I&M TEMPLATE DETAILING THE INFORMATION REQUIRED BY THE DISTRIBUTION TEMPERING CONTROL SCHEME (DTC SCHEME) THAT MUST BE INCLUDED WITHIN THE INSTALLATION AND MAINTENANCE (I&M) DOCUMENTATION.

The BuildCert DTC Scheme has produced this I&M template that can be used by license holders to fulfil there requirements of information **that must** be included within the Installation and Maintenance (I&M) documentation supplied with the DTC Scheme approved valve.

Conditions of use

	Limits of use UK	Recommended limits for ope
Dynamic pressure	0.2 bar min	1 bar ≤ P ≤ 5 bar
Static pressure	10 bar max	
Hot water inlet temp	T≤ 90°C	60 °C ≤ T 80≤ °C
Cold water inlet temp	T≤ 25 °C	T≤ 25 °C
Distribution (outlet) temp	45 °C ≤ T≤ 65 °C	UK 55 °C ≤ T≤ 60 °C

The EN standard verifies that tempering valves operate at between 45 and 65 °C, in the UK so as to comply with the requirements of the UK Water Supply (Water Fitting) Regulations 1999 G18.3 and with Part G of the Building Regulations clause 3.63. Tempering valves must be set to operate at a mixed water outlet temperature of between 55 and 60 °C

NOTE: Valves operating outside these conditions cannot be guaranteed by the Scheme to operate as DTC approved valves.

Tempering valves are intended to be used adjacent to hot water storage heaters to provide tempered water to the terminal fittings and are not intended to control the water temperature at the point of use. **A tempering valve is not a safety device**.

State the valves designation Type 1 or type 2

Type 1 valves are non-adjustable valves having a pre-set temperature of 55 to 60°C.
Type 2 valves are adjustable with a pre-set temperature set by the manufacturer of the valve.

State the set temperature of the valve
State its nominal flow rate.
Its temperature range of operation

A schematic drawing or drawings to show the correct installation of an in line hot water supply tempering valves i.e. mounted in close proximity to the water heater.

Information on the commissioning and routine in-service tests to be performed.

The DTC Scheme is an independent third party certification scheme administered by BuildCert Ltd, under the remit of the BuildCert Certification Scheme.

Information on the need for any anti-backsiphonage devices (eg check valves) required to be installed with the tempering valve together with the specification of such devices. The specification shall be sufficient to enable the combination of tempering valve and anti-backsiphonage devise tested in accordance with this specification to be replaced on site.

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

The tempering valve will be installed in such a position that maintenance of the Tempering valve and its supply valves and the commissioning and testing of the tempering valve can be undertaken.

If isolation valves and or check valves are not provided then a statement is required that states: - The fitting of isolation valves/ check valves (delete as appropriate) is required as close as is practicable to the water supply inlets of the tempering valve.

If strainers are not provided then a statement is required that states: - The fitting of strainers is recommended as close as is practicable to the water supply inlets of the tempering valve.

The following statement is required: The Distribution Tempering Control Scheme recommends that the system is installed with suitable test points in order that the performance of the tempering valve can be verified.

Commissioning notes for Tempering Valves.
The first step in commissioning a tempering valve is to check the following:
The supply pressures are within the valves operating range.
The supply temperatures are within the valves operating range.
Isolating valves (and strainers preferred) are provided.

If all these conditions are met, proceed to set the temperature as stipulated in the manufacturer's installation instructions if the installed valve is Type 2.

State the method for adjusting the mixed water temperature with a note that states: - The mixed water temperature must not exceed 60+2^{o}C or be below 55^{o}C

When commissioning the tempering valve of a size up to and including DN32 the following performance check 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 tempering valve, wait for five seconds if water is still flowing check that the temperature is not below 55^{o}C or exceeding 60+2^{o}C.

Notes
If there is a residual flow during the commissioning test (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 tempering valve that has been adjusted or serviced must be re-commissioned and re-tested in accordance with the manufacturers' instructions.

State the installation of tempering valves must comply with the requirements of the Water Supply (Water Fittings) Regulations 1999.