

Product Specification

Features ■

- Advanced thermal actuator improves performance at low flow
- Solid brass construction enhances durability
- Adjustable temperature selection with lock down
- Union connections for easy maintenance
- Integral checks and screen prevents cross-flow and contamination
- Available in 1/2", 3/4", 1" (15, 20, 25mm) with NPT, Sweat, PEX, Quick-Connect, and CPVC union connections



Advanced Thermal Activation

Specifications ■

Temperature Adjustment:

Series LM490 90° - 160° F (32° C to 71° C)
Series LM490-10 60° - 120° F (16° C to 49° C)

Approach Temperature:

5°F (3°C) above set point

Maximum Operating Pressure:

125 psi (861 kPa)

Maximum Hot Water Temperature:

200°F (93°C)

Maximum Pressure Differential

25%

between Hot and Cold Water Supplies:

Minimum Flow:

0.5 gpm (1.90 lpm) when tested in accordance with ASSE 1017-2003

Check Valves:

Integral

Construction:

Cast Brass Body

Approval:

CSA B125 Certified

Listing:

ASSE 1017, IAPMO UPC

UNION CONNECTIONS														
Female NPT			Sweat			CPVC			PEX			Quick-Connect		
1/2"	3/4"	1"	1/2"	3/4"	1"	1/2"	3/4"	1"	1/2"	3/4"	1"	1/2"	3/4"	1"
(15)	(20)	(25)	(15)	(20)	(25)	(15)	(20)	(25)	(15)	(20)	(25)	(15)	(20)	(25)
LM490-1	LM491-1	LM492-1	LM490-2	LM491-2	LM492-2	LM490-3	LM491-3	LM492-3	LM490-4	LM491-4	LM492-4	LM490-5	LM491-5	LM492-5
LM490-101	LM491-101	LM492-101	LM490-102	LM491-102	LM492-102	LM490-103	LM491-103	LM492-103	LM490-104	LM491-104	LM492-104	LM490-105	LM491-105	LM492-105

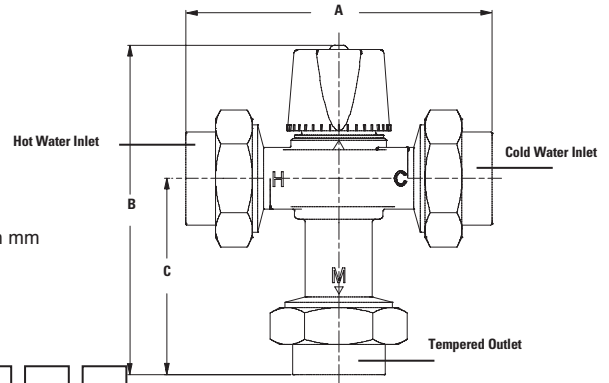
Capacity ■

PRESSURE DROP ACROSS THE VALVE							
(CV) 1 psi (7 kPa)	5psi (34 kPa)	10psi (69 kPa)	15psi (103 kPa)	20psi (138 kPa)	30psi (207 kPa)	45psi (310 kPa)	60psi (414 kPa)
3.42	7.6 gpm (29 lpm)	11.0 gpm (42 lpm)	13.0 gpm (49 lpm)	15.0 gpm (57 lpm)	19.0 gpm (72 lpm)	23.0 gpm (87 lpm)	27.0 gpm (102 lpm)

Dimensions ■

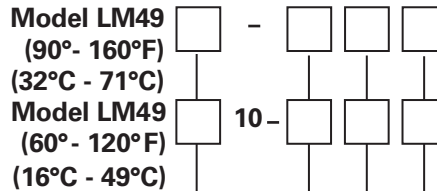
Model	LM490-1 LM490-101	LM491-1 LM491-101	LM492-1 LM492-101	LM490-2 LM490-102	LM491-2 LM491-102	LM492-2 LM492-102	LM490-3 LM490-103	LM491-3 LM491-103	LM492-3 LM492-103	LM490-4 LM490-104	LM491-4 LM491-104	LM492-4 LM492-104
Connections	1/2" NPT Female	3/4" NPT Female	1" NPT Female	1/2" Sweat	3/4" Sweat	1" Sweat	1/2" CPVC	3/4" CPVC	1" CPVC	1/2" PEX	3/4" PEX	1" PEX
"A"	4-7/8 (124mm)	4-7/8 (124mm)	5-5/16 (135mm)	4-13/16 (123mm)	5-5/16 (135mm)	5-13/16 (148mm)	4-3/4 (121mm)	5-1/4 (133mm)	5-11/16 (144mm)	5-1/4 (133mm)	5-1/2 (140mm)	5-7/8 (149mm)
"B"	5-7/16 (137mm)	5-7/16 (137mm)	5-5/8 (143mm)	5-3/8 (137mm)	5-5/8 (143mm)	5-7/8 (149mm)	5-5/16 (136mm)	5-9/16 (142mm)	5-13/16 (147mm)	5-9/16 (142mm)	5-11/16 (145mm)	5-7/8 (150mm)
"C"	3-3/16 (80mm)	3-3/16 (80mm)	3-3/8 (86mm)	3-1/8 (80mm)	3-3/8 (86mm)	3-5/8 (92mm)	3-1/16 (79mm)	3-5/16 (85mm)	3-9/16 (90mm)	3-5/16 (85mm)	3-7/16 (88mm)	3-5/8 (93mm)

Model	LM490-5 LM490-105	LM491-5 LM491-105	LM492-5 LM492-105
Connections	1/2" Quick-Connect	3/4" Quick-Connect	1" Quick-Connect
"A"	6-5/8 (168mm)	6-15/16 (177mm)	7-1/8 (181mm)
"B"	6-1/4 (159mm)	6-7/16 (163mm)	6-1/2 (165mm)
"C"	4 (102mm)	4-3/16 (106mm)	4-1/4 (108mm)



Note:
Dimensions are shown $\pm 1/4$ "
Dimensions in brackets are in mm

Ordering Information ■



Valve

1/2"	0
3/4"	1
1"	2

Inlets

Union NPT Female	1
Union Sweat	2
Union CPVC	3
Union PEX	4
Quick-Connect	5

Checkstops (Pairs)*

None	0
1/2" Straight, NPT (LM490-1 & LM490-101 only)	A
1/2" Straight, Sweat (LM490-1 & LM490-101 only)	C
1/2" Angled, Sweat (LM490-1 & LM490-101 only)	D

Cabinet & Piping

0	None
A	Stainless Steel, Recessed
B	Stainless Steel, Wall Mount
E	Stainless Steel, Semi-Recessed
C	Paint, Recessed
D	Paint, Wall Mount
F	Painted, Semi-Recessed

* Checks come standard

Typical Specification ■

Thermostatic tempering valve shall be constructed of solid brass. The valve shall feature advanced paraffin-based actuation technology and union connections for ease of maintenance. All internal components shall be corrosion-resistant. Valve shall feature integral checks to prevent cross-flow and inlet screens to filter out debris. The valve shall be CSA B125 certified and ASSE 1017 and IAPMO UPC listed. Capacity of the valve shall be 23.0 gpm (87.0 lpm) at 45psi (310 kPa) differential. Valve shall perform to a minimum flow of 0.5 gpm (2 lpm) to ASSE 1017-2003. Control temperature shall be adjustable between 90 - 160°F (32 - 71°C) for LM 490 and 60 - 120°F (16 - 49°C) for LM490-10 Series. The valve shall feature a vandal-resistant lockable handle to prevent tampering. The valve shall be a Powers HydroGuard Model LM490 (1/2", 15mm), LM491 (3/4", 20mm), LM492 (1", 25mm), LM490-10 (1/2", 15mm), LM491-10 (3/4", 20mm) or LM492-10 (1", 25mm). Any alternate must have a written approval prior to bidding.

POWERS™

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ENGINEERING APPROVAL

Project: _____
Contractor: _____
Architect/Engineer: _____

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USA: Phone: 1.800.669.5430 • Fax 1.847.229.0526 • www.powerscontrols.com
Canada: Phone: 1.888.208.8927 • Fax 1.888.882.1979 • www.powerscontrols.ca