

BACKFLOW PREVENTER MALE TYPE BA 574 CONTROLABLE REDUCED PRESSURE ACS 4MS

Backflow preventer Scudo controlable BA 574 to protect drinking water networks.

NF Certification with 10 years warranty, horizontal position only.

With ball valves DN1/4".

To protect water networks up to category 4 (according to EN1717).



CALEFFI
Hydronic Solutions



Size : DN1/2" to DN2"

Connection : Male BSP

Min Temperature : +5°C

Max Temperature : +65°C

Max Pressure : 10 Bars

Specifications : With ball valves DN1/4"
Controlable (horizontal position)
With union fittings

Materials : Ecobrass® 4MS body for DN3/4" and DN1"
Bronze 4MS from DN 1"1/2 au DN2"

*the installation defects and wear defects are not covered by the guarantee

Sferaco 90 rue du Ruisseau 38297 St Quentin Fallavier Tel: + 33 (0) 474.94.15.90 Fax: + 33 (0) 474.95.62.08 Internet: www.sferaco.com E-mail : info@sferaco.fr

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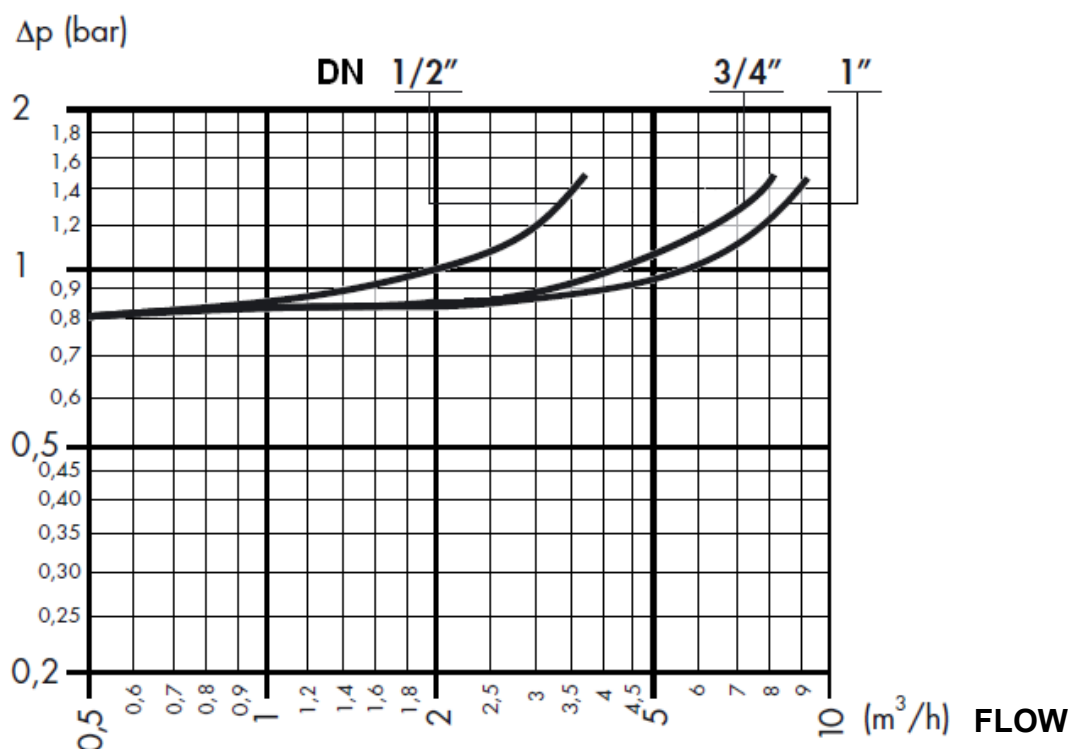
SPECIFICATIONS :

- Respect the flow direction indicated by an arrow on the body
- Horizontal position
- Male / Male BSP
- Controlable
- Low head loss
- With male union
- With ball valves DN1/4" BSP
- 10 years manufacture warranty (the installation defects and wear defects are not covered by the guarantee)

USE :

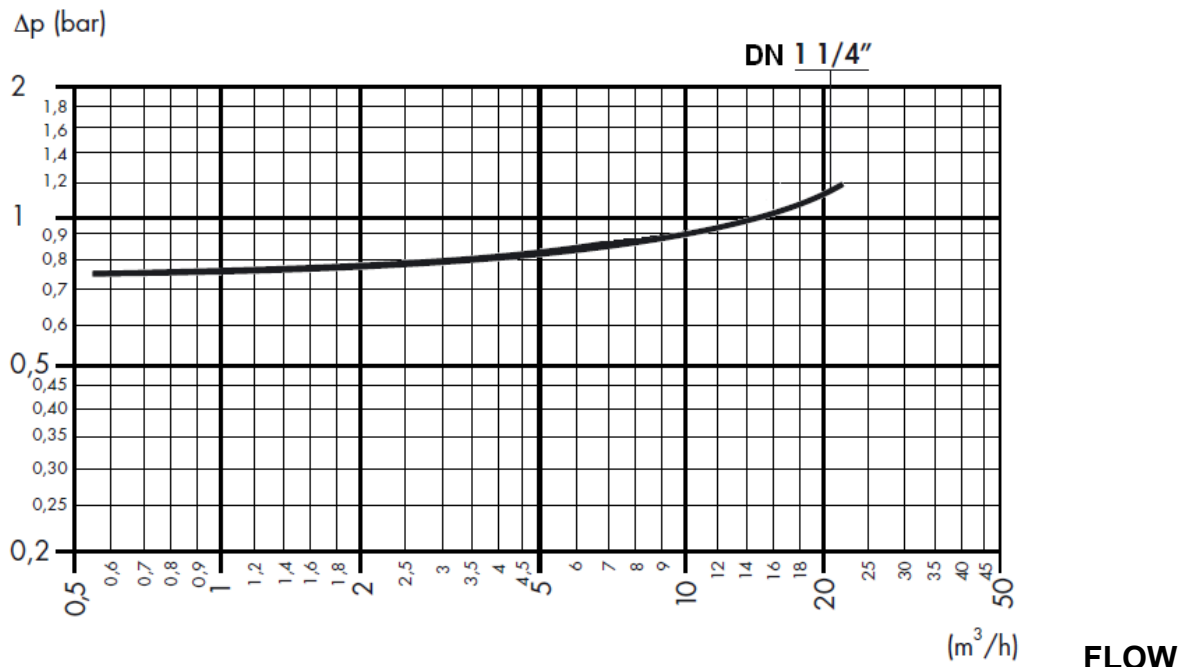
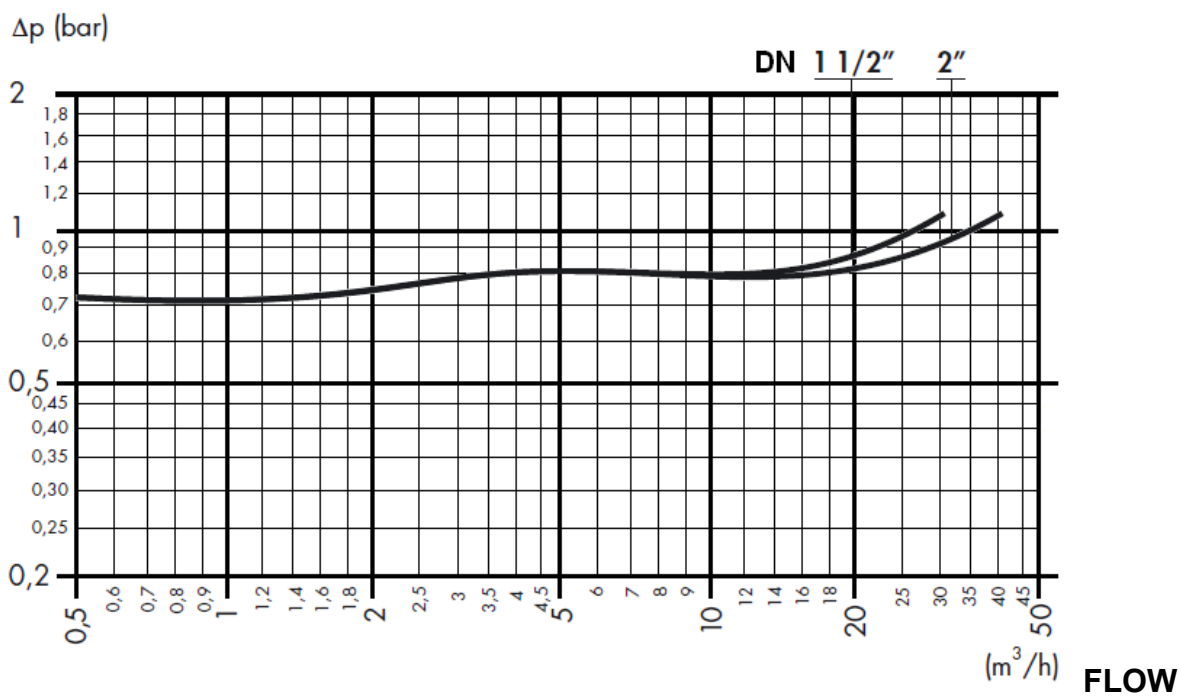
- Water distribution
- Min Temperature Ts : + 5°C
- Max Temperature Ts : + 65°C
- Max Pressure Ps : 10 bars

HEAD LOSS GRAPH :



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HEAD LOSS GRAPH (SUITE) :



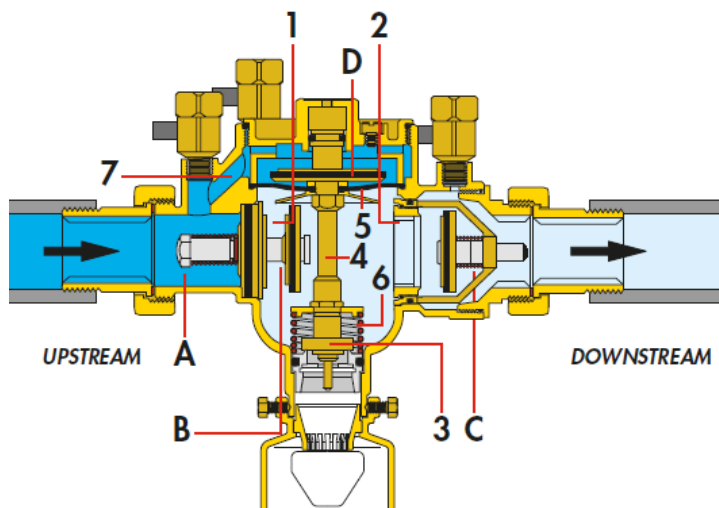
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OPERATING PRINCIPLE :

The controllable reduced pressure zone backflow preventer is comprised of: a body with an inspection cover, an upstream check valve (1), a downstream check valve (2), a discharge device (3). The two check valves divide three different zones, each of which at a different pressure: an upstream or inlet zone (A); an intermediate zone, also known as the reduced pressure zone (B); a downstream or outlet zone (C). Each of these has a test port for measuring pressure. A discharge device (3), is located in the lower part of the intermediate zone. The obturator of the discharge device is connected via the valve stem (4) to the diaphragm (5). This mobile unit is pushed upwards by the spring (6). The diaphragm (5) marks the limit of the top chamber (D), which is connected to the upstream zone by the channel (7).

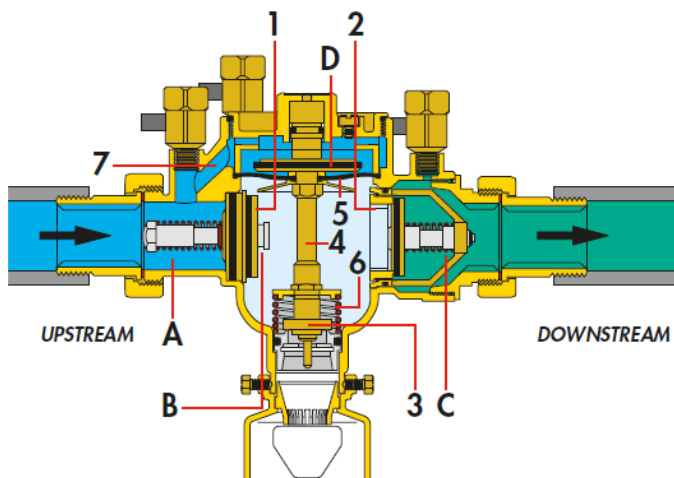
Normal flow conditions :

Under conditions of normal flow, both check valves are open, while the pressure in the intermediate chamber (B) is always lower than the inlet pressure by at least 140 mbar due to the pressure loss caused by the check valve (1). In the top chamber (D), however, the pressure is the same as in the inlet zone. In this situation, the mobile unit consisting of the diaphragm (5), the valve stem (4) and the valve obturator (3) is pushed down by the push created by the difference in pressure acting on the diaphragm which is greater than that of the spring (6) acting in the opposite direction. The discharge valve is therefore held in the closed position.



No flow conditions :

The check valves (1) and (2) are now closed. Since the pressure in the upstream zone and therefore also in the top chamber (D), is still at least 140 mbar higher than the pressure in the intermediate chamber (B), the discharge valve remains closed.

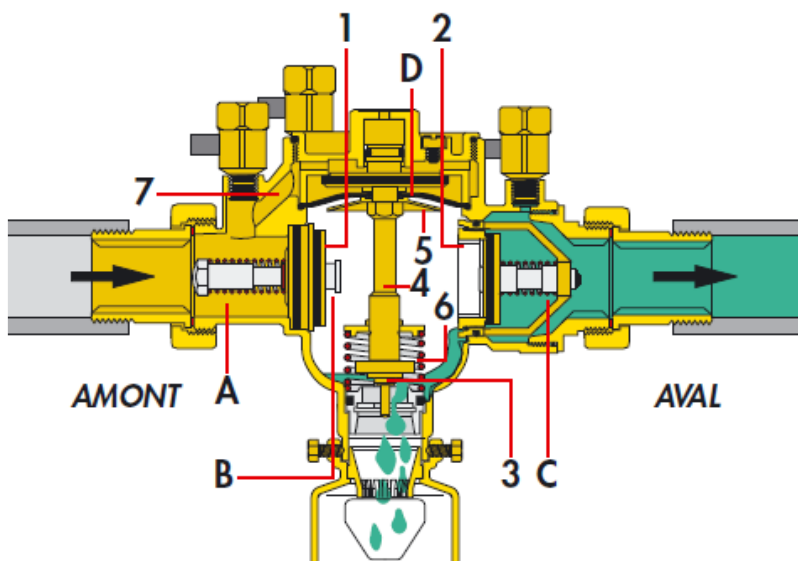


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OPERATING PRINCIPLE (SUITE) :

Upstream pressure loss :

Both check valves close as the pressure upstream drops. The discharge valve (3) opens when the difference in pressure ΔP , between the upstream and the intermediate zones falls, drops below 140 mbar. Under these conditions the action exerted by the pressure difference ΔP on the diaphragm (5), becomes weaker than that exerted by the spring (6), and the discharge valve (3) opens as a result. Discharge then occurs until the body of the backflow preventer is empty. When the situation returns to normal (pressure upstream greater than pressure downstream), the discharge valve closes and the backflow preventer is again ready to operate.



Downstream back pressure :

If the pressure in the downstream zone increases until it is greater than the upstream pressure, the check valve (2) closes and therefore prevents water already delivered from returning back into the mains system. If the seal of the check valve (2), is slightly defective or in general terms there is any other type of fault in the backflow preventer, the device always interrupts (disconnects) the connection between the mains system and the receiving system. The backflow preventer has been designed with all construction details required for a properly functioning positive action device; the best possible safety conditions are therefore ensured under all conditions.

RANGE :



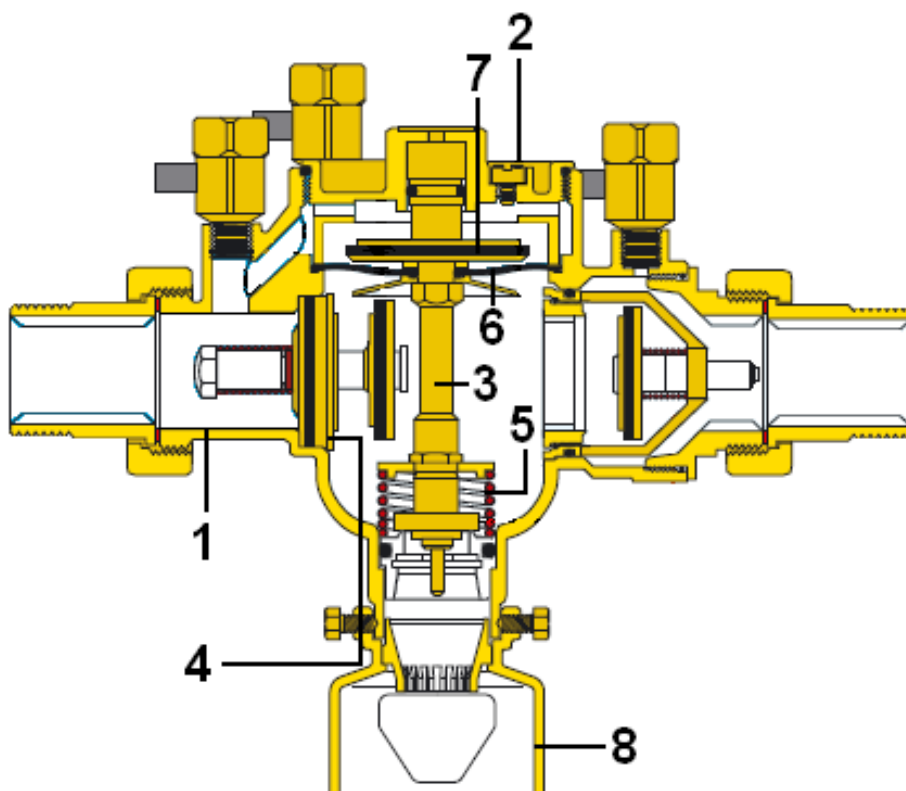
- Male - Male threaded BSP ends with male union from DN 1/2" to DN 2" **Ref.950**



- Backflow preventer kit (with valves and strainer) from DN 1/2" to DN 2" **Ref.950014 and 950019**

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MATERIALS :

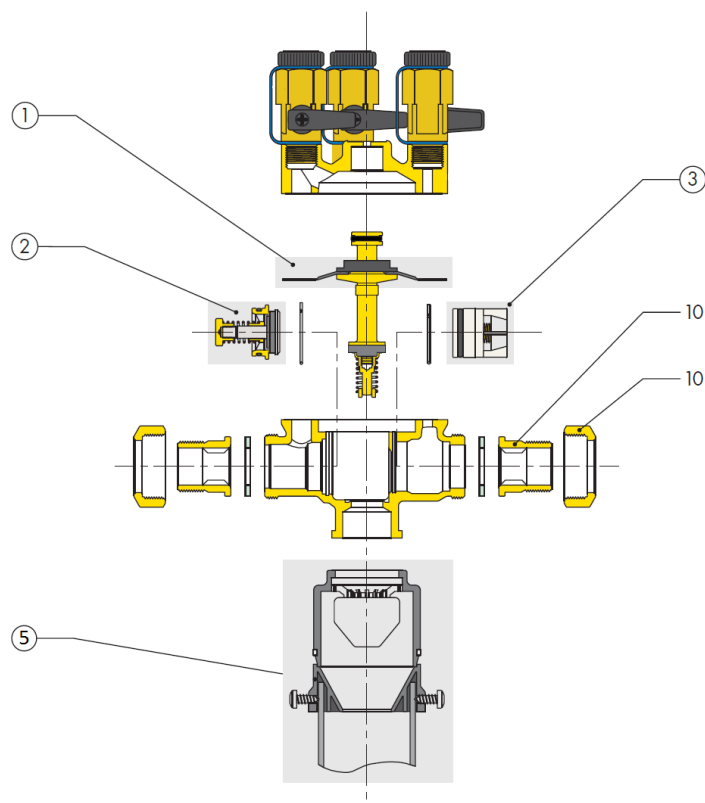


Item	Designation	Materials DN 1/2"	Materials DN1"1/4	MaterialsDN 3/4"-1"	Materials DN 1"1/2 – 2"
1	Body	Brass  dezincification-resistant CC770S-4MS	CW724R-4MS Ecobras® according to EN 12165	Bronze CB499K-4MS	
2	Bonnet				
3	Stem	EN 10088-3 (AISI 303)			
4	Check valves	POM + PSU	PSU	PSU	PSU
5	Spring	EN 10270 -3 (AISI 302)			
6	Diaphragm	EPDM			NBR
7	Gasket	NBR			
8	Evacuation support	Polymer			Brass

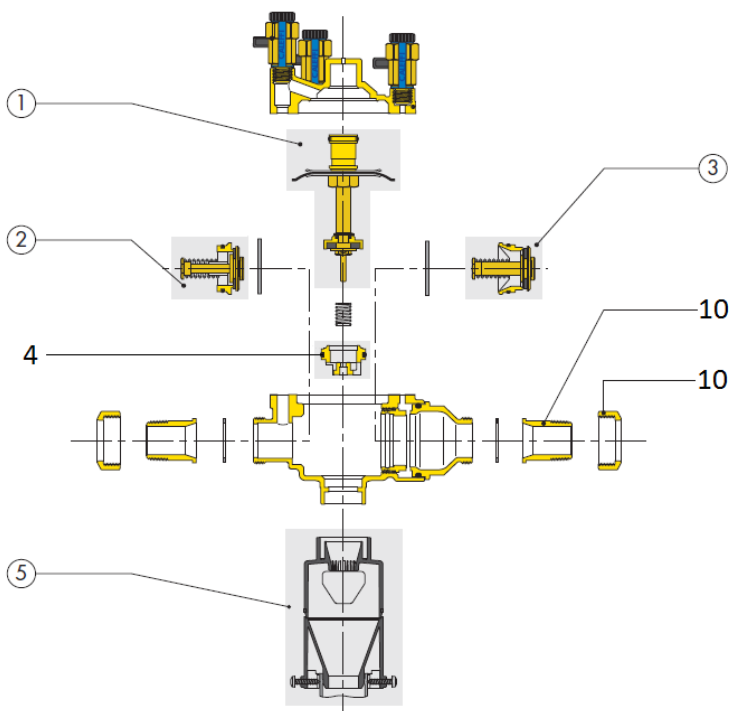
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SPARE PART :

REF. 950004 DN1/2"



REF. 950005 DN 3/4" and 950006 DN1"



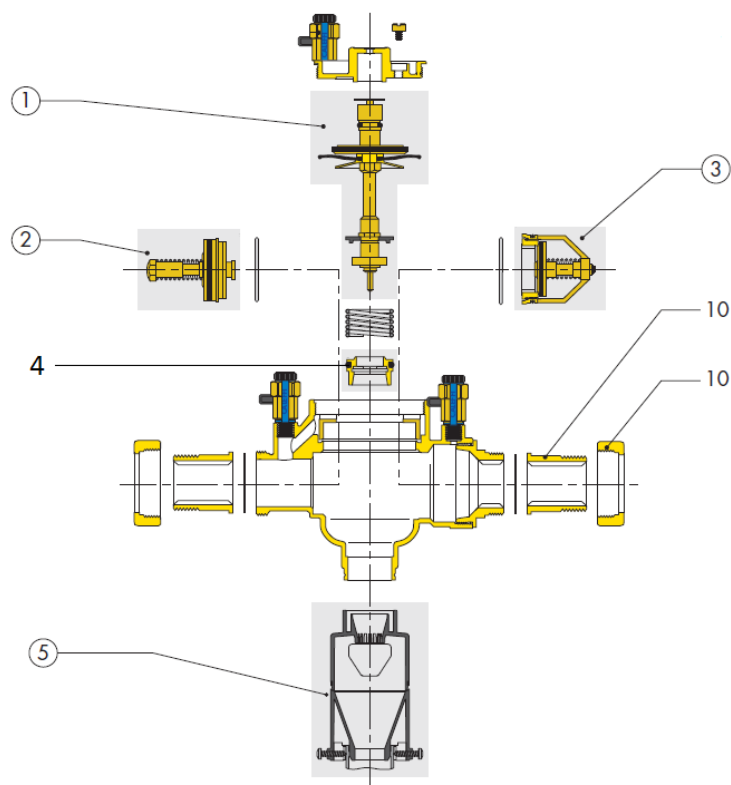
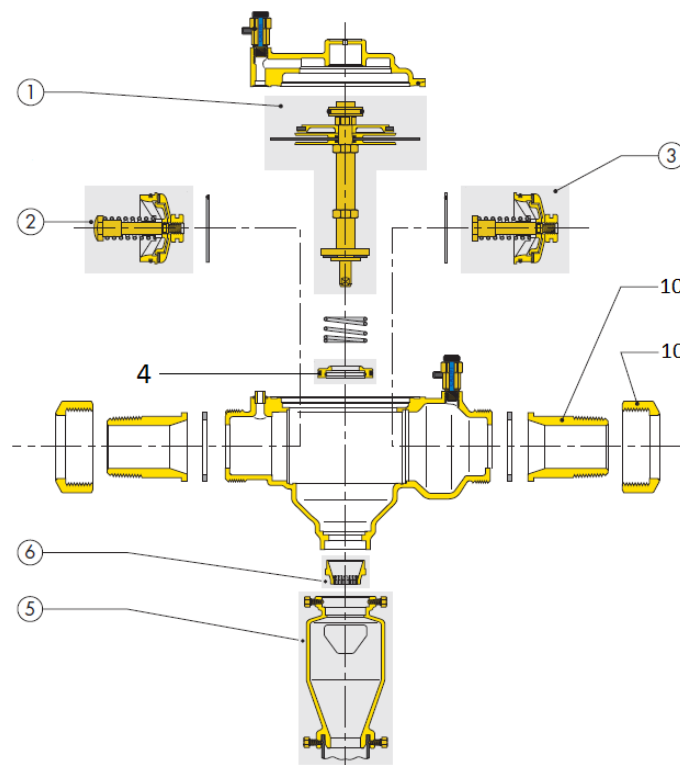
		Ref.950004	Ref.950005	Ref.950006
Item	DN	1/2"	3/4"	1"
1	Discharge device	Ref. 9850116	Ref. 9850122	Ref. 9850122
2	Upstream check valve	Ref. 9850114	Ref. 9850120	Ref. 9850120
3	Downstream check valve	Ref. 9850115	Ref. 9850121	Ref. 9850121
4	Discharge valve Seat		Ref.9850123	Ref.9850123
5	Evacuation support	Ref. 9850117	Ref. 9850124	Ref. 9850124
10	Fittings	Ref. 9850130	Ref.9850131	Ref. 9850132

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SPARE PART :

REF. 950007 DN1"1/4 and 950008 DN1"1/2 574008

REF. 950009 DN2"

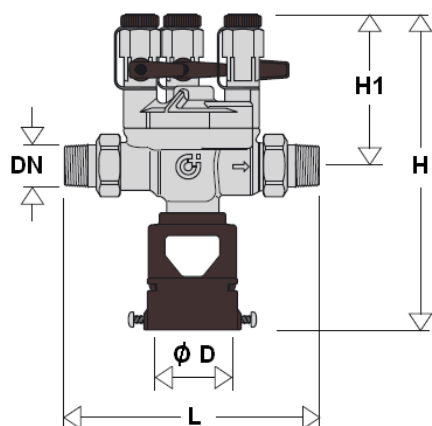


		Ref. Sferaco	950007	950008	950009
		Ref. Caleffi	574700	574008	574900
Item	DN		1"1/4	1"1/2	2"
1	Discharge device		Ref. 9850106		Ref. 9850112
2	Upstream check valve		Ref. 9850104		Ref. 9850110
3	Downstream check valve		Ref. 9850105	Ref.9850175	Ref. 9850111
4	Discharge valve Seat		Ref.9850107		Ref.9850113
5	Evacuation support		Ref. 9850124		Ref. 9850108
6	Ring				Ref. 9850160
10	Fittings		Ref. 9850133		Ref. 9850135

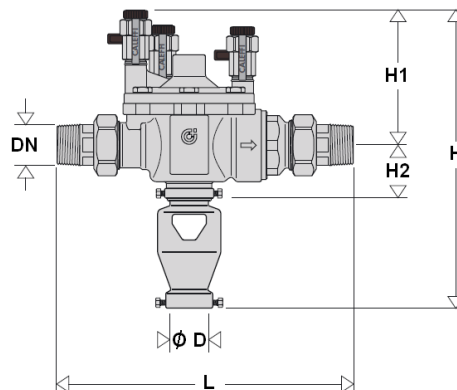
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SIZE (in mm) :

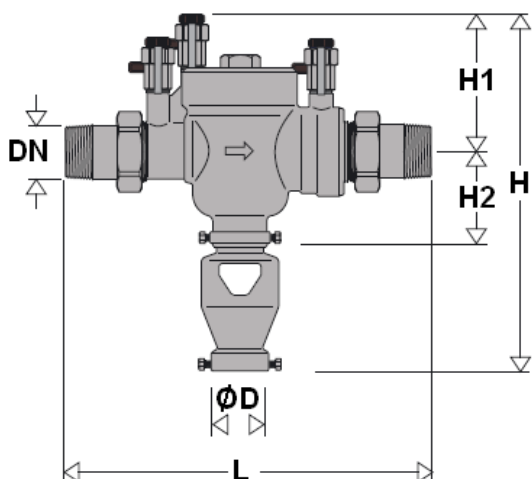
DN 1/2"



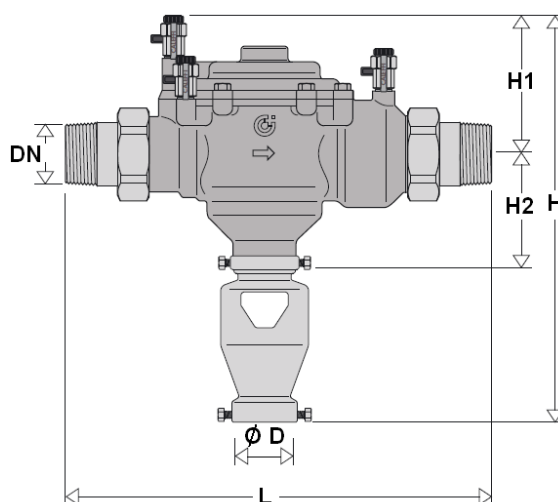
DN 3/4" – 1"



DN 1"1/4 and DN1"1/2

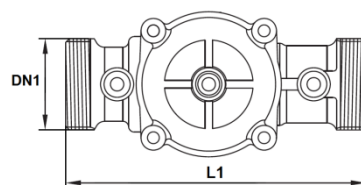


DN 2"



DN 1/2"-2"

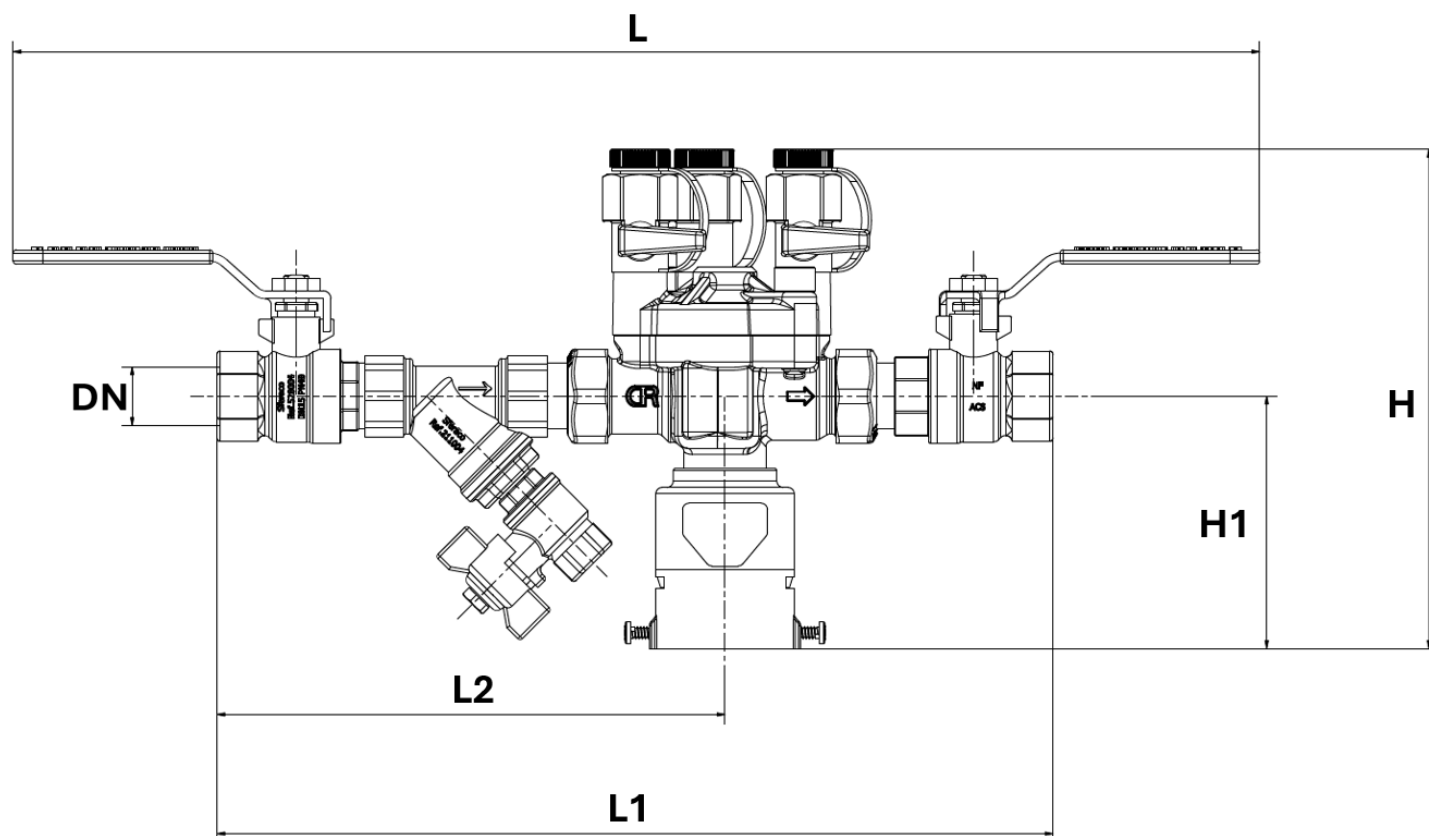
(without fittings)



DN	1/2"	3/4"	1"	1"1/4	1"1/2	2"
DN1	3/4"	1"1/4	1"1/4	1"1/2	2"1/2	2"1/2
L	130	223	238	280	302.5	395
L1	83	153	153	187		274
H	158	263	263	292	289	382
H1	77.5	103	103	100	100	130
H2	-	44.5	44.5	74.5	74.5	108.5
Ø D	40	40	40	40	50	50
Weight (in Kg)	0.9	2.6	2.7	3.7	5	11.8
Ref. Sferaco	950004	950005	950006	950007	950008	950009
Ref.Caleffi	574004	574050	574006	574700	574008	574900

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SIZE COMPLETE KIT WITH VALVES AND STRAINER :



*L, L1 and L2 as an indication because screwed assembly

Ref.	DN	L*	L1*	L2*	H	H1
950014	1/2"	396,7	266,1	161,7	158,7	80,2
950015	3/4"	396,7	389,5	161,7	158,7	80,2
950016	1"	581,5	422	233,5	263	160
950017	1"1/4	678,9	502,4	285,5	292	192,2
950018	1"1/2	720,9	553,9	339,5	288,6	188,6
950019	2"	888,2	700,3	396,5	382	252

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- Manufacturer certified ISO 9001 : 2015 and ISO 14001 : 2015
- DIRECTIVE 2014/68/EU : Products excluded from directive (Article 1. § 2b)
- French water agreement **A.C.S. N° 19 ACC LY 219**
- Approval Belgian certificate **BELGAQUA (excepted for ref.574008)**
- Approval Deutsch certificate **DVGW N° NW-6305BR0345 (excepted for ref.574008)**
- Approval Swiss **SVGW N° 9210-2851 (excepted for ref.574008)**
- Approval Holland certificate **KIWA N°K6382/08 (excepted for ref.574008)**
- Approval English certificate **KIWA UK Water Reg. 4 N° 2302751 (excepted for ref.574008)**
- Designing according to **NF EN 12729**
- **Acoustic Group I** up to DN 1"1/4
- Safety device according to **NF045 doc 1 and 3**
- Threaded male BSP cylindrical ends according to ISO 228-1 for DN 1/2"
- Threaded male BSP conical ends according to ISO 7-1 R from DN 3/4" to DN 2"

ADVICE : Our opinion and our advice are not guaranteed and SFERACO shall not be liable for the consequences of damages.
The customer must check the right choice of the products with the real service conditions.