

# HYDROGUARD® XP Series MM430 2 Valve Hi/Lo Supply Fixture Exposed

### **Product Specification**

#### 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 as a complete unit
- Pressure/Temperature Gauges, Ball valves

## 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 ............ 125psi (861 kPa)

Temperature Adjustment Range\*\*\* ......... 90 – 160°F (32 – 71°C)

Hot Water Inlet Temperature Range . . . . . . . . . 120 – 180°F (49 – 82°C)

Cold Water Inlet Temperature Range . . . . . . . .  $40-80^{\circ}F$  ( $4-27^{\circ}C$ )

Listing/Compliance (Valve Only) . . . . . . . . ASSE 1017, CSA B125









Advanced Thermal Activation

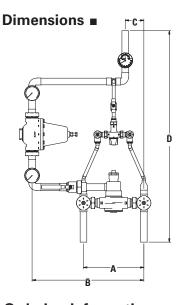
#### Capacity ■

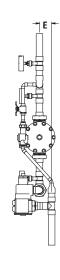
Flow Capacity at 50-50 Mixed Ratio									
				Pressure	Drop Across Valve				
Model	Min. Flow	Cv	5psi	10psi	20psi	30psi	45psi	60psi	
Model	to ASSE 1017	Gv	(34 kPa)	(69 kPa)	(138 kPa)	(207 kPa)	(310 kPa)	(414 kPa)	
MM431HL	0.5 gpm	9.7	22 gpm	31 gpm	43 gpm	53 gpm	65 gpm	75 gpm	
IVIIVI431TIL	1.89 lpm	9.7	83 lpm	117 lpm	163 lpm	201 lpm	246 lpm	284 lpm	
MM432HL	0.5 gpm	13.0	29 gpm	41 gpm	58 gpm	66 gpm	87 gpm	93 gpm	
IVIIVI43ZTIL	1.89 lpm		110 lpm	155 lpm	220 lpm	250 lpm	329 lpm	352 lpm	
MM433HL	0.5 gpm	19.8	44 gpm	63 gpm	86 gpm	108 gpm	133 gpm	153 gpm	
IVIIVI433FIL	1.89 lpm	13.0	167 lpm	238 lpm	326 lpm	409 lpm	503 lpm	579 lpm	
MM434HL	0.5 gpm	24.9	56 gpm	79 gpm	111 gpm	136 gpm	167 gpm	193 gpm	
IVIIVI434FIL	1.89 lpm	24.3	212 lpm	299 lpm	420 lpm	515 lpm	632 lpm	731 lpm	
MMAASHI	3.0 gpm	ד דנ	62 gpm	88 gpm	124 gpm	152 gpm	186 gpm	215 gpm	
MM435HL	11.0 lpm	27.7	235 lpm	333 lpm	469 lpm	575 lpm	704 lpm	814 lpm	

<sup>\*</sup>With Equal Pressure

<sup>\*\*</sup>Minimum flow when HiLo valve is installed at or near hot water source w/recirculating tempered water with a properly sized continuously operating recirculating pump.

<sup>\*\*\*</sup>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.





Valve	Α	В	С	D	E	Inlets	Outlet
MM431HL	9-1/8"	16-3/4"	2-3/4"	37"	2"	3/4"	3/4"
	(232)	(425)	(70)	(940)	(51)	(20)	(20)
NANA 400111	9-1/8"	17-1/2"	2-1/2"	37"	2-1/4"	3/4"	1"
MM432HL	(232)	(445)	(64)	(940)	(57)	(20)	(25)
NANA 400111	12-1/2"	23-1/4"	3-7/8"	44"	2-1/2"	1-1/4"	1-1/4"
MM433HL	(318)	(591)	(99)	(1118)	(64)	(32)	(32)
NANAA AMA	12-1/2"	26-3/4"	3-1/2"	44-3/4"	2-3/8"	1-1/4"	1-1/2"
MM434HL	(318)	(679)	(89)	(1137)	(60)	(32)	(40)
MM435HL	12-1/2"	26-3/4"	3-1/2"	47"	2-3/8"	1-1/4"	1-1/2"
	(318)	(679)	(89)	(1194)	(60)	(32)	(40)

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

## Ordering Information =

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Valve	Inlets	Outlet	Order Code	
LM490/MM431	3/4" (20mm)	3/4" (20mm)	MM431HL	
LM490/MM432	3/4" (20mm)	1" (25mm)	MM432HL	
LM490/MM433	1-1/4" (32mm)	1-1/4" (32mm)	MM433HL —	
LM490/MM434	1-1/4" (32mm)	1-1/2" (40mm)	MM434HL	
MM431/MM434	1-1/4" (32mm)		MM435HL	
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Finish				
Rough Bronze			А	
Chrome Plated			В	
			_ '	
Piping				
Bottom/Top			E <del> </del>	
			·	
Cabinets				
Exposed, No Cab	inet		M	
Alarm (not fac	tory installed)	R*	_	
None 0				
AquaSentry® 2** for MM431HL 1				
AquaSentry® 2** for MM432HL 2				
AquaSentry® 2**			3	
AquaSentry® 2**			4	
AquaSentry® 2**	for MM435HL		5	

- \* Mounting requirements vary based on individual installation.
- \*\* Includes control module, sensor, electrical box, transformer, solenoid, shock absorber, and 25' of station cable.

#### Recirculation Piping Diagram

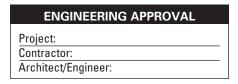
Please see Piping Diagram Section of this catalog.

#### Typical Specification - Supply Fixtures

Hi/Lo Water Temperature Control System shall be factory assembled and tested and shall include two thermostatic mixing valves capable of maintaining water temperature to 5°F (3°C) above set point. Hi/Lo shall include HydroGuard® XP MM430 and/or LM490 Series Master-Tempering Valve with advanced, paraffin-based actuation technology. Hi/Lo 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), and a single seat design for positive shutoff. Valve shall be ASSE 1017 listed and CSA certified. Minimum flows to ASSE 1017 shall be 0.5 gpm (1.9 lpm) for MM431HL, MM432HL, MM433HL, MM434HL, and 3.0 gpm (11 lpm) for MM435HL.

Valve shall be a Powers' Model All alternatives must have written approval prior to bidding.







A Watts Water Technologies Company

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