

Filling Valve with CA Device

Model CA297PRV – Non Verifiable Disconnecter - Datasheet

Description

Backflow Prevention Device primarily intended for filling and pressurising sealed house heating systems, or non-house systems, which have an output of less than 45 KW. A Type CA device – with suitable pressure regulation – can be permanently connected to a small heating system without the need for a removable filling loop. This enables the system to be filled and pressurised. Boilers with an output of 45 KW or greater (except in a house) are considered by the Water Supply Industry to be a Fluid Category 4 risk and a BA device can be used for filling and pressurising – see “Autofill”.

The CA device affords permanent Fluid Category 3 protection. The relief port affords better protection than a double check valve (Type ED) and a CA device may be permanently connected – no removable filling loop required.

A discharge pipe should be connected to the integral tundish. Under normal operation the unit should not discharge. The valve will discharge a tiny quantity of water if the supply pressure falls below about 0.5 bar or 110% of downstream pressure. A continuous discharge could occur if debris becomes lodged in the relief valve or the second check valve during a backpressure condition.

Connection Pipes

CA device only	1/2" or 3/4" Female BSPP Unions
Servicing valves	15 or 22 mm Compression
Discharge	21.5 mm (std o/flow pipe)

Specification

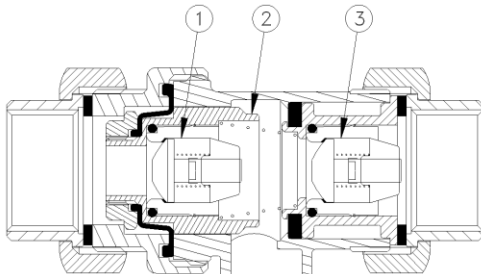
Pressure Supply	10 bar max, 1 bar min.
Approval	WRc / WRAS approved
Outlet pressure (cold fill)	1.0 bar default (Adj. 0.5 – 9.3)
Approval (complete)	KIWA UK A030562

Materials

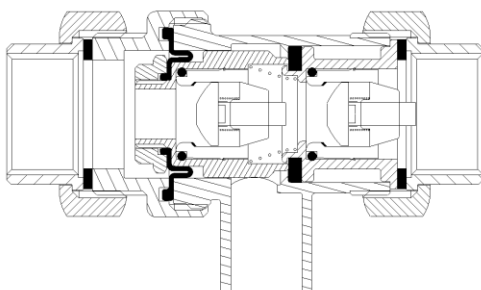
Body	Bronze (PRV & SV - DZR brass)
Springs	Stainless Steel
Seals	Nitrile

Operation

With no inlet pressure, the upstream check valve (1) and downstream check valve (3), are closed, whilst the relief valve piston (2) is open – due to the compression spring.

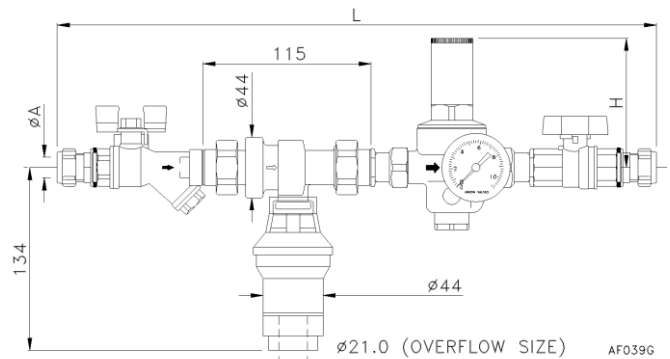


Below – during operation the relief valve is closed (with pressure) and the check valves open (with flow)



CA15C297PRV - Filling valve assembly comprising of – inlet servicing valve c/w serviceable strainer, CA device, Pressure Reducing Valve (PRV) and servicing (isolating) valve

Dimensions



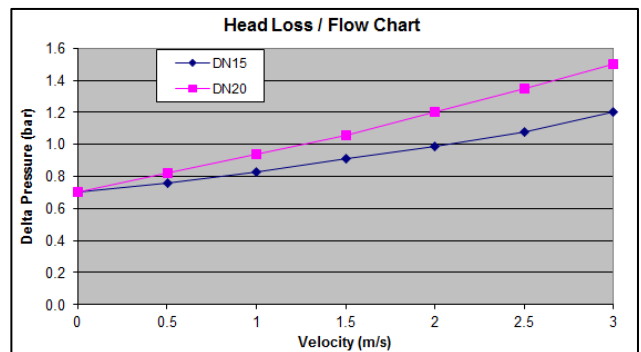
SIZE	A	L	H	Kg
15 mm		440	90	2.1
22 mm		515	112	2.9

Isolating

The servicing valves may be left open if the pressure is regulated with a Pressure Reducing Valve. The upstream servicing valve has a serviceable 100 micron strainer, which can be removed through the side port.

Applications (Fluid Categories 1 – 3)

- Filling house heating systems (of any output power)
- Filling non-house heating systems (less than 45 KW)
- Other applications approved by the local water company



Codes and Descriptions

Sizes	Code	Description
15, 22 mm	CAsizeC297PRV	Filling Valve CA Serv Valves PRV Comp.
15, 22 mm	CAsizeC297SV	CA Device c/w Serv Valves Comp.
DN15, 20	CAsizeFU297	CA Device c/w Tundish FUBSPP

Notes

- Gauge supplied with PRV version.
- Unlike BA devices, CA devices do not require annual testing.

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Arrow Valves Ltd reserve the right to change specifications, design and materials at any time without notice. All unit-less dimensions in mm.

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