Valves and Plumbing

Heatguard® Ultra Insulated

Scope of Use / Specification Sheet

The RMC HeatGuard® Ultra is a high performance and high temperature tempering valve that mixes hot water with cold water to deliver tempered water at a constant temperature throughout an entire building or system.

**Product Code**

<table>
<thead>
<tr>
<th>Model</th>
<th>Catalogue Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HeatGuard® Ultra 15mm</td>
<td>MIX15U</td>
</tr>
<tr>
<td>HeatGuard® Ultra 20mm</td>
<td>MIX20U</td>
</tr>
</tbody>
</table>

**Materials**

- **Body**: Forged DZR Brass
- **Internal Components**: DZR Brass
- **Seals**: Viton®
- **Springs**: Stainless Steel
- **Piston**: PPSU
- **Fittings**: DZR Brass
- **Strainers**: Stainless Steel
- **Non-Return Cartridges**: PPO-GF (Noryl®)

**Features and Benefits**

- High thermal endurance
- High performance specifications
- Designed especially for situations requiring high valve specification such as fluctuating supply pressures
- Union connections and compression fittings
- Easy to install and easy to remove for servicing of strainers – nuts and olives supplied
- EPP insulation limits energy loss and help protect against freezing – meets AS/NZS 3500.4
- Strainers upstream of check valves
- Tamper-proof adjustment
- Dezincification resistant
- Meets AS/NZS 4020 for potable water supply
- Individually tested and calibrated to ensure high quality performance

**Description**

HeatGuard® is suitable for tempering the hot water supply to sanitary devices (that are intended for personal hygiene purposes) where outlet temperatures must not exceed a maximum of 50°C. HeatGuard® Ultra is ideal for use in installations where there are fluctuations in supply conditions as well as solar hot water installations where a booster pump is used. The compact design requires minimum space. HeatGuard® Ultra is available in 15mm and 20mm configurations.

**Standards and Approvals**

- AS 4032.2
- WMKA1593

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**Application**

RMC’s HeatGuard® Ultra is a high performance and high temperature tempering valve suited for use with solar, instantaneous heat exchange (continuous flow), and ring main hot water distribution systems. HeatGuard® Ultra is suitable as a point of use tempering device.

DO NOT USE on steam supplied systems.

**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.
Heatguard® Ultra Insulated

Technical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</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</td>
<td>10°C³</td>
</tr>
<tr>
<td>Supply pressure (static)</td>
<td>1600kPa maximum</td>
</tr>
<tr>
<td>Supply pressure imbalance, dynamic (at time of commissioning)</td>
<td>2:1 maximum⁴</td>
</tr>
<tr>
<td>Maximum permitted pressure variation in either supply, in order to control outlet temperature to ± 3°C (from supply pressure at commissioning)</td>
<td>± 15% maximum⁵</td>
</tr>
<tr>
<td>Minimum flow rate</td>
<td>4L/min</td>
</tr>
<tr>
<td>Compression fittings supplied</td>
<td>Nuts, olives, strainers and non-return checks included</td>
</tr>
</tbody>
</table>

Dimensions

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>15mm</td>
<td>158</td>
<td>92</td>
<td>38</td>
<td>116</td>
<td>66</td>
</tr>
<tr>
<td>20mm</td>
<td>164</td>
<td>92</td>
<td>38</td>
<td>118</td>
<td>66</td>
</tr>
</tbody>
</table>

Note: All measurements in mm unless otherwise stated.

Warranty

Reliance Worldwide Corporation (Aust.) Pty. Ltd. (RWC) will either replace or repair any defective goods where the defect arose as a result of manufacture within the warranty period. You may contact RWC at the phone number, address or e-mail shown below for further information or to make a claim.


Notes

1. AS/NZS 3500.4 Clause 1.9 requires the minimum hot water storage temperature to be 60°C.
2. For applications outside the requirements of AS/NZS 3500 and AS 4032.2, it may be possible to set the valve as high as 55°C or as low as 35°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. The maximum permitted ratio of supply pressures, under dynamic (flow) conditions. For optimum performance it is recommended that the hot and cold pressures at commissioning are as close as possible to equal.
5. The maximum permitted variation in either supply pressure from the pressure at commissioning in order to control the outlet temperature to ± 3°C.

Flow Characteristics

![Flow Characteristics Graph](image-url)