

2521

solar thermostatic
mixing valves



WRAS
APPROVED
PRODUCT

altecnic

2521 solar thermostatic mixing valve



Application

The Altecnic 2521 solar thermostatic mixing valve range is designed for use in solar hot water systems.

They maintain the set temperature of mixed water (domestic hot water) supplied to the user at a constant and safe temperature, when variations in the hot and cold water supply conditions and draw off flow rates occur.

The Alecnic 2521 solar mixing valve can operate continuously at the high temperatures of water supplied from a solar storage cylinder.

Operating Principle

The controlling element of the mixing valve is a temperature sensor fully immersed in the mixed water outlet port, which expands or contracts, continually maintaining the correct proportion of hot and cold water entering the valve.

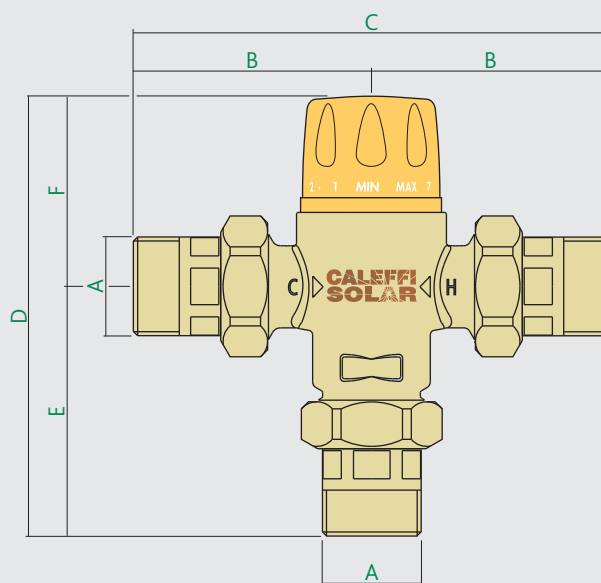
Even when the supply pressures drop, due to draw off of hot or cold water by other users on the same system, or variations in the incoming water temperatures, the mixing valve automatically responds and maintains the mixed outlet water at the required temperature.

Construction Details

Component	Material	Grade
Valve Body	DZR	¾" Size
	DRZ	BS EN 12165 CW725R
Obturator	Polymer	¾" Size
	Polymer	PSU
Springs	Stainless steel	PPSG40
Seals	EPDM	AISI 302

Product Code	Size	Connections
252150	¾"	m x m x m
252160	1"	m x m x m
252170	1¼"	m x m x m
252180	1½"	m x m x m
252190	2"	m x m x m

Dimensions



Code	A	B	C	D	E	F	kg
252150	R¾	78.5	157	169	95.5	73.5	1.35
252160	R1	104.5	209	196	109	87	2.50
252170	R1¼	104.5	209	196	109	87	2.47
252180	R1½	121	242	220	129	91	3.81
252190	R2	131	262	235	139	96	5.58

Technical Data

Max. working pressure:	14 bar - Static
Max. working pressure:	5 bar - Dynamic
Min. working pressure:	0.2 bar - Dynamic
Max. inlet hot temperature:	100°C
Min. inlet hot temperature:	50°C
Max. inlet cold temperature:	25°C
Min. inlet cold temperature:	5°C
Min. temperature difference between H&C	15°C
Max. inlet pressure ratio (H/C or C/H):	2:1
Accuracy:	±2°C
Setting Range:	35 to 65°C
Max. glycol solution:	50%
Male union threads:	BS EN 10226

Design

High heat resistance

The internal flow regulation components are designed to maintain performance of the mixing valve with inlet hot water temperatures up to 100°C, in continuous operation.

Anti-scale materials

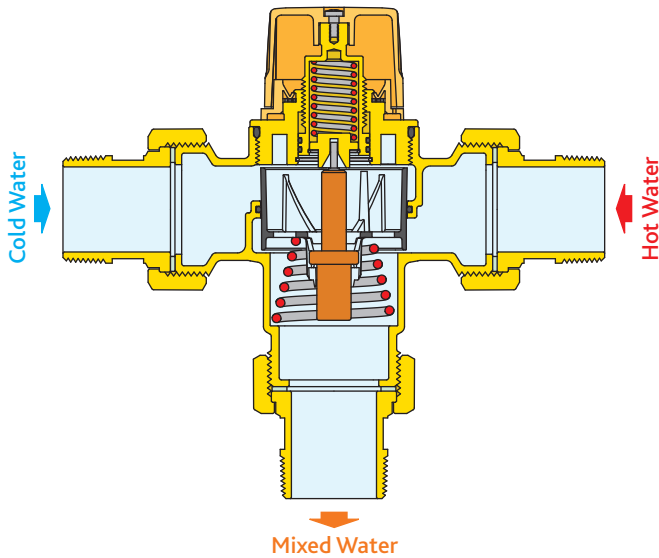
The materials used in the construction of the mixing valve eliminate the problem of jamming caused by lime deposits. All the working parts such as shutter, seats and slide guides are made of a special anti-scale material, with a low friction coefficient, guaranteeing that the performance will be maintained over the long term.

Temperature setting and locking

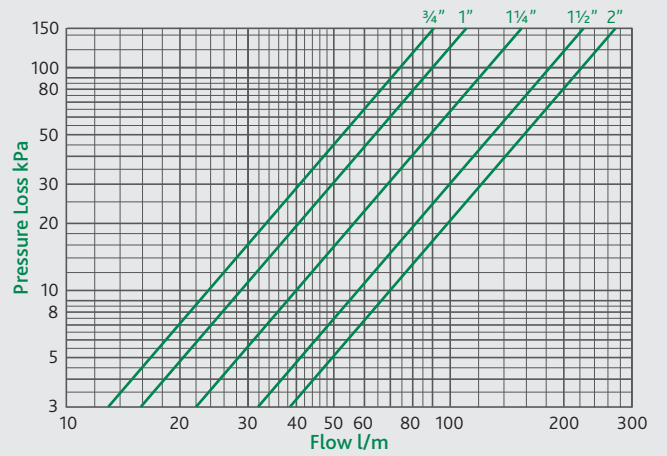
The control knob permits temperature setting between minimum and maximum in one turn (360°). It also has a tamper-proof system to lock the temperature at the set value.

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Construction Details



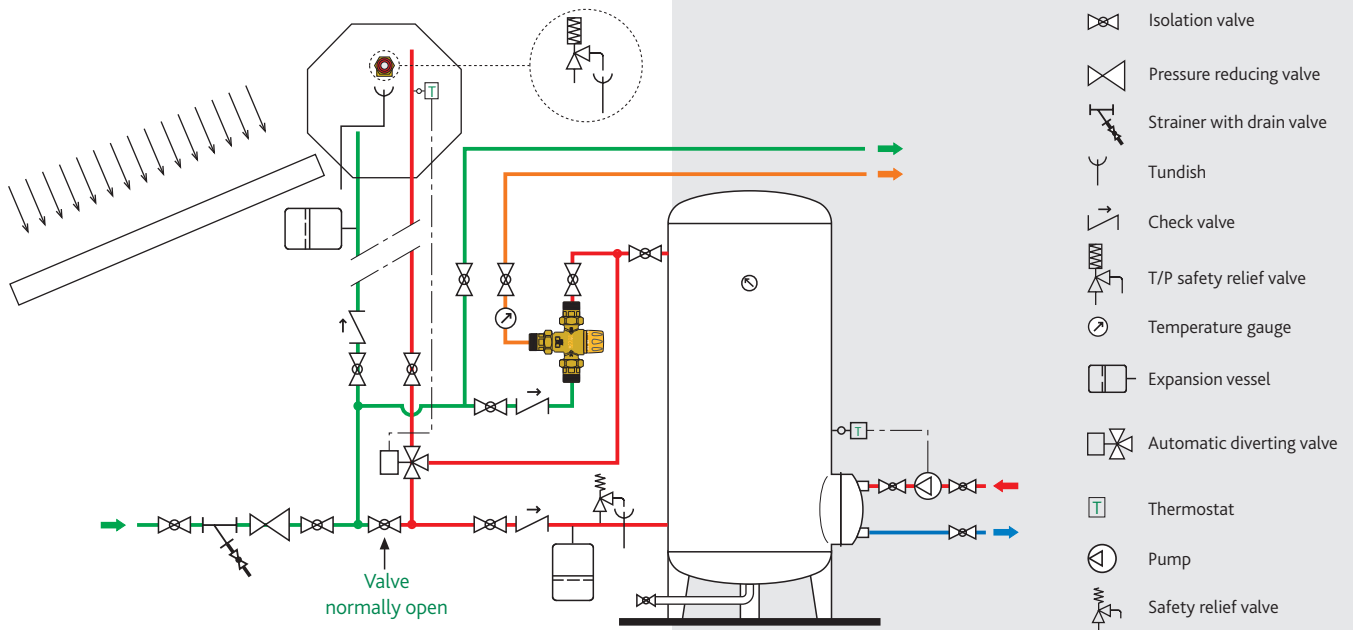
Kv value and Flowrate



Flow rates recommended to ensure stable operation and accuracy of $\pm 2^\circ\text{C}$ (balanced pressure Hot/Cold)

Size	Kv - m ³ /h	* $\Delta P = 1.5$ bar	Min. - m ³ /h	Max.* - m ³ /h
3/4"	4.5	3/4"	0.6	5.5
1"	5.5	1"	0.8	6.7
1 1/4"	7.6	1 1/4"	1.0	9.3
1 1/2"	11.0	1 1/2"	1.5	13.5
2"	13.3	2"	2.0	16.3

Typical Application



E & O.E

Altecnic Ltd Mustang Drive, Stafford, Staffordshire ST16 1GW

T: +44 (0)1785 218200 E: sales@altecnic.co.uk

Registered in England No: 2095101

altecnic.co.uk

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