

Scald protection point-of-use thermostatic mixing valve



5213 series

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Application

Thermostatic mixing valves are used in applications where the user must be protected from the danger of scalding caused by hot water. The Caleffi 5213 series provides water at a safe and usable temperature in situations where the control of the temperature of the water discharging from a terminal fitting is of the utmost importance, i.e. within hospitals, schools, nursing homes, etc. The valve is designed to prevent the flow of water discharging from the mixed water outlet in the event of the failure of hot or cold supply. The Caleffi 5213 series is a high performance combination thermostatic and pressure balanced mixing valve and is ASSE 1070 listed (temperature can not exceed 120°F). The valve is complete with check valve at both hot and cold inlets. It complies with codes IPC, IRC, accordance with the US and Canadian plumbing codes, and standard NSF/ANSI 372, low lead.



Typical Specification

Furnish and install on the plans described herein, a three-way thermostatic mixing valve as manufactured by Caleffi. Each mixing valve must be designed with a low-lead brass body and regulating spindle, PPO shutter, seats and slide guides with integral inlet port check valves, stainless steel springs and seals in peroxide-cured EPDM. Each valve must also be designed for $\pm 3^\circ\text{F}$ ($\pm 2^\circ\text{C}$) 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. Low-lead brass body (<0.25% Lead content) certified by ICC-ES, file 1360. Complies with requirements of NSF/ANSI 372-2016. Each valve shall be Caleffi model 5213 or approved equal. (See product instructions for specific installation information.)

Technical specifications

Materials

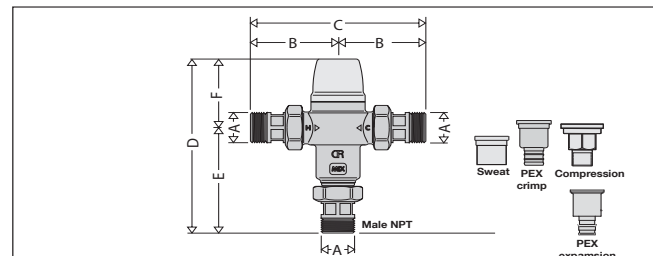
- Body: low-lead brass (<0.25% Lead content)
- Regulating spindle: low-lead brass (<0.25% Lead content)
- Shutter, seats and slide guides: PPO
- Springs: stainless steel
- Seals: Peroxide-cured EPDM
- Cover: ABS

Performance

Setting range:	85–120° F (30–50° C)
Temperature set:	must be commissioned on site to achieve desired temperature
Temperature control:	$\pm 3^\circ\text{F}$ ($\pm 2^\circ\text{C}$)
Min. cold inlet temperature:	39° F (4° C)
Max. cold inlet temperature:	85° F (29° C)
Min. hot water inlet temperature:	120° F (49° C)
Max. hot water inlet temperature:	185° F (85° C)
Max. working pressure (static):	150 psi (10 bar)
Max. working pressure (dynamic):	70 psi (5 bar)
Min. working pressure (dynamic):	1.5 psi (0.1 bar)
Max. unbalanced dynamic supply ratio (H/C or C/H) :	6:1

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

Dimensions



Code	A	B	C	D	E	F	Wt (lb)
521342A	1/2" MNPT	2 13/16"	5 11/16"	4 5/16"	3"	1 15/16"	2.0
521352A	3/4" MNPT	2 13/16"	5 11/16"	4 5/16"	3"	1 15/16"	2.0
521362A	1" MNPT	2 15/16"	5 7/8"	5 3/16"	3 1/4"	1 15/16"	2.0
521347A	1/2" PEX crimp	3"	6"	5 1/2"	3 5/8"	1 15/16"	2.0
521357A	3/4" PEX crimp	3"	6"	5 1/2"	3 5/8"	1 15/16"	2.0
521367A	1" PEX crimp	3 1/16"	6 1/8"	5 9/16"	3 11/16"	1 15/16"	2.0
521348A	1/2" PEX exp	3 1/8"	6 1/4"	4 5/8"	2 11/16"	1 15/16"	2.0
521358A	3/4" PEX exp	3 3/4"	7 1/2"	5 3/8"	3 7/16"	1 15/16"	2.0
521368A	1" PEX exp	4 1/16"	8 1/8"	6 1/16"	4 1/8"	1 15/16"	2.0
521349A	1/2" sweat	2 11/16"	5 7/16"	4 5/8"	2 11/16"	1 15/16"	2.0
521359A	3/4" sweat	2 7/8"	5 3/4"	4 13/16"	2 15/16"	1 15/16"	2.0
521369A	1" sweat	3 1/8"	5 5/16"	5 3/8"	3 1/4"	1 15/16"	2.0
521333A *	3/8" comp	2 11/16"	5 3/8"	5 3/16"	3 5/16"	1 15/16"	2.0

*includes mounting bracket.

Minimum temperature difference between hot water inlet and mixed water outlet to ensure stable operation: 18° F (10° C)
 Minimum temperature difference between, mixed water outlet and cold water inlet to ensure stable operation: 9° F (5° C)
 Minimum flow to ensure stable operation: 0.5 gpm (2 L/min)
 Flow rating: Cv: 2.0 (Kv: 1.7 m³/hr)

Connections

- NPT male union: 1/2", 3/4", 1"
- sweat union: 1/2", 3/4", 1"
- PEX crimp and expansion union: 1/2", 3/4", 1"
- compression: 3/8"

Certifications

- ASSE 1070/CSA B125.3, certified by ICC-ES, file PMG-1358.
- Complies with NSF/ANSI 372, Drinking Water System Components-Lead Content Reduction of Lead Drinking Water Act, California Health and Safety Code 116875 S.3874, Reduction of Lead in Drinking Water Act, as certified by ICC-ES, file PMG-1360.

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

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