

## For Residential, Commercial and Institutional Applications

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series 1170C

## Hot Water Temperature Control Valves

Sizes: ½" – 1" (15 – 25mm)

Series 1170C Hot Water Temperature Control Valves are specifically designed for mixing hot and cold water in hot water supply systems. They can be used for a variety of applications to reduce the temperature of the hot water from the water heater 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.

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 1170C-M2 series incorporates check valves and filter gaskets 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.

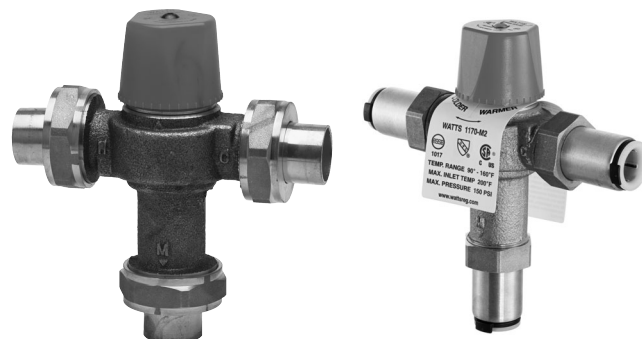
### Features

- Bronze body construction
- Solid wax hydraulic principle thermostat assures dependable mixing of hot and cold water
- Thermostat controls both hot and cold water
- Solder, thread, PEX, Quick-Connect or CPVC end connections available
- Integral check valves
- Locking cap
- Filter gaskets

### 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 CSA B125 certified and ASSE Standard 1017 Listed. Valve shall be a Watts Regulator Company Series 1170C-M2.

CSA B125 Certified  
ASSE Standard 1017 Listed



1170C-US-M2  
1170C-QC-M2

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

VALVE SIZE	GPM
½" – 1"	.5

### †WARNING

Watts Hot Water Temperature Control Valves cannot be used for tempering water temperature at fixtures. Severe bodily injury (i.e., scalding or chilling) and/or death may result depending upon system water pressure changes. ASSE standard 1016, ASSE 1070 listed devices such as Watts Model L111, USG or MMV-M1 should be used at fixtures to prevent possible injury.

The Watts Hot Water Temperature Control Valves are designed to be installed at or near the boiler or hot water heater. They are not designed to compensate for system pressure fluctuations and should not be used where ASSE 1016 and ASSE 1070 devices are required. These WATTS valves should never be used to provide "anti-scald" or "anti-chill" service.

When installing the Model 1170C-M2 valves in a radiant heat application, 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®

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  
 Disc and Springs: Stainless steel  
 Thermostat Assembly: Copper  
 O-Rings: Buna-N; 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)

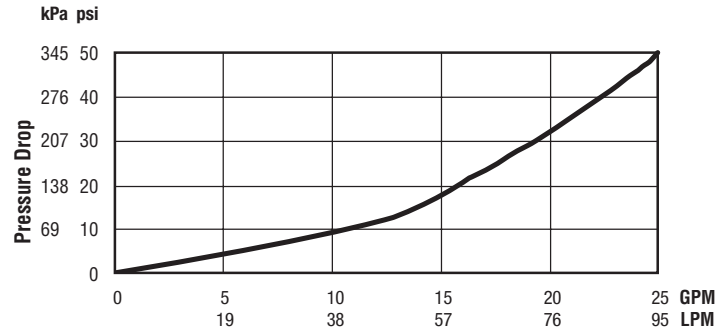
Minimum Inlet Differential Temperature: 5°F (3°C)

1170C-M2 Temperature Out: Field range: 90°F – 120°F (32°C – 49°C),  
 adjustable: Accurate within ±3°F (1.7°C)

Maximum Temperature: 200°F (93°C)

Maximum Pressure: 150psi (10.3 bar)

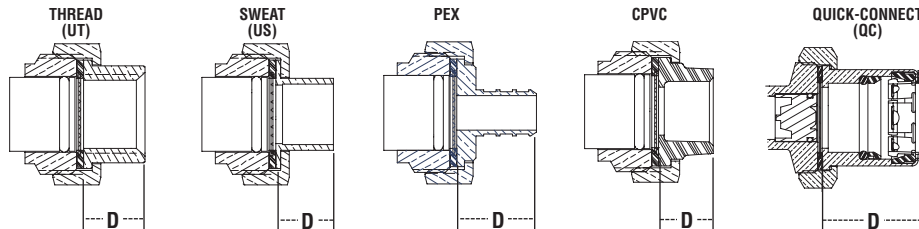
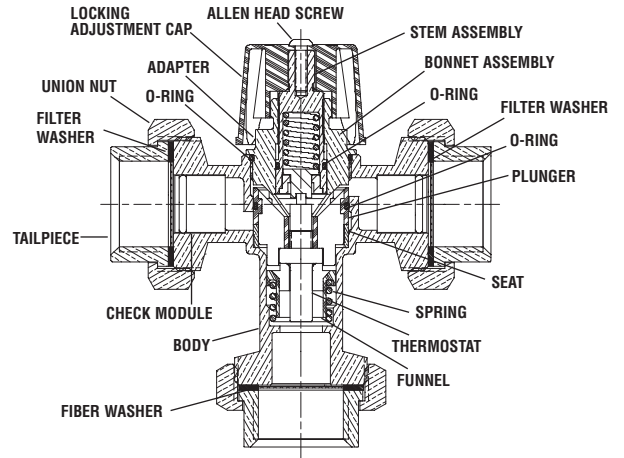
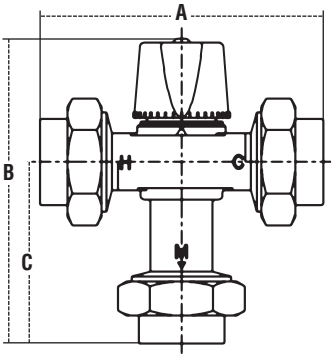
## Capacity\*



### Flow

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

## Dimensions – Weights



SIZE (DN)		MODEL	A		B		C		D		WEIGHT	
in.	mm.		in.	mm.	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.
1/2	15	1170C-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	32		5 5/16	135	5 5/8	143	3 3/8	86	1 1/16	17	1.6	.73
1/2	15	1170C-US-M2	4 13/16	123	5 3/8	137	3 1/8	80	1/2	14	1.5	.68
3/4	20		5 5/16	135	5 5/8	143	3 3/8	86	3/4	19	1.6	.73
1	32		5 13/16	148	5 7/8	149	3 5/8	92	15/16	23	1.6	.73
1/2	15	1170C-PEX-M2	5 1/4	133	5 9/16	142	3 5/16	85	5/8	1	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	32		5 7/8	149	5 7/8	150	3 5/8	93	13/16	2	1.6	.73
1/2	15	1170C-CPVC-M2	4 3/4	121	5 5/16	136	3 1/16	79	1/2	1	1.5	.68
3/4	20		5 1/4	133	5 9/16	142	3 5/16	85	3/4	1	1.6	.73
1	32		5 11/16	144	5 13/16	147	3 9/16	90	15/16	23	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 7/16	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



Water Safety & Flow Control Products



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