womix
Comfort Controls

Anti-freeze valve **WFV**

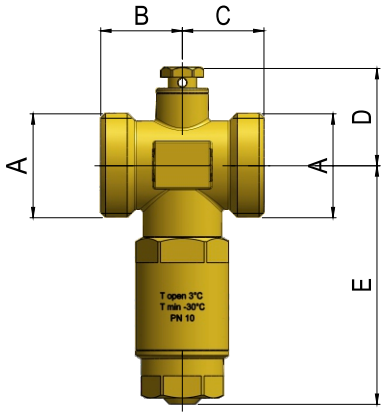
The anti-freeze valve installed in the heat pump installation allows for slow release of the medium when the medium temperature drops below 3 °C. This prevents ice from forming in the installation, protecting its components from damage. It is recommended to install 2 anti-freeze valves in the installation.

Technical data:

Material:	brass
Max. static pressure:	10 bar (PN 10)
Max. medium temperature:	90°C
Ambient temperature range:	-30°C to + 50°C
Temp. medium starting opening:	+3°C
Temp. closing medium:	+4°C
Accuracy:	+-1°C
Connections:	1" M for 601561 1 1/4" M for 601562

Possibility to control the anti-vacuum valve.
Possibility to check the cleaning cartridge and replace the sensor.

Dimensional diagram



P[bar]	Outside and fluid temperature [°C]	Q[L/min]
1	0,5	6
0,2	0,5	2,7
0,05	0,5	1,3

A	B	C	D	E
G1"	26	26	31	76
G 11/4"	29,5	29,5	33	78

Type	Kvs	Catalog number
Anti-freeze valve WFV-25M, PN 10, kvs 68	68	200611
Anti-freeze valve WFV-32M, PN 10, kvs 90	90	200612

Warning

The antifreeze valve may only be installed, put into operation and dismantled by trained and qualified personnel.
Changes and modifications carried out by unauthorized persons may pose a risk and are prohibited.
Maintenance activities should only be performed after the installation has completely cooled down. Otherwise, you may get burned by the hot medium.

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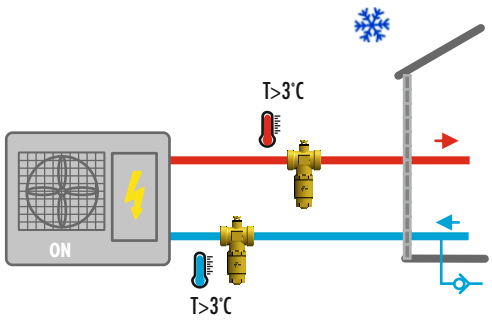
Use during normal installation operation in heating mode (winter)

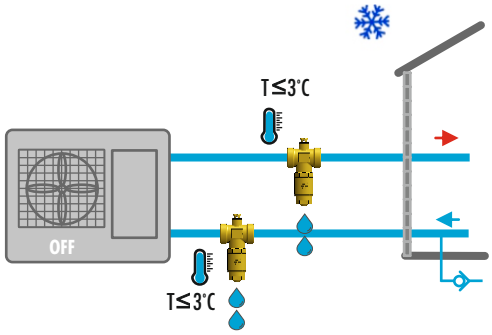


The system is working normally

System filled/pressure balanced.

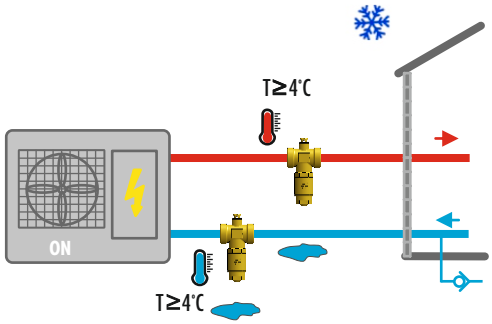
There is no risk of pipes freezing

System stopped due to lack of voltage (when using an automatic filling group)



System filled/pressure balanced

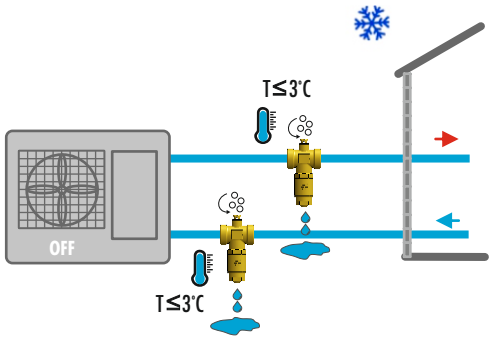
The temperature of the medium drops --> when it reaches 3°C, the valve begins to release water and the flow continues until the temperature of the liquid in the pipe increases again to 4°C.



When the power supply returns, the heat pump resumes operation
The drained water was replenished by an automatic filling group.

When the temperature of the medium in the pipes increases and reaches 4°C, the antifreeze valve closes the venting and the circulation returns to normal operation.

System stopped due to lack of voltage (in the absence of automatic filling group)

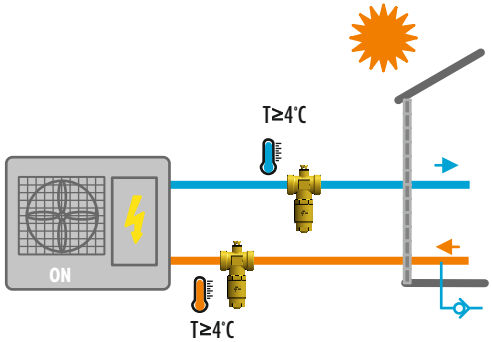


If the temperature remains below 3°C, there is no longer pressure in the system after prolonged bleeding.

The anti-freeze valve allows continued bleeding until the system is empty, thanks to the anti-vacuum valve located at the top allowing air to enter the system.

In this case, once the voltage is restored, the system will have to be filled manually.

Use during normal installation operation in cooling mode (summer)

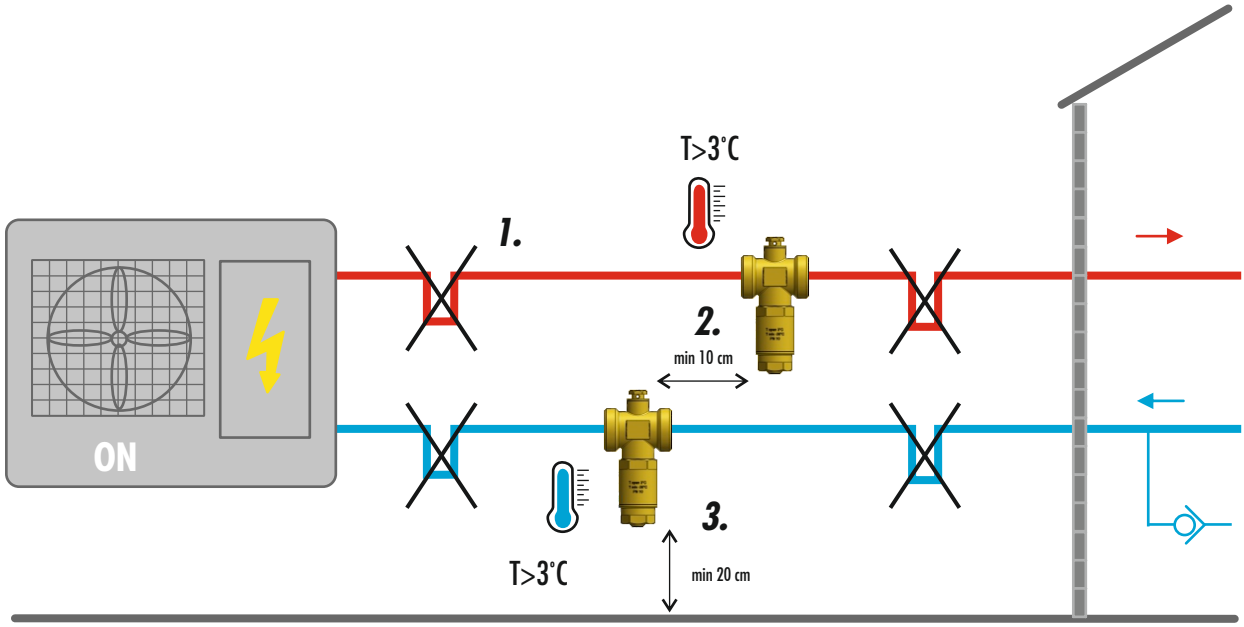


The system is working normally

System filled/pressure balanced.

In this mode, the fluid temperature must be higher than 4°C--> at this temperature, the antifreeze valve does not intervene.

Correct installation methods and an example of incorrect siphoning of the installation



1. There cannot be any sections with siphoned pipes between the valve and the external unit of the heat pump, which may disrupt the flow of the medium from the installation.

2. For proper operation, the valve should not be thermally insulated and should not be located near heat sources that could disturb its operation. Additionally, valves should be installed with minimum 10 cm horizontal spacing.

3. The valve must not be mounted directly to the ground. Please keep at least 20 cm distance to prevent blocking the flow of medium from the valve. The valve should be protected against direct influence of weather conditions, which may lead to its incorrect operation.