HeatGuard® Solar HF
Scope of Use/Specification Sheet

RMC’s HeatGuard® Solar HF is a high flow tempering valve that mixes hot water with cold water to deliver tempered water at a constant temperature throughout an entire house, building or system.

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Catalogue Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HeatGuard® Solar HF</td>
<td>MIX11511</td>
</tr>
</tbody>
</table>

**Materials**

- **Body**: Cast Gunmetal
- **Internal Components**: DZR Brass
- **Seals**: Viton®
- **Springs**: Stainless Steel
- **Piston**: Polysulfone
- **Fittings**: DZR Brass
- **Strainers**: Stainless Steel
- **Non-Return Cartridges**: PPO-GF (Noryl®)/EPDM

**Features and Benefits**

- High thermal endurance
- Will endure the extreme temperatures present in solar installations
- High Flow design
- Designed especially for use on high flow, large capacity systems with reduced head loss
- Valve easy to install and easy to remove for servicing of strainers
- More accurate control of outlet temperature - safer installations
- Strainers upstream of checks
- Protects valve and check valves from impurities in the water supply
- Tamper-proof adjustment
- Special adjuster key eliminates chances of accidental adjustment
- Dezincification resistant
- Meets Australian Standard for potable water supply
- Individually tested and calibrated
- Every valve is tested to ensure higher quality and performance

**Description**

The HeatGuard® Solar HF is suitable for high flow, large capacity applications and for low pressure environments. HeatGuard® Solar HF has been specially engineered to withstand the extreme thermal demands of solar heating applications. The HeatGuard® Solar HF is suited for low pressure, high flow environments such as gravity fed and tank supplied solar water heater installations and is available in a 20mm configuration.

**Application**

RMC’s HeatGuard® Solar HF is a high flow tempering valve for use in solar hot water distribution systems. Fitting the valve at the hot water source ensures the delivery of constant temperature hot water throughout the system.

*Do NOT use on steam supplied systems.*
HeatGuard®
Solar HF

Technical Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold water supply temperature</td>
<td>5°C to 30°C</td>
</tr>
<tr>
<td>Hot water supply temperature</td>
<td>60°C to 99°C</td>
</tr>
<tr>
<td>Optimum outlet temperature range</td>
<td>40°C to 50°C</td>
</tr>
<tr>
<td>Set temperature</td>
<td>Must be commissioned on site to achieve desired outlet temperature</td>
</tr>
<tr>
<td>Accuracy of outlet temperature</td>
<td>± 3°C - tested to AS 4032.2 between 40°C and 50°C</td>
</tr>
<tr>
<td>Minimum temperature differential (between hot supply and outlet temperature)</td>
<td>15°C</td>
</tr>
<tr>
<td>Supply pressure (static)</td>
<td>200kPa to 1600kPa maximum</td>
</tr>
<tr>
<td>Supply pressure imbalance, dynamic (at time of commissioning)</td>
<td>2:1 maximum</td>
</tr>
<tr>
<td>Minimum flow rate</td>
<td>4L/min</td>
</tr>
</tbody>
</table>

Notes

1. AS 3500.4.2 Clause 1.6 requires the minimum hot water storage temperature to be 60°C.
2. For applications outside the requirements of AS 3500 and AS 4032.2, it may be possible to adjust the valve above 50°C or below 40°C, depending on site conditions.
3. This is the minimum difference required to ensure shut-off of outlet flow in the event of cold supply failure in accordance with AS 4032.2, providing the valve is set between 40°C and 50°C.
4. It is important that the cold and hot supply line pressures are as close to equal as possible to ensure optimum performance of this valve.

Installation

Installation is subject to the requirements of the applicable regulatory authority, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500.1.

Flow Characteristics

Standards and Approvals

AS 4032.2
WMKA1593