MixCal™ Adjustable three-way thermostatic mixing valve, Sweat

Submittal Data 02902.1 NA — Issue Date 09/2015

Application

The Caleffi MixCal™ 521 series three-way thermostatic mixing valve is used in systems producing domestic hot water or in hydronic and radiant heating systems. It maintains the desired output temperature of the mixed water supplied at a constant set value compensating for both temperature and pressure fluctuations of the incoming hot and cold water. The valve has been specifically certified to ASSE 1017 and Low Lead Plumbing Law by IAPMO R&T.

Typical Specification

Furnish and install on the plans described herein, a MixCal™ three-way thermostatic mxing valve as manufactured by Caleffi. Each mixing valve must be designed with a low-lead brass body, a replaceable brass cartridge chemical nickel plated, stainless steel springs, seals in EPDM, and shutter, regulating seats and sliding surfaces in anti-scale plastic, PPO. Each valve must also be designed for ±3°F (±2°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. Low-lead brass body (<0.25% Lead content) shall be certified by IAPMO R&T and meets requirements of ANSI/NSF 372-2011. Each valve shall be Caleffi model 521 or approved equal. (See product instructions for specific installation information.)

LOW-LEAD UPC C ®

ASSE 1017

Technical Data

Materials

Body:	low-lead brass
Shutter, seats and slide guides:	PPO
Springs:	stainless steel
Seals:	EPDM

Performance

Suitable Fluids:	water, glycol solution
Max. percentage of glycol:	30%
Setting range:	85–150°F (30–65°C)
Tolerance:	±3°F (±2°C)
Max. working pressure:	200 psi (14 bar)
Max. operating differential pressure:	75 psi (5 bar)
Max. hot water inlet temperature:	200°F (93°C)
Max. inlet pressure ratio (H/C or C/H) for optimum performance:	2:1
Min. temperature differential between hot water inlet and mixed water outlet for optimal performance:	27°F (15°C)
Min. flow to ensure optimal performance:	1.3 gpm (5 L/min)

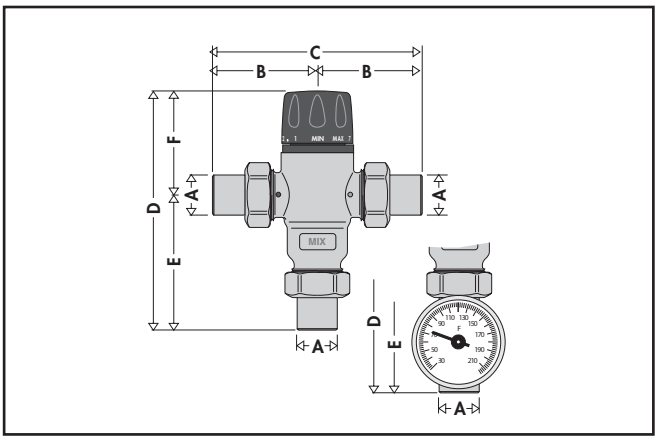
Certifications:

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.

Connections:

Sweat union:	1/2" - 1"

Dimensions



Code	A	B	C	D	E	F	Wt. (lb.)
521409A	½"	2¼"	4½"	5⅝"	3⅛"	2⁹⁄₁₆"	2.4
521419A*	½"	2¼"	4½"	7"	4½"	2⁹⁄₁₆"	2.9
521409AC	½"	2⅞"	5¾"	5⅝"	3⅛"	2⁹⁄₁₆"	2.4
521419AC*	½"	2⅞"	5⅞"	7"	4½"	2⁹⁄₁₆"	2.9
521509A	¾"	2½"	5"	5¹³⁄₁₆"	3¼"	2⁹⁄₁₆"	2.4
521519A*	¾"	2½"	5"	7¹³⁄₁₆"	5¼"	2⁹⁄₁₆"	2.9
521509AC	¾"	3¹⁄₁₆"	6⅛"	5¹³⁄₁₆"	3¼"	2⁹⁄₁₆"	2.4
521519AC*	¾"	3¹⁄₁₆"	6⅛"	7¹³⁄₁₆"	5¼"	2⁹⁄₁₆"	2.9
521609A	1"	3¹⁄₁₆"	6⅛"	6⁷⁄₁₆"	3⅞"	2⁹⁄₁₆"	2.4
521619A*	1"	3¹⁄₁₆"	6⅛"	7¹³⁄₁₆"	5¼"	2⁹⁄₁₆"	2.9
521609AC	1"	3¼"	6½"	6⁷⁄₁₆"	3⅞"	2⁹⁄₁₆"	2.4
521619AC*	1"	3¼"	6½"	7¹³⁄₁₆"	5¼"	2⁹⁄₁₆"	2.9

**Model with integral outlet temperature gauge.*

C designates models with integral inlet port check valves.

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

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