For Non-Health Hazard Applications

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

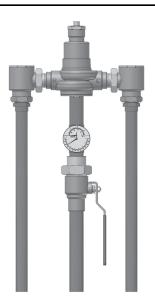
HydroGuard[®] XP Master Tempering Valves Supply Fixture

Series MM430 Bottom Inlets/Bottom Outlet – Exposed

Features

- 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 valve and piping
- Rotatable union triple-duty checkstops with filters, dial-thermometer, ball valve
- Rough bronze and chrome finishes

Specifications









Advanced Thermal Activation

*With equal pressure

**Minimum flow when the valve is installed at or near hot water source w/recirculated tempered water with a properly sized continuously operating recirculating pump

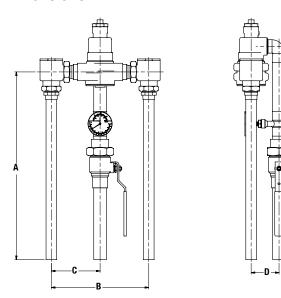
***Note: Low limit cannot be less than the cold water temperature. For best operation, hot water should be at least 5°F (3°C) above desired set point.

Capacity

Flow Capacity at 50-50 Mixed Ratio								
		Pressure Drop Across Valve						
Model	Min. Flow		5 psi	10 psi	20 psi	30 psi	45 psi	60 psi
	to ASSE 1017	Cv	(34 kPa)	(69 kPa)	(69 kPa)	(207 kPa)	(310 kPa)	(414 kPa)
MM431	3 gpm	6.32	14 gpm	20 gpm	28 gpm	35 gpm	42 gpm	49 gpm
	11 lpm	0.32	53 lpm	76 lpm	106 lpm	132 lpm	159 lpm	185 lpm
MM432	4 gpm	9.49	21 gpm	30 gpm	42 gpm	52 gpm	64 gpm	74 gpm
	15 lpm	9.49	80 lpm	114 lpm	159 lpm	197 lpm	242 lpm	280 lpm
MM433	5 gpm	16.44	37 gpm	52 gpm	74 gpm	90 gpm	110 gpm	127 gpm
	19 lpm	10.44	140 lpm	197 lpm	280 lpm	341 lpm	416 lpm	481 lpm
MM434	7 gpm	21.50	48 gpm	68 gpm	96 gpm	118 gpm	144 gpm	167 gpm
	26 lpm	21.50	182 lpm	257 lpm	363 lpm	447 lpm	545 lpm	632 lpm
MM435	10 gpm	21.00	69 gpm	98 gpm	139 gpm	170 gpm	208 gpm	240 gpm
	38 lpm	31.00	261 lpm	371 lpm	526 lpm	644 lpm	787 lpm	908 lpm



Dimensions

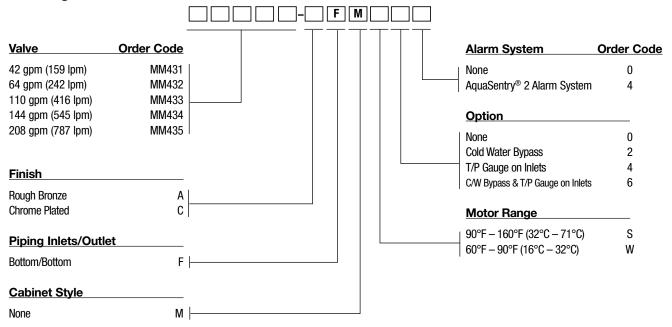


Valve	Α	В	C	D
MM431	16-¾"	9-1/8"	4-1/2"	2-%"
	(425)	(232)	(114)	(67)
MM432	16-¾"	9-1/8"	4-1/2"	2-¾"
	(425)	(232)	(114)	(70)
MM433	24-1/4"	12-5/8"	6-1/4"	3-¾"
	(616)	(321)	(159)	(86)
MM434	24-1/4"	12-5/8"	6-1/4"	3-%"
	(616)	(321)	(159)	(92)
MM435	27"	15-5/8"	7-1/8"	4-1/4"
	(686)	(397)	(200)	(108)

Note:
Dimensions are shown ±1/2"
Dimensions in parentheses are in mm

Valve	Inlets NPT	Outlet NPT
MM431	³ ⁄ ₄ " (20)	³ ⁄ ₄ " (20)
MM432	³ ⁄ ₄ " (20)	1" (25)
MM433	1-¼" (32)	1-1/4" (32)
MM434	1-¼" (32)	1-½" (40)
MM435	2" (50)	2" (50)

Ordering Information



Recirculation Piping Diagram

Please see Piping Diagram Section of this catalog.

Typical Specification — Supply Fixtures (MM)

Supply Fixture shall be factory assembled and tested and feature a HydroGuard® XP MM430 series master-tempering valve with advanced, paraffin-based actuation technology. Supply fixture shall also include copper piping, ball valve(s) and temperature/pressure gauge for diagnostics. The tempering valve shall have union checkstops, an outlet temperature range of 90 – 160°F (32° – 71°C) (with lockable means), a single seat design for positive shutoff and an approach temperature 5°F (3°C). Valve shall be ASSE 1017 listed and CSA certified. Minimum flows to ASSE 1017 shall be MM431 (3.0 gpm, 11 lpm), MM432 (4.0 gpm, 15 lpm), MM433 (5.0 gpm, 19 lpm), MM434 (7.0 gpm, 26 lpm), MM435 (10.0 gpm, 38 lpm). Valve shall be a Powers Model _______. All alternatives must have written approval prior to bidding.



A WATTS Brand

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