

For Residential, Commercial and Institutional Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

Series 1170 and L1170 Hot Water Temperature Control Valves

Sizes: 1/2" – 1" (15 – 25mm)

Series 1170, L1170 Hot Water Temperature Control Valves are specifically designed for mixing hot and cold water on hot water supply systems. They can be used for a variety of applications to reduce the temperature of the hot water from the system, and are ideal for radiant heat applications. This series features a "double throttling" design which combines the control of the hot and cold water to provide a sensitive response to changes in water temperature passing through the mixing chamber.

The 1170-M2 can be set to any temperature between 90°F and 160°F (60°F and 120°F for model L1170-M2) with flow rates as low as 0.5 gpm and as high as 23 gpm (refer to capacity chart on the back). The superior flow characteristics of this valve provide accurate temperature control to the requirements of ASSE 1017* across the rated flow range.

These valves also provide additional safety as they restrict mixed water out to a drip upon loss of cold water supply to the valve.

As an added feature, the 1170-M2 and L1170-M2 incorporate integral check valves and filter washers in both the hot and cold water inlets to protect against cross flow. Available with threaded (-UT), solder (-US), PEX, (-QC) Quick-Connect or CPVC connections.

Features

- Bronze body construction
- Solid wax hydraulic principle thermostat assures dependable mixing of hot and cold water
- Thermostat controls both hot and cold water
- Models available with solder, thread, PEX, Quick-Connect or CPVC end connections
- Integral filter washers and check valves
- Adjustment cap with locking feature
- ASSE 1017 listed*

Specifications

A Hot Water Temperature Control Valve shall be installed on water heating equipment to provide tempered water to supply piping. Valve shall have a bronze body, include integral check valves and operate so the thermostat controls the cold and hot water ports. The valve shall be provided with solder (-US), threaded (-UT), PEX, (-QC) Quick-Connect or CPVC connections. Valve shall be ASSE Standard 1017* Listed. Valve shall be a Watts Regulator Company 1170-M2 or L1170-M2.

*ASSE 1017 listing is for valves used in hot water source applications.



1170-US-M2



ASSE Standard 1017 Listed*



1170-QC-M2

Minimum flow requirements to maintain set temperature for Series 1170-M2

VALVE SIZE	GPM
1/2" – 1"	.5

†WARNING

Watts Hot Water Temperature Control Valve Series 1170 are designed to be installed at or near the boiler or water heater. They cannot be used by themselves for tempering water temperatures at fixtures where ASSE Standard 1016 or ASSE Standard 1070 listed devices are required. To comply with ASSE Standard 1016 or ASSE Standard 1070, listed devices such as Watts Series L111, USG or MMV should be used at fixtures to prevent possible injury.

Watts Hot Water Temperature Control Valve Series 1170 are not designed to compensate for system pressure fluctuations. Such use may result in severe bodily injury (i. e. scalding or chilling) and/or death.

When installing the Series 1170 valves in radiant heat applications, the components of the radiant heat system must be of materials with a construction capable of withstanding the high limit output temperatures of the heating boiler. If you are uncertain as to the product's adaptability for your application, please consult an authorized representative before installing or using the product.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts 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 Watts products previously or subsequently sold.

Material

Body: Bronze
 Springs: Stainless steel
 Thermostat Assembly: Copper
 O-Rings: EPDM
 Pistons: Udel-P1700

Pressure — Temperature

Minimum Supply Pressure (Static): 30psi (207 kPa)

Inlet Temperatures: hot inlet, 120°F – 200°F (49°C – 93°C),
 cold inlet, 40°F – 85°F (4°C – 29°C)

Hot Water Inlet to Outlet Temperature Differential: 5°F (3°C)
 above set point

1170-M2 Temperature Out: Field range: 90°F – 160°F (32°C – 71°C),
 adjustable: Accurate within ±3°F (1.7°C)

L1170-M2 Temperature Out: Field range: 60°F – 120°F (16°C – 49°C),
 adjustable. Accurate within ±3°F (1.7°C)

Maximum Temperature: 200°F (93°C)

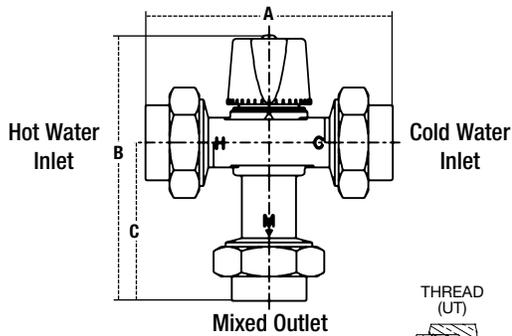
Maximum Pressure: 150psi (10.34 kPa)



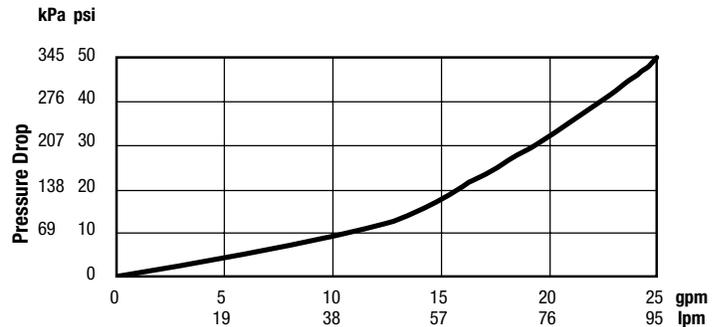
Maximum Pressure Differential Between Hot and Cold Water
 Supplies: 25%

Approval: CSA B125 certified
 Listing: ASSE 1017, IAPMO, UPC

Dimensions — Weights

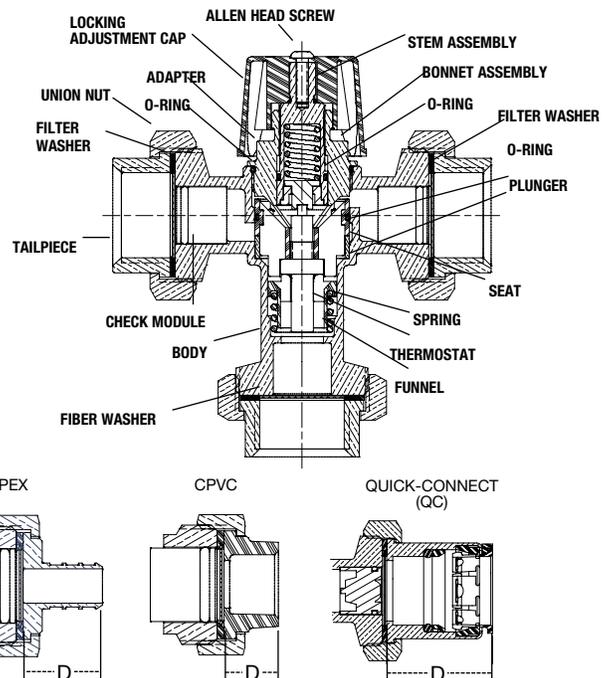


Capacity*



Flow curves are for reference. Actual flows may vary depending on system temperatures and/or pressures.
 *Flow curve with integral inlet filters check valves

Basic Construction



SIZE (DN)		MODEL	A		B		C		D		WEIGHT	
in.	mm.		in.	mm.	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.
1/2	15	1170-UT-M2	4 7/8	124	5 7/16	137	3 3/16	80	1/2	13	1.5	.68
3/4	20		4 7/8	124	5 7/16	137	3 3/16	80	9/16	14	1.6	.73
1	25		5 9/16	135	5 9/8	143	3 9/8	86	1 1/16	17	1.6	.73
1/2	15	1170-US-M2	4 13/16	123	5 3/8	137	3 1/8	80	1/2	14	1.5	.68
3/4	20		5 9/16	135	5 9/8	143	3 9/8	86	3/4	19	1.6	.73
1	25		5 13/16	148	5 7/8	149	3 5/8	92	15/16	24	1.6	.73
1/2	15	1170-PEX-M2	5 1/4	133	5 9/16	142	3 9/16	85	5/8	16	1.5	.68
3/4	20		5 1/2	140	5 11/16	145	3 7/16	88	5/8	16	1.6	.73
1	25		5 7/8	149	5 7/8	150	3 9/8	93	13/16	21	1.6	.73
1/2	15	1170-CPVC-M2	4 3/4	121	5 9/16	136	3 1/16	79	1/2	13	1.5	.68
3/4	20		5 1/4	133	5 9/16	142	3 9/16	85	3/4	19	1.6	.73
1	25		5 11/16	144	5 13/16	147	3 9/16	90	15/16	24	1.6	.73
1/2	15	1170-QC-M2	6 5/8	168	6 1/4	159	4	102	1 1/2	38	2.17	.98
3/4	20		6 15/16	177	6 1/16	163	4 3/16	106	1 11/16	42	2.88	1.31
1	25		7 1/8	181	6 1/2	165	4 1/4	108	1 3/4	44	3.65	1.66



A Watts Water Technologies Company



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