter with a stainless steel strainer and brass drain cock. For protection of pumps, valves, pressure reducing valves, backflow preventers.

TYPE Y333P								
Ref.	Ø "	A mm	C mm	D mm	Mesh mm	Weight Kg	KV m/h	ζ
149B**3282**	65	290	192	65	0,80	11	89	3,50
149B**3283**	80	310	159	75	1,25	13,5	127	4,00
149B**3284**	100	350	187	90	1,25	18	200	3,90
149B**3285**	125	400	249	125	1,25	27,5	364	2,60
149B**3286**	150	480	301	170	1,25	43	494	3,30
149B**3287**	200	600	403	220	1,25	83	937	2,90
149B**3288**	250	730	472	200	1,60	112	1137	4,80





BUTTERFLY VALVES
Butterfly valves with short notched ductile iron handlever, 10 positions padlockable or with manual gear box in cast iron, longlife lubrificated actuated with gear.

TYPE SYLAX ductile iron handlever						
Ref.	DN mm	A mm	B mm	C mm	D mm	E mm
149G**032113**	65	70	178	200	46	45
149G**032123**	80	89	184	200	46	45
149G**032133**	100	106	208	290	52	65
149G**032143**	125	120	223	290	56	65
149G**032153**	150	131	236	290	56	65
149G**43169**	200	164	293	450	60	86

TYPE SYLAX with manual gear box					
Ref.	A mm	B mm	C mm	D mm	E mm
149G**032116**	70	236	171	46	125
149G**032126**	89	242	171	46	125
149G**032136**	106	266	171	52	125
149G**032146**	120	320	188	56	200
149G**032156**	132	332	188	56	200
149G**032164**	164	444	210	60	315

MAINTENANCE OF BA BACKFLOW PREVENTERS

Control kits for maintenance of BA backflow preventers

In accordance with antipollution standard and hygiene regulations, BA backflow preventers must undergo an annual performance check for which the user is responsible.

For this purpose Socla proposes a maintenance kits allowing these periodic checks to be made.

A check list included with the kit describes the procedure which must be followed scrupulously and effected on the device itself.

The following are tested, one by one :

- *the watertightness of the upstream stop valve*
- *the watertightness of the upstream check valve*
- *the watertightness of the discharge valve*
- *the watertightness of the downstream stop valve*
- *the watertightness of the downstream check valve*
- *the value of differential pressure which triggers the disconnection (as read on the differential manometer ; this should not be less than 140 mbar when the first drops reach the discharge valve).*

In this way the condition of the component parts of the device and the correct functioning of the back flow preventer is thoroughly controlled.

List of french organism for certification

Organisms which certificate the maintenance backflow preventers :

AFORTECH
10 rue du Débarcadère - 75017 PARIS
Tél : 01 40 55 14 14

PRO FORM TECH
3 rue Réaumur - 77380 COMBS LA VILLE
Tél : 01 60 18 91 98

AFPI RHODANIENNE
10 boulevard Edmond Michelet - 69008 LYON
Tél : 04 78 77 05 70

OFFICE INTERNATIONALE DE L'EAU
22 rue Edouard Chamberland - 87065 LIMOGES
Tél. 05 55 11 47 00

LEGOURD CONSEIL FORMATION
108 avenue Paul-Vaillant Couturier - 91700 STE-GENEVIEVE-DES-BOIS
Tél./Fax 01 69 51 36 85

Electronic kit

All-electronic control unit for backflow preventer of 15 to 250 mm diameter, delivers in a shockproof case with manual, calibration certificate of the electronic manometer and maintenance procedure. Dimensions approx 300 x 400 x 110.

Ref. 1020

Contractual Replacement Annually Notified

EXCLUSIVE

Backflow preventer BA 2760
with controllable reduced pressure zone

With the C.R.AN.

Contractual Replacement Annually Notified

Socla ensure a complete service !

With this contract, the yearly maintenance recommended is free thanks to the standard exchange of the BA 2760 annually on the commissionning date.
However, the plants where theses devices are mounted, must be verified by qualified personnel, according to article R. 1321-59 of the legislation, published in the 27 Mai 2003.

Advantages :
- you save time,
- easy management of the maintenance,
- controlled costs,
- an installation under annual warranty.

Do not hesitate to contact us.

CA 296 DISCONNECTOR

DISCONNECTOR WITH DIFFERENT NON CONTROLLABLE PRESSURE ZONES

General characteristics :

Compact

High performance

Competitive

F/F Connections : demountable Female/Female unions

T Maximum working temperature 65°C

P Maximum working pressure 10 bar

kiwa NF BELGAQUA

To protect low risk or intermittent risk installations which nevertheless require a backflow prevention system : domestic heating units < 70 Kw, vending machines, certain laboratory equipment...

Special versions in M/M and nickel plated in M/M or F/F

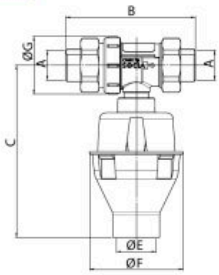
Nomenclature

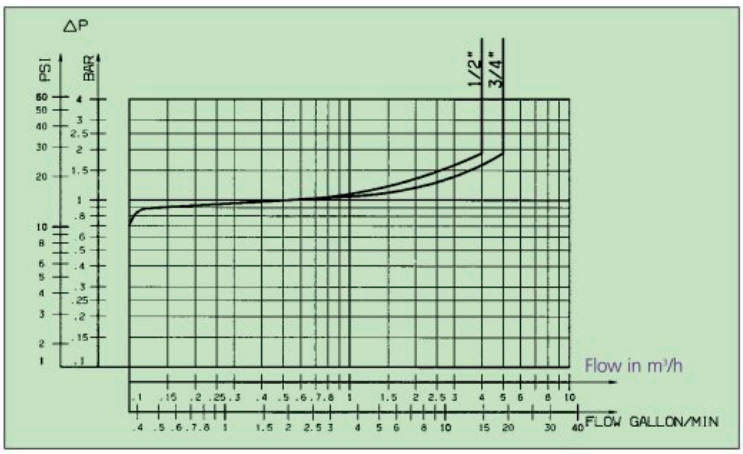
Membrane NBR (nitrile)
Upstream check valve : brass and polyacetal (POM)
Springs : stainless steel
Downstream check valve : polyacetal (POM)
Valve casing : brass
Funnel : polyamide (PA 6.6)
Filter

TECHNICAL INFORMATION

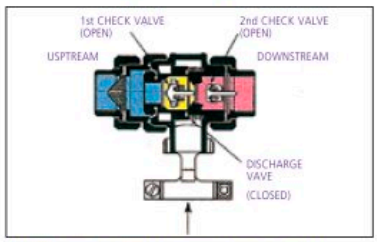
TYPE CA 296

Ref.	A "	B mm	C mm	E mm	F mm	G mm	Weight kg
149B**2885**	1/2	105	140	32	76	47	0,595
149B**2886**	3/4	105	140	32	76	47	0,580



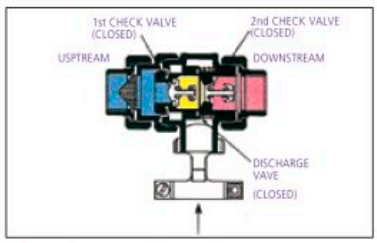


Functionning principle



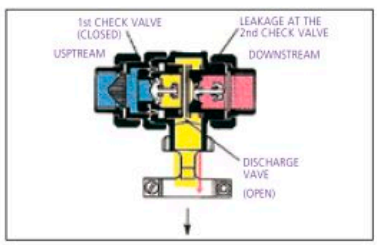
Normal operation under pressure

In normal conditions, the discharge valve remains closed while the upstream check valve and downstream check valve are open, allowing water to flow through the device.



Flow interrupted, static pressure

The backflow preventer is under pressure, flow has stopped, upstream and downstream check valves close, the discharge valve remains closed.



Water returns back in case of pressure loss upstream or overpressure downstream

In the case of loss of pressure, the upstream check valve and the downstream check valve remain closed. The pressure loss causes the discharge valve to open and releases air into the middle section. In the case of overpressure upstream and if the upstream check valve is worn, the discharge valve opens, any leak from downstream is evacuated by the discharge valve.

HOSE UNION BACKFLOW PREVENTERS

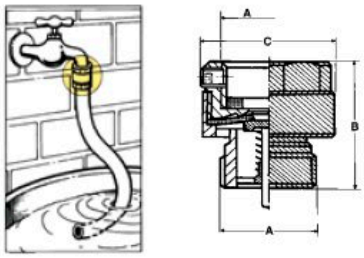
General characteristics

HA hose union backflow preventer

M/F Connections female/male BSP threads

- T Maximum working temperature 65°C
- P Maximum working pressure 10 bar

This device is fitted to taps. It ensures protection against backflow by loss of pressure in the pipework upstream.



Nomenclature

Brass closing system allowing draining upstream (for frost protection)
Brass casing F/M
NBR (Nitrile) seal
Stainless steel spring
NBR (nitrile) membrane DN 3/4» and NR (natural rubber) DN 1 1/4"
Self-breaking locking screw in zinc-coated steel guaranteeing that the device cannot be removed.

TECHNICAL INFORMATION

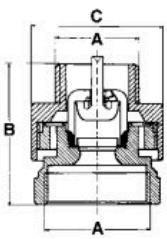
TYPE 216 FEMALE/FEMALE

Ref.	A Inlet F	A Outlet M	B mm	C mm	Weight kg	KV m³/H	ζ
149B**2160**	3/4	3/4	41	37	0,145	4,1	15
149B**2161***	3/4	3/4	41	37	0,145	4,1	15
149B**2310**	1 1/4	1 1/4	61	68	0,635	10	17

*Chrome plated casing

General characteristics

HD Hose union anti-vacuum valve combined with a check valve type 206

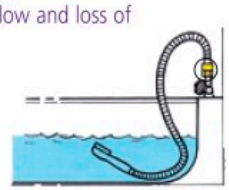


M/F Connections female/male BSP threads

- T Maximum working temperature 65°C
- P Maximum working pressure 10 bar

Used in conjunction with a check valve, this anti-vacuum valve protects against back flow and loss of pressure in the pipework upstream.

No means of closure may be fitted downstream.



Nomenclature

Chromed brass valve casing
PBTP (polybutylene terephtalate) guide
Polyacetylene closing system
Vacuum breaker with NBR (nitrile) membrane

TECHNICAL INFORMATION

TYPE 206 FEMALE/MALE

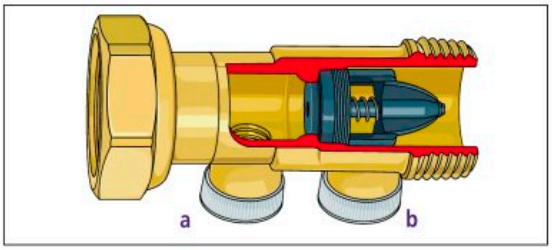
Ref.	A Female Inlet	A Male Outlet	B mm	C mm	Weight kg	KV m³/H	ζ
149B**2179**	3/4 1/2* 3/4*	1/2 1/2 3/4	36	33	0,125	3	28

*By adding a fillering to the valve

Others

EA CHECK VALVES

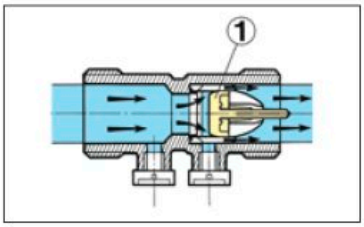
These check valves are in the process of different national certifications and are designed to protect drinking water systems from contamination by polluted liquids which do not present toxic or microbiological risks to human health as defined by the health authorities. They must always be installed in conjunction with a means of isolation upstream (a stopcock) and with a means of control positioned on a boss upstream. Where there is a boss downstream the latter may be fitted with a drain tap allowing emptying or disinfection of the downstream network.



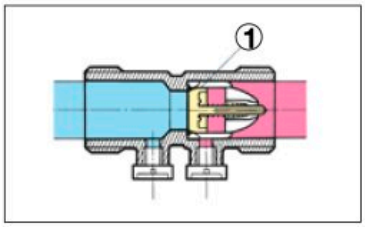
a. Upstream boss :
Controls the watertightness of the check valve, allows sampling to test quality of water distributed.

b. Downstream boss :
For emptying of system ; internal sampling to control quality of used water.

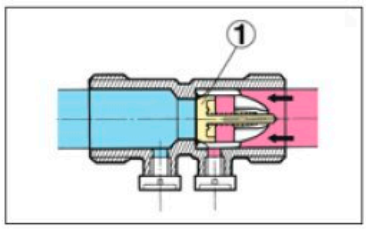
Functionning principle :



1 NORMAL OPERATION IN FLOW
The closing system ① is under pressure and opens. Flow goes through.



2 FLOW INTERRUPTED STATIC PRESSURE
The closing head ① seals by the force of the spring.



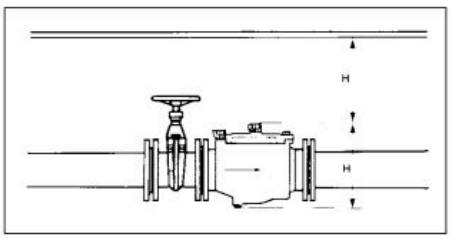
3 WATER TURNED BACK (LOSS OF PRESSURE OR PRESSURE SURGE)
The valve head ① closes instantly preventing any water returning from downstream to upstream.

Socla Antipollution valves : a complete range

TYPES	SYSTEMS	CONNECTIONS	SIZES mm	CLASS
EA 251	01	F/M	15 to 40	EA
EA 251 BL	01	F/M	15 to 40	EA
EA 251 CC	01	F/M	15 to 20	EA
EA 251 PP	01	F/M	15 to 40	EA
EA 251 PU	01	F/M	15 to 40	EA
EA 251 S	01	F/M	15	EA
EA 251 SPP	01	F/M	15	EA
EA 251 SPU	01	F/M	15	EA
EA 253	01	F/F	50 - 65	EA
EA 221 B	01	F/F	20 to 50	EA
EA 271	01	M/M	15 to 50	EA
EA 291 NF	01	F/F	15 to 50	EA
EA 453	03	16/10	40 à 250	EA
EA 223	03	M/M	15 to 50	EB
453/453	06	16/10	40 to 250	EC
2211	01	C/C	15	ED
2231	01	F/F	15 to 50	ED
202/212	02	F/F	65 to 100	-
402/402	02	16/10	50 to 500	-

C/C : compression fittings
F/M : with threads
16/10 : with flanges

Installation advice :



A means of isolation (stopcock) must be installed upstream of these check valves.

It is recommended that a filter be fitted upstream of the valve when used with slurries.
Keeping the area around the device clear will ensure watertightness checks, repairs etc can be carried out without difficulty.

The inspection plate must be easy to reach.

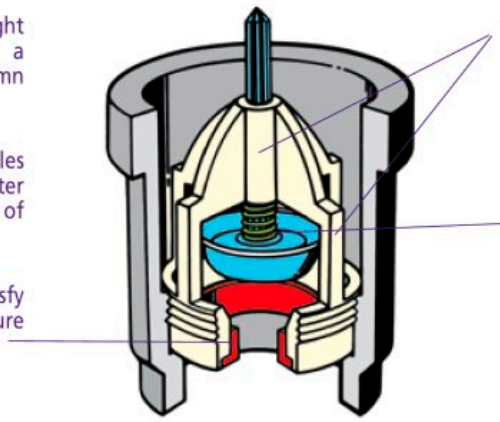
EA CHECK VALVES

What makes a Socla 01 system valve special ?

EA valves <2" must be watertight under pressure from between a minimum of 3 cm of water column up to 16 bar.

The valves undergo 80 000 cycles of 15s (opening/closing) with water of 65°C and a counter pressure of 10 bar.

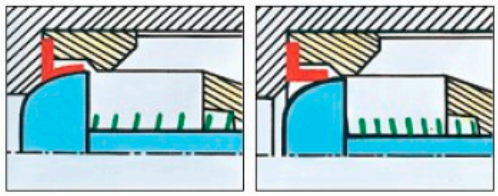
After testing, the valves must satisfy watertightness and opening pressure checks.



The hydraulic shape has been developed for minimum energy loss. The double (axial and lateral) guiding ensures that the closing system is perfectly centred on its seat.

Return spring means that the valve can function in any position.

At high pressure the sealing takes place between the closing system and the seal in an L shape along all the internal length of seal.
The closing system is then in the closed position on the casing, guaranteeing a second level of sealing and preventing blockages.

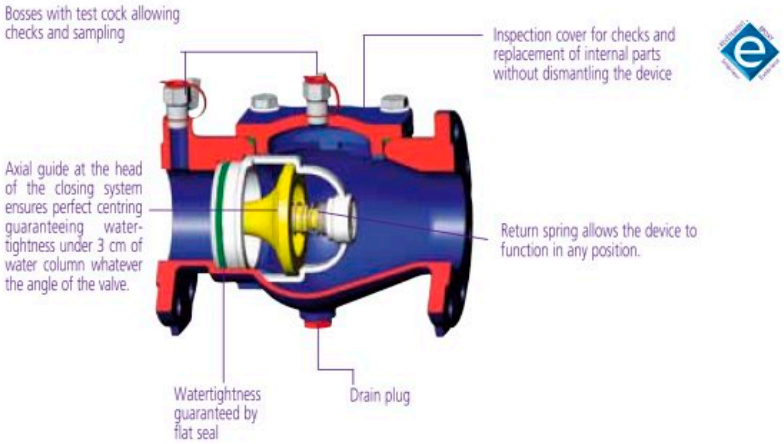


At low pressure the sealing is achieved by the contact between the closing system and the extremity of the seal in the form of an L.

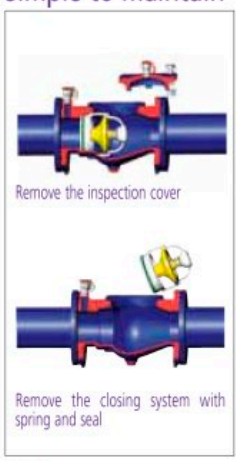
What makes a Socla 03 systems valve special ?

EA valves >2" must be watertight under pressure from between a minimum of 3 cm of water column up to 16 bar. The valves undergo 25 000 cycles of 14s (opening/closing) with water of 65°C and a counter pressure of 16 bars. After testing, the valves must satisfy watertightness and opening pressure tests.

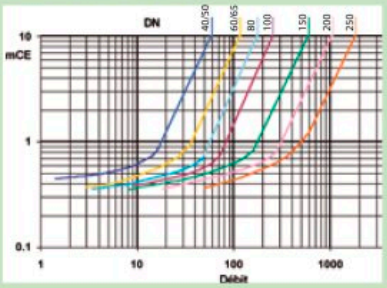
- **NF antipollution french standard**
- **Perfect water tightness at high and low pressure**
- **Easy to maintain**



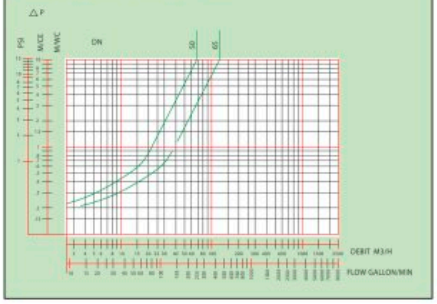
03 System : Simple to maintain



Headloss chart fig. EA 453



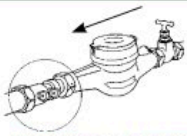
Headloss chart fig. EA 253



EA CHECK VALVES

EA CHECK VALVES

General characteristics



F/M BSP thread connections female nut/male

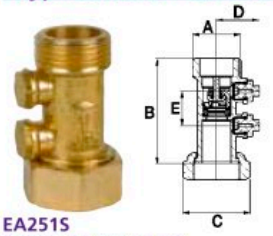
T Maximum working temperature : 80°C constant or 100°C peak

P Maximum working pressure : 10 bar

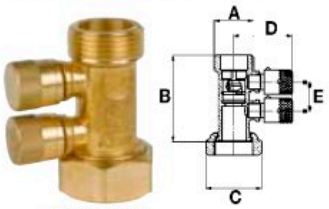
For housing, water distribution, protection of drinking water systems.

The 251 valve range are particularly recommended for positioning after the water meter.

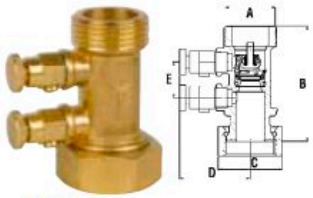
Types EA 251S - 251SPP - 251SPU : lenght 58 mm



EA251S
2 drilled bosses 1/8", with brass plugs



EA251SPP
2 threaded bosses, brass purges with hand wheel



EA251SPU
2 bosses with cylindrical drainpoints

Nomenclature

Casing brass with union nut
Lenght 58 mm
Guide : polyacetal (POM)
Closing system : polyacetal (POM)
Seal : NBR (nitrile)
Spring : 1/4" stainless steel

TECHNICAL INFORMATION

TYPES EA 251S - EA251SPP

Types	Ref.	A		B	C	D	E	Weight
		C*	"	mm	mm	mm	mm	kg
EA251S	149B**3511**	15	3/4	58	32	23,5	19	0,2
EA251SPP	149B**3511PP**	15	3/4	58	32	39	19	0,2

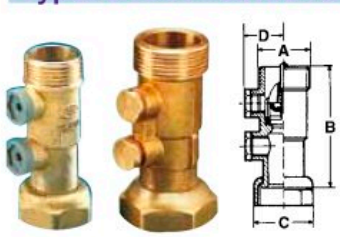
*C : watermeter

TYPE EA251SPU

Type	Ref.	A		B	C	D	E	Weight
		C*	mm	mm	mm	mm	mm	kg
EA251SPU	149B**3511PU**	15	20/27	58	32	35,5	18,5	0,2

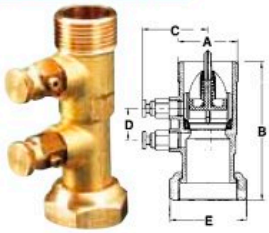
*C : watermeter

Types EA 251 - 251BL - 251PU - 251PP

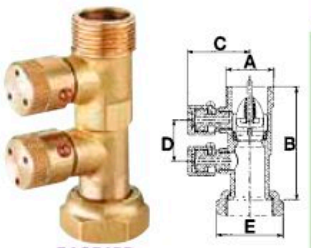


EA251

EA251BL
with brass plugs



EA251PU
with brass drain cock



EA251PP
with cylindrical drainpoints

Nomenclature

Valve casing : brass
Guide : polyacetal (POM)
Closing system : polyacetal (POM)
Seal : NBR (nitrile)
Spring : 1/4" stainless steel
Plastic plugs with seals

TECHNICAL INFORMATION

TYPES EA 251 - EA 251 BL

Ref. EA251	Ref. EA251BL	C*	A		B	C	D		Weight	KV	ζ
			"	mm	mm	mm	EA251	EA251BL	kg	m³/H	
149B**2111**	149B**1750**	15	3/4	20/27	78	32,0	25,5	24,5	0,180	7,0	1,6
149B**2112**	149B**1751**	20	1	26/34	81	40,0	28,0	26,5	0,280	11,8	1,8
149B**2113**	149B**1752**	25	1 1/4	33/42	89	48,5	34,0	32,5	0,434	15,4	2,6
149B**2114**	149B**1753**	30	1 1/2	40/49	99	55,0	38,0	36,5	0,604	25,1	2,6
149B**2115**	149B**1754**	40	2	50/60	105	69,0	42,0	40,5	0,855	34,9	3,3

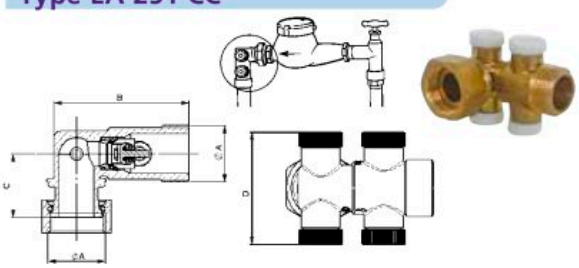
*C : watermeter

TYPES EA 251 PU - EA 251 PP

Ref. EA251PU	Ref. EA251PP	C*	A		B	C	D	E	Weight	KV	ζ
			"	mm	mm	mm	mm	mm	kg	m³/H	
149B**1501**	149B**2111PP**	15	3/4	20/27	78	40,5	29	32,0	0,216	7,0	1,6
149B**14390**	149B**2112PP**	20	1	26/34	81	43,0	29	40,0	0,316	11,8	1,8
149B**14528**	149B**2113PP**	25	1 1/4	33/42	89	49,0	26	48,5	0,470	15,4	2,6
149B**14495**	149B**2114PP**	30	1 1/2	40/49	99	63,0	26	55,0	0,640	25,1	2,6
149B**14529**	149B**2115PP**	40	2	50/60	105	57,0	26	69,0	0,900	34,9	3,3

*C : watermeter

Type EA 251 CC



General characteristics

Space saving for installation in restricted spaces : 4 drilled bosses 1/4" plugs in POM

TYPE EA 251CC

Type	Ref.	A			B	C	D	Weight	KV	ζ
		C*	"	mm	mm	mm	mm	kg	m³/H	
EA251CC	149B**3050**	15	3/4	20/27	52	29,5	47	0,19	3,9	5,4
	149B**3051**	20	1	26/34	52,25	39	56	0,26	7,5	4,5

*C : watermeter

EA CHECK VALVES

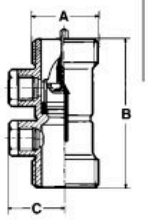
Type EA 271

General characteristics

M/M Brass casing (BSP), equipped with two drilled and plugged bosses. Two connection pieces may be added (nuts and nipples 3/4")

T Maximum working temperature 80°C continuously or

P 100°C peak



Nomenclature

Valve casing : brass
Guide : POM
Guided closing system POM
Seal : NBR (nitrile)
Spring : stainless steel
Plugs with seals : polyamide (PA6)

TYPE EA 271

Ref.	A		B	C	Weight	KV	ζ
	"	mm	mm	mm	kg	m³/H	
149B**2300**	3/4	20/27	65	20	0,225	5,05	3,10
149B**2301**	1	26/34	75	30	0,195	9,20	2,96
149B**2302**	1 1/4	33/42	90	34	0,335	14,90	2,75
149B**2303**	1 1/2	40/49	110	38	0,515	25,50	2,50
149B**2304**	2	50/60	120	41	0,725	35,00	3,30
149B**2305**	2 1/2	66/76	150	49	1,330	56,50	3,06

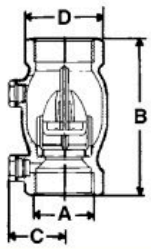
Type EA 221B

General characteristics

M/M Brass valve casing threaded F/F (BSP), equipped with two bosses, drilled and plugged (diameter 1/4 BSP)

T Maximum working temperature : 80°C constant or 100°C peak

P Maximum working pressure : 10 bar



Nomenclature

Valve casing with two bosses : brass
Guide : polyacetal (POM)
Guided closing system polyacetal (POM)
Seal NBR (nitrile)
Spring : stainless steel
2 plugs with seals : PA66 (polyamide)

TYPE EA 221B

Ref. EA221B	A		B	C	D	Weight	KV	ζ
	"	mm	mm	mm	mm	kg	m³/H	
149B**2171**	3/4	20/27	78	30,5	32	0,260	12,5	1,6
149B**2172**	1	26/34	93	32,5	41	0,450	19,6	1,6
149B**2173**	1 1/4	33/42	113	39,5	50	0,680	33,1	1,5
149B**2174**	1 1/2	40/49	120	41,0	55	0,850	46,0	1,9
149B**2175**	2	50/60	150	48,0	70	1,800	84,0	1,4

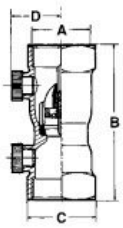
Type EA 291 NF

General characteristics

F/F Threaded brass casing not for use with gas, equipped with two drilled and plugged bosses

T Maximum working temperature : 80°C constant or 100°C peak

P Maximum working pressure : 10 bar



Nomenclature

Valve casing : brass
Guide POM or PPO
Guided closing system : polyacetal (POM)
Seal : NBR (nitrile)
Spring : stainless steel
Plugs : plastic with seals

TYPE EA 291 NF

Ref.	A		B	C	D	Weight	KV	ζ
	"	mm	mm	mm	mm	kg	m³/H	
149B**2220**	1/2	15/21	65	26	23	0,160	4,2	4,5
149B**2212**	3/4	20/27	75	30	28	0,289	13,8	1,3
149B**2222**	1	26/34	90	38	28	0,290	10,8	1,9
149B**2213**	1 1/4	33/42	110	47	36	0,830	28,0	2,1
149B**2214**	1 1/2	40/49	120	54	38	0,780	41,0	2,4
149B**2215**	2	50/60	150	66	46	1,360	55,8	3,1

DRAIN COCKS/ACCESSORIES

Brass drain cocks
Available : with male 1/4 key (ref. 5117)

General characteristics

Functions in any position, minimal energy loss, excellent watertightness at both high and low pressure, exceptionally robust, no water-hammering, inspection cover for control and exchange of parts without removing the device.

16/10
- Maximum temperature 65°C constant, 90°C peak
- Maximum working pressure 16 bar

General characteristics

For pressure water systems, housing, water distribution. Can be used on general and sanitary circuits

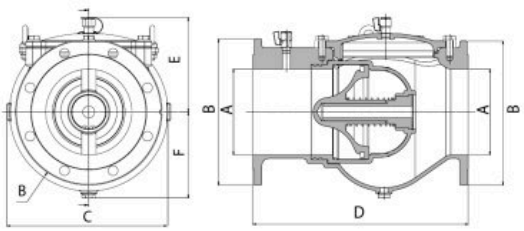
M/M Male/male BSP threads
- Maximum working temperature 65°C constant, 90°C peak
- Maximum working pressure : 16 bar

Type EA 453

NF ACS BELGAQUA

Nomenclature

Casing in ductile iron with external and internal epoxy coated
2 drilled bosses + test cock 1/2"
1 drilled bosses + 1 drain plug 1/2'' (except DN40/50 : 1/4")
Valve + plug : Brass
Closing system + Stem : DZR brass
Seat and spring : Stainless steel

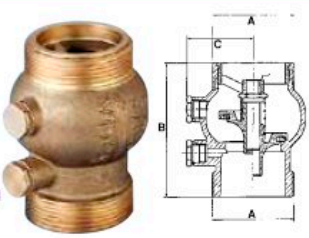


TYPE EA 453

Ref.	A	B	C	D	E	F	Weight
	mm	mm	mm	mm	mm	mm	kg
149B**3831**	40/50	165	-	200	113	80	8
149B**3832**	60/65	185	-	240	118	93	12
149B**3833**	80	200	-	260	131	98	15
149B**3834**	100	222	-	300	141	115	21
149B**3836**	150	285	-	400	197	144	42
149B**3837**	200	340	380	500	220	200	65
149B**3838**	250	400	438	600	256	235	94

Type EA 223

NF BELGAQUA VD kiwa ACS



Casing and bosses plugs in brass, spring in stainless steel, guide in polyacetal (POM), seal in NBR (nitrile), closing system in brass

TYPE EA 223

Ref.	DN "	A "	B mm	C mm	Weight kg	KV m³/h	ζ
149B**2890**	1/2	3/4	67,0	28	0,195	4,25	4,39
149B**2891**	3/4	1	74,0	35	0,300	9,00	3,09
149B**2892**	1	1 1/4	80,5	39	0,470	14,53	2,90
149B**2893**	1 1/4	1 1/2	88,5	44	0,640	23,30	3,00
149B**2894**	1 1/2	2	95,0	48	1,135	40,47	2,45
149B**2895**	2	2 1/2	115,0	56	1,740	65,27	2,30

Type EA 253

NF BELGAQUA ACS

Casing ductile iron epoxy coated, drilled bosses, closing system and stem in DZR brass, seat and spring in stainless steel, plug in brass.

TYPE EA 253

Ref.	DN mm	A F/F	B mm	C mm	D mm	Weight kg
149B**3810**	50	2 1/2	147	104	58	2,6
149B**3811**	65	3	199	146	94,5	4,8

INCORPORABLE CHECK VALVES

Permanently in contact with the Department of Health and the official testing laboratories. Socla's design team is developing "special" check valves which conform to the anti-pollution standard.

These "special" valves are used in conjunction with prefabricated equipment whose function requires protection from risk of contamination of the drinking water system.

This EB type valve is much appreciated by the water companies who supply meters equipped with a non-return system. This way, they can check the level of protection every time the meter is serviced.

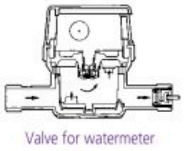
Type EB 901

NF

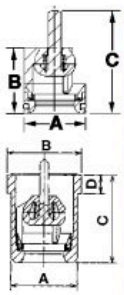
VD

kiwa

ACS



Valve for watermeter



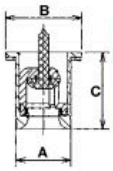
TYPE EB 901

Ref.	DN	A	B	C	Weight	KV	
	"	mm	mm	mm	kg	m³/H	
149B**2011**	3/8	15	17	25	0,002	4,8	0,68
149B**2011G**	3/8	15	16	25	0,002	4,8	0,68
149B**3300**	3/8	15	15	21,5	0,002	4,8	0,68
149B**3301**	3/8	15	15	21,5	0,002	4,8	0,68

Ref.	DN	A	B	C	D	Weight	KV	
	"	mm	mm	mm	mm	kg	m³/H	
149B**2130**	1/2	18,3	20	19	3	0,005	5,2	2,90
149B**3302**	1/2	18,3	20	17,5	3	0,005	5,2	2,90
149B**2131**	3/4	22	25	25	7	0,010	9,5	2,80
149B**2132**	1	28,5	32	38	8	0,015	16,2	2,70

Type EB 911

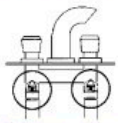
NF



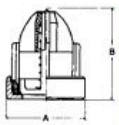
TYPE EB 911

Ref.	DN	A	B	C	Weight	KV	
	"	mm	mm	mm	kg	m³/H	
149B**2007**	1/2	17,5	24	25	0,005	3,37	5,60

Type EB 921



Clapet pour mitigeur

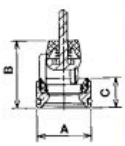


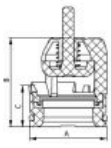
TYPE EB 921

Ref.	DN	A	B	Weight	KV	
	"	mm	mm	kg	m³/H	
149B**1030**	1/2	18,3	19	0,005	4,0	5,0
149B**1011**	3/4	22	25	0,010	6,9	5,3
149B**1012**	1	28,5	38	0,015	10,0	6,1
149B**1013**	1 1/4	38	41	0,070	22,0	3,4
149B**1014**	1 1/2	44	51,5	0,085	29,0	4,8
149B**1863**	2	50	64	0,180	46,5	4,5

Type EB 931

Safety valve





TYPE EB 931

Ref.	DN	A	B	C	Weight	KV	
	"	mm	mm	mm	kg	m³/H	
149B**1022J**	1/2	18,5	17	6	0,011	3,30	23,30
149B**1024**	3/4	20	26	11	0,016	6,81	5,40
149B**1324**	3/4	20	2,1	10,7	0,0045	6,81	5,40
149B**1325**	1	24,9	31,5	13,3	0,011	13,59	3,41
149B**1326**	1 ¼	31,9	39,6	18,7	0,020	22,38	3,52
149B**1327**	1 ½	39,8	49	21,2	0,027	36,74	3,51
149B**1328**	2	49,8	60,7	26,2	0,055	62,19	3,29
149B**1023**	1	24	22	7	0,018	6,81	13,20

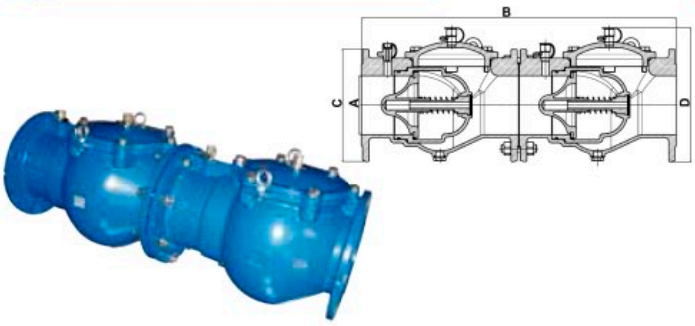
DOUBLE CHECK VALVES TYPES EC & ED

General characteristics

Double check valve system 03 flanges
Made with 2 non-return valves fig. 453 coupled together

16/10 Raccordements : raccords union
T Maximum temperature 65°C constant, 90°C peak
P Maximum working pressure : 16 bar drilling 10 bar

Type EC 453/453



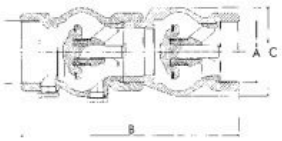
Ref.	A		B	C	D	Kg
	"	mm	mm	mm	mm	
149B **24796**	1 ½	40/50	402	165	193	17
149B **24797**	2 ½	60/65	482	185	211	25
149B **24798**	3	80	522	200	229	31
149B **24799**	4	100	602	222	256	43
149B **24800**	6	150	802	285	341	86
149B **24801**	8	200	1002	340	420	132
149B **24802**	10	250	1202	400	491	190

General characteristics

202B/202 : double check valve composed of 1 standard range single type 202 and type 212 coupled together with screwed BSP end connections
402B/402 : double check valve composed of 2 standard range single check valves type 402 coupled together

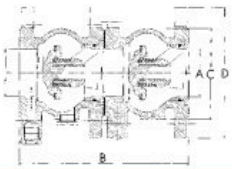
16/10
T Maximum working temperature 110°C
P Maximum working pressure 16 bar for 402B/402, drilling 10 bar

Types 202B/212 - 402B/402



202B/212

402B/402



TECHNICAL INFORMATION

TYPE 202B/212

Ref.	A		B	C	Weight
	"	mm	mm	mm	kg
149B**96171**	2 1/2	65	263	97	5,9
149B**96172**	3	80	312	125	11,1
149B**96173**	4	100	365	150	17,9

TYPE 402B/402

Ref.	A		B	C	D	Weight
	"	mm	mm	mm	mm	kg
149B**16023**	2	50	202	97	165	11,6
149B**16024**	2 1/2	65	242	125	185	16,2
149B**16025**	3	80	282	150	200	20,4
149B**16026**	4	100	342	187	220	29,0
149B**16027**	5	125	402	220	250	48,0
149B**16028**	6	150	462	260	285	64,0
149B**96175**	8	200	578	340	340	106,0
149B**97019**	10	250	704	420	405	188,0
149B**97020**	12	300	792	490	485	280,0
149B**97021**	14	350	946	586	555	450,0
149B**97022**	16	400	1122	680	620	624,0
(*)	20	500	1502	880	670	1080,0

* Consult us

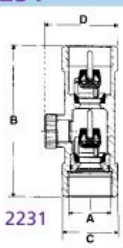
General characteristics

Double check valve 01 system with drilled bosses.
For clear liquids, water, gas, protection of drinking water networks

C/C
F/F Raccordements : raccords union
T Maximum working temperature 100°C
P Maximum working pressure 10 bar

Types ED2211 & ED2231

2211



2231

TYPE ED 2231

Ref.	A	B	C	D	Weight	KV	ζ
	"	mm	mm	mm	kg	m³/h	
149B**2790**	1/2	59	26	38	0,130	2,4	13,80
149B**2791**	3/4	90	32	43	0,280	5,0	10,03
149B**2637**	1 1/4	146	48	57	0,700	19,0	4,55
149B**2638**	1 1/2	175	55	62	1,010	25,0	6,42
149B**2639**	2	196	67	77	1,560	36,8	7,23
TYPE ED 2211							
149B**2796**	15	73	24	36	0,112	2,1	18,00

PRESSURE REDUCING VALVES

All pressure reducing valve bodies are made of bronze. Due to their design, they are **not affected by scale** or dirt, and do not need **any maintenance**. They are suitable for cold and hot water up to 80°C for maximum upstream pressure of 25 bar and reduce pressure between 0.5 and 7 bar. They can be installed in any position if flow direction stipulated by the arrow is respected. They can be fitted on compressed air, neutral gases and fuel oil at ambient temperature circuits.

Consult us for CE marking which is requested starting DN50 on compressed air and neutral gases applications.

The ranges of figures 7, 8, 9, 10 and 11 are in accordance with the **european standard EN1567**. Series 11 and 11bis fulfil higher specification controlled by NF label.

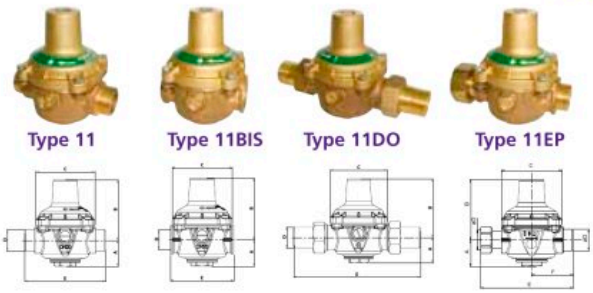
All pressure reducing valve bodies are **guaranteed for 5 years.**

Type 11

F/F Bronze casing, Stainless steel seat. 1/4" plugs on both sides to allow pressure gauge connection

- Maximum working temperature : 80°C
- Maximum working pressure : 25 bar

NF VD ACS



Type 11 | Type 11BIS | Type 11DO | Type 11EP

General characteristics

Flats and houses individual water supply
Settings : from 1 bar to 5.5 bar
Pre-set at 3 bar
11 : male/male
11BIS : female/female
11EP : union-nut/male
11DO : male/male

D		A	B	C	E mm			Kg		
"	mm	mm	mm	mm	11	11Bis	11DO	11	11Bis	11DO
1/2	15/21	31	60	59	85	66	140	0,70	0,70	0,90
3/4	20/27	32	75	73	100	76,5	160	0,90	0,90	1,30
1	26/34	40	102	94	122	98	180	2,00	1,90	2,50
1 ¼	33/42	51	179	104	132	126	200	3,90	3,90	4,60
1 ½	40/49	46	185	104	132	132	220	5,00	4,20	5,00
2	50/60	54	194	104	146	146	250	5,30	5,20	5,50

11 EP							
D		A	B	C	E	F	Kg
"	mm	mm	mm	mm	mm	mm	
3/4	20/27	31	75	73	112	50	0,88

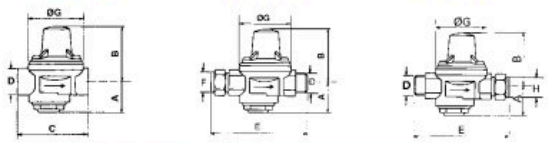
Type JUNIOR

F/F Bronze casing. 1/4" pressure gauge connection and drain at the bottom of the casing

- Maximum working temperature : 80°C
- Maximum working pressure : 16 bar

ACS

Type 7BIS | Type 7EP | Type 7SP



General characteristics

Flats and houses individual water supply
Settings : from 1 bar to 5.5 bar
Pre-set at 3 bar downstream
7BIS : female/female
7EP : union-nut/male
7SP : male/union-nut

D		A	B	C	E	F	G	H	Kg		
"	mm	mm	mm	mm	mm	"	mm	"	7BIS	7EP	7SP
1/2	15/21	30	56	64,5	92	3/4	50	-	0,50	0,50	-
3/4	20/27	33,5	61	70	95	3/4	57	3/4	0,60	0,80	0,80
1	26/34	30	68	81	-	-	70	-	0,95	-	-
1 ¼	33/42	34,5	91	97	-	-	81	-	1,55	-	-
1 ½	40/49	36,5	106	110	-	-	92	-	2,05	-	-
2	50/60	45,5	106	135	-	-	120	-	3,70	-	-

Type MULTI 7

F/F Bronze casing. 1/4" pressure gauge connection and drain at the bottom of the casing

- Maximum working temperature : 80°C
- Maximum working pressure : 16 bar

ACS

General characteristics

Flats and houses individual water supply
Settings : from 1 bar to 5.5 bar, Pre-set at 3 bar downstream
Delivered with 3 nuts allowing 16 different connecting possibilities in 1/2" and 3/4".

D		A	B	C	G
"	mm	mm	mm	mm	mm
3/4	20/27	33	61	70	57

PRESSURE REDUCING VALVES

APPROVALS IN EUROPE

The following approval Institutes have controlled and accepted the products shown in the present brochure, which concern their country (the products are shown with the marking of the corresponding institution).

The approval means that the devices have been tested according to the construction and performance specifications in force in the country (some of them corresponding to the european standards in preparation).

The protection method and the choice of adequate products depend on the sanitary regulations valid in each country.

We invite you to approach your competent authorities to help you in your choice in order to set up your installations in accordance to your legislation.

SOCLA

Protection

Non return

Regulation

Shut Off

Socla SAS
365 rue du Lieutenant Putier
71530 VIREY-LE-GRAND
BP10273 - 71107 Chalon S/Saône Cedex
Tel. +33 3 85 97 42 42 - Fax +33 3 85 97 97 42
e-mail:commer@socla.com
http://www.socla.com

Working hours
Monday to Thursday 8 a.m. to 5.30 p.m.
Friday 8 a.m. to 1.30 p.m.

2698625 - 02/2012

Socla - Desbordes - Sylax