

Thermostatic Mixing Valve

5230 Series (ASSE 1017 Approved)

Submittal Data 02912 NA - Issue Date 01/2010



Application

The thermostatic mixer is used in systems producing domestic hot water or in radiant panel heating systems. Its function is to maintain the temperature of the mixed water supplied to the user at a constant set value when there are variations in the supply pressure and temperature of the incoming hot and cold water or in the flow rate. Valve models without check valves are ASSE 1017 approved for point of distribution and are designed specifically for systems requiring high flow rates and precise, stable temperature control. Patent Pending # MI2001A001645.

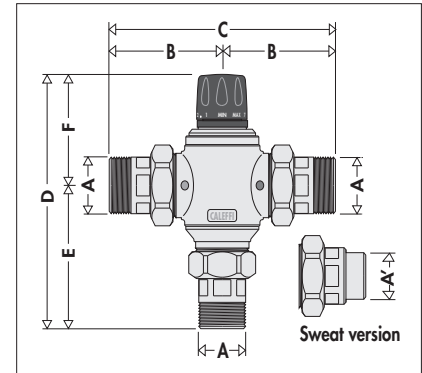
Typical Specification

Furnish and install on the plans described herein, a Caleffi Thermostatic Mixing Valve as manufactured by Caleffi. Each mixing valve must be designed with a brass body, a replaceable brass cartridge chemical nickel plated, stainless steel springs and seals in EPDM. Each valve must also be designed for $\pm 5^{\circ}\text{F}$ ($\pm 3^{\circ}\text{C}$) temperature stability with a tamper proof control knob to lock the temperature at the set value. The valve shall be ASSE 1017 approved for point of distribution installation. Each valve shall be Caleffi model 5230 of approved equal. (See product instructions for specific installation information.)

Technical Data

Materials:
 - Body: Brass
 - Shutter: Brass, chemical nickel plated
 - Springs: Stainless steel
 - Seals: EPDM
 Medium: Water, or 30% max. glycol solution
 Temperature stability: $\pm 5^{\circ}\text{F}$ ($\pm 3^{\circ}\text{C}$)
 Max working pressure (static): 200 psi (14 bar)
 Max working pressure (dynamic): 70 psi (5 bar)
 Hot water inlet temperature range: 120 – 185°F (49 – 85°C)
 Cold water inlet temperature range: 40 – 80°F (4.4 – 26.6°C)
 Maximum inlet pressure ratio (H/C or C/H): 2:1
 Minimum temperature difference between hot water inlet and mixed water outlet for optimum performance: 20°F (11°C)
 Approved for ASSE 1017

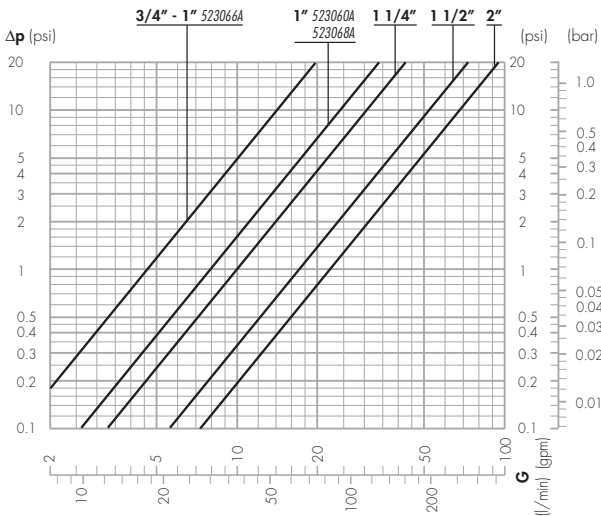
Dimensions



Code	A	B	C	D	E	F	Weight (lb)	(kg)	
ASSE 1017	523058A	3/4" NPT	2 3/4"	5 1/2"	6 1/8"	3 1/4"	2 15/16"	5.0	2.3
	523066A	1" SWT	2 15/16"	5 7/8"	6 5/16"	3 7/16"	2 15/16"	5.0	2.3
	523060A	1" NPT	4 7/16"	8 7/8"	8 1/16"	4 5/8"	3 7/16"	7.0	3.2
	523068A	1" SWT	3 9/16"	7 1/8"	7 3/16"	3 3/4"	3 7/16"	6.5	2.9
	523070A	1 1/4" NPT	4 5/8"	9 5/16"	8 1/4"	4 13/16"	3 7/16"	7.0	3.2
	523078A	1 1/4" SWT	3 11/16"	7 5/16"	7 5/16"	3 13/16"	3 7/16"	6.5	2.9
	523080A	1 1/2" NPT	5 3/16"	10 5/16"	9 3/4"	5 1/2"	4 1/4"	17.0	7.7
	523090A	2" NPT	5 3/16"	10 3/8"	9 3/4"	5 1/2"	4 1/4"	18.0	8.2

Code	Size	Cv	Recommended flow rates for temperature stability		Temperature Range*	
			(Min) gpm & (l/sec.)	(Max) gpm & (l/sec.)	(Min) °F / °C	(Max) °F / °C
523058A	3/4"	4.8	2 gpm 0.1 (L/sec.)	24 gpm 1.51 (L/sec.)	81 / 27	149 / 65
523066A	1"					
523060A		8.0	4.5 gpm (0.3 l/sec.)	40 gpm (2.5 L/sec.)		
523068A	1 1/4"				10.0	13 gpm (0.8L/sec.)
523070A		1 1/2"	17.0	97 / 36		
523078A	2"				22.0	
523080A						
523090A						

*With: T Hot = 155°F (68°C), T Cold = 55°F (13°C), P = 43 psi (3 bar).



ASSE 1017 models are designed to be installed at the hot water heater and cannot be used for tempering water temperature at fixtures as a point-of-use valve. They are not designed to provide scald protection or anti-chill service and should not be used where ASSE 1070 devices are required. Wherever a scald protection feature is required, ASSE 1070 model mixing valves need to be installed. For safety reasons, it is advisable to limit the maximum mixed water temperature to 120°F.

We reserve the right to change our products and their relevant technical data, contained in this publication, at any time and without prior notice. Contractors should request production drawings if prefabricating the system.

Job name _____
 Job location _____
 Engineer _____
 Mechanical contractor _____
 Contractor's P.O. No. _____
 Representative _____

Size _____
 Quantity _____
 Approval _____
 Service _____
 Tag No. _____
 Notes _____