

For Residential, Commercial and Institutional Applications

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

Series MMV

Thermostatic Mixing Valves

Sizes: 1/2" - 1" (15 - 25mm)

DESCRIPTION

The Watts model MMV Thermostatic Mixing Valve maintains and limits mixed hot water to a desired, selectable temperature. The MMV series can be preset to any temperature between 80°F and 120°F with flow rates as low as 0.5 gpm and as high as 10 gpm (refer to pressure/flow chart figure 1). This mixing valve series is listed under ASSE Standard 1016* for single fixture applications.

The MMV series uses a double throttling design to control both the hot and cold water supply to the mixed outlet. The superior flow characteristics of this valve provide accurate temperature control ($\pm 3^\circ\text{F}$) with low pressure drop. As an added feature the MMV series incorporates check valves in both the hot and cold water inlets to protect against cross flow.

The MMV is available with either bronze thread or copper sweat union end models to facilitate installation and service of the valve.

Series MMV 1/2", 3/4" and 1" valves are available with threaded union (-UT) or solder union (-US) connections. Temperature range from 80°F to 120°F (27°C to 49°C) accurate with $\pm 3^\circ\text{F}$ (1.7°C). For proper operation, do not exceed 200°F (93°C) maximum inlet temperature. Maximum pressure 150 psi (10.55 bars).

FEATURES

- 1/2" (15mm) MMV is all bronze body construction
- 3/4", 1" (20, 25mm) MMV's are all brass body construction
- Solid wax hydraulic principle thermostat assures dependable mixing of hot and cold water
- Thermostat controls both hot and cold water
- Adjustment cap with locking feature
- ASSE 1016 listed*
- Integral Check Valves

SPECIFICATIONS

A Watts MMV Thermostatic Mixing Valve shall be installed on the hot water supply to fixture. The valve shall be ASSE standard 1016 listed and control the temperature of the hot water. It shall have a bronze or brass body and shall include integral check valves and an adjustment cap with locking feature. The valve shall be provided with solder (-US)/threaded (-UT) union connections.

*ASSE 1016 listing is for valves used in individual point-of-use applications.

ASSE Standard 1016 Listed*



1/2" MMV-UT

3/4", 1" MMV-UT

APPLICATIONS

The Watts MMV Thermostatic Mixing Valve is ideal for supplying sinks*, baths*, showers* or lavatories with tempered water. The MMV valves can be used in residential, commercial and institutional environments. These thermostatically modulated mixing valves can be used anywhere preset water temperature is required for point-of-use installations such as in homes, schools, restaurants, hospitals, beauty salons, and public restrooms. The MMV series is provided with an adjustment cap that includes a locking feature.

The MMV series valves should be used prior to the fixture to reduce the hot water supply to a safe temperature.

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.

A LEADER IN VALVE TECHNOLOGY

 Since 1874 Watts Industries, Inc.
 Water Products Division • Safety & Control Valves

MATERIALS

- **Bronze** - body construction, 1/2" size
- **Brass** - body construction 3/4", 1" size
- **Stainless steel** - disc and springs
- **Copper** - Thermostat assembly
- **Buna-N; EPDM** - O-rings
- **Udel-P1700** - Pistons
- **Stainless Steel** - Springs

PRESSURE-TEMPERATURE

Minimum Supply Pressure Static: 30 psi (207 kPa)

Inlet Temperatures: hot inlet, 120°F - 180°F (49°C to 82°C),
cold inlet, 39°F - 85°F (4°C to 29°C)

Minimum Inlet Differential Temperature: 15°F (8°C)

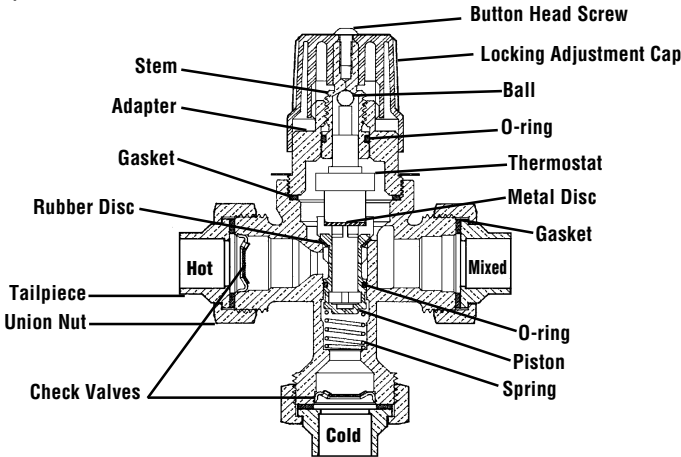
Temperature Out: Field range: 80°F to 120°F (27°C to 49°C),
adjustable. Accurate within ±3°F (1.7°C)

Maximum Temperature: 200°F (93°C)

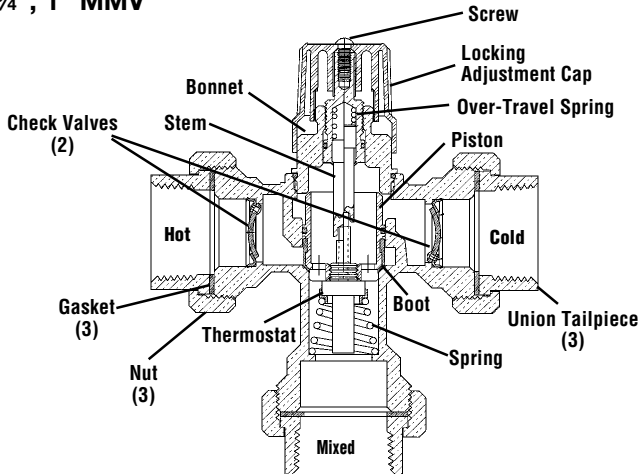
Maximum Pressure: 150 psi (10.55 bars)

BASIC CONSTRUCTION

1/2" MMV

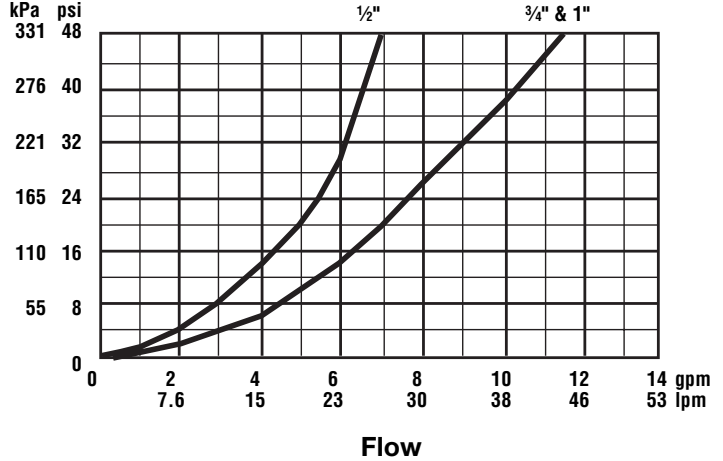


3/4", 1" MMV



FLOW CHART

Pressure Drop



Flow curves are for reference. Actual flows may vary depending on system temperatures and/or pressures.

Figure 1

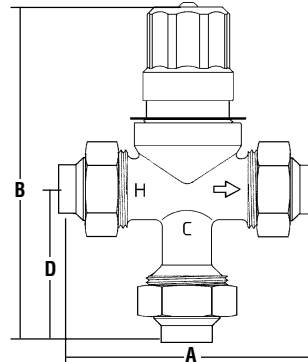
Application Note:

Delivery of water to fixtures intended for use in bathing or washing should always be controlled by valves listed to ASSE standard 1016 such as Watts series MMV, USG or L111 mixing valves.

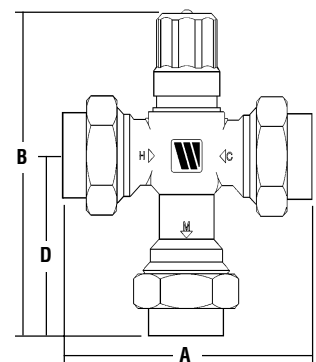
These valves provide the user with both scald protection and protection from thermal shock.

These valves should always be set to a maximum temperature of 120°F. (For added safety, Watts recommends the maximum temperature of 110°F for shower and bathing fixtures).

1/2" MMV



3/4", 1" MMV



DIMENSIONS-WEIGHT

Size (DN)	Dimensions						Weight		
	in.	mm	A		B		in.	mm	lbs.
1/2	15	4	102	5 3/8	137	2 1/2	64	1.4	.64
3/4	20	5 1/8	130	5 5/8	143	3 1/4	83	1.5	.68
1	25	5 1/8	130	5 3/4	146	3 3/4	83	1.6	.73



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