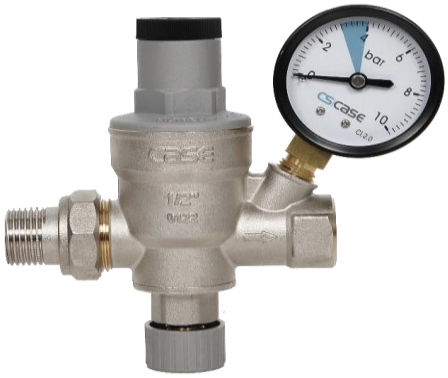
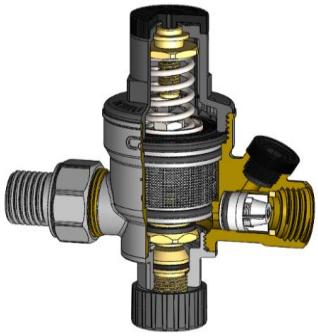
CS case	AUTOMATIC FILLING VALVE	January 2022



PRODUCTS

Code	Connection Size	Range of Products	Max. Input Pressure	Pressure Setting Range
3915	1/2"	with Coupling	16 bar [1600 kPa]	0,4 - 4 bar / 1,5 - 6 bar
4015	1/2"	with Coupling + Manometer		

INTRODUCTION

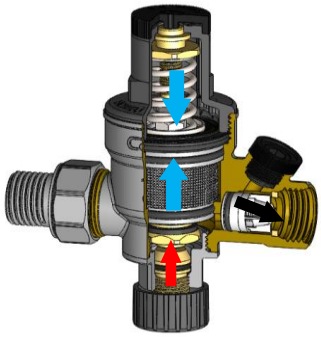


Automatic Filling Valve is connected to the water inlet line in closed circuit heating systems. It is a device consisting of pressure reducer, shut-off valve, check valve and filter. It provides automatic completion of the water that has decreased in the system.

Automatic Filling Valve ;

*Keeps the system pressure constant at the set pressure,
*Check valve inside of the product ensures one-way flow,
*With the shut-off valve, water passage from the device can be closed when necessary,
*Thanks to its filter, it keeps the dirt that may come from the mains,
*With the replaceable cartridge system, maintenance and repair operations can be performed without removing the device from the system,
*Thanks to the adjustment key on the product, it can be easily adjusted without the need for an additional tool.

OPERATING PRINCIPLE



How Automatic Filling Valve Works;

It is based on the balance of two opposing forces with the water pressure reducing system it contains.

These forces:

1- The pressure force of the compressed spring
2- The pressure of the water pressure on the diaphragm

If the pressure force of the spring is greater than the pressure applied to the diaphragm, the piston moves downwards, if it is smaller, the piston moves upwards and the output pressure is adjusted in a controlled manner.

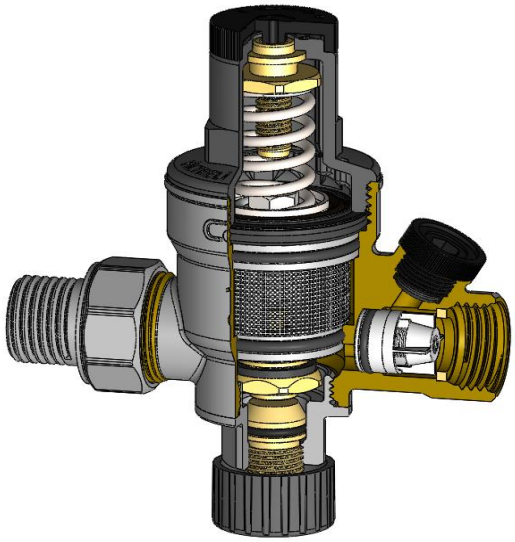
The check valve at the outlet allows the water to pass in the direction of flow with its spring and seal mechanism, while ensuring that the water does not return in any case.

Thanks to the flow shut-off valve located at the bottom, the flow can be stopped by turning the screw under necessary conditions.

TECHNICAL SPECIFICATIONS

Maximum Input Pressure	:	16 bar
Pressure Setting Range	:	0,4 - 4 bar / 1,5 - 6 bar
Factory Outlet Pressure	:	1,5 bar
Maximum Heat	:	65° C
The Fluid Used	:	Water

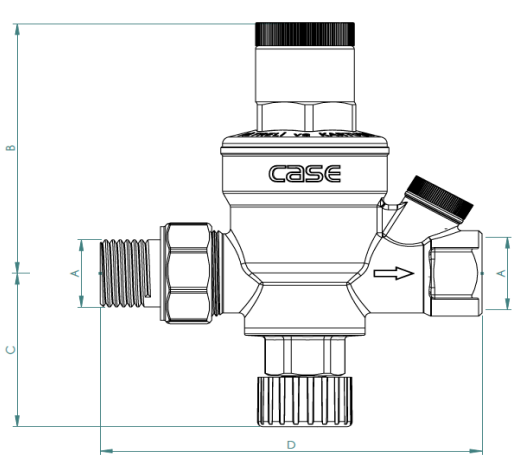
MATERIAL LIST

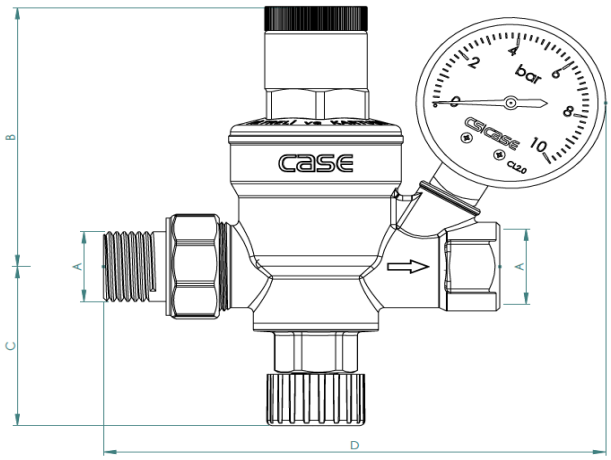


Adjusting Key
Adjusting Nut
Adjusting Screw
Spring
Adjustment Cap
Body
Diaphragm
Cartridge
Manometer Screw
Filter
Coupling
Nut
Piston Gasket
Piston Cover
Flow Stop Screw
Flow Shutoff Cap
Flow Shutoff Valve

Body	:	Brass CW 617N EN 12165
Flow Shutoff Cap	:	Brass CW 617N EN 12165
Coupling and Nut	:	Brass CW 617N EN 12165
Flow Stop Screw	:	Brass CW 614N EN 12164
Adjusting Screw and Nut	:	Brass CW 614N EN 12164
Piston	:	Brass CW 614N EN 12164
Piston Cover	:	Brass CW 614N EN 12164
Spring	:	Steel 10270-1
Filter	:	INOX
Sealing O-rings	:	NBR
Piston Gasket	:	EPDM
Diaphragm	:	EPDM
Cartridge and Check Valve Bodies	:	POM
Adjusting Key	:	PA6 GFR30
Adjustment Cover	:	PA6 GFR30
Manometer Screw	:	PA6

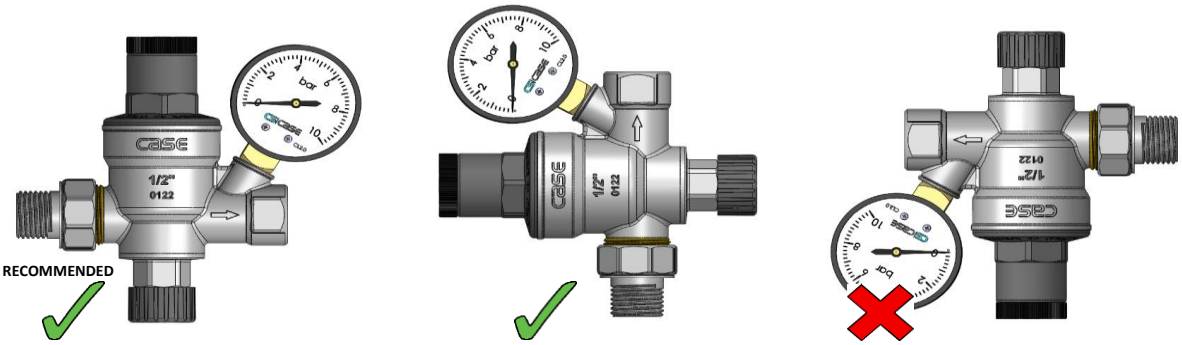
DIMENSIONING





Product Code	A [inch]	B [mm]	C [mm]	D [mm]
3915	1/2"	76	46	105
4015	1/2"	76	46	132

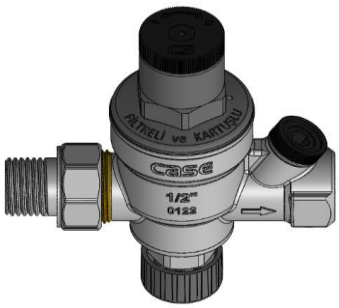
CONNECTION



Automatic Filling Valve Installation;

- This product can be installed; vertical or horizontal during installation.
- Ensure that the mains water flow is switched off by closing the inlet valves before installation.
- During installation, make sure that the arrow mark on the product surface indicate the direction of water flow.
- Products with manometer are preferred to observe the outlet pressure.

CALIBRATION



How to do Automatic Filling Valve Adjustment;

The Automatic Filling Valve is calibrated as a preset pressure of 1.5 bar at the factory. Adjustment pressure can be changed by the user if desired. Adjustment is made by turning the adjustment key supplied with the product.

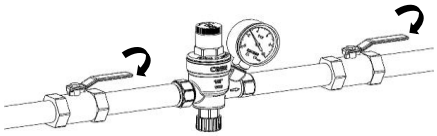
By turning the adjustment key;

- clockwise to increase (+)
- anticlockwise to decrease it (-)

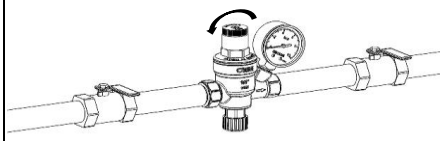
the setting pressure is calibrated to the desired pressure

MAINTENANCE

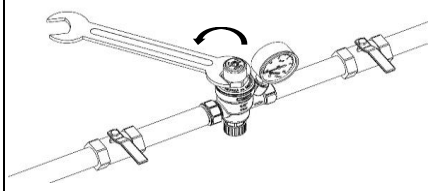
By following the steps given below, you can easily perform cleaning, maintenance and renewal operations without removing the product from the installation.



First, the flow is cut off from the valve located before the product. Afterwards, the valve after the product is closed to prevent any possible return.

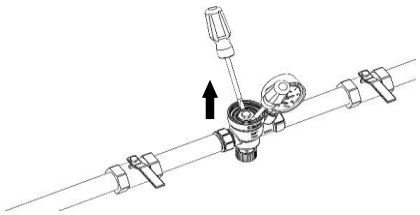


Adjustment key is turned in (-) direction to remove the spring pressure from the product.

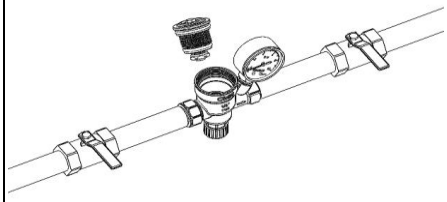


With the help of a wrench, the cover on the product is carefully removed.

Note: When removing the cover, be careful not to lose the spring and adjustment mechanism inside.

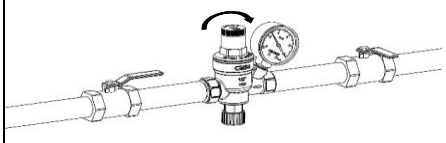


To remove the cartridge from the body, 2 screwdrivers are placed under the diaphragm cover and pulled upwards.
Note: While performing this operation, try not to use very sharp tools to avoid damaging the diaphragm.



The filter on the cartridge is cleaned or, if necessary, the cartridge is replaced with a new one.

Afterwards, the cartridge is put back into product, the spring and adjustment mechanisms are placed, and the cover is tightened.



The shut-off valve before the product is opened and the product is adjusted to the desired press

After the pressure is adjusted, the outlet valve is opened and the process is completed.
Note: Adjustment process is done in static condition, if there is a difference in your setting in the first stage, you can close the outlet valve and adjust again.