

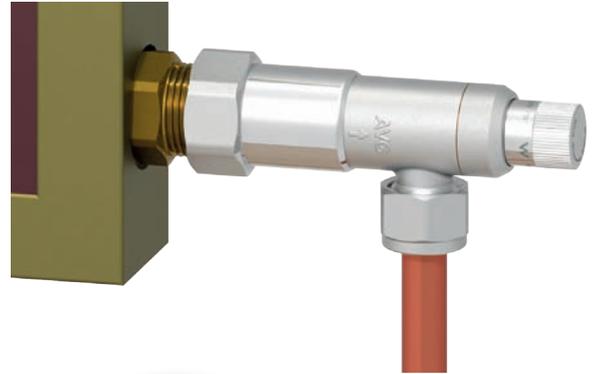
solar valves

iFPV-20F

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The **FROSTi** valve has been developed to meet the requirements of thermosiphon and pumped solar hot water systems installed in frost prone environments.

IMPORTANT NOTE: The **FROSTi** is not recommended for known freeze zones. A closed circuit solar water heater system with an approved anti-freeze heat transfer fluid should be used for these locations.



 **FROSTi**™
INTERNAL FROST PROTECTION VALVE

Patent application 2016902375 pending

APPLICATION

The **FROSTi** is designed to protect a solar collector from frost damage when the water temperature in the collector drops.

The water temperature is monitored by a cold sensitive wax filled probe which reacts by opening the **FROSTi** seat when the temperature drops to a set temperature. This allows warm water from the solar storage cylinder to flow through the solar collector and out of the drain line.

The warm water flowing through the solar collector makes it harder for the collector to spot freeze which could damage the collector. The warm water flowing through the **FROSTi** will eventually close the valve seat and the water will stop flowing. The **FROSTi** will automatically repeat this cycle until the collector water temperature rises.



FEATURES

- Stainless steel seat
- Delveloped for Frost prone environments
- Stainless steel springs
- Body DR Brass
- G3/4" - Female Connection
- 20mm 3/4" Female BSP

solar valves

Internal Frost Protection Valve

iFPV-20F

INSTALLATION

It is important to refer to the solar water heater manufacturer's installation instruction in conjunction with the following instructions.

AVG recommend that the **FROSTi** be installed into each of the solar collectors within the solar collector array to ensure optimal protection.

There may be some differences between the connection fittings to the solar collectors from each manufacturer so you may require a special adaptor to fit the **FROSTi**.

The **FROSTi** has a connection (DN15) for a drain line to be fitted. A drain line is recommended to prevent staining on the roof from the collector water. The drain line connection can be rotated separately from the main body allowing for easy alignment of the drain line.

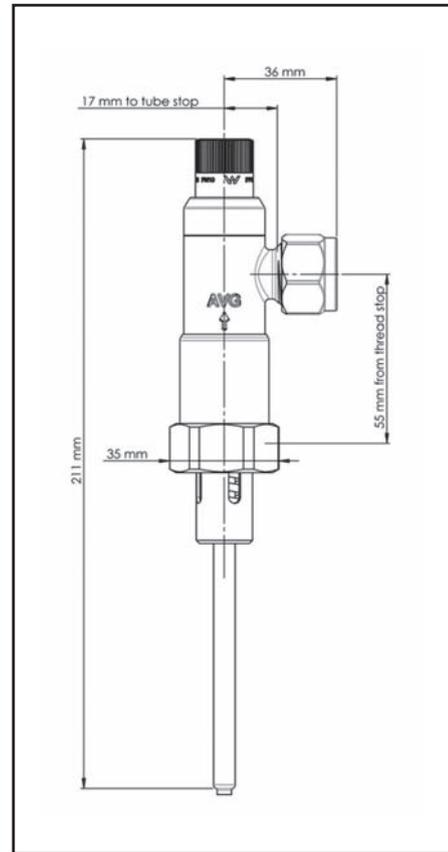
- Where required, fit an adaptor to the solar collector to suit the G3/4" -14 female **FROSTi** connection.
- Fit the sealing gasket and screw the **FROSTi** into the collector socket until firm. The gasket is soft sealing that does not need to be overtightened.
- Rotate the drain connection so that it is facing downwards.
- Connect the drain line and run it to ground level. Direct it to a conspicuous location that allows for confirmation of operation.

MAINTENANCE

The **FROSTi** has small water ways and may be prone to a build up of sludge when installed at the lower connection fitting of a solar collector. AVG recommends flushing the **FROSTi** once every 6 months.

There is a flush function screw on the **FROSTi** to enable the valve to relieve water and clear any debris that may have a negative effect on the operation. Turn the screw clockwise to open the **FROSTi** and allow the water to flush until clear. Close the valve by turning the flush function screw anti-clockwise to stop.

IMPORTANT NOTE: Flushing of the **FROSTi** every 6 months is a condition of operation and is a requirement to maintain full product warranty.



SPECIFICATIONS

| | |
|-----------------------|--------------------|
| BODY : | DR Brass |
| DRAIN HOUSING : | DR Brass |
| VALVE SEAT : | Stainless Steel |
| VALVE SEAL : | Silicone |
| O RING SEALS : | Silicone |
| PISTON : | DR Brass |
| SPRINGS : | Stainless Steel |
| INLET SEAL : | Silicone |
| WAX ELEMENT : | Copper/S.Steel |
| INLET CONNECTION : | G3/4" -14 Female |
| DRAIN CONNECTION : | DN15 Nut and Olive |
| MAX. INLET PRESSURE : | 1000kPa |
| OPENING TEMP. : | 1°C - 3°C |
| RE-SEATING TEMP. : | 3°C - 7°C |

Installation Instructions