

# DigiTemp™

## Typical Specification

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Temperature control system shall be controlled digitally via integrated circuit board technology designed to deliver blended water economically at accurate temperature selected by user as safe and appropriate for sanitary use in facility's recirculated hot water system. The mixing valve shall be a PVI DigiTemp.

Construction shall be lead free\* design and in compliance with lead free laws. Digital water temperature control and monitoring system shall feature full-color 3.5" touchscreen interface capable of displaying 196 combinations of critical system data in standard or metric measurements. Unit shall be user-configurable on location and shall not require factory pre-programming prior to shipment. Temperature adjustment shall be made locally by user at the control module and shall not require a laptop computer or special software to initiate.

System shall control water temperature to +/- 2°F in accordance with ASSE 1017 and during periods of low and zero demand, and maintain a consistent system "idling" temperature to mitigate "temperature creep" without the use of a manual throttling device/balancing valve. The high-speed actuator shall be located external to mixing chamber where water from valve cannot affect performance as a result of faulty orings or seals.

System shall feature *Feed Forward* or *Predictive Control* which anticipates changes in system demand and adjusts valve pre-emptively to maintain mixed set point. Control module shall be password protected to help prevent unauthorized adjustment or tampering with settings.

System shall digitally monitor and display the following without the use of an external module, laptop and special software that must be downloaded:

- Hot and cold water inlet supply pressure in °F/°C
- Hot and cold water inlet supply temperature in °F/°C
- Mixed outlet temperature and mixed outlet set point in °F/°C
- Return temperature and pressure in psi/kPa
- Mixed outlet and return flow in gpm/lpm (optional)
- Energy units displayed in therms (TH), gigajoules (GJ), kilowatts (kWh) and British thermal units (MBTU)
- Highest mixed outlet temperature recorded (since last reset)
- Lowest mixed outlet temperature recorded (since last reset)
- Recirculation pump run time in hours (recirculation pump field supplied and installed)
- Energy consumed (since last reset)
- Highest hot water inlet supply temperature (since last reset)
- Lowest hot water inlet supply temperature (since last reset)
- Highest measured load flow (since last reset)

Control module shall integrate with building automation systems through Bacnet and Modbus protocols without the use of a separate module, and feature local and remote temperature alarms. System will also feature a password protected, user-selected high-temperature sanitization mode for operation as part of a user's safe and properly designed thermal bacteria eradication protocol.

In the event of a power failure or loss of cold water, system will close the hot water supply via an internally charged capacitor and is not reliant on batteries which must be replaced. Actuator shall also feature a manual override which can be used to set mixed outlet temperature in the event of a power loss.

System shall be listed/approved to ASSE 1017, cUPC, NSF and CSA 24/UL873, and should be mounted on a heavy-duty welded strut with corrosion resistance coating and factory-tested as a complete unit. System shall come with a standard 5-year limited warranty. System shall be a PVI DigiTemp model series V85 or V135.

Other specifications include:

1. Maximum Operating Pressure.....200psi (1379kPa)
2. Maximum Hot Water Temperature.....200°F (93°C)
3. Minimum Hot Water Supply Temperature\*\* .....2°F (1°C) above set point
4. Hot Water Inlet Temperature Range.....120-180°F (49-82°C)
5. Cold Water Inlet Range.....39-80°F (4-27°C)
6. Minimum Flow \*\*\* .....0.5gpm (1.89lpm)
7. Temperature Adjustment Range\*\*\*\* .....80-180°F (27-82°C)
8. Listing /Compliance.....ASSE 1017^ , cUPC^, NSF372^, CSA 24/UL873
9. Pump relay.....16A @ 250 VAC
- 10.Alert relay.....5A @ 250 VAC, 5A @ 30 VDC

*\* The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.*

*\*\* With equal pressure*

*\*\*\* Minimum flow when DigiTemp is installed at or near hot water source recirculating tempered water with a properly sized continuously operating recirculating pump.*

*\*\*\*\* low limit cannot be less than the cold water temperature. For best operation, hot water should be at least 2°F above desired set point.*

*^ Listed without re-circulation line and pump*



DigiTemp provides user-directed control and monitoring of water distribution systems. It is the user's responsibility to select and maintain water temperatures that are safe and appropriate for the water system users and facility. DigiTemp's Sanitization mode is intended for use as part of a user-directed, controlled and supervised protocol that has been safely and properly designed.

It is recommended to install DigiTemp™ as part of an ASSE -compliant water distribution system, including point-of-use mixings valves.

Installation and adjustment of the DigiTemp™ are the responsibility of the owner and installer and must be done by qualified personnel in accordance with the manufacturer's instructions, and complying with all governmental requirements, building and construction codes and standards. The owner and user of the DigiTemp™ is responsible for selecting and installing the product in an appropriate water distribution system, proper sizing, maintaining proper water quality/condition, and deciding what temperature is safe and appropriate for the water distribution users and facility.