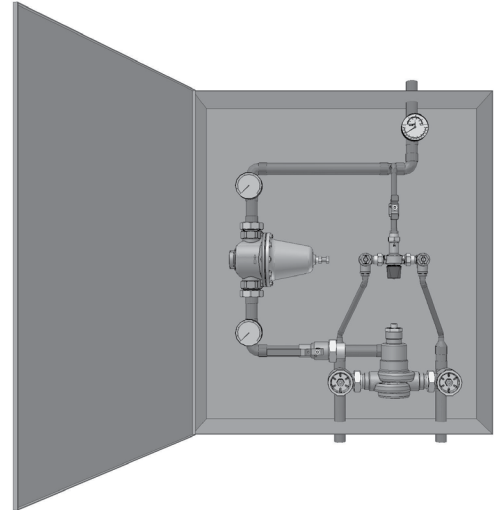


For Non-Health Hazard Applications

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

HydroGuard® XP Series MM430 2 Valve Hi/Lo Supply Fixture – 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
- Factory tested as a complete unit
- Stainless steel or white painted cabinet
- 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	125 psi (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°F (4 – 27°C)
Listing/Compliance (Valve Only)	ASSE 1017, CSA B125



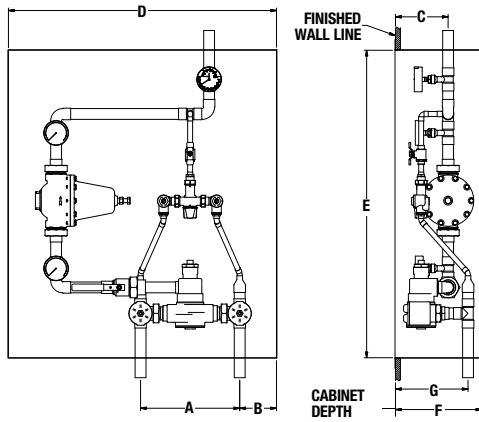
*With Equal Pressure
 **Minimum flow when Hi/Lo valve is installed at or near hot water source w/recirculating tempered water with a properly sized continuously operating recirculating pump.
 ***Note: Low limit cannot be less than the cold water temperature. For best operation, hot water should be at least 5°F (3°C) above desired set point.

Capacity

Flow Capacity at 50-50 Mixed Ratio								
Model	Min. Flow to ASSE 1017	Cv	Pressure Drop Across Valve					
			5 psi (34 kPa)	10 psi (69 kPa)	20 psi (138 kPa)	30 psi (207 kPa)	45 psi (310 kPa)	60 psi (414 kPa)
MM431HL	0.5 gpm	9.7	22 gpm	31 gpm	43 gpm	53 gpm	65 gpm	75 gpm
	1.89 lpm		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
	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
	1.89 lpm		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
	1.89 lpm		212 lpm	299 lpm	420 lpm	515 lpm	632 lpm	731 lpm
MM435HL	3.0 gpm	27.7	62 gpm	88 gpm	124 gpm	152 gpm	186 gpm	215 gpm
	11.0 lpm		235 lpm	333 lpm	469 lpm	575 lpm	704 lpm	814 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.

Dimensions



Note:
Dimensions are shown $\pm 1/2$ "
Dimensions in parentheses
are in mm

Valve	A	B	C	G	Inlets	Outlet
MM431HL	9-1/8" 232mm	3-5/8" 92mm	4-3/4" 121mm	6-3/4" 171mm	3/4" 20mm	3/4" 20mm
MM432HL	9-1/8" 232mm	3-1/8" 79mm	5" 127mm	6-3/4" 171mm	3/4" 20mm	1" 25mm
MM433HL	12-1/2" 318mm	4-5/8" 117mm	6-3/4" 171mm	9-1/4" 235mm	1-1/4" 32mm	1-1/4" 32mm
MM434HL	12-1/2" 318mm	2-1/2" 64mm	6-1/2" 165mm	8-3/4" 222mm	1-1/4" 32mm	1-1/2" 40mm
MM435HL	12-1/2" 318mm	2-7/8" 73mm	6-1/2" 165mm	8-3/4" 222mm	1-1/4" 32mm	1-1/2" 40mm

Cabinet Dimensions	MM431HL & MM432HL			MM433HL & MM434HL			MM435HL		
	D	E	F	D	E	F	D	E	F
	25"	32"	8"	34"	39"	11"	34"	42"	11"
	635mm	813mm	203mm	864mm	991mm	279mm	864mm	1067mm	279mm

Ordering Information

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)	1-1/2" (40mm)	MM435HL

Finish

Rough Bronze
Chrome Plated

A
B

Piping

Bottom/Top

E

Cabinets

Stainless Steel, Recessed
Painted Steel, Recessed

N
R

Alarm (not factory installed)*

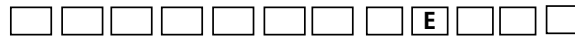
None
AquaSentry® 2** for MM431HL
AquaSentry® 2** for MM432HL
AquaSentry® 2** for MM433HL
AquaSentry® 2** for MM434HL
AquaSentry® 2** for MM435HL

0
1
2
3
4
5

View Port

None
Window

0
W



* 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 include a stainless steel or painted steel cabinet. It 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.

POWERS™

A WATTS Brand

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