



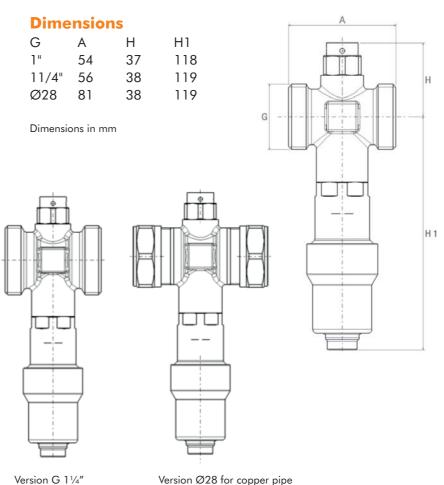
IMT Antifreeze Valve for temperature up to 90°C



FIG. 278 - IMT ANTIFREEZE VALVE, WORKING UP TO 90°C THE SOLUTION FOR PREVENTING ICE FORMATION IN HEAT PUMP CIRCUIT

Technical Specifications

Fluid: Water Max. working pressure: 10 bar Working temperature range: 0 - 90°C Ambient temperature range: -30 - 60°C Opening temperature: 3°C Closing temperature: 4°C Accuracy: $\pm 1^{\circ}C$ Kv: Version G 1" 55 m3/h Version G 11/4" 70 m3/h Version Ø28 for copper pipe 64 m3/h Discharge flow rate (3 bar): 1 l/h Valve body: CW617N / DIN EN 12165 Springs: Stainless Steel Seals: EPDM Perox Inner parts: CW617N / DIN EN 12164



Application

IMT Antifreeze Valve Fig. 278 prevents the formation of ice in heat pump circuit by discharging the water when the medium temperature falls down to 3°C, avoiding potential damage to the system.

The thermal element is located in direct contact with water, so the system drain is activated only when it is really necessary. The thermal element catridge can be replaced. An integrated stopvalve allows the replacing of the cartridge without empting the system. Also the vacuum breaker is available as spare part.

The device must be installed only in vertical position, with the outlet facing downwards, to allow the proper drainage of the water. The Antifreeze Valve must be installed outdoors, where the lowest temperatures can be reached if the heat pump is locked. The device must be positioned away from heat sources (both natural or artificial), to ensure a correct functioning. The device must be protected from direct sunrays, rain and snow.

The Antifreeze Valve must not be insulated.

It is recommended to install the Antifreeze Valve on both flow and return pipes, to be sure to drain all the water present in both pipes of the circuit. To ensure a proper working of the device, it is recommended to keep the system pressurized also during the draining phase.

Leave at least 15 cm distance from the ground, so to avoid that the discharge of water is blocked by ice that may form in that area. Drained water must be collected by a suitable collection point.

A minimum distance of 10 cm must be kept from each Antifreeze Valve. Trap connections must be avoided: if the pipes could cause trap effect, the water won't be drained and the anti-freeze function of the device is not guaranteed.



www.imt-ch.com e-mail: imt@imt-ch.com



Unterlettenstr. 10 CH 9443 Widnau / St.Gallen Tel. +41/71/744.39.71

ITALY

IMT ARMATUREN S.R.L. Via delle Fontane, 66 I 13011 Borgosesia Tel. +39/0163/204.555 Fax +39/0163/204.556

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