CA 9C

Backflow preventer with non-verifiable reduced pressure zone

Technical data sheet

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Description

The CA 2096 backflow preventer is a device with 2 check valves separated with a zone connected to the atmosphere. Backflow preventer, compact type, used to prevent the reverse flow of polluted/contaminated water (fluid class 3). The valve offers protection with regard to back-siphonage as well as backflow, and was especially developed domestic heating installation < 70 KW.

- Protect against backflow from a fluid of category 3 (EN1717 – EN 14367)
- Compact
- Perfect sealing: double check valve, discharge valve
- Low pressure loss
- Integrated strainer
- Compliant with NF, Kiwa, Belgaqua approvals
- Materials compliant with UBA requirements and 4MS

CA9C

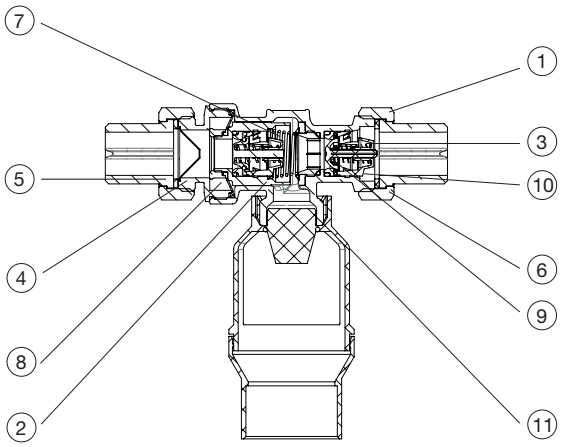
Backflow preventers with non-verifiable reduced pressure zone

DN		Raccord	PFA (in bar)	Référence	Weight (in kg)
"	mm				
1/2	15	F/F	10	2230115	0,60
1/2	15	M/M	10	2230125	0,60
3/4	20	F/F	10	2230215	0,66
3/4	20	M/M	10	2230225	0,66

Technical features	
Permissible operating pressure (PFA)	10 bar
Min. pressure	1bar
Max. operation temperature	50°C (can support an accidental backflow up to 90°C)
Connection	Detachable union F/F or M/M
Mediums	Drinking water

Nomenclature and materials

N°	Désignation	Matérials	Euro
1	Body	DZR brass	CB770S
2	Piston	Brass	CW626N
3	Check valve	Brass	CW626N
4	Inlet fitting	Brass	CW626N
5	Sockets and fittings	Brass	CW617 4MS
6	Nuts	NBR	CW617 4MS
7	Spring	Stainless steel	1.4310
8	Membrane	EPDM	
9	Seals	EPDM	
10	Check –valve structure	POM (PolyAcetal, « Hostaform »)	
11	Funnel	PP (polypropylène)	



Approvals

International construction standard :

- EN1717 - EN14367
- ISO for connections 228

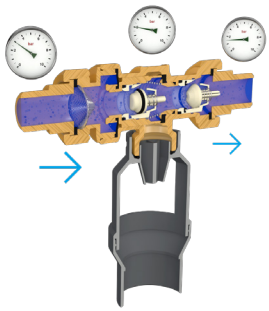
Application

The CA-a type backflow preventer with non-controllable pressure zones, is intended, within the limits defined by the health authority, to protect drinking water networks against the return of polluted fluids that do not present major toxic or microbiological risks for human health (fluid from category 3) :

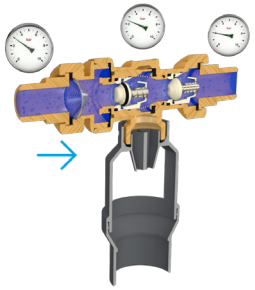
- For domestic heating installations with a capacity of less than 70 kW,
- Automatic beverage dispensers,
- Collective dishwashers
- Coffee machines
- Water dispenser

Operating principle

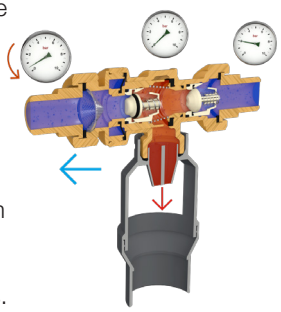
1. Normal operation under flow: the two check valves are open allowing the flow of the water, the discharge valve remaining closed.



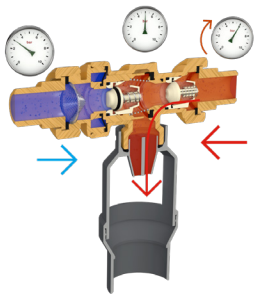
2. Stop of the flow; static pressure: the device is under pressure, the two check valves are now closed, and the discharge valve remains closed due to the difference in pressure that still exist between the upstream pressure and the intermediate zone.



3. Backflow conditions : in case of pressure loss upstream, the two check valves are closed, the depression causes the opening of the discharge valve and the venting of the intermediate zone. In case of downstream overpressure, the second check valve is closed prohibiting any water returns.



4. If exceptionally the second check valve downstream is failing, the discharge valve opens to evacuate the potentially poluted fluid.This device is built as a positive acting device and mantains a high level of safety in all situations.



Installation

The CA9C must be installed with two isolation devices, one upstream with a test cock and one downstream. To install the backflow preventer, follow these instructions:

- The backflow preventer CA must be installed by qualified technician in accordance with the instructions given in the packaging and following current local regulations.
- The backflow preventer CA must be installed horizontally after an isolating valve (with draining tap) upstream and an inspectable strainer, another isolating valve must be installed downstream.
- The device must be installed in an accessible area that is large enough to prevent it getting submerged by any accidental flooding.
- Provide a suitable pipe to drain the evacuation of the fluid which the device could possibly drain.
- Check the discharge pipe to ensure you of the correct operation of the flow.
- During installation it is necessary to respect the direction of flow indicated by the arrow on the body of the device.
- For the protection of the public main water supply, the backflow preventer must be installed after the water meter, whereas in order to protect the private internal water network, it should be installed at the limit of the areas where there may be contamination, for example: filling of the central heating ...

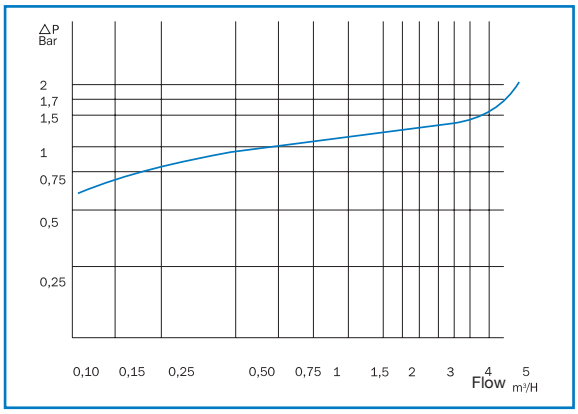
This protection system is subject to the annual maintenance and upkeep obligations prescribed by health regulations.

Maintenance

It is recommended that the CA-a backflow protection device should be inspected at least once a year.
The first indication of malfunction, generally caused by foreign debris (sand, copper or calcium...), is revealed with a permanent leak from the drain.
In the case of leakage at the drain, it is recommended to generate a major flow of circulation by opening some taps for a few minutes: this is often sufficient to expel any foreign debris and bring everything back to normal situation.
This leak is merely an early warning and definitely does not put the safety of the device at risk, but it requires removing and cleaning the device and the upstream strainer.

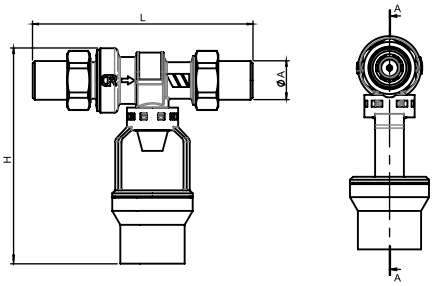
Operating

CA9C - Headloss chart



Sizing

code ref.	diameter A			L (mm)	H (mm)
2230115	F/F	1/2”	(15x21)	122	148
2230125	M/M	1/2”	(15x21)	146	148
2230215	F/F	3/4”	(20x27)	152	148
2230225	M/M	3/4”	(20x27)	150	148
2293105	Relief elbow for vertical mounting in DN 1/2” or 3/4”				



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