

## Warranty Information

Proof of purchase will be required.  
The guarantee does not cover faults or damage caused by incorrect installation and/or maintenance, ordinary wear and tear, water composition, etc.

\*Please see [www.methven.com](http://www.methven.com) for full terms and conditions of warranty

We have a policy of continuous improvement and reserve the right to change specifications without notice.

## Cleaning

Your product has a high quality finish and should be treated with care to preserve the visible surfaces. Never use abrasives or abrasive cleaning agents to clean this product.

Clean regularly with contamination free warm soapy water and a damp soft cloth.

Do not use products containing chlorine bleach or hydrochloric acid as these can damage the product. Always rinse the product thoroughly after cleaning to remove cleaning products that can damage the shower.

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INST - CM1D, CM1DBK, CM1DBB,  
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V1 - 24/01/2024

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# COMO and WAI Thermostatic Concealed Mixer Valves - Single Outlet

Product Code:

Como Round CM1D, CM1DBK, CM1DBB

Wai Square WA1D, WA1DBK

Installation Guide

## Technical Specification

### Working Pressure:

Min: 0.1 Bar

Max: 5.0 Bar

### Operating Temperature:

Hot: Max 65°C

Cold: Min 5°C

### Inlet Connections:

3/4" BSP



### Features:

- 38°C temperature hot stop with override facility
- Thermostatic cartridge for precise temperature control
- Separate flow and temperature controls
- Front access filters - no need to disconnect shower from water supply during maintenance
- Single outlet - suitable for connection to shower drencher, handset or bath filler



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**IMPORTANT:** Please read all of the instructions before installation.**Contents**

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**Troubleshooting**

| Issue                                  | Cause/s                                                                                  | Resolution                                                               |
|----------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| No water from outlet/Poor flow rates   | Isolation valve/s are not in an open position                                            | Fully open isolation valves                                              |
|                                        | Flow control handle in the off position                                                  | Manually turn product on                                                 |
|                                        | Mains water isolated                                                                     | Turn on mains water supply                                               |
|                                        | Airlock in system                                                                        | Release airlock                                                          |
|                                        | Blocked shower head / drencher                                                           | Clean or replace shower head / drencher                                  |
|                                        | Minimum pressure requirement not met                                                     | Check pressure is adequate / other outlets in use causing pressure drops |
|                                        | Debris blockage                                                                          | Flush system / clean inlet filters / Inspect Check valve strainers       |
| Continual dripping from outlet         | Continual leak indicates a failed diverter cartridge                                     | Contact customer care for replacement component                          |
| Intermittant dripping from outlet      | Water retention within product                                                           | Allow water time to drain from outlet                                    |
| Outlet temperature too cool            | Boiler not providing sufficient hot water (minimum requirement 55 Degrees Celcius)       | Boiler may need servicing/replacing                                      |
|                                        | Thermostat failure                                                                       | Contact customer care for replacement component                          |
|                                        | Recalibration required                                                                   | Refer to 'Calibration' section                                           |
|                                        | Adjust temperature handle                                                                | Rotate temperature handle anticlockwise                                  |
| Outlet temperature too hot             | Thermostat failure                                                                       | Contact customer care for replacement component                          |
|                                        | Recalibration required                                                                   | Refer to 'Calibration' section                                           |
|                                        | Adjust temperature handle                                                                | Rotate temperature handle clockwise                                      |
| Temperature drops during use           | Lack of stored hot water                                                                 | Wait for supply temperature to exceed minimum requirement                |
| Fluctuation of temperature during use  | Other hot or cold outlets being opened / drawing pressure off the system                 | Close other outlets                                                      |
| Temperature control works in reverse   | Hot and cold feeds installed incorrectly ( correct installation - hot left / cold right) | Reverse feeds                                                            |
| Shower passes either hot or cold water | Hot and cold feeds installed incorrectly ( correct installation - hot left / cold right) | Reverse feeds                                                            |

## COMMISSIONING

The first step in commissioning a thermostatic mixing valve is to check the following:

- The designation of the thermostatic mixing valve matches the application.
- The supply pressures are within the valves operating range.
- The supply temperatures are within the valves operating range.

- Isolating valves on supply pipes are recommended.

If all these conditions are met, proceed to set the temperature as stipulated in the 'CALIBRATION' section.

Method for adjusting the mixed water temperature - The mixed water temperature at the terminal fitting must never exceed 46°C.

It is a requirement that all Type 2 valves shall be verified against the original set temperature results once a year. When commissioning/testing is due the following performance checks shall be carried out.

- Measure the mixed water temperature at the outlet.
- Carry out the cold water supply isolation test by isolating the cold water supply to the TMV, wait for five seconds. If water is still flowing check that the temperature is below 46°C.
- If there is no significant change to the set outlet temperature (+2°C or less change from the original settings) and the fail-safe shut off is functioning, then the valve is working correctly and no further service work is required.

### Notes

If there is a residual flow during the commissioning or the annual verification (cold water supply isolation test), then this is acceptable providing the temperature of the water seeping from the valve is no more than 2°C above the designated maximum mixed water outlet temperature setting of the valve.

Temperature readings should be taken at the normal flow rate after allowing for the system to stabilise.

The sensing part of the thermometer probe must be fully submerged in the water that is to be tested.

Any TMV that has been adjusted or serviced must be re-commissioned and re-tested in accordance with the manufacturers' instructions.

The installation of thermostatic mixing valves must comply with the requirements of the Water Supply (Water Fittings) Regulations 1999.

## IMPORTANT INFORMATION

This valve is suitable for all pressure water systems.

Methven recommends this product is installed by a licensed plumber in compliance with all relevant Water Authority Regulations. If you are unsure as to what the regulations require, you can contact your Local Water Authority or the institute of Plumbers for further details.

This product is safe provided it is installed, used and maintained in accordance with these instructions and recommendations.

Please check this product immediately to ensure that it has not been damaged and is complete.

## PRIOR TO INSTALLATION

- Make sure this product is the correct model and you have all the parts required for installation and using.
- Check to ensure the minimum operating conditions can be met.
- Considered the surrounding environment where the installation is to take place and any potential hidden dangers.
- Ensure that both hot and cold supply pipes have been flushed to ensure there is no residual debris within the supply pipes that may effect the performance of your product. Extreme care should be taken when carrying out this procedure.
- Isolate the supply of both the hot and cold water to the shower valve.

Prior to installing your thermostatic valve it is important to fully understand the site installation conditions and the location where you intend to install your product.

This Thermostatic mixing valve is designed to be used within the following systems:-

### Gravity Fed Hot and Cold

Wherever possible for the best performance of the product, it is always best practice to have equal pressures supplied to both hot and cold inlets. However this product will only work up to a maximum 5 to 1 pressure differential.

### Unvented Systems

### Pumped Systems

### Gas Combination Boiler

## OPERATING SPECIFICATIONS

This valve is suitable for All Pressure water systems provided it is installed correctly.

|                                 | High Pressure             | Low Pressure              |
|---------------------------------|---------------------------|---------------------------|
| Maximum Static Pressure – Bar   | 10                        | 10                        |
| Flow Pressure, Hot & Cold - Bar | 0.5 to 5                  | 0.1 to 1                  |
| Hot Supply Temperature - °C     | 55 to 65                  | 55 to 65                  |
| Cold Supply Temperature - °C    | Equal to or Less than 25° | Equal to or less than 25° |

### NOTE:

Valves operating outside these conditions cannot be guaranteed by the scheme to operate as TMV 2 valves.

Operating pressure on hot and cold line should be kept as balanced as possible in order to assure maximum efficiency.

**The valves designation of use is for Low Pressure (LP-S) BS EN 1287, High Pressure (HP-S) BS EN1111 and the recommended mixed water outlet for showers at point of discharge is 41°C**

For gravity systems a minimum distance of 5 meters is required between the bottom of the storage tank and the shower head. Failure to ensure this criteria is met may cause the thermostatic mixing valve to work incorrectly.

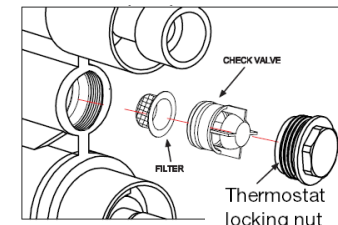
If a water supply is fed by gravity then the supply pressure should be verified to ensure the conditions of use are appropriate for the valve.

The check valves with strainers are inserted in the inlet connections in order to prevent backflow.

## MAINTENANCE

After prolonged usage of thermostatic valves, there will be some waste debris from the water pipe on and around the check valve or thermostatic cartridge, which will affect the flow and sensitivity of the temperature adjustment. Please take out and clean the cartridge filter. To avoid damage, please remove all chrome parts before any maintenance takes place.

- 1) Remove the check valve thermostat locking nut.
- 2) Use pliers to remove the check valve and filter.
- 3) Wash the filter with clean running water, dry and lightly grease the seals. (only use silicone grease).
- 4) Put back the filter and check valve, then tighten the thermostat locking nut.



## INSTALLATION AND REMOVAL OF THE HANDLE

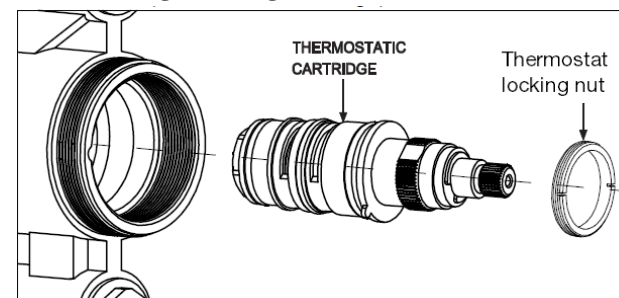
1. Unscrew the lever (1)
2. Remove the two grub screw (2) with a 2.5mm Allen Key
3. Remove the handle (3)



## MAINTENANCE-REPLACEMENT OF THE THERMOSTATIC CARTRIDGE

Before proceeding with the maintenance of the cartridge, remove the regulation handle. Follow the instructions shown in section “REMOVAL OF HANDLE”

1. Remove the stop ring.
2. Remove the thermostat locking nut
3. Remove the thermostatic cartridge.
4. Clean it's filters under running water or leave to soak in vinegar in presence of limescale. **If damaged replace them with new ones.**
5. Put back the thermostatic cartridge, then tighten the thermostat locking nut.



## CALIBRATION

### Setting and/or adjusting the maximum temperature.

Whilst the temperature of your thermostatic mixing valve has been factory tested and calibrated, you may need to perform a slight initial adjustment to suit your system operating setup. To do so:-

1. Loosely fit the temperature control knob to the thermostatic mixing valve. Note, whilst fitting the knob, there is a temperature stop pin inside the knob which is required to line up with the temperature stop ring.
2. Taking extreme care, slowly turn on the thermostatic mixing valve and gently rotate the control knob to the maximum temperature position. Let the shower run for several minutes to ensure the correct blend of hot and cold water and the maximum outlet hot water temperature has been achieved.

**It is important to note at this stage, very hot water MAY flow through either outlet depending on where the diverter is set too and can cause serious burns if care is not taken!**

3. Take note of the outlet temperature of the shower using a suitable testing equipment.
4. If the maximum temperature requires adjusting, remove the temperature control knob and adjust the thermostatic mixing valve spindle.

**To increase the outlet temperature, slowly turn the spindle anti-clockwise To decrease the outlet temperature, slowly turn the spindle clockwise**

5. When the desired temperature is achieved, refit and secure the thermostatic mixing valve control knob lining up the pin in the knob with the temperature stop ring
6. Turn off the shower valve.

## RECOMMENDED OUTLET TEMPERATURES

The TMV Scheme recommends the following set maximum mixed water outlet temperatures for use in all premises:

44°C for bath fill but see notes below;  
41°C for showers  
41°C for washbasins  
38°C for bidets

The mixed water temperature must never exceed 46°C

The maximum mixed water temperature can be 2°C above the recommended maximum set outlet temperatures.

### NOTE:

46°C is the maximum mixed water temperature from the bath tap. The maximum temperature takes account of the allowable temperature tolerances inherent in the thermostatic mixing valves and temperature losses in metal baths.

### It is not a safe bathing temperature for adults or children.

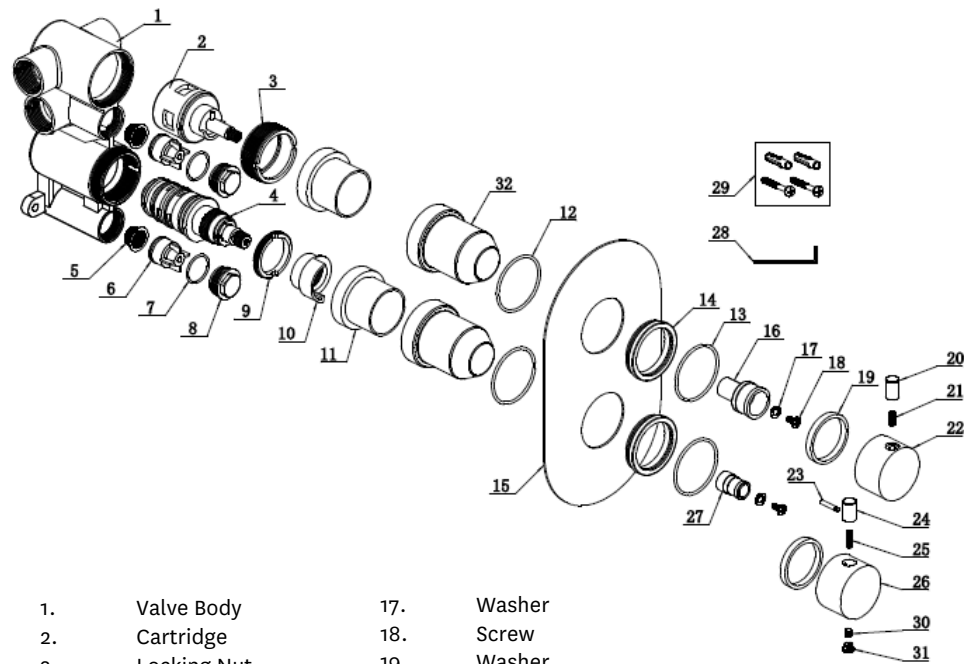
The British Burns Association recommends 37°C to 37.5°C as a comfortable bathing temperature for children. In premises covered by the Care Standards Act 2000, the maximum mixed water outlet temperature is 43°C.

The thermostatic mixing valve should be installed in such a position that maintenance of the TMV and its valves and the commissioning and testing of the TMV can be undertaken.

The fitting of isolation valves is required as close as is practicable to the water supply inlets of the thermostatic mixing valve.

PRODUCT BREAKDOWN

CM1D, CM1DBK, CM1DBB

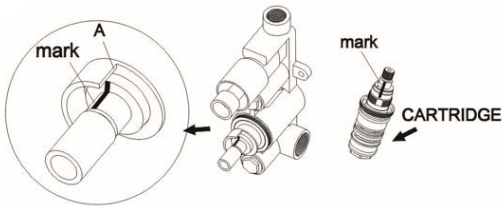


- |     |                        |     |                           |
|-----|------------------------|-----|---------------------------|
| 1.  | Valve Body             | 17. | Washer                    |
| 2.  | Cartridge              | 18. | Screw                     |
| 3.  | Locking Nut            | 19. | Washer                    |
| 4.  | Thermostatic Cartridge | 20. | Handle Lever              |
| 5.  | Filter Net             | 21. | Screw                     |
| 6.  | Check Valve            | 22. | Flow Control Handle       |
| 7.  | O-Ring                 | 23. | Bar                       |
| 8.  | Mounting Nut           | 24. | Override Button           |
| 9.  | Thermostat Locking Nut | 25. | Spring                    |
| 10. | Stop Ring              | 26. | Thermostat Control Handle |
| 11. | Shroud                 | 27. | Handle Insert             |
| 12. | O-Ring                 | 28. | Allen Key                 |
| 13. | O-Ring                 | 29. | Screws & Wall Plugs       |
| 14. | Faceplate Ring         | 30. | Screw                     |
| 15. | Faceplate              | 31. | Cover                     |
| 16. | Handle Insert          | 32. | Protection covers         |

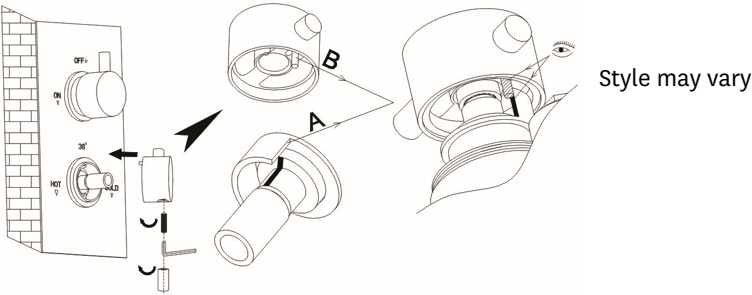
**IMPORTANT :** Before fitting the concealing plate it is essential that all joints are checked for leaks. Failure to do so could result in flooding or water damage within the cavity over a long period of time that may not be immediately evident. Therefore:-

- Secure the flow control knob to the flow control valve
- Secure the temperature control knob to the thermostatic mixing valve, to secure the temperature knob in the correct position, Please refer to 'Maximum temperature setting and adjustment'
- Ensuring all joints have been secured and tightened, turn on both Hot and Cold water supplies.
- Turn the flow control knob
- Taking care, turn the thermostatic mixing valve on, whilst water should now be flowing through the outlet, check all joints for signs of leaks. Turn off the thermostatic mixing valve and repeat the process for the remaining connected outlet. Any leaking joints should be immediately rectified. It may be a good idea to leave the shower running for several minutes to ensure the joints are water tight and no leaks appear.
- When you are confident that all joints are watertight. Turn off the thermostatic mixing valve.

11. Remove both the Thermostatic mixing valve and flow control knobs (take note which position the control was set too, as this is the position the control knob will need to be fitted after fitting the concealing plate)



12. Ensuring correct orientation, Fit the concealing plate to the valve assembly. When fitting the concealing plate, a suitable sealant should be used behind the concealing plate to create a waterproof joint between the concealing plate and wall.



13. Refit and secure the diverter control knob and temperature knob to the position it was removed in point 11.

INSTALLATION

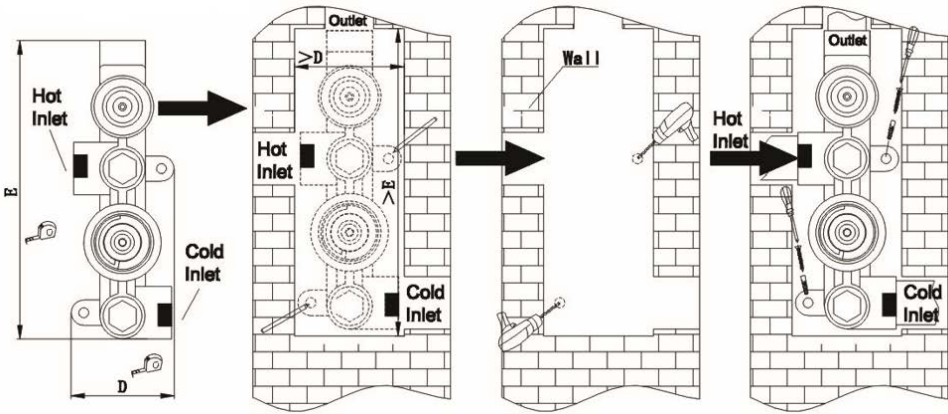
Determine the fixing position for the valve.

When installing the assembly into the wall cavity, for ease of installation and maintenance you should aim to keep the access hole as large as possible whilst ensuring there will still be enough room to be able to create a suitable contact between the wall and concealing plate using a suitable silicon sealant to create a water tight joint between the wall and concealing plate.

Consider the thickness of the final coating (tiles, marble etc.)

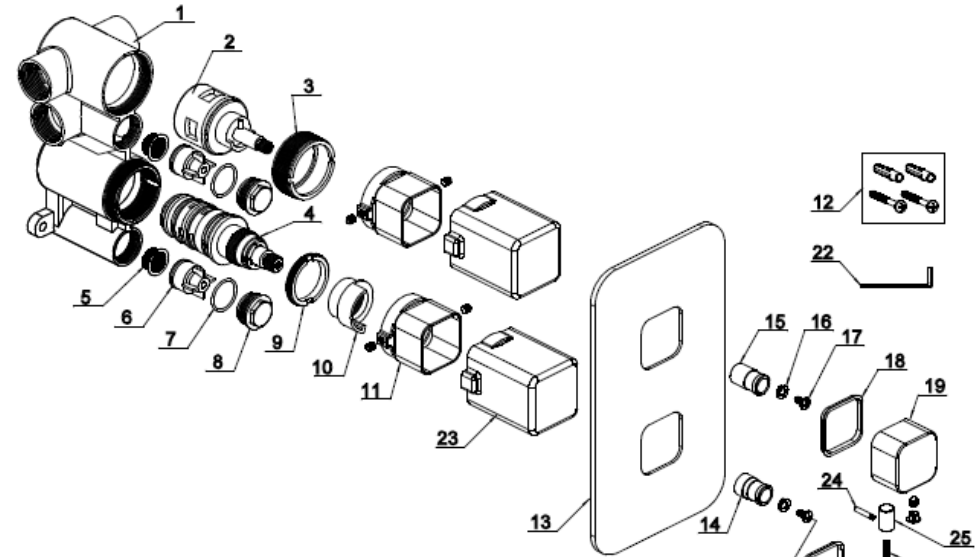
The temperature control knob is pre-set with stop at 38°C to avoid scalding.

- 1. Ensure that both the hot and cold mains water supplies are isolated.
- 2. Fix the shower valve assembly into the wall cavity ensuring the thermostatic mixing valve is at the bottom and the diverter assembly is at the top. If done correctly the 'Hot' inlet port to the thermostatic mixing valve will be at the top of the valve assembly to the left hand side.
- 3. Connect the respective hot and cold water supplies to the Hot and Cold inlet ports of the thermostatic mixing valve making sure that all seals, filters, olives are fitted and joints sufficiently tightened.
- 4. Connect the pipework for the shower fitting to the outlet.



PRODUCT BREAKDOWN

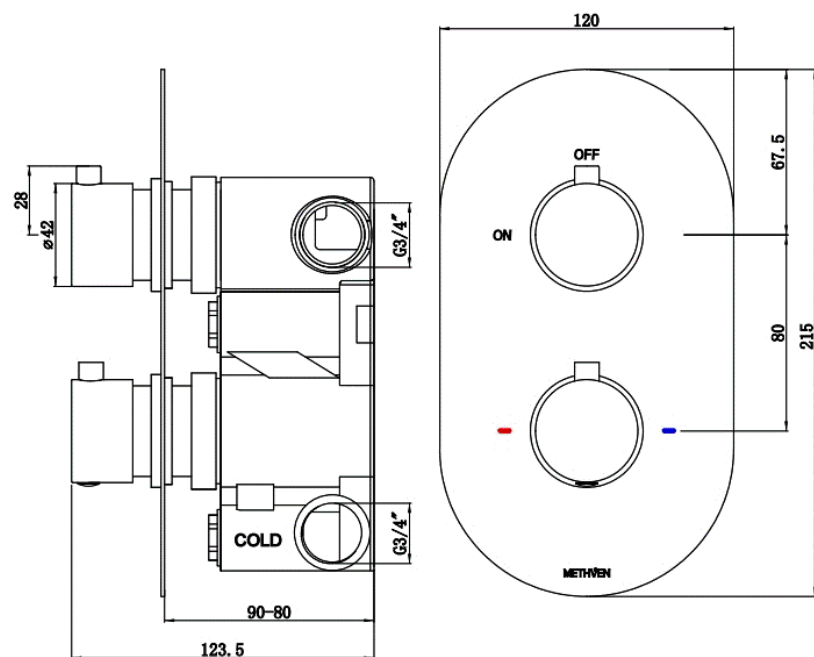
WA1D, WA1DBK



- |     |                        |     |                           |
|-----|------------------------|-----|---------------------------|
| 1.  | Valve Body             | 17. | Screw                     |
| 2.  | Cartridge              | 18. | Washer                    |
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| 4.  | Thermostatic Cartridge | 20. | Screw                     |
| 5.  | Filter Net             | 21. | Cover                     |
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| 10. | Stop Ring              | 26. | Spring                    |
| 11. | Shroud                 | 27. | Thermostat Control Handle |
| 12. | Screws & Wall Plugs    |     |                           |
| 13. | Faceplate              |     |                           |
| 14. | Handle Insert          |     |                           |
| 15. | Handle Insert          |     |                           |
| 16. | Washer                 |     |                           |

## LINE DRAWING (mm)

CM1D, CM1DBK, CM1DBB

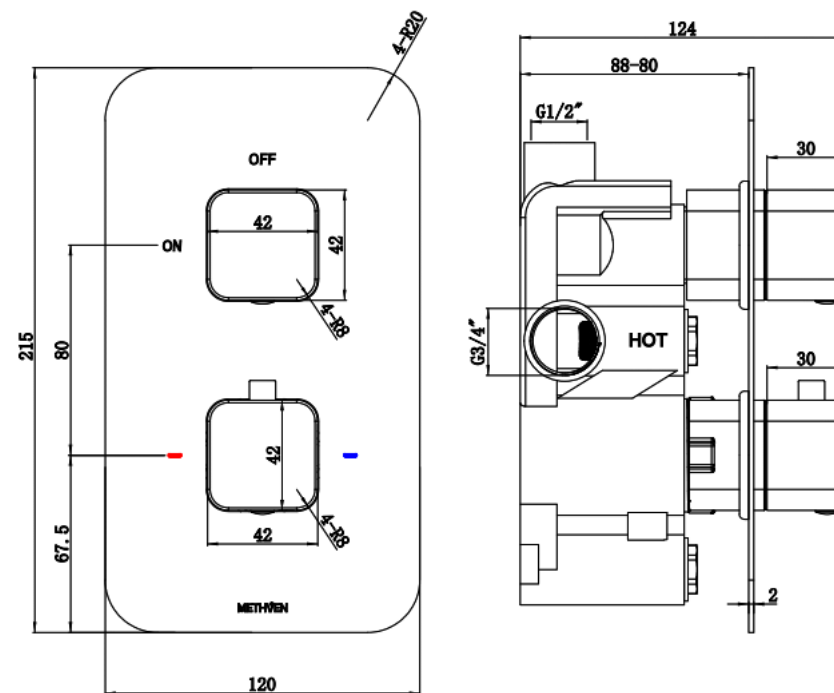


### Note:

Valves are supplied with protective covers to prevent dust ingress on the cartridge during installation. We recommend keeping the covers fitted until installation is complete.

## LINE DRAWING (mm)

WA1D, WA1DBK



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