

# THERMOSTATIC MIXING VALVE FOR DOMESTIC HOT WATER IN INSTALLATIONS WITH GAS BOILER

## INSTRUCTION SHEET

|        |      |
|--------|------|
| MTC34  | 3/4" |
| MTC34B | 1/2" |
| MTC10  | 1"   |
| MTC10B | 3/4" |

Intervallo di regolazione  
30 ÷ 65 °C

### DESCRIPTION

The thermostatic mixer regulates the domestic hot water temperature to a set value. It is supplied with hot water from the boiler and cold water from the mains water supply. It provides maximum comfort, significant savings on water and energy ; in the event of a cold water supply failure, it limits the flow of hot water, therefore reducing the risk of accidental scald. It is installed in distribution systems for domestic hot water produced by boilers of all types and heating stoves, in bathrooms, in houses, apartment blocks and communities. **Do not install on lines supplied by solar panels** (a specific mixer for solar panels must be used)

### WARNINGS

The mixer can be mounted vertically and horizontally without any restrictions. The connections shown in the adjacent illustration must be observed:

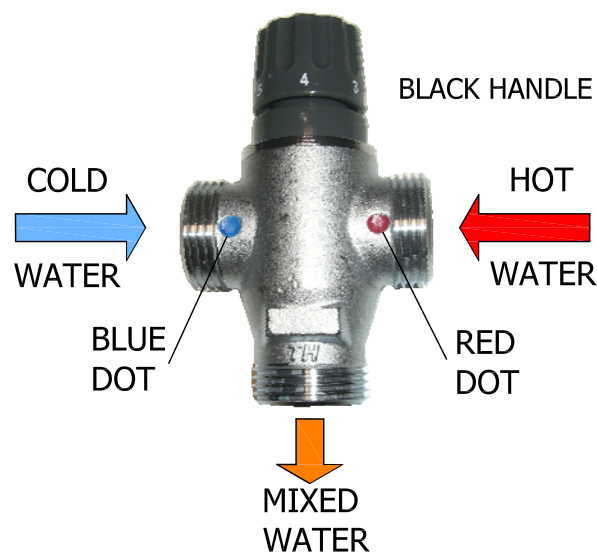
**Red dot** - HOT WATER;

**Blue dot** - COLD WATER;

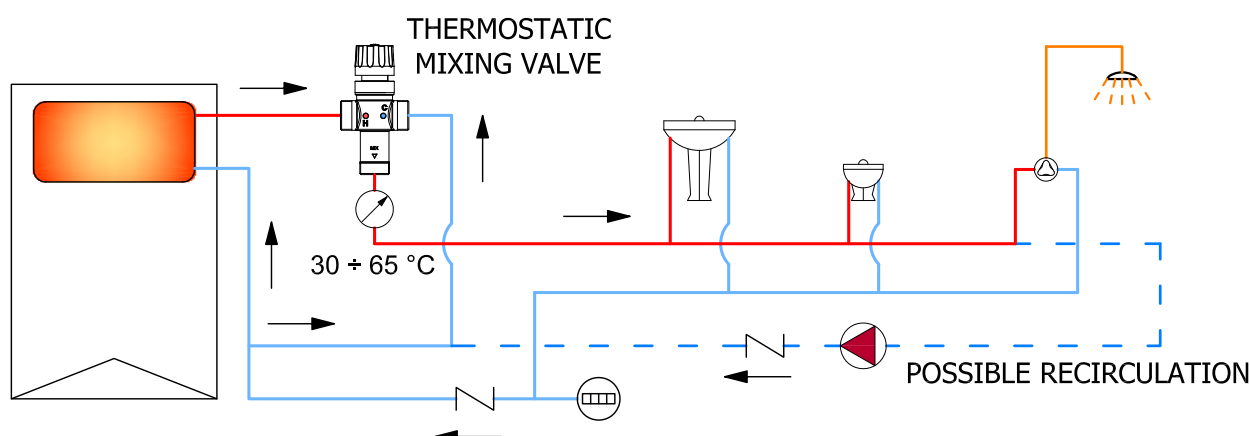
Middle way - MIXED WATER.

If the water pressure is higher than 3 bar it is advisable to fit a pressure reducer.

If the pressures of hot and cold water are significantly different from each other, it is recommended to install non-return valves on the inlets. If the water supply contains foreign bodies, filters must be installed.



## EXAMPLE OF THERMOSTATIC MIXER INSTALLATION FOR MIXED DOMESTIC HOT WATER PRODUCTION



The mixer is calibrated using cold water at **15 °C** and hot water at **65 °C** at **3 bar** so that the numbers printed on the knob correspond **approximately** to the temperatures indicated in the table below.

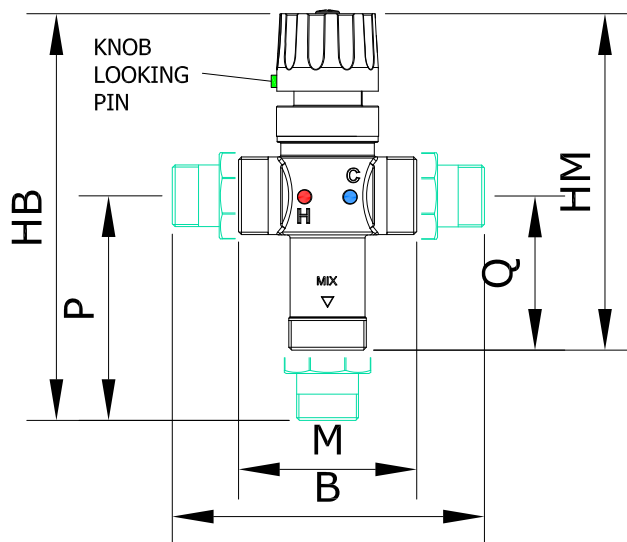
| knob position    | MIN | 1  | 2  | 3  | 4  | 5  | MAX |
|------------------|-----|----|----|----|----|----|-----|
| temperature (°C) | -   | 30 | 38 | 42 | 52 | 65 | -   |

Once the desired temperature has been set, the mixer can be locked by the knob looking pin, preventing accidental tampering.

## CHARACTERISTICS and MATERIALS

|                                          | MTC34                                                   | MTC34B      | MTC10      | MTC10B      |
|------------------------------------------|---------------------------------------------------------|-------------|------------|-------------|
| Connections                              | 3/4" male                                               | 1/2" unions | 1" male    | 3/4" unions |
| Range of adjustment                      | 30 ÷ 65 °C                                              |             | 30 ÷ 65 °C |             |
| Max. hot water temperature               | 85 °C                                                   |             |            |             |
| Kv                                       | 1.8 m³/h                                                |             | 3.2 m³/h   |             |
| Max. working pressure                    | 10 bar                                                  |             |            |             |
| Minimum pressure                         | 1 bar                                                   |             |            |             |
| Working pressure                         | up to 5 bar                                             |             |            |             |
| Max. pressure difference between inflows | 0.5 bar                                                 |             |            |             |
| Valve body                               | brass UNI EN 12165 CW617N sandblasted and chrome-plated |             |            |             |
| Shutter and internal organs              | brass UNI EN 12164 CW614N                               |             |            |             |
| Springs                                  | stainless steel AISI 302                                |             |            |             |
| O-ring                                   | NBR                                                     |             | NBR        |             |
| Knobs                                    | Nylon, PA 6                                             |             |            |             |
| Heat-sensitive element                   | wax                                                     |             |            |             |

## MIXING VALVE SIZE



| COD.   | Ø      | HM  | M  | Q  | HB  | B   | P  |
|--------|--------|-----|----|----|-----|-----|----|
| MTC34  | 3/4" M | 118 | 60 | 52 | /   | /   | /  |
| MTC34B | 1/2" B | /   | /  | /  | 146 | 116 | 80 |
| MTC10  | 1" M   | 116 | 70 | 49 | /   | /   | /  |
| MTC10B | 3/4" B | /   | /  | /  | 146 | 130 | 79 |

## FLOW RATE - PRESSURE DIAGRAM

