

Description

AFV Series valves consist of a pressure reducing valve, a filter and a check valve, and are designed for automatic filling of heating and cooling systems with open or closed expansion vessel.



AFV

Automatic filling valve consists of check valve, stainless steel filter and reducing valve. CW617N brass body. Impact-resistant plastic cap. 1/4" F pressure gauge connection. Max. upstream pressure: 10 bar. Adjustable downstream pressure: 0.8÷4 bar.

Type	Part No.	DN	Weight (g)
AFV	050074	1/2" F	230

Technical features

Maximum inlet pressure	10 bar
Pressure setting	0.8÷4 bar
Operating sensitivity	0.2 bar
Maximum fluid temperature	60°C
Pressure gauge connection	1/4" F

Materials

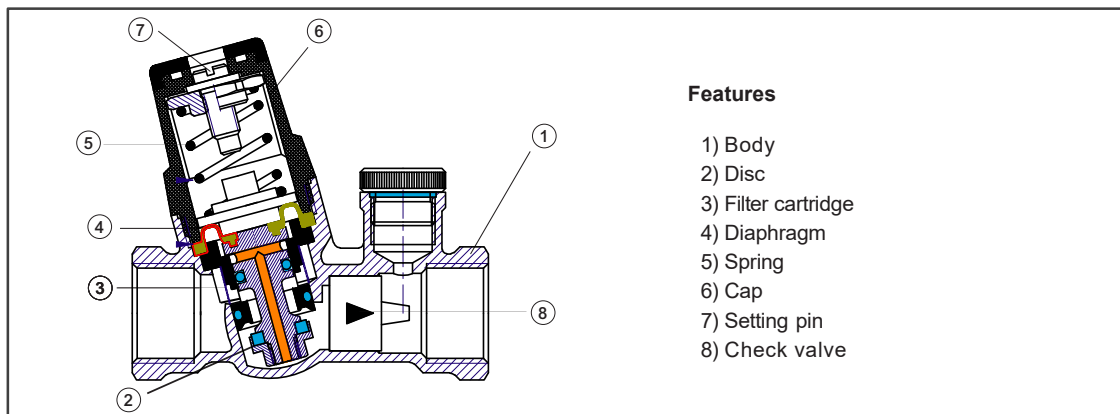
Body	CW617N
Diaphragm	Nylon-reinforced EPDM
Seal rings	EPDM
Cap	impact-resistant plastic

Application

When fitted between the mains water supply and the heating or cooling system, **AFV** filling valves quickly and automatically replace any water lost from the system, and keep the downstream pressure stable at a set operating value. A check valve built into the body prevents possible backflow, which could otherwise contaminate the mains water supply.

Operation

When the pressure exerted by the fluid in the system drops below the pressure that spring (5) of the **AFV** filling valve exerts on membrane (4), the spring pushes disc (2) down. The mains water enters via inlet, flows through filter cartridge (3), rises into chamber, opens check valve (8) and flows into the system. When filling is complete, the pressure in the system, and hence in chamber, increases. Once the pressure exceeds the force exerted by the counter-spring, it pushes diaphragm (4) up, causing disc (2) to close. Check valve (8) prevents backflow. The pressure therefore settles at the value dictated by the setting of the spring.

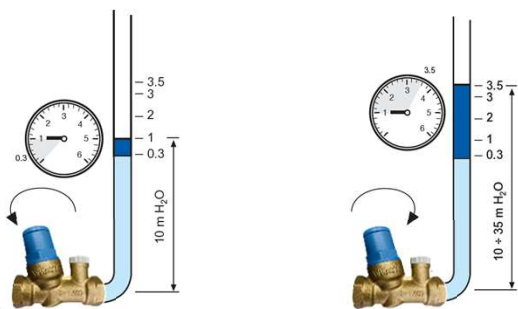


Setting

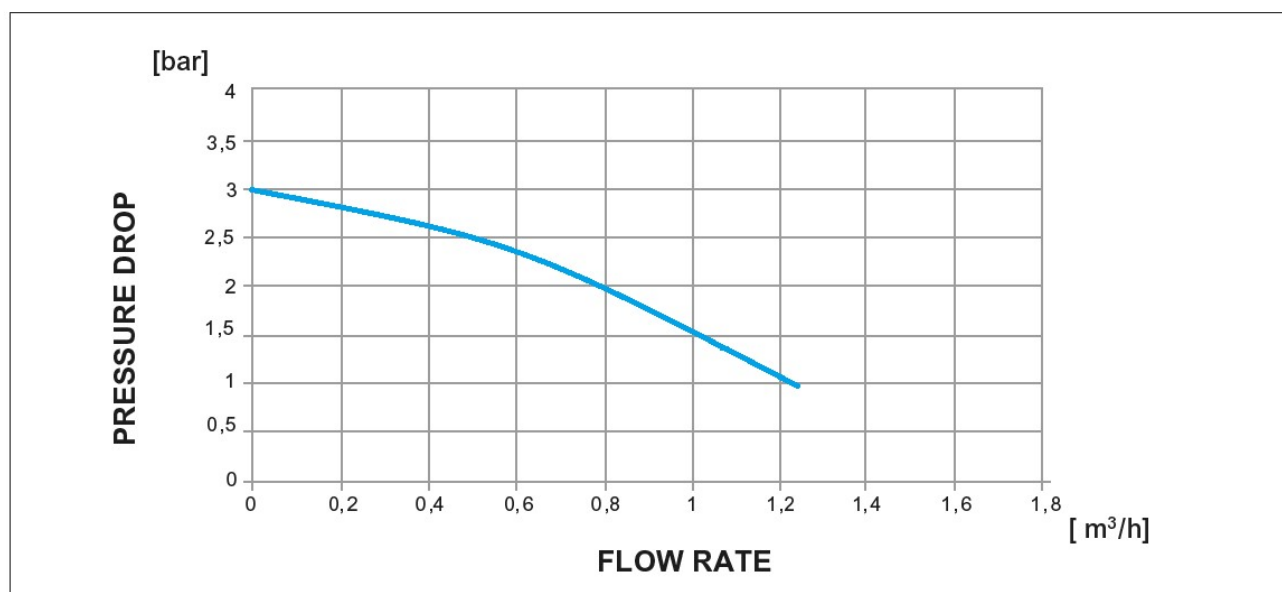
To set the **AFV** automatic filling valve, turn screw (7):

- Towards + (clockwise) = to increase the pressure;
- Towards - (anticlockwise) = to reduce the pressure.

You can check the system pressure on the pressure gauge.

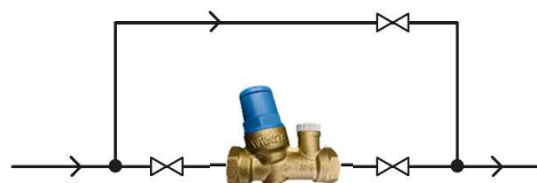


Charts



Installation

AFV filling valves must be installed according to the direction of the arrow stamped on the valve body. The valve can be installed either vertically or horizontally but avoid positioning the valve upside down as this could cause debris to accumulate on the diaphragm over time, reducing its sensitivity to small pressure variations.



Installation diagram

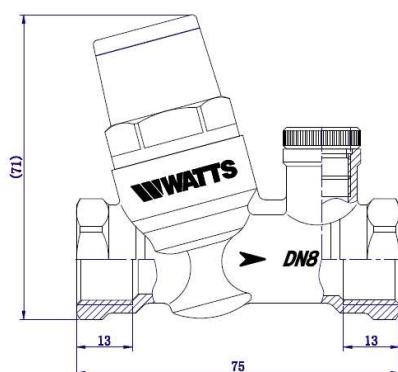
Maintenance

Maintenance of the **AFV** automatic filling valve is limited to the periodic cleaning of the filter, particularly after filling the system for the first time. To remove the filter, proceed as follows:

1. Close the gate valve upstream of the **AFV** valve (if there is no gate valve, shut off the supply pipe from the mains)
2. Unscrew the cap and remove cartridge assembly where filter is seated
3. Flush the filter with water (do not use aggressive chemicals)
4. Grease the O-rings fitted on disc (4)
5. Refit the filter and spring, then fully re-tighten the cartridge to the body
6. Re-open the gate valve upstream of the **AFV** valve or the valve upstream of the system

Overall dimensions (mm)

AFV



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