Filling Valve with CA Device

Model CAFU573 & CA573SV – Non Verifiable Disconnector - Datasheet

Description

Backflow Prevention Device primarily intended for filling and pressurising sealed house heating systems, or non-house systems, which have been risk assessed by the water supplier and downgraded to a Fluid Category 3 risk, replacing filling loop. 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. A non-house primary circuit or heating system is classed as a Fluid Category 4 risk by default and a BA device can be used for filling and pressurising – see "Autofill".

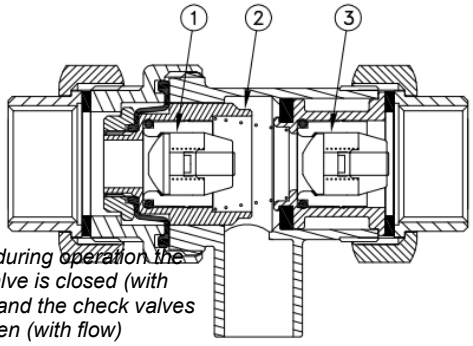
The CA device affords permanent Fluid Category 3 protection. The relief port affords better protection than a double check valve (Type ED). CA devices may be permanently connected – no removable filling loop required.

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.

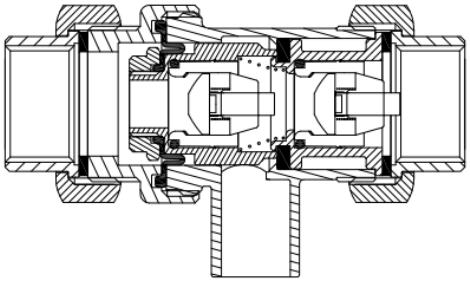
Connection Pipes		
CA device only	½" or ¾" Female BSPP Unions	
Servicing valves	15 or 22 mm Compression	
Discharge	21.5 mm (std o/flow pipe)	
Specification		
Pressure Supply	bar	1 to 10 max.
Outlet Pressure (Cold Fill)	bar	1.0 default (adjustable 0.5 – 9.3)
Materials		
Body		Bronze (PRV) & DZR Brass (SV)
Springs		Stainless Steel
Seals		Nitrile

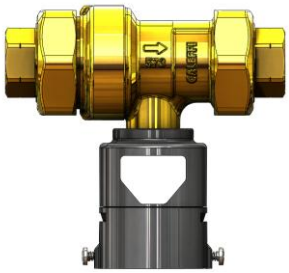
Operation

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.



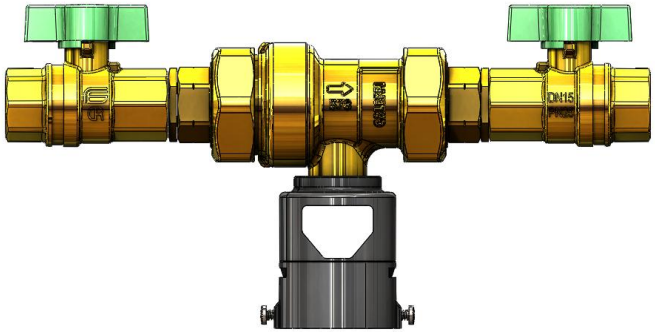
Below – during operation the relief valve is closed (with pressure) and the check valves open (with flow)





5 YEAR WARRANTY

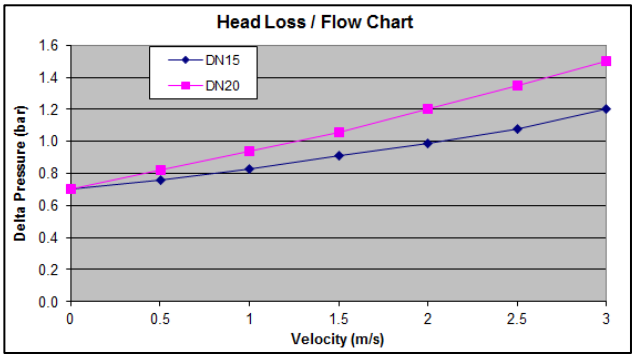
CA15FU573 – CA Device with Tundish



CA15C573SV - Filling valve assembly comprising of – inlet and outlet servicing (isolating) valves and CA device

Applications (Fluid Categories 1 – 3)

- Filling house heating systems (of any output power)
- Filling non-house heating systems (risk assessed)
- Other applications approved by the local water company



Velocity based on flow of water through the bore of copper tube table X

Codes and Descriptions

Sizes	Code	Description
DN15	CA*15*FU573	DN15 CA Device c/w Tundish FUBSPP DN15
DN20	CA*20*FU573	DN20 CA Device c/w Tundish FUBSPP DN20
15 mm	CA*15*C573SV	15mm CA Device c/w Serv Valves Comp.
22 mm	CA22C573SV	22mm CA Device c/w Serv Valves Comp.

Notes

Unlike BA devices, CA devices do not require annual testing.

UK CA CE

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All unit-less dimensions in mm.
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Arrow Valves

Filling Valve with CA Device

Model CA573PRV – Non Verifiable Disconnector - Datasheet

Description

Backflow Prevention Device primarily intended for filling and pressurising sealed house heating systems, or non-house systems, which have been risk assessed by the water supplier and downgraded to a Fluid Category 3 risk, replacing filling loop. 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. A non-house primary circuit or heating system is classed as a Fluid Category 4 risk by default and a BA device can be used for filling and pressurising – see "Autofill".

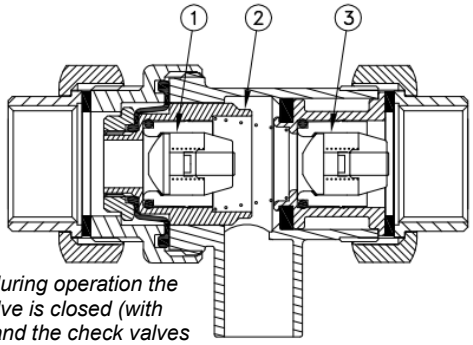
The CA device affords permanent Fluid Category 3 protection. The relief port affords better protection than a double check valve (Type ED). CA devices may be permanently connected – no removable filling loop required.

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.

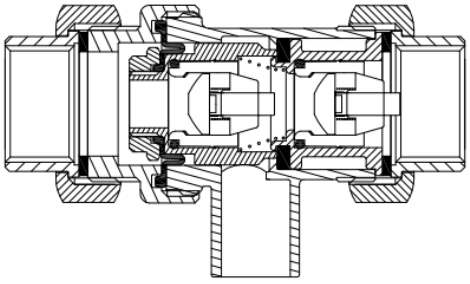
Connection Pipes		
CA device only	½" or ¾" Female BSPP Unions	
Servicing valves	15 or 22 mm Compression	
Discharge	21.5 mm (std o/flow pipe)	
Specification		
Pressure Supply	bar	1 to 10 max.
Outlet Pressure (Cold Fill)	bar	1.0 default (adjustable 0.5 – 9.3)
Materials		
Body		Bronze (PRV) & DZR Brass (SV)
Springs		Stainless Steel
Seals		Nitrile

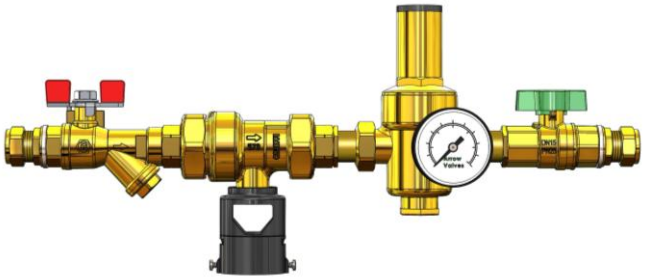
Operation

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.



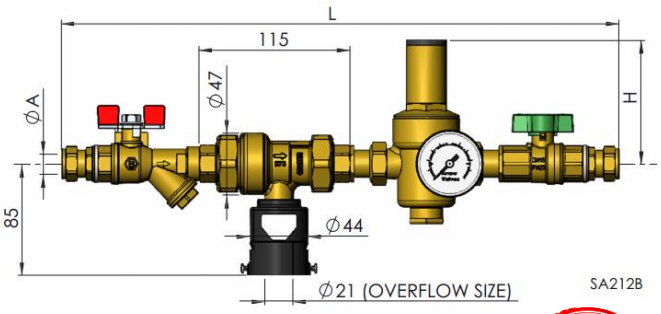
Below – during operation the relief valve is closed (with pressure) and the check valves open (with flow)





CA15C573PRV - 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	2.2
22 mm	515	112	3.1

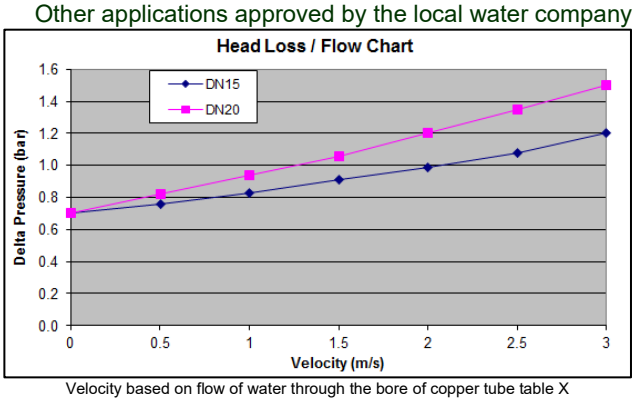
5 YEAR WARRANTY

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.

Applications (Fluid Categories 1 – 3)

- Filling house heating systems (of any output power)
- Filling non-house heating systems (risk assessed)
- Other applications approved by the local water company



Velocity based on flow of water through the bore of copper tube table X

Codes and Descriptions

Sizes	Code	Description
15 mm	CA*15C573*PRV	15mm Filling Valve CA Serv Valves PRV Comp.
22 mm	CA22C573PRV	22mm Filling Valve CA Serv Valves PRV Comp.

Notes

Gauge supplied with PRV version.

Unlike BA devices, CA devices do not require annual testing.

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