

## MasterGuard



Very high flow sanitary hot water supply tempering valve for use on hot water distribution systems.

### Applications

- System temperature control.
- Commercial sanitary hot water distribution.
- Group control.

### Product Features and Benefits

- Optimised wax thermostat technology for **superior control and longevity in service.**
- Designed for high flow rates, **with extremely stable outlet temperatures.**
- Adjustable set temperature mechanism with locking feature, **allows installer flexibility.**
- Minimal moving parts and simple construction **reduces maintenance service intervals.**
- An integrated fixing point allows **easy wall or floor fixing.**
- '4in1' installation fitting provides **easy orientation of valve to match inlet pipes, and includes cross-flow prevention, isolation and filtration protection.**

## MasterGuard

### Description

A very high flow, thermostatic mixing valve primarily intended for use in applications where control and distribution of large sanitary mixed water flows is required. Masterguards are typically located in the plant room to blend hot and cold water to a safer temperature (typically 50°C) for distribution throughout a building. Suitable for use in applications where hot water temperature control for large group applications is required, with multiple outlet installations requiring exceptionally high flow rates. Check valves are included in all variants.

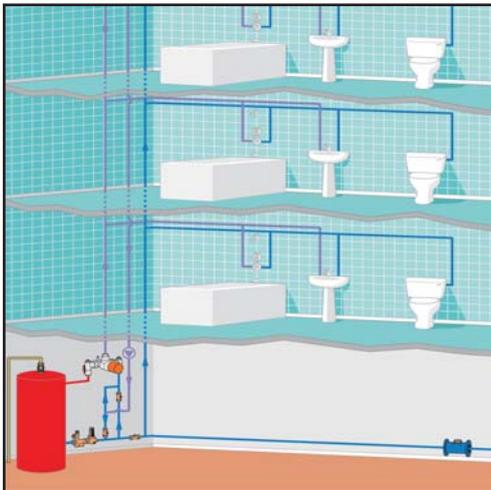
### Application

Specifically designed to maintain the mixed water temperature in an entire commercial sanitary hot water distribution system, at a stable temperature. It allows stable control of hot water system circulation temperature, so that:

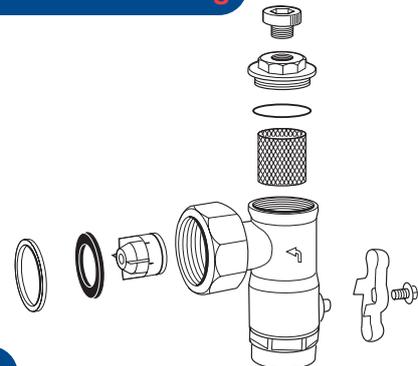
- 1- hot water is always in close proximity to the point of use, giving greater end user comfort with prompt supply of tempered water
- 2- reducing dead legs of pipework and therefore system stagnation, thus reducing the risk of legionella. A valve installed in this type of installation must maintain stable temperatures, and have an adjustable outlet temperature, but the key criteria is, that it must be able to provide high flow rates.

Can also be used in sanitary hot water group control, where all of the fittings (eg showers or hand wash basins) in a location are supplied with temperature controlled water from one source. The valve must be capable of maintaining a stable flow temperature regardless of whether one outlet or ten outlets are open, simultaneously.

### Application Drawing



### Exploded View of 4 in 1 Fitting



### Specifications

|  |               |
|--|---------------|
| Factory temperature setting:                 | 43°C          |
| Outlet temperature setting range:            | 35-65°C       |
| Temperature, Hot supply:                     | 90°C max      |
| Temperature, Cold supply:                    | 5-25°C        |
| Minimum hot to mix differential temperature: | 10°C          |
| Temperature stability (nominal):             | ± 3-5°C       |
| Working pressure, static:                    | 10 bar        |
| Working pressure, dynamic:                   | 0.2-6 bar max |
| Maximum pressure loss ratio:                 | 10:1          |

### Standards

Complies with: EN1111, EN1287, ASSE1017

### Product Codes

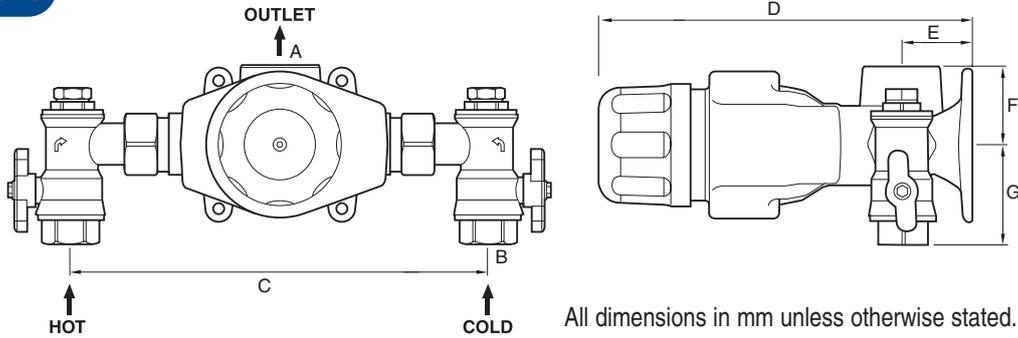
|            |                                      |
|------------|--------------------------------------|
| MIX 81004: | 65lpm 4in1 fittings Masterguard 810  |
| MIX 82004: | 110lpm 4in1 fittings Masterguard 820 |
| MIX 83004: | 228lpm 4in1 fittings Masterguard 830 |
| MIX 84004: | 280lpm 4in1 fittings Masterguard 840 |
| MIX 85004: | 450lpm 4in1 fittings Masterguard 850 |
| MIX 86004: | 640lpm 4in1 fittings Masterguard 860 |

### Materials

|                 |                              |
|-----------------|------------------------------|
| Body:           | Cast gunmetal, nickel plated |
| Inlet fittings: | DZR brass, nickel plated     |
| Inlet strainer: | Stainless steel              |
| O-rings:        | Nitrile                      |
| Springs:        | Stainless steel              |
| Piston:         | Polysulfone polymer          |
| Mixing tube:    | Glass filled noryl           |
| Element:        | Copper, DZR brass            |
| Spindle:        | DZR brass                    |
| Printed knob:   | ABS plastic                  |

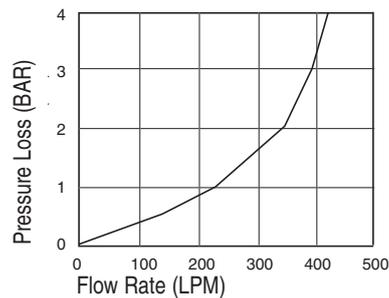
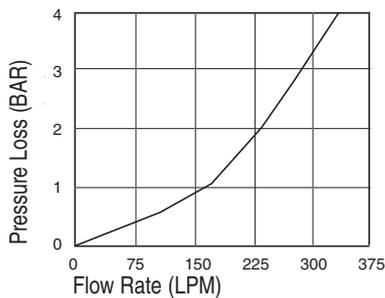
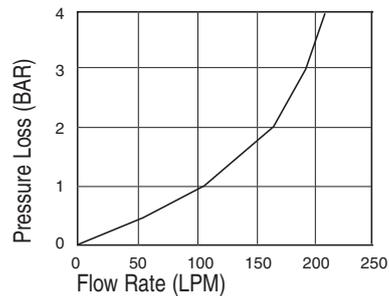
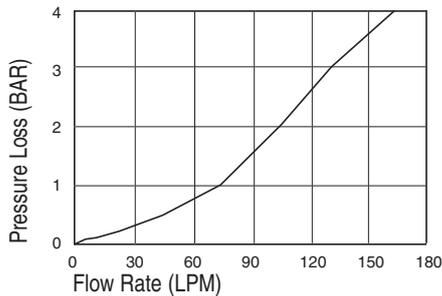
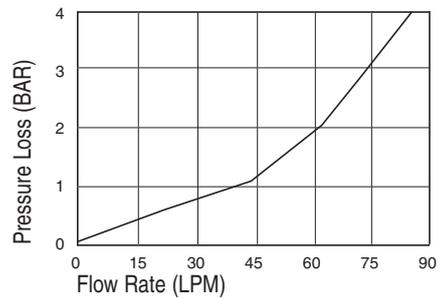
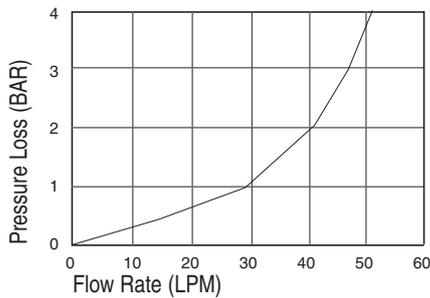
## MasterGuard

### Dimensions



|                 | A      | B      | C   | D   | E  | F  | G  |
|-----------------|--------|--------|-----|-----|----|----|----|
| MasterGuard 810 | 3/4"   | 1/2"   | 180 | 140 | 32 | 30 | 56 |
| MasterGuard 820 | 3/4"   | 3/4"   | 208 | 165 | 32 | 33 | 61 |
| MasterGuard 830 | 1"     | 3/4"   | 254 | 229 | 45 | 48 | 64 |
| MasterGuard 840 | 1.1/4" | 1"     | 254 | 229 | 45 | 48 | 70 |
| MasterGuard 850 | 2"     | 1.1/2" | 349 | 292 | 64 | 51 | 51 |
| MasterGuard 860 | 2"     | 1.1/2" | 349 | 292 | 64 | 51 | 51 |

### Flow Rate





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