

# solar valves

## FROST PROTECTION VALVE

# FPV-15

### FROST PROTECTION VALVE

The Frost Protection Valve ( FPV ) has been developed to meet the requirements of thermosiphon solar collector panels installed in a frost prone environment.

**Important note:** The AVG Frost Protection Valve ( FPV ) is not recommended for freeze zones. A closed circuit collector panel with an approved anti-freeze fluid transfer should be used for these locations.

### OPERATION

The FPV is designed to protect a solar collector panel from frost damage when the outside air temperature drops. The air temperature is monitored by a sensitive wax filled element which reacts by opening the FPV valve seat when the temperature drops. This allows warm water from the solar storage cylinder to flow through the solar collector panel and out of the FPV.

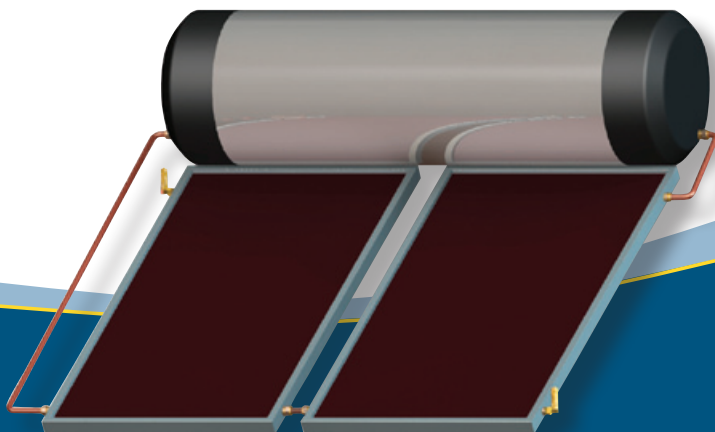
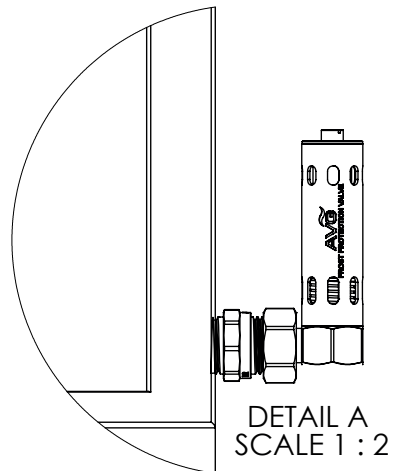
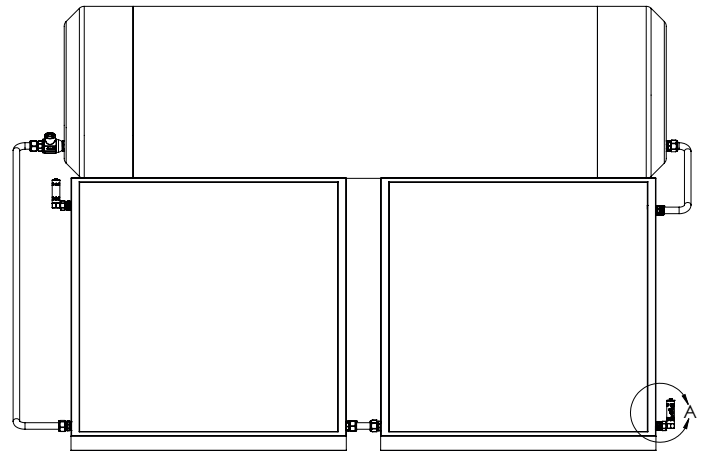
The warm water flowing through the solar collector makes it harder for the panel to spot freeze which could damage the solar collector. The warm water flowing through the FPV will eventually close the valve seat and the water will stop flowing. The FPV will automatically repeat this cycle until the outside air temperatures rise.

### INSTALLATION

It is important to refer to the solar water heater manufacturer's installation instructions in conjunction with the following instructions. AVG recommend that an FPV be installed onto each solar collector panel within the solar collector array to ensure the best 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 FPV. The AVG frost protection valve requires a 15mm ( 1/2" ) male fitting to connect to.

### MAINTENANCE

The frost protection valve 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 checking and cleaning at regular intervals to prevent valve malfunction and possible damage to the solar collector panel.



# AVG

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