### For Non-Health Hazard Applications

| Job Name     | Contractor            |
|--------------|-----------------------|
| Job Location | Approval              |
| Engineer     | Contractor's P.O. No. |
| Approval     | Representative        |

## LEAD FREE\* HydroGuard® XP Master

# **Tempering Valves**

## Series LFMM430

#### Features

- Lead Free\* brass body and checkstops for durability and to comply with Lead Free\* installation requirements.
- Valve utilizes paraffin-based advanced thermal actuation technology to sense and adjust outlet temperature
- Dirt and lime resistant poppet and seat design
- Virtual shutoff if supply pressure fails
- Vandal-resistant locking mechanism to secure temperature setting
- Factory tested
- Rotatable union triple-duty checkstops
- Rough bronze and chrome finishes

#### Specifications

| Connections See chart on reverse                                 |   |
|--|---|
| Maximum Hot Water Supply Temperature 200°F (93°C)                |   |
| Minimum Hot Water Supply Temperature 5°F (3°C) above set point** | r |
| Minimum Flow***  |   |
| Maximum Operating Pressure                                       |   |
| Temperature Adjustment Range Standard 90 - 160°F (32 -           |   |
| Low 60 – 90°F (16 – 32°C)  | ) |
| Hot Water Inlet Temperature Range 120 – 180°F (49 – 82°C)        |   |
| Cold Water Inlet Temperature Range 40 – 80°F (4 – 27°C)          |   |
| Listing/Compliance ASSE 1017, CSA B125                           |   |



Advanced Thermal Activation

\* The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.

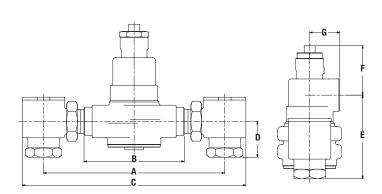
- \*\* With equal pressure
- \*\*\* Minimum flow when the valve is installed at or near hot water source w/re-circulated tempered water with a properly sized continuously operating re-circulating pump

#### Capacity

| Flow Capacity at 50-50 mixed ratio |              |                            |          |          |           |           |           |           |           |
|------------------------------------|--------------|----------------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|
|                                    |              | Pressure Drop Across Valve |          |          |           |           |           |           |           |
| Model                              | Min. Flow    |                            | 5psi     | 10psi    | 20psi     | 30psi     | 45psi     | 60psi     | 70psi     |
|                                    | to ASSE 1017 | Cv                         | (34 kPa) | (69 kPa) | (138 kPa) | (207 kPa) | (310 kPa) | (414 kPa) | (517 kPa) |
| LFMM431                            | 3 gpm        | 6.00                       | 14 gpm   | 20 gpm   | 28 gpm    | 35 gpm    | 42 gpm    | 49 gpm    | 53 gpm    |
|                                    | 11 lpm       | 6.32                       | 53 lpm   | 76 lpm   | 106 lpm   | 132 lpm   | 159 lpm   | 185 lpm   | 201 lpm   |
| LFMM432                            | 4 gpm        | 0.40                       | 21 gpm   | 30 gpm   | 42 gpm    | 52 gpm    | 64 gpm    | 74 gpm    | 79 gpm    |
|                                    | 15 lpm       | 9.49                       | 80 lpm   | 114 lpm  | 159 lpm   | 197 lpm   | 242 lpm   | 280 lpm   | 299 lpm   |
| LFMM433                            | 5 gpm        | 16.44                      | 37 gpm   | 52 gpm   | 74 gpm    | 90 gpm    | 110 gpm   | 127 gpm   | 138 gpm   |
|                                    | 19 lpm       | 16.44                      | 140 lpm  | 197 lpm  | 280 lpm   | 341 lpm   | 416 lpm   | 481 lpm   | 522 lpm   |
| LFMM434                            | 7 gpm        | 21.50                      | 48 gpm   | 68 gpm   | 96 gpm    | 118 gpm   | 144 gpm   | 167 gpm   | 180 gpm   |
|                                    | 26 lpm       |                            | 182 lpm  | 257 lpm  | 363 lpm   | 447 lpm   | 545 lpm   | 632 lpm   | 681 lpm   |
| LFMM435                            | 10 gpm       | 04.00                      | 69 gpm   | 98 gpm   | 139 gpm   | 170 gpm   | 208 gpm   | 240 gpm   | 259 gpm   |
|                                    | 38 lpm       | 31.00                      | 261 lpm  | 371 lpm  | 526 lpm   | 644 lpm   | 787 lpm   | 908 lpm   | 980 lpm   |

Powers product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Powers Technical Service. Powers reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Powers products previously or subsequently sold.





| Valve   | Α       | В      | C       | D      | E      | F      | G       |
|---------|---------|--------|---------|--------|--------|--------|---------|
| LFMM431 | 9-7⁄16" | 4-3⁄4" | 11-5⁄8" | 1-%"   | 4"     | 3-1⁄4" | 1-5⁄8"  |
|         | (240)   | (121)  | (295)   | (48)   | (102)  | (83)   | (41)    |
|         | 9-7⁄16" | 4-3⁄4" | 11-5⁄8" | 1-%"   | 4"     | 3-1⁄4" | 1-5⁄8"  |
| LFMM432 | (240)   | (121)  | (295)   | (48)   | (102)  | (83)   | (41)    |
|         | 12-1⁄4" | 7"     | 15-¼"   | 2-1⁄2" | 5-3⁄4" | 3-1⁄2" | 2-1⁄16" |
| LFMM433 | (311)   | (178)  | (387)   | (64)   | (146)  | (89)   | (52)    |
|         | 12-¼"   | 7"     | 15-1⁄4" | 2-1⁄2" | 5-¾"   | 3-1⁄2" | 2-1/16" |
| LFMM434 | (311)   | (178)  | (387)   | (64)   | (146)  | (89)   | (52)    |
| LFMM435 | 15-%"   | 7-1⁄8" | 19-¼"   | 2-¾"   | 7-%"   | 4-3⁄8" | 2-3⁄8"  |
|         | (397)   | (181)  | (489)   | (70)   | (200)  | (111)  | (60)    |

| Valve   | Inlets<br>NPT | Outlet<br>NPT |
|---------|---------------|---------------|
| LFMM431 | 3⁄4"          | 3⁄4"          |
| LFMM432 | 3⁄4"          | 1"            |
| LFMM433 | 1-1⁄4"        | 1-¼"          |
| LFMM434 | 1-1⁄4"        | 1-1⁄2"        |
| LFMM435 | 2"            | 2"            |
| lata    |               |               |

Note:

Dimensions are shown  $\pm \frac{1}{4}$ " Dimensions in brackets are in mm

#### **Ordering Information**

| Valve                   | Order Code |
|-------------------------|------------|
| 42 gpm (159 lpm)        | LFMM431    |
| 64 gpm (242 lpm)        | LFMM432    |
| 110 gpm (416 lpm)       | LFMM433    |
| 144 gpm (545 lpm)       | LFMM434    |
| 208 gpm (787 lpm)       | LFMM435    |
|                         |            |
|                         |            |
| Finish/ Temperatur      | e Range    |
| Rough Bronze, Standard  | 1          |
| Chrome Plated, Standard | 2          |
| Rough Bronze, Low       | 3          |
| Chrome Plated, Low      | 4          |

#### **Recirculating Piping Diagram**

Please see Piping Diagram Section of this Catalog.

### **Typical Specification**

Master mixing valve shall feature paraffin-based, thermal actuation technology for precise temperature control. Valve shall be listed to ASSE 1017 and certified to CSA B125 and have an approach temperature of  $5^{\circ}$ F (3°C). Valve shall have an outlet temperature range from 90 – 160°F (32 – 71°C) with a lockable temperature-setting feature. Body shall be constructed using Lead Free\* brass material which shall comply with state codes and standards, where applicable, requiring reduced lead content. Valve shall also be manufactured of corrosion resistant materials and feature a single-seat design for positive shutoff. Valves shall come standard with union check stops. Minimum flows to ASSE 1017 shall be LFMM431 (3.0 gpm) (11 Lpm), LFMM432 (4.0 gpm) (15 Lpm), LFMM433 (5.0 gpm) (19 Lpm), LFMM434 (7.0 gpm) (26 Lpm), LFMM435 (10.0 gpm) (38 Lpm).

Master mixing valves shall be of Powers series LFMM430. Any alternate must have a written approval prior to bidding.

