Thermostatic mixing valves, low-lead, high-flow

5231 series

Submittal Data 03010 NA — Issue Date 10/2015

Application

The thermostatic mixing valve is used in systems producing domestic hot water or in radiant 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. The 5231 series thermostatic mixing valves are ASSE 1017 approved for point of distribution and are designed specifically for systems requiring high flow rates and precise, stable temperature control.

Typical Specification

Furnish and install on the plans and described herein, a Caleffi 5231 series thermostatic mixing valve as manufactured by Caleffi. Each mixing valve must be designed with 1", 1-1/4", 1-1/2", or 2" union sweat or NPT male threaded end connections. The design must include a DZR low-lead brass body and connections (<0.25% Lead content) certified by IAPMO R&T, PPSG40 shutter, stainless steel springs, and EPDM seals. Each valve must be designed for 200 psi (14 bar) maximum working pressure, 75 psi (5 bar) maximum operating differential pressure, 95 to 150°F (35 to 66°C) mixed temperature setting range, ±3°F (±2°C) temperature stability, 10 grains maximum water hardness and provided with tamper-proof temperature locking and optional mixed outlet temperature gauge for 1-1/4" union sweat model, 30 to 210°F scale, 2" diameter. Each mixing valve shall be a Caleffi model 5231 or approved equal.
(See product instructions for specific installation information.)

Technical specification

Materials:	- Body:	DZR low-lead brass
	- Shutter:	PPSG40
	- Springs:	Stainless steel
	- Seals:	EPDM

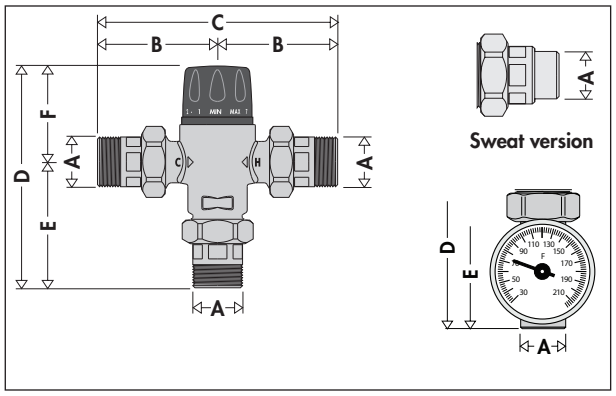
Suitable fluds:	Water, glycol solutions
Maximum percentage of glycol:	30% glycol solution
Temperature stability:	± 3°F (± 2°C)
Max working pressure (static):	200 psi (14 bar)
Max operating differential pressure:	75 psi (5 bar)
Hot water inlet temperature range:	120 – 195°F (49 – 91°C)
Cold water inlet temperature range:	39 – 80°F (3.9 – 26.6°C)
Mixed temperature range:	95 – 150°F (35 – 66°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)
Maximum water hardness:	10 grains

Certifications:

1. cUPC Listed to ASSE 1017/CSA B125.3. Reduction of Lead in Drinking Water Act Compliant: 0.25% Max. weighted average lead content. Reduction of Lead in Drinking Water Act Certifed by IAPMO R&T.

2. Meets requirements of ANSI/NSF 372-2011.

Dimensions



ASSE 1017 LOW-LEAD cUPC

Code	A	B	C	D
523160A	1" NPT	4"	8"	7 5/8"
523168A	1" SWT	3 5/16"	6 5/8"	7"
523170A	1 1/4" NPT	4 1/8"	8 1/4"	7 3/4"
523177A	1 1/4" SWT	3 3/8"	6 3/4"	7 5/8"
523178A	1 1/4" SWT	3 3/8"	6 3/4"	7"
523180A	1 1/2" NPT	5 1/8"	10 1/4"	9 3/16"
523188A	1 1/2" SWT	4 1/16"	8 1/8"	8 1/8"
523190A	2" NPT	5 1/8"	10 1/4"	9 1/2"
523198A	2" SWT	4 5/16"	8 5/8"	8 5/8"

Code	E	F	Wt (lb)
523160A	4 3/16"	3 3/8"	7.0
523168A	3 1/2"	3 3/8"	7.0
523170A	4 5/16"	3 3/8"	7.0
523177A	4 1/8"	3 3/8"	9.0
523178A	3 1/2"	3 3/8"	7.0
523180A	5 7/16"	3 3/4"	17
523188A	4 3/8"	3 3/4"	17
523190A	5 3/4"	3 3/4"	18
523198A	4 7/8"	3 3/4"	18

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 _____ Size _____
Job location _____ Quantity _____
Engineer _____ Approval _____
Mechanical contractor _____ Service _____
Contractor's P.O. No. _____ Tag No. _____
Representative _____ Notes _____

Caleffi North America, Inc. 3883 West Milwaukee Road / Milwaukee, WI 53208
Tel: 414.238.2360 / Fax: 414.238.2366 / www.caleffi.us
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