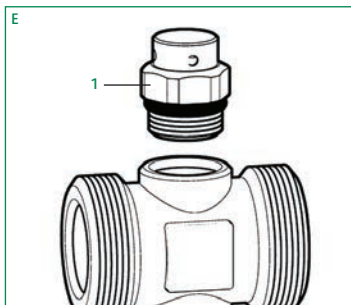


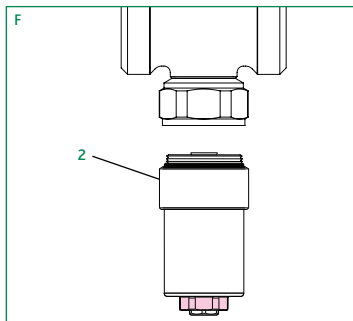
### Anti-freeze valve maintenance - Fig. E

Loosen the vacuum breaker valve (1) with a hexagonal socket wrench and remove it from the valve body. If it is not working properly, replace it with spare part code R0000994.



### Thermostatic cartridge replacement - Fig F

In the event of malfunction, unscrew the cartridge to replace the thermostatic device (2) with spare part code F89046). An automatic shut-off cock prevents the water from draining while the cartridge is being replaced, thereby keeping the system pressurised.



### Insulation

The valve must be free of insulation for the system to work correctly. When installed outdoors, the anti-freeze valve must be protected from rain, snow and direct sunlight.

Please leave these instructions for the user

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CALEFFI group

108  
Antifreeze Valve



Installation and Maintenance Instructions

Thank you for choosing this Altecnic product.

### Warnings

The following instructions must be read and understood before installing and maintaining this product.

**CAUTION!** FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN A SAFETY HAZARD!

### Safety

The safety instructions provided in the specific document supplied must be observed.

### Function

The antifreeze valve allows drainage of the medium in the circuit when the circuit temperature reaches an average value of 3°C.

### Technical specification

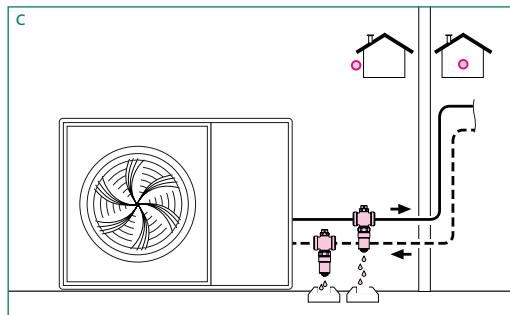
Medium:	water
Maximum working pressure:	10 bar
Working temperature range:	0 to 65°C
Ambient temperature range:	-30 to 60°C
Medium temperature - opening:	3°C
Medium temperature - closing:	4°C
Accuracy:	±1°C
Connection threads:	BS EN ISO 228-1
Kv - straight path:	1" 55 m <sup>3</sup> /hr
	1¼" 70 m <sup>3</sup> /hr
	1½" 72 m <sup>3</sup> /hr

### Installation

The device must only be installed vertically to allow water to flow out properly and free from obstructions.

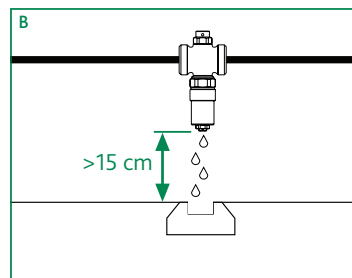
The antifreeze valves must be installed outside, in the coldest part of the system that is at risk of freezing.

We recommend installing the antifreeze valves on both pipes (flow and return) - Fig. A.



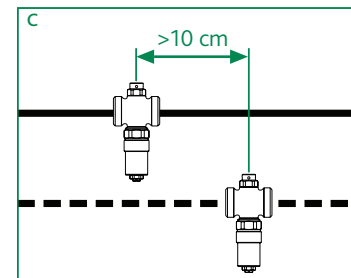
They must also not be placed close to heat sources which could interfere with proper function.

Leave at least 15 cm clearance from the ground so the block of ice that may form below will not prevent water from coming out of the valve - Fig. B.



### Installation Continued

Keep a distance of at least 10 cm between the antifreeze valves - Fig. C.



In accordance with applicable regulations, the safety relief valve drain must be channelled using suitable pipes.

For the device to work correctly, keep the system pressurised at all times, even when draining the anti-freeze valve.

For optimal system operation, we recommend installing a system isolation valve in the internal pipes which is normally closed.

In the event of a power outage, the NC valves (positioned inside the building near the pipe inlet/outlet points) may prevent all the water originating from the internal pipes from draining out when the antifreeze protection valves are opened.

Do not make any trap connections.

If the shape of the connection pipe has the potential to create a trap effect - Fig D, part of the pipe will not be able to drain and frost protection will no longer be guaranteed.

