

Thermostatic Mixing Valve

5230 Series (ASSE 1070 Approved)

Submittal Data 02913 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 with integral inlet port check valves are ASSE 1070 approved for point of use installations. Patent Pending # MI2001A001645.

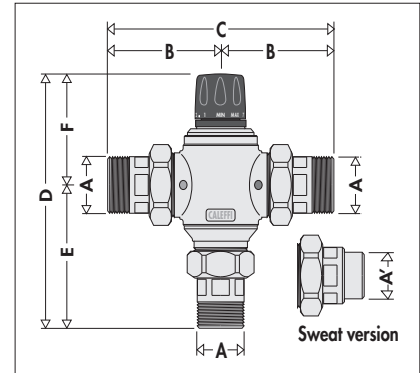
Typical Specification

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 integrated inlet port check valves, 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 1070 approved for point of use 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)

Dimensions



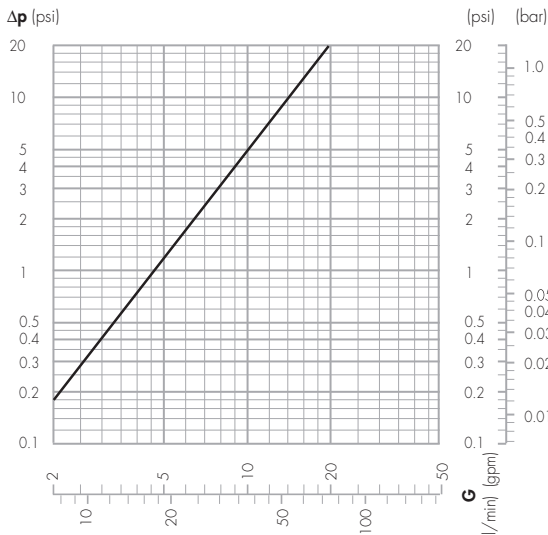
	Code	A	B	C	D	E	F	Weight (lb)	(kg)
ASSE 1070	523055A	3/4" NPT	3 5/16"	7 7/8"	7 3/16"	4 1/8"	2 15/16"	5.0	2.3
	523057A	3/4" SWT	3 5/16"	7 7/8"	5 15/16"	3"	2 15/16"	5.0	2.3
	523065A	1" NPT	3 13/16"	7 7/8"	7 1/16"	4 1/8"	2 15/16"	5.0	2.3
	523067A	1" SWT	3 5/16"	7 7/8"	6 3/16"	3 1/4"	2 15/16"	5.0	2.3

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
523055A	3/4"	4.8	2 gpm (0.1 L/sec.)	24 gpm (1.51L/sec.)	77 / 25	149 / 65
523057A						
523065A	1"	4.8	2 gpm (0.1 L/sec.)	24 gpm (1.51L/sec.)	77 / 25	149 / 65
523067A						

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

**3/4, and 1 inch sizes use the same body, differing only bay inlet/outlet fittings have the same max Cv of 4.8 and one flow curve.

ASSE 1070 models are suitable for point of use applications when a scald protection feature is required. For this reason the flow rate through the valve is the same as that of the final outlet, e.g. mixer or tap for washbasin, shower or bath. The system must be sized taking into account the current legislation with regard to the nominal flow rate of each outlet. It is advisable to limit the maximum mixed water temperature to 120°F (49°C).



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 _____