

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 – Recessed Cabinet

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
- Stainless steel or white painted cabinets
- Factory tested valve and piping
- Rotatable union triple-duty checkstops with filters, dial-thermometer, ball valve
- Rough bronze and chrome finishes

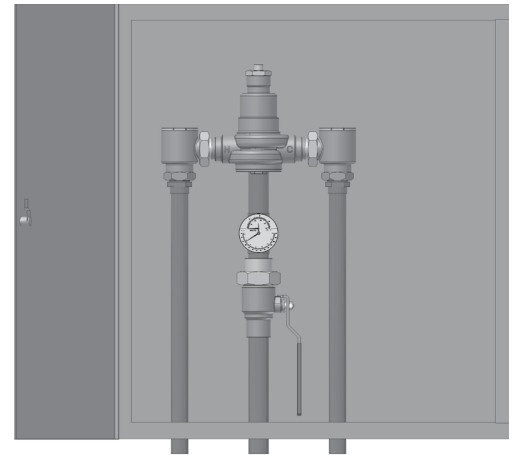
Specifications

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
Minimum Flow**	0.5 gpm (1.9 lpm)
Maximum Operating Pressure	125 psi (861 kPa)
Temperature Adjustment Range***	Standard 90 – 160°F (32 – 71°C) 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–Valve Only ASSE 1017, CSA B125



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

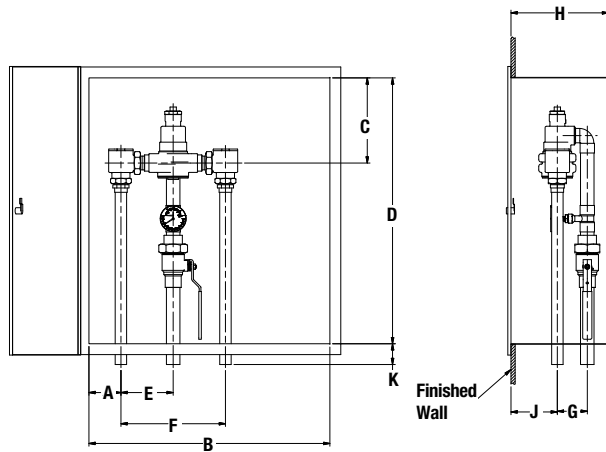
Flow Capacity at 50-50 Mixed Ratio								
		Pressure Drop Across Valve						
Model	Min. Flow to ASSE 1017	Cv	5 psi (34 kPa)	10 psi (69 kPa)	20 psi (69 kPa)	30 psi (207 kPa)	45 psi (310 kPa)	60 psi (414 kPa)
MM431	3 gpm 11 lpm	6.32	14 gpm 53 lpm	20 gpm 76 lpm	28 gpm 106 lpm	35 gpm 132 lpm	42 gpm 159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

POWERS[™]

A WATTS Brand

Dimensions



Valve	A	B	C	D	E	F	G	H	J	K
MM431	3-1/2"	20"	9-1/4"	24"	4-5/8"	9-1/4"	2-5/8"	9"	4-1/2"	2"
	(89)	(508)	(229)	(610)	(117)	(235)	(67)	(229)	(114)	(50)
MM432	3-1/2"	20"	9-1/4"	24"	4-5/8"	9-1/4"	2-3/4"	9"	4-1/2"	2"
	(89)	(508)	(229)	(610)	(117)	(235)	(70)	(229)	(114)	(50)
MM433	3-7/8"	29"	10-1/4"	32"	6-1/4"	12-1/2"	3-3/8"	12"	5-7/8"	2-1/2"
	(98)	(737)	(260)	(813)	(159)	(318)	(86)	(305)	(149)	(64)
MM434	3-7/8"	29"	10-1/4"	32"	6-1/4"	12-1/2"	3-5/8"	12"	5-7/8"	2-1/2"
	(98)	(737)	(260)	(813)	(159)	(318)	(92)	(305)	(149)	(64)
MM435	4-1/8"	38"	13-5/8"	38"	7-7/8"	15-3/4"	4-1/4"	13"	6"	2-1/2"
	(105)	(965)	(346)	(965)	(200)	(400)	(108)	(330)	(152)	(64)

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

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

Ordering Information

Valve	Order Code	View Port	Order Code
42 gpm (159 lpm)	MM431	None	0
64 gpm (242 lpm)	MM432	Window	W
110 gpm (416 lpm)	MM433	Alarm System	Order Code
144 gpm (545 lpm)	MM434	None	0
208 gpm (787 lpm)	MM435	AquaSentry® 2 Alarm System	4
		Option	
		None	0
		Cold Water Bypass	2
		T/P Gauge on Inlets	4
		C/W Bypass & T/P Gauge on Inlets	6
		Motor Range	
		90°F – 160°F (32°C – 71°C)	S
		60°F – 90°F (16°C – 32°C)	W

Recirculation Piping Diagram

Please see Piping Diagram Section of this catalog.

Typical Specification – Supply Fixtures

Cabinet Supply Fixture (CSF) shall be factory assembled and tested and include a stainless steel or painted steel cabinet. CSF shall feature a HydroGuard® XP MM430 series master-tempering valve with advanced paraffin-based actuation technology. CSF 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 of 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.

POWERS™

A WATTS Brand

USA: Tel: (800) 669-5430 • Fax: (847) 229-0526 • PowersControls.com
Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • PowersControls.ca
Latin America: Tel: (52) 81-1001-8600 • PowersControls.com