

101-300

mixcal careflo plus



**altecnic**  
CALEFFI group

# 101-300 mixcal careflo plus



## Application

Thermostatic mixing valves are used to maintain the 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 failsafe design shuts off the mixed water flow automatically in the event of disruption in the hot or cold water supply to the valve.

Using the special tool and the manual override function of the Mixcal Careflo Plus allows thermal disinfection to be performed through to the outlets, so a complete flush can be performed not just a partial flush.

Thermal disinfection helps protect the system against Legionella and other microbial organisms.

Insulation cover available (optional) for increased energy efficiency.

## Thermal Shut Off

In the event of a failure of the hot or cold supply, the piston will shut off, stopping water discharging from the mixed water outlet.

The Altecnic valve requires a minimum temperature differential from hot inlet to mixed water outlet of 10°C to ensure the correct operation of the thermal shut off feature.

## TMV3

The 101-300 Mixcal Careflo Plus fail safe thermostatic mixing valves have been designed and manufactured to meet the requirements of BS 7942:2000 and the National Health Service model engineering specification D 08 for use in healthcare premises, hospitals, care homes, and schools.

The elderly, young children and the disabled are at particular risk of life threatening scalds due to a potential lack of mobility, skin sensitivity or the ability to communicate with their carer.

The valve has been independently tested and approved as a type 3 valve under the TMV3 scheme.

The 101-300 TMV3 thermostatic mixing valves are also suitable for use in domestic housing and commercial building for single user outlets including wash basins, showers, baths and bidets but are also suitable for multiple outlet use.

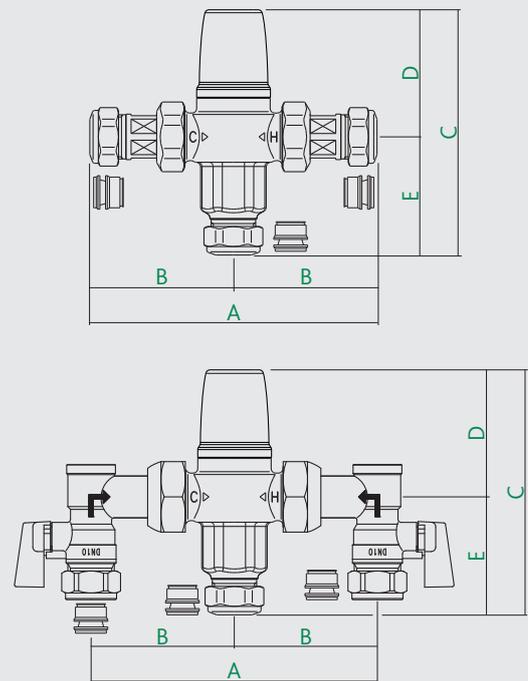
## Construction Details

Component	Material	Grade
Body	DZR - chrome plated	BS EN 12165 CW602N
Springs	Stainless steel	
Seals	EPDM	

Product Code	Size	Connection/Description
101-3001	15/22 mm	universal tailpiece with adaptor
101-3002	15/22 mm	universal MX end with adaptor
CBN521815	15/22mm	insulation cover (optional)

The universal end connections are supplied as 22mm compression joints but with specially designed olives to reduce the size to 15mm compression joints when required.

## Dimensions

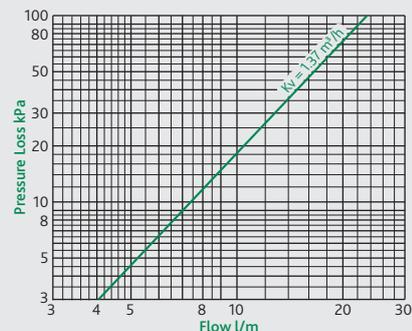


Prod Code	A	B	C	D	E	kg
101-3001	150	75	100	60.2	57	0.6
101-3002	136	68	100	60.2	57	0.75

## Technical Data

Max. working pressure:	10 bar - Static
Min. working pressure:	0.2 Bar : Dynamic
Max. inlet temperature:	85°C
Inlet temperature range - hot supply:	55 - 65°C
- cold supply:	0.5 - 20°C
D 08 working pressure - low pressure:	0.2 - 1.0 Bar
- high pressure:	1.0 - 5.0 Bar
Max. inlet pressure ratio (H/C or C/H):	5:1
Accuracy:	±2°C
Setting Range:	30 to 50°C
Min. temperature difference between inlet hot water and outlet mixed water:	10°C
Min. flow for stable operation	4 l/m

## Kv Value & Flowrate

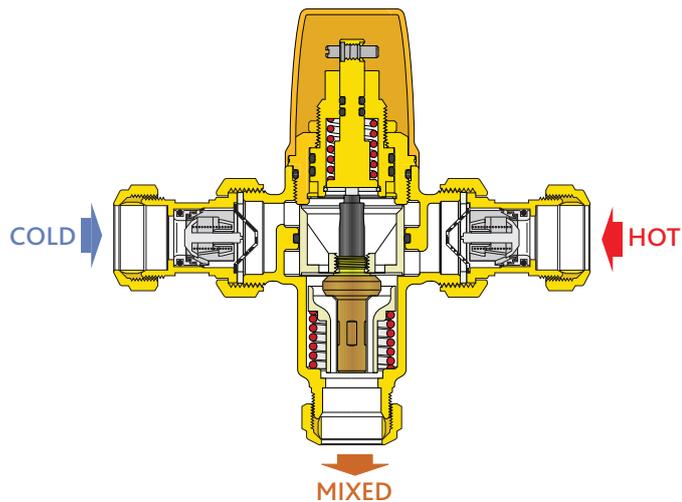


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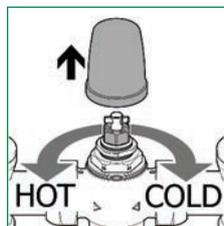
## Operating Principle

The thermostatic element is fully immersed in the inlet water flow. It contracts or expands, moving an obturator which controls the water flow, closing either the hot or cold inlets, regulating the flow rates entering the valve.

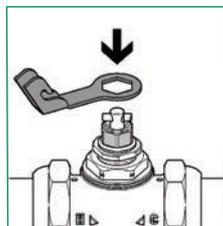
If there are variations of temperature or pressure at the inlets the internal element automatically reacts to restore the original temperature setting.



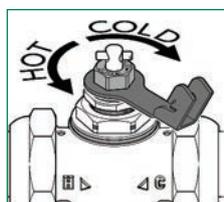
## Temperature Adjustment



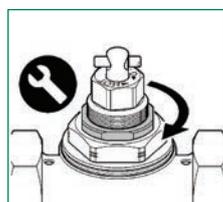
Remove the cap



Use the special tool for temperature adjustment



Temperature adjustment



Lock adjustment spindle with lock nut

## Override Function

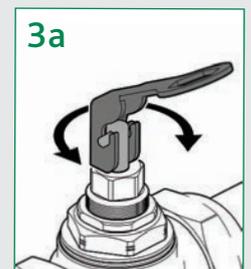
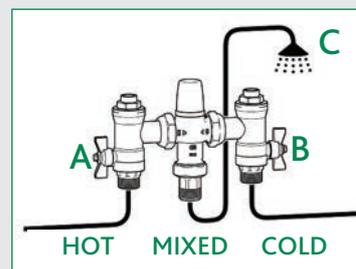
The override function allows thermal disinfection against Legionella to be performed using the special tool.

The special tool lifts the spindle, by-passing the operation of the thermostatic cartridge.

The higher temperature hot water passes through the valve and pipework to thermally disinfect it.

**WARNING:** During this operation the hot water from any outlet on the system must **NOT** be used for washing or bathing as the water is at an unsafe temperature.

## Override Operation



- 1 Close hot and cold water inlet isolating valves (A and B).
- 2 Remove the top cover.
- 3 Using the special tool, lift the spindle to its upper position, leaving the tool in place, by-passing the thermostatic cartridge operation.
- 4 Open the hot water isolating valve (A) and open a water outlet point like a tap (C).
- 5 Perform the thermal flush with hot water on all taps in the system.
- 6 Close the hot water inlet (A) and any water outlets (C).
- 7 Put the spindle back to its original position, removing the tool.
- 8 The valve's mixed water set temperature remains at the value that was set during commissioning.
- 9 Open the hot and cold water isolating valve (A and B).
- 10 The TMV is now back to its normal working condition.

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