

## WTS3000 WATER TEMPERATURE SENSOR

This sensor is used to measure water temperature of heated or chilled water and other liquids in mechanical systems.

The sensor includes a brass well which allows the probe to be removed from the pipe without draining the system and protects the probe.

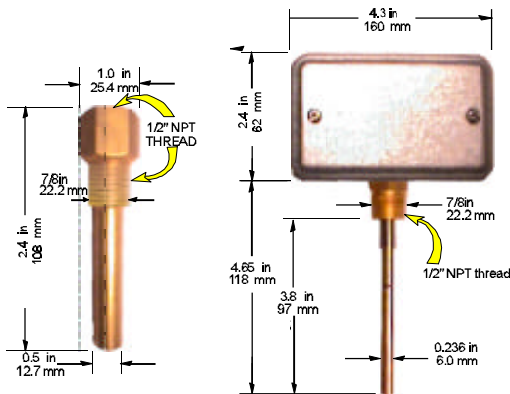
There are four thermistor based models, and one RTD version to provide compatibility with the majority of DDC systems. The sensors are accurate enough that calibration is not usually required.

| Sensor Property       | Specification  |
|-----------------------|----------------|
| Thermistor Accuracy   | +/- 0.2C       |
| Platinum RTD Accuracy | +/- 0.4C       |
| Thermistor range      | -70C to 150C   |
| Probe Material        | Stainless      |
| Cable properties      | FT4, 80C, 600V |

### Construction

The sensor probe is made to industrial standards, the stainless steel probe is welded, ground down and finally pressure tested. The probe assembly is baked and epoxy sealed to provide long term protection from moisture. The probe is spring loaded to ensure thermal contact with the bottom of the well. Thermistors are accurate to 0.2C while the platinum RTD is accurate to 0.5C

The well is made from machined brass, and fits a standard 1/2" NPT fitting. The sensor housing is a galvanized electrical box.

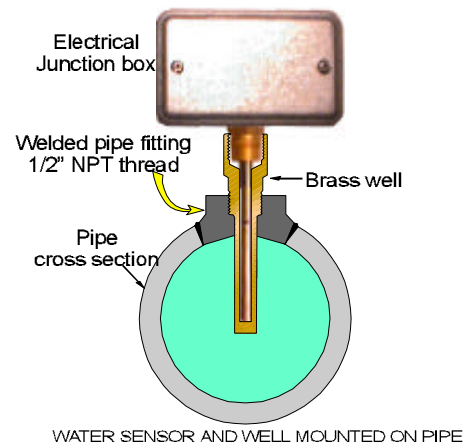


### Installation

Water temperature sensors can be located at any suitable location in the system.



- A 1/2" NPT female pipe fitting is welded into the pipe. These fittings are usually supplied and installed by the piping trade under direction of the controls trade.
- The fitting can be welded on any suitable section of pipe, in either a horizontal or vertical pipe section.
- Choose an orientation where any condensation will not drip into the electrical box, such as the top of a horizontal pipe section.
- Before threading the sensor into the well, deposit some thermal paste in the bottom of the well to improve heat conduction between the metal parts.
- The sensor is wired with two conductor 18 ga, unshielded twisted pair.



### Ordering Information

| Sensor                  | DDC System                                    | Part#      |
|-------------------------|-----------------------------------------------|------------|
| 10K thermistor, curve 3 | AAM, Andover Siebe, Delta, Multi-net, Kreuter | WTS3000-7  |
| 10K thermistor, curve 2 | ALC, Trane, CSI, Solidyne                     | WTS3000-24 |
| 1000 $\Omega$ Pt RTD    | Honeywell, Johnson, L&S                       | WTS3000-12 |
| 3k thermistor           | Alerton                                       | WTS3000-6  |