



Hot Water Temperature Maintenance Specification - +65°C H2OWAT65 System



Requirement

To maintain a minimum temperature of between +55 and +65°C within a single feed hot water distribution pipe work system to allow for;

- Instant Hot Water at each draw-off point/outlet.
- Protection against the formation of Legionella within pipework during 'no-flow' conditions.
- Periodic System Purging to eliminate Legionella.
- Energy saving over Flow and Return Systems.
- Cost Saving over Flow and Return Systems.

System Specification

All trace heating cables should be of the energy efficient self regulating type and the system should be designed, supplied and installed by a reputable Specialist Trace Heating Company.

The heating cable should be specifically designed for Hot Water Maintenance and all connections and components must be suitable for the installation requirements. See Specification Sheet F1024-3.

For systems requiring Legionella Purging, the system should be controlled by a suitable controller to allow both operation in normal conditions and setting of Periodic Legionella Purge frequency.

The heating cables should be, of Parallel Circuit Design, have an output of 13W/m @ 65°C, be able to withstand temperatures of up to 80°C (minimum), have an earth screen covering and thermo-plastic outer sheath.

The system should maintain the pipework system at a minimum of +55°C or +65°C (depending on system requirements) within a minimum ambient of +18°C with the correct insulation thickness fitted. Please refer to Specification Sheet F1024-3 for Minimum Insulation Requirements.

NOTE:

As the system is designed to maintain a MINIMUM temperature of +55°C or +65°C within the system (depending on system requirements), the use of Thermostatic Mixing Valves (TMV's) or other suitable temperature control devices is recommended to ensure that hot water is not distributed at levels which may be harmful to the user.

All termination kits should be designed for use with the heating cable and should be sourced from the heating cable supplier.

Junction boxes must be suitable for the application and allow for a minimum IP65 Protection with sufficient terminals (where applicable) for each circuit.

Each circuit should be protected by a suitably sized 30mA RCD Type C (supplied by the electrical contractor)

All mains connections and interconnecting wiring is to be provided by the Electrical Contractor.

Installation

The trace heating system should be designed, supplied and installed by a Specialist Trace Heating Company.

The heating cable should be terminated using specifically designed termination kits and components following the manufacturer's instructions.

The heating cable should generally be 'Straight Traced' along the pipework to within approx 1m of the final outlet/TMV or as close as reasonably practicable. Where a distance of 1m from the outlet or TMV cannot be achieved please consult with the Trace Heating Company to confirm compliance with any Hot Water Maintenance Regulations or Recommendations.

All cable should be tested Prior to Installation, Following Installation and Prior to Thermal Insulation and Following Thermal Insulation Installation.

All insulated pipework should be clearly marked on alternate side of the pipe with suitable caution labels, at intervals not exceeding 3m.

Each circuit should be protected by a suitably sized 30mA RCD Type C (supplied by the electrical contractor)

All mains connections and interconnecting wiring is to be provided by the Electrical Contractor.

Please refer to ESH Trace Heating specification sheets listed below for technical details (all pages are available on our website www.eshltd.com within the hot water products section).

F1021	Heating Tapes Parallel Self Limiting
F1024	Type H2OWAT Heating Tape
F1302	H2OWAT TERMINATION INSTRUCTION
F1080	Trace Heating of Hot Water Systems

For further information, please contact ESH Trace Heating Ltd.