

Cim 138  
**Antifreeze valve  
for heat pumps**



PATENT PENDING

**cimberio**<sup>®</sup>  
technological solutions

## CIM138

### Antifreeze valve for heat pumps

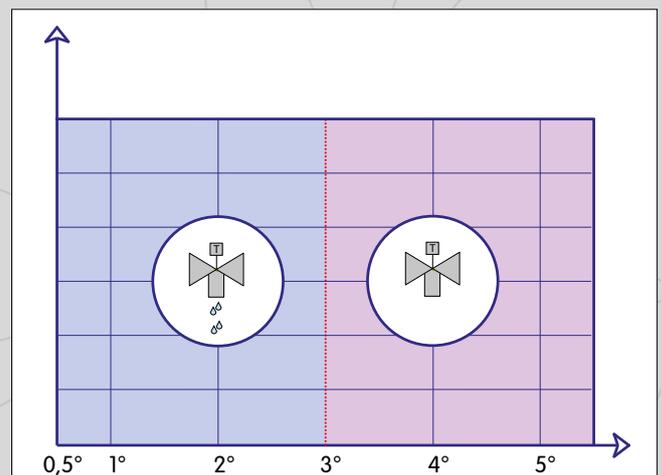
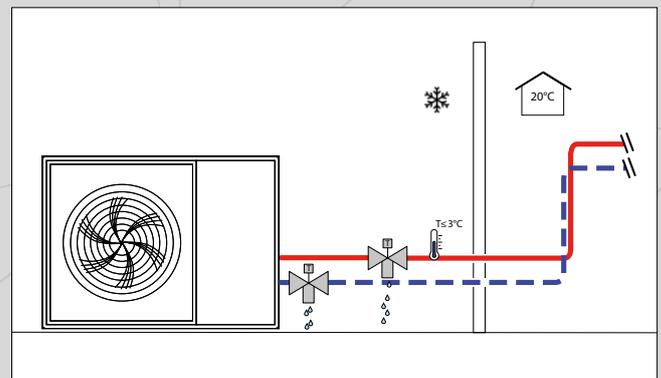
Antifreeze valve allows drainage of the medium when the circuit temperature reaches a value of 3 °C

Heating pumps are an effective and energy-efficient way to heat homes and buildings. However, in cold weather, the water or fluid used in the system can freeze, potentially causing damage to the system.

To prevent this from happening, **Cim 138** antifreeze valve can be installed in the system.

**Cim 138** primary function is to detect when the water or fluid in the system is close to freezing. When the temperature in the heating pump system drops below a certain point, the anti-freeze valve opens and releases a small amount of fluid.

The anti-freeze valve is an essential component of the heating pump system, as it helps to protect the system from damage caused by freezing. If the fluid in the system were to freeze, it could cause the pipes to burst, leading to costly repairs and potentially leaving the building without heat.





## INSTALLATION

The device must only be installed in a vertical position, with the outlet facing downwards, to allow the drained water to flow out properly and free from obstructions.

The antifreeze valves must be installed outdoors, where the lowest temperatures can be reached if the heat pump is locked. The antifreeze valves must be positioned well away from sources of heat in order to keep them working properly.

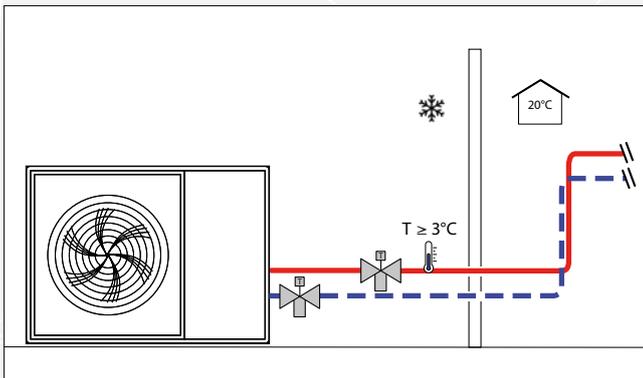
It is recommended to install the antifreeze valves on both pipes (flow and return).

Otherwise, water may be left in one pipe which could then freeze.

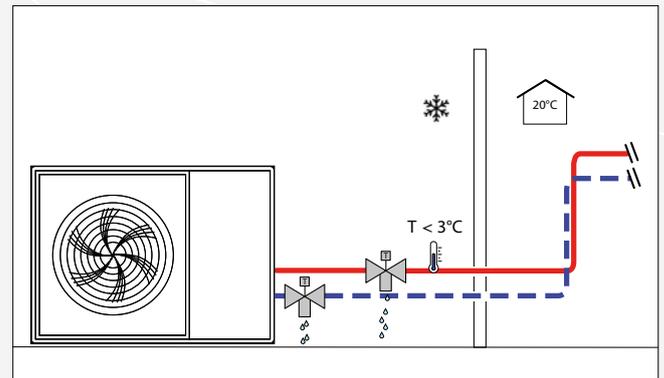
We recommend always keeping the system pressurised, even while draining, to ensure the antifreeze device works properly.

Do not make any trap connections. If the shape of the connection pipe has the potential to create a trap effect, drainage is inhibited and frost protection will no longer be guaranteed.

WINTER OPERATION IN HEATING MODE

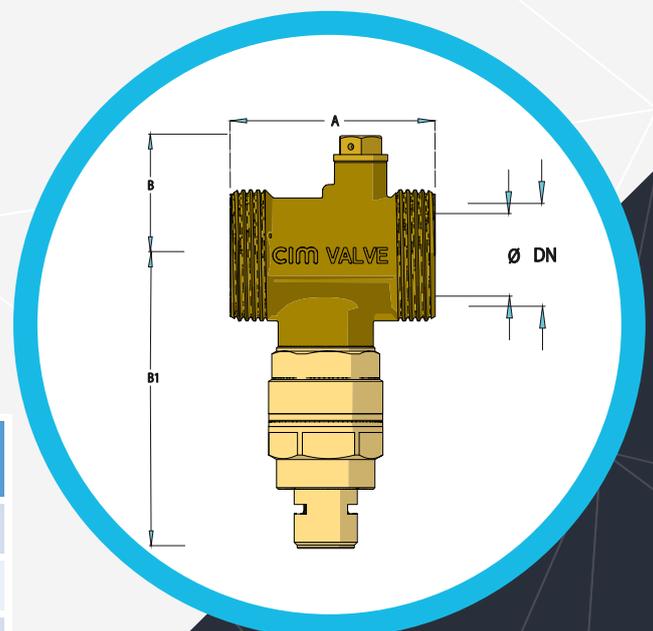


WINTER OPERATION IN EVENT OF HEAT PUMP FAIL



## MAIN DIMENSIONS

DN		Ø	A	B	B1	KV
MALE	FEMALE					
G. 1"	G. 3/4"	16,6	64,5	34,5	59,5	9,2
G. 1"1/4	G. 1"	23,5	64,5	38	93	23,1
G. 1"1/2	G. 1"1/4	28,5	64,5	42	97	47,5





**TECHNICAL  
DATA**

Max. static working pressure:	10 bar
Working temperature range:	0–65 °C
Ambient temperature range:	-30–60 °C
Medium temperature (opening):	3 °C
Medium temperature (closing):	4 °C
Accuracy:	±1 °C
Fluids:	Water
Materials:	Standard Brass (EN 12165 CW617-DW)
O-rings:	EPDM Perox
Threads:	ISO 228

