

ENGINEERING
TOMORROW



MTCV

Optimise performance of domestic hot water systems

The Multifunctional Thermostatic Circulation Valve (MTCV) is developed to meet individual needs in domestic hot water systems and will prevent systems from Legionella growth.

**6 months
payback time**

with MTCV by saving
water and energy.

www.hbc.danfoss.com

Main benefits of the MTCV:

- Energy savings
- Water savings
- Improved comfort
- Prevention from Legionella growth.

MTCV with lead free brass

The valve's metal parts consist of lead free brass components and an Rg5 bronze valve body in accordance with the regulations of the European Drinking Water Directive. The lead free brass is a step towards improving the quality of the drinking water and meets the requirements of sustainability.

MTCV meets individual needs

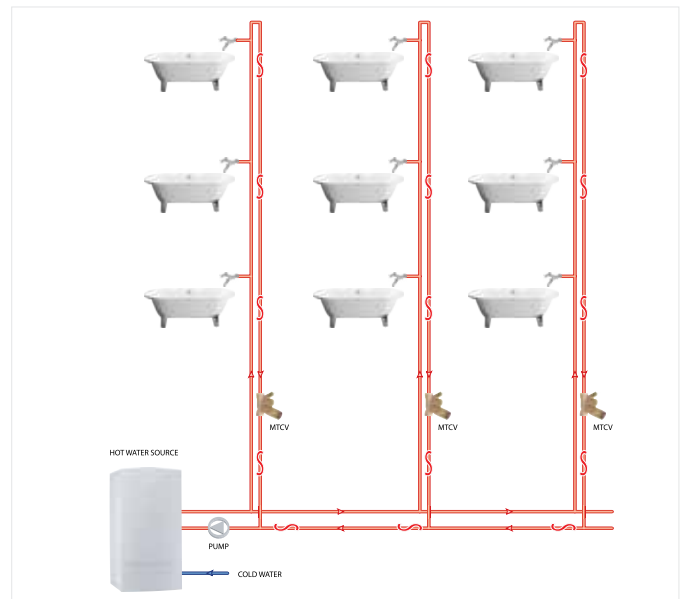
The basic version (A) – provides a thermostatic balancing function within the temperature range of 35 to 60 °C. For systems, where periodical thermal disinfection is required, the basic valve can easily be upgraded with the following modules:

An automatic (self-acting) thermal disinfection module – version (B). This module incorporates a thermo element, which opens the valve to a pre-set disinfection flow, when the water temperature in the riser increases above 65 °C. Furthermore, it has a safety function that closes the flow completely, when the water temperature increases above 75 °C.

An electronically controlled automatic disinfection module – version (C). This valve is upgraded with thermo actuators and temperature sensors, which are connected to a CCR2 electronic controller. The CCR2 controller constantly monitors the domestic hot water system to provide full control over the disinfection process in each riser. The duration and the temperature of the disinfection process can be programmed to accommodate your requirements:

- disinfection temperature from 54 up to 78 °C
- disinfection time from 2 up to 450 minutes.

To disinfect the system, modules alone are not enough. Water in the system must first be overheated to a "disinfection temperature" and maintained at this temperature for a certain period of time. The modules are prepared for upgrade under the operating conditions – without shutting off the water supply.



Valve	Code No.
MTCV version A DN15	003Z1515
MTCV version A DN20	003Z1520
MTCV version B DN15	003Z1511
MTCV version B DN20	003Z1557

Type	Image	Comments	Code No.
Thermostatic disinfection module – B		DN15/DN20	003Z2021
Electronic disinfection module – C		DN15/DN20	003Z1022
Thermometer with adapter		DN15/DN20	003Z1023
Socket for ESMB PT1000		DN15/DN20	003Z1024
CCR2 Electronic controller		24 VAC	003Z3850
TWA-A / ESMB Thermal actuator with temp. sensor		24 VAC, NC	003Z1043
TWA-A Thermal actuator		24 VAC, NC	088H3110
ESMB Universal temp. sensor, PT1000		2.5 m. cable	087B1184
ESMC Surface sensor, PT1000		2 m. cable	087N0011

Danfoss A/S . Heating Solutions . Hydronic Balancing & Control . Ulvehavevej 61 . DK-7100 Vejle . Denmark
Telephone +45 7488 8500 . E-mail: heating@danfoss.com . www.hbc.danfoss.com

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