

Temperature Sensors

Description

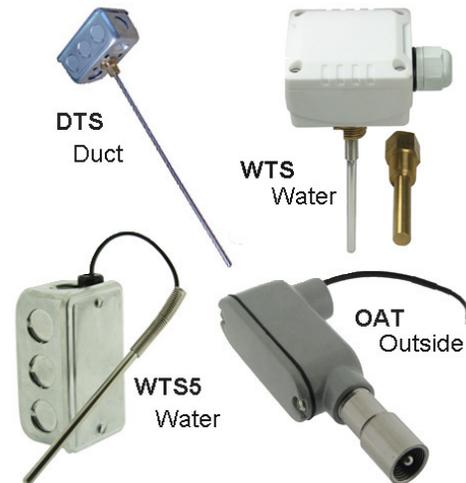
Temperature sensors are used to measuring the temperature for the air conditioning industry.

This document shows the enclosures and temperature vs. resistance curves for the standard sensors.

General

The sensors employ precision interchangeable thermistors and RTD which are compatible with all the major building automation systems.

- Designed for temperature sensing in an HVAC and light industrial control applications.
- Precision interchangeability eliminates the necessity for individual circuit calibration.



There are several sensor element ranges to choose from, which guarantee compatibility with all popular DDC systems. The sensor elements are precision thermistors or platinum RTDs. Field calibration is not generally required. The probe is epoxy sealed to prevent moisture from migrating into the probe. Custom probe lengths, wire types and sensor elements are available for large OEM projects. Ask about our plastics & metal manufacturing capabilities for custom housings as well.

| Part # Suffix | Sensor | Typical User |
|---------------|---------------------------------|---|
| 2 | 100 ohm Platinum 3-wire | Honeywell |
| 5 | 1,801 ohm Thermistor | t.a.c. / CSI |
| 6 | 3,000 ohm Thermistor | Alerton |
| 7 | 10,000 ohm Thermistor 'Type2' | Trane, Automated Logic, Temco, t.a.c., CSI, Solidyne, Alerton |
| 9 | 100,000 ohm Thermistor | Siemens(Landis & Staefa) |
| 11 | LM334 IC sensor | t.a.c. / CSI |
| 12 | 1000 ohm Platinum | Invensys(siebe), Honeywell, Johnson Controls, Siemens (Landis & Staefa) |
| 13 | 1000 ohm Nickel | Johnson Controls |
| 20 | 20,000 ohm Thermistor | Honeywell |
| 21 | LM335 IC Sensor | Solidyne, IECC |
| 24 | 10,000 ohm Thermistor, 'Type 3' | Andover, AAM, Teletrol, Invensys(Siebe), Multinet, Delta, Carrier, KMC, Temco |

Specification

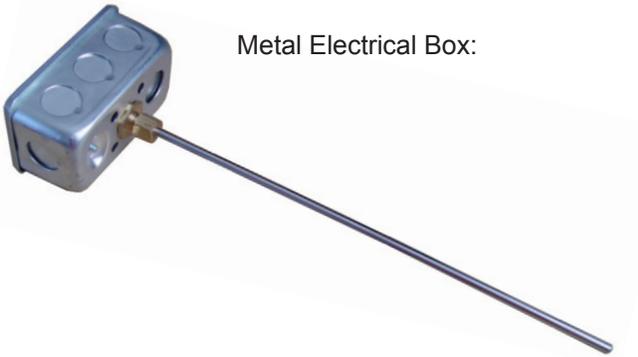
| Sensor Type | Accuracy | Operating Temperature Range |
|---------------------------------|---|-----------------------------|
| 10,000 ohm Thermistor 'Type2' | +/- 0.2°C | -40°C to 125°C |
| 10,000 ohm Thermistor, 'Type 3' | +/- 0.2°C | -50°C to 105°C |
| 100,000 ohm Thermistor | +/- 0.3°C | -40°C to 125°C |
| 1000 ohm Platinum | +/- 0.4°C | -200°C to 400°C |
| 100 ohm Platinum | +/- 0.4°C | -200°C to 300°C |
| Probe Material | Stainless Steel 304, 1mm thick wall | |
| Cable Property | FT4, 105°C, 300V standard or 200°C, 300V high temperature on request. | |
| Cable Material | PVC standard or High temperature silicon available on request. | |
| Exposure Rating | IP65, for outdoor use | |

Temperature Sensors

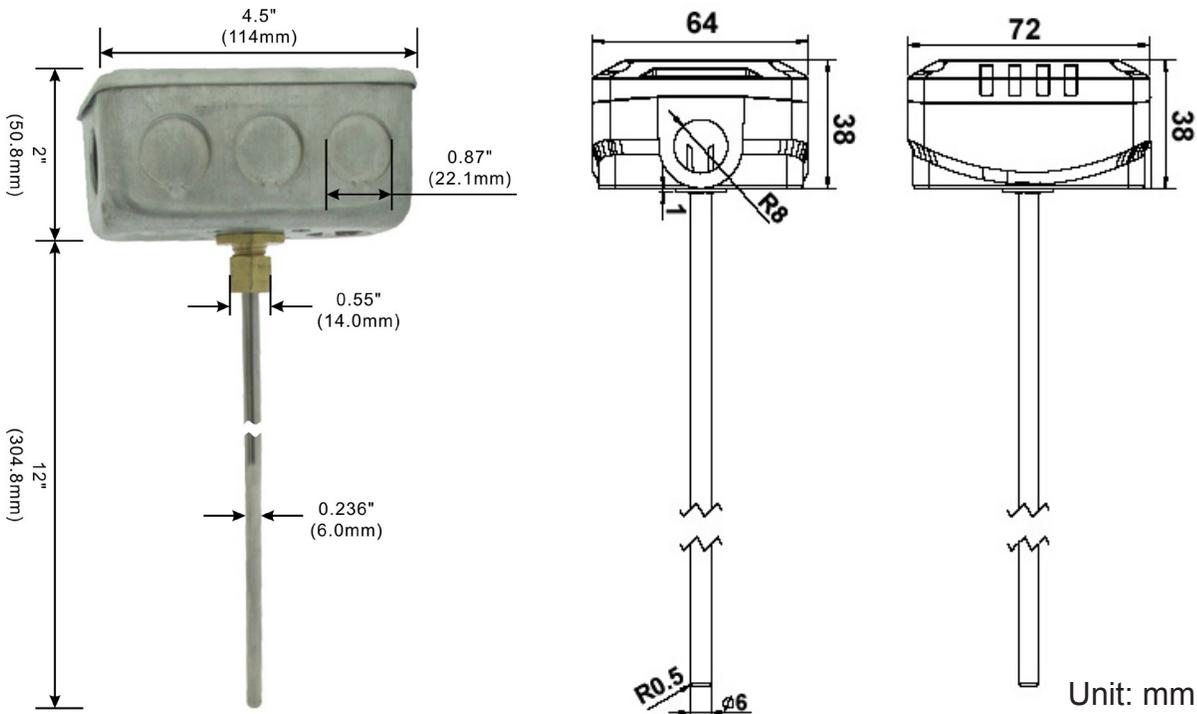
Temperature Curves:

| Thermister Type, Ohms / Part Number Suffix | | | | | | |
|--|---------|----------------|-----------------|-----------|-----------|--------------|
| Part # -> DegC | 3K 6 | 10K Type2 7 | 10K Type3 24 | 20K 20 | 100K 9 | 1K RTD 12 |
| -40 | 100,701 | 335,671 | 239,700 | 814,000 | 4,067,212 | 843 |
| -35 | 72,658 | 242,195 | 187,500 | 578,600 | 2,890,843 | 863 |
| -30 | 53,005 | 176,683 | 135,300 | 415,600 | 2,077,394 | 882 |
| -25 | 39,073 | 130,243 | 107,105 | 301,000 | 1,508,530 | 902 |
| -20 | 29,092 | 96,974 | 78,910 | 220,600 | 1,106,485 | 922 |
| -15 | 21,868 | 72,895 | 63,225 | 163,600 | 819,378 | 941 |
| -10 | 16,589 | 55,298 | 47,540 | 122,380 | 612,366 | 961 |
| -5 | 12,694 | 42,314 | 38,515 | 92,300 | 461,683 | 980 |
| 0 | 9,795 | 32,650 | 29,490 | 70,200 | 351,017 | 1,000 |
| 5 | 7,618 | 25,395 | 23,460 | 53,800 | 269,041 | 1,020 |
| 10 | 5,971 | 19,903 | 18,790 | 41,560 | 207,807 | 1,039 |
| 15 | 4,714 | 15,714 | 15,130 | 32,340 | 161,702 | 1,059 |
| 20 | 3,748 | 12,493 | 12,260 | 25,340 | 126,729 | 1,078 |
| 25 | 3,000 | 10,000 | 10,000 | 20,000 | 100,000 | 1,105 |
| 30 | 2,416 | 8,056 | 8,194 | 15,884 | 79,428 | 1,117 |
| 35 | 1,959 | 6,530 | 6,752 | 12,696 | 63,489 | 1,136 |
| 40 | 1,597 | 5,324 | 5,592 | 10,210 | 51,058 | 1,155 |
| 45 | 1,310 | 4,366 | 4,655 | 8,258 | 41,301 | 1,175 |
| 50 | 1,080 | 3,601 | 3,893 | 6,718 | 33,598 | 1,194 |
| 55 | 896 | 2,985 | 3,327 | 5,494 | 27,479 | 1,205 |
| 60 | 746 | 2,487 | 2,760 | 4,518 | 22,593 | 1,232 |
| 65 | 625 | 2,082 | 2,375 | 3,734 | 18,669 | 1,244 |
| 70 | 526 | 1,751 | 1,990 | 3,100 | 15,502 | 1270.7 |
| 75 | 444 | 1,480 | 1,724 | 2,586 | 12,932 | 1,290 |
| 80 | 377 | 1,256 | 1,458 | 2,186 | 10,837 | 1308.9 |
| 85 | 321 | 1,070 | 1,271 | 1,824 | 9,121 | 1,328 |
| 90 | 275 | 916 | 1,084 | 1,542 | 7,709 | 1,347 |
| 95 | 236 | 787 | 950 | 1,308 | 6,542 | 1,366 |
| 100 | 204 | 679 | 817 | 1,114 | 5,574 | 1385 |
| 105 | 176 | 587 | 720 | 953 | 4,767 | 1,404 |
| 110 | 153 | 510 | 624 | 818 | 4,093 | 1422.9 |
| 115 | 133 | 445 | 553 | 705 | 3,525 | 1,442 |
| 120 | 117 | 389 | 481 | 609 | 3,046 | 1,460 |

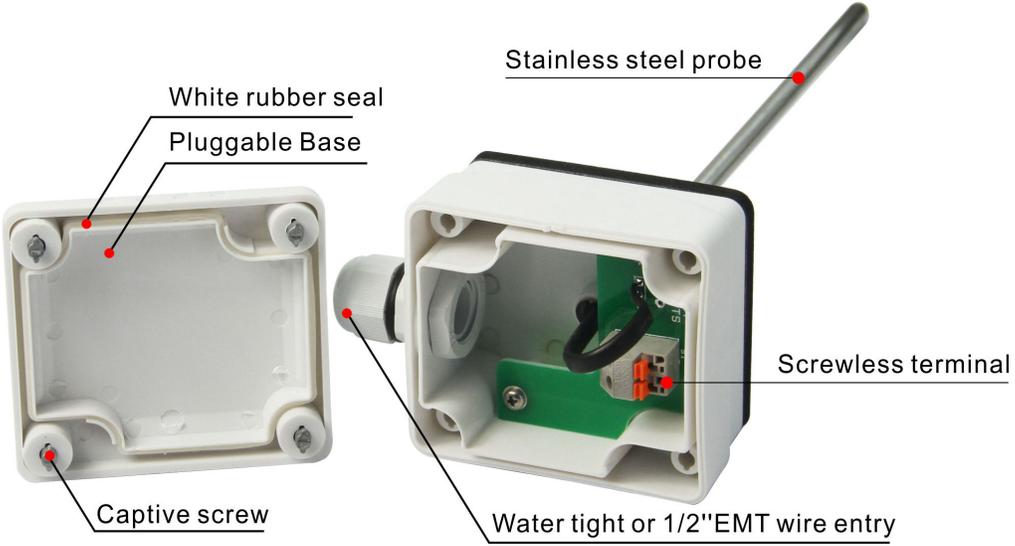
Duct Temperature Sensor



Dimension:



Temperature Sensors



Part Number Scheme:

DTS - WP - 12 - 7

| Code | Description |
|------|-------------------------|
| DTS | Duct Temperature Sensor |

| Code | Enclosure |
|------|------------------------|
| WP | Watertight Plastic Box |
| E | Metal Box |

| Code | Temperature Curve |
|------|-------------------|
| 2 | 100PT |
| 7 | 10K type 2 |
| 12 | 1K PT |

| Code | Probe Length |
|------|--------------|
| 4 | 4inch |
| 6 | 6inch |
| 8 | 8inch |
| 12 | 12inch |

*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

DTS-FL: Flange Mount Duct Temperature Sensor

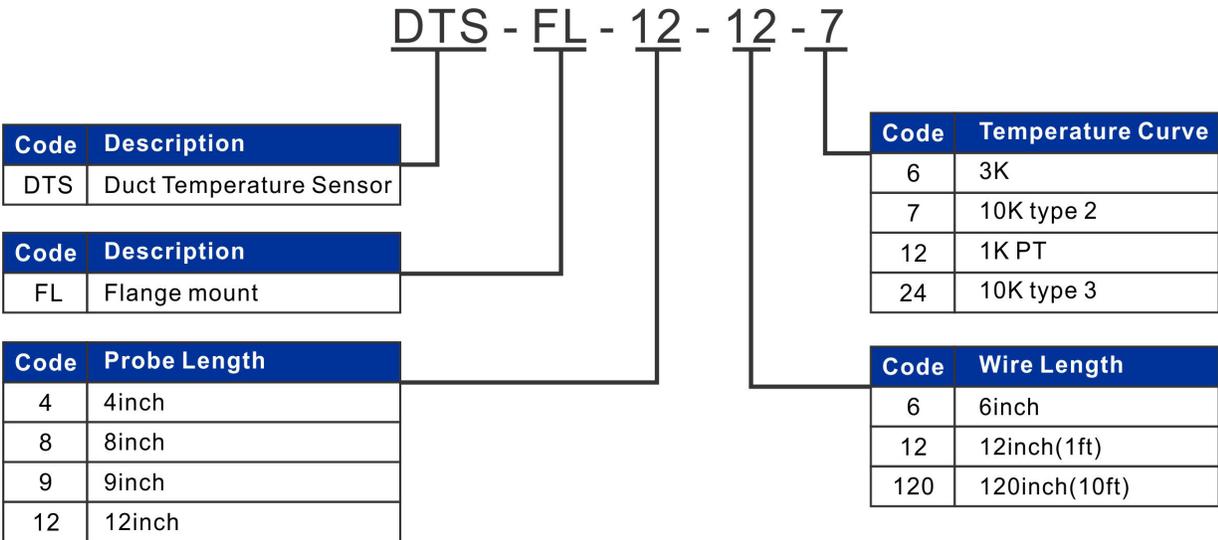
Description:

This sensor is used to measure the supply and return temperature in HVAC system. The flange mount design makes it easy to install the sensor in tight quarters. There are several sensor elements to choose from which guarantee compatibility with all popular DDC systems. The probe in the photo is out standard model which is always in stock, it has a 8 inch probe and 6 inch long cable, and employs either a precision thermistor or platinum film sensor field calibration is not generally required. The 10ft(3m) cable is plenum rated.



Construction:

The sensor is a high quality unit manufactured to high standards, using materials and assembly techniques. The probe material is stainless steel with a welded and ground tip. The DTS probe is baked and then epoxy sealed to eliminate long term moisture problems. The flange accepts two #6 screws, and is made from glavanized steel.



*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

DTS-PF: Plastic Flange Duct Temperature Sensor

This sensor is used to measure the supply and return temperature in HVAC system. The plastic flange mount design makes it easy to install the sensor in tight quarters. There are several sensor elements to choose from which guarantee compatibility with all popular DDC systems. The probe in the photo is out standard model which is always in stock, it has a 8 inch probe and 8 inch long cable, plenum rated cable, 10K type 2 thermistors.



Part Number Scheme:

DTS - PF - 8 - 8 - 7

| Code | Description |
|------|-------------------------|
| DTS | Duct Temperature Sensor |

| Code | Description |
|------|----------------|
| PF | Plastic Flange |

| Code | Probe Length |
|------|--------------|
| 4 | 4inch |
| 6 | 6inch |
| 8 | 8inch |
| 12 | 12inch |

| Code | Temperature Curve |
|------|-------------------|
| 7 | 10K type 2 |
| 12 | 1K PT |
| 24 | 10K type 3 |

| Code | Wire Length |
|------|---------------|
| 6 | 6inch |
| 8 | 8inch |
| 12 | 12inch(1ft) |
| 120 | 120inch(10ft) |

*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

OAT: Outside Air Temperature Sensor

This sensor is used to measure the outside air temperature to allow the DDC system to coordinate the mechanical systems with actual building load conditions, enabling such strategies as free cooling, optimum start / stop, and supply temperature reset.

The housing is made from PVC electrical fittings which shield the probe from direct sunlight. The probe is manufactured to industrial standards. There are three 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.

Construction:

The sensor probe is made from stainless steel which is welded, ground down, and finally pressure tested before assembling. The probe is then baked and epoxy sealed to provide long term protection from moisture.

The sensor housing is a PVC electrical enclosure which is UL approved for outdoor use. The housing extends over the probe to protect from sunlight radiation.

The sensor lead extends 12" from the enclosure, making it long enough to reach a junction box and terminate inside the building.

Installation:

The sensor probe is made from stainless steel which is welded, ground down, and finally pressure tested before assembling. The probe is then baked and epoxy sealed to provide long term protection from moisture.

The sensor housing is a PVC electrical enclosure which is UL approved for outdoor use. The housing extends over the probe to protect from sunlight radiation.

The sensor lead extends 12" from the enclosure, making it long enough to reach a junction box and terminate inside the building.



OAT: Outdoor Air Temperature Sensor

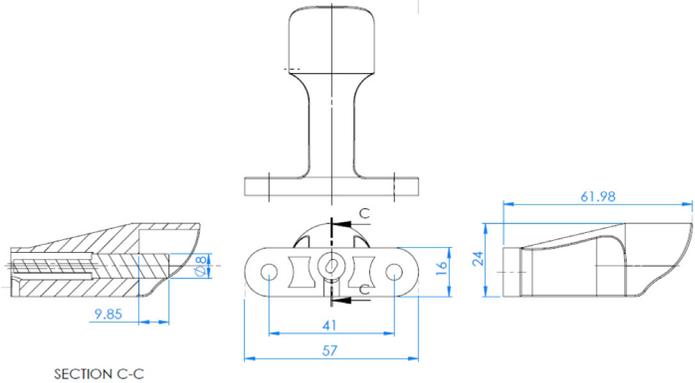


Description:

The temperature sensor is designed to measure outdoor air temperature. The sensor is designed for mounting in a standard 1/2" knock out. The temperature sensor uses a 10K Ω thermistor. The thermistor is enclosed in a plastic housing. The sensor has a short 20AWG black leads. It is designed for use in residential and commercial building automation controls. It features a fast response, precision thermistor sensing element that is totally sealed against the outdoor elements. The PVC sun-shield prevents false readings from direct sunlight. An optional weatherproof electrical box allows for simple installation and provides an extra rugged and reliable sensor for energy management and HVAC applications.

Features:

- General purpose outdoor air temperature sensor
- Available in threaded PVC version with rugged weatherproof electrical box
- Easy installation - just threads into mounting hole or standard handy box installation
- Fully potted metal housing protects sensing element and provides fast, accurate temperature sensing
- Cost efficient design
- Sturdy construction - all plastic housing with PVC solar shield with optional weatherproof electrical box



Part Number Scheme:

OAT - M - 7

| Code | Description |
|------|--------------------------------|
| OAT | Outdoor Air Temperature Sensor |

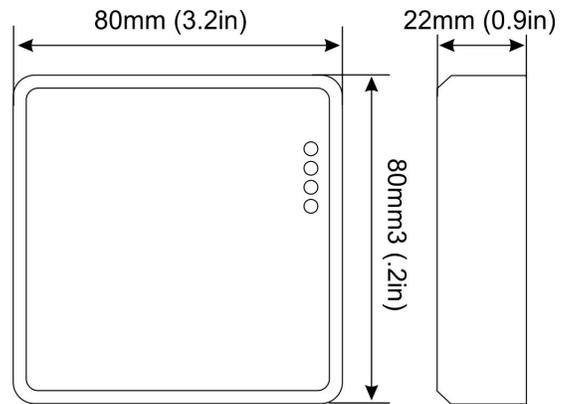
| Code | Enclosure |
|------|-------------------|
| M | Metal Enclosure |
| P | Plastic Enclosure |

| Code | Temperature Curve |
|------|-------------------|
| 6 | 3K |
| 7 | 10K type 2 |
| 9 | 100K |
| 12 | 1K PT |
| 24 | 10K type 3 |

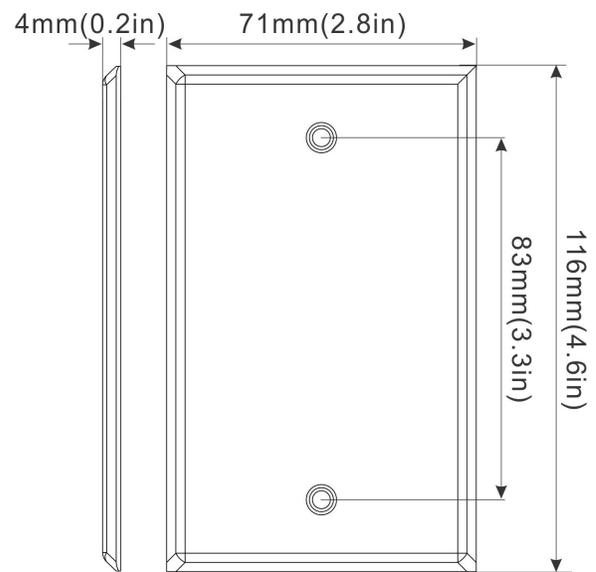
*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

Room Temperature Sensor

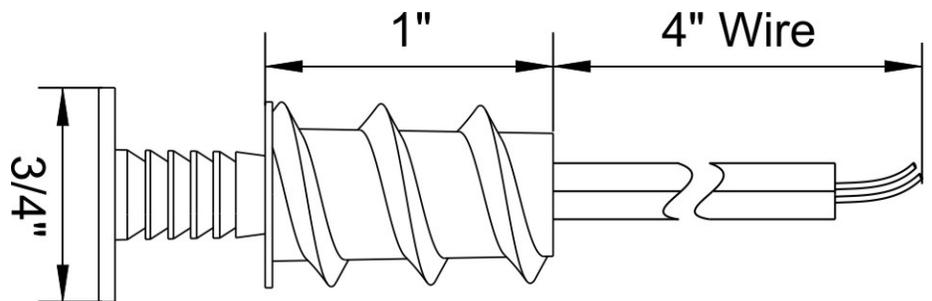
RTS: Room temperature sensor, 10K type 2



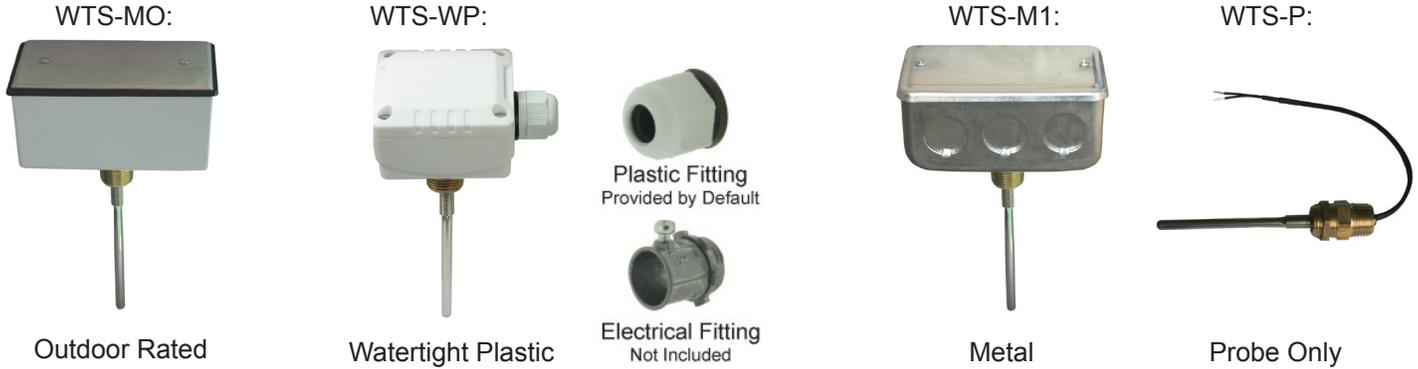
RTS1: Tamper proof room temperature sensor, 10K type 2



RTS3: Flush mounting sensor, 10K type 2



WTS Series Water Temperature Sensor

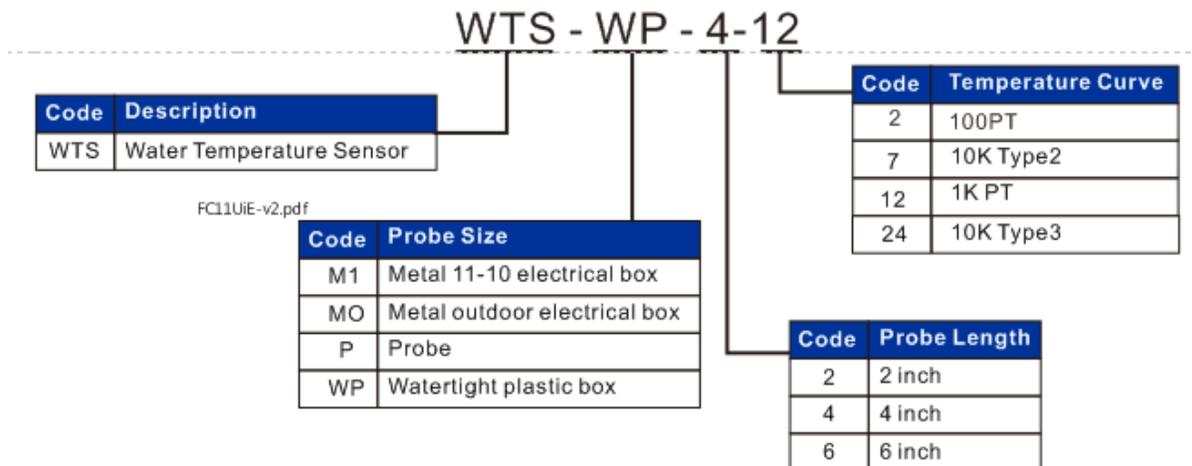


Installation:

Locate water temperature sensor at least a few pipe diameters downstream any heat or cooling source:

- 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.
- Choose an orientation where any condensation will not collect, such as the top of a horizontal pipe section or at a 45° angle from horizon.
- 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 conductors, normally 18ga unshielded twisted pair.

Part Number Scheme:



*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

WTS5 Series Strap on Water Temperature Sensor

WTS5-WP:



WTS5-M1:



Installation:

For measuring water temperature, the probe is strapped with plastic tie wraps or a metal strap onto the outside of the pipe and covered with insulation. The electrical box is mounted on a strut bar or on the wall near the pipe. Two conductors are required, 18ga, unshielded twisted pair is common.

Part Number Scheme:

WTS5 - WP - 7

| Code | Description |
|------|----------------------------|
| WTS5 | Strap-on Water Temp Sensor |

| Code | Probe Size |
|------|----------------------------|
| M1 | Metal 11-10 electrical box |
| WP | Watertight plastic box |

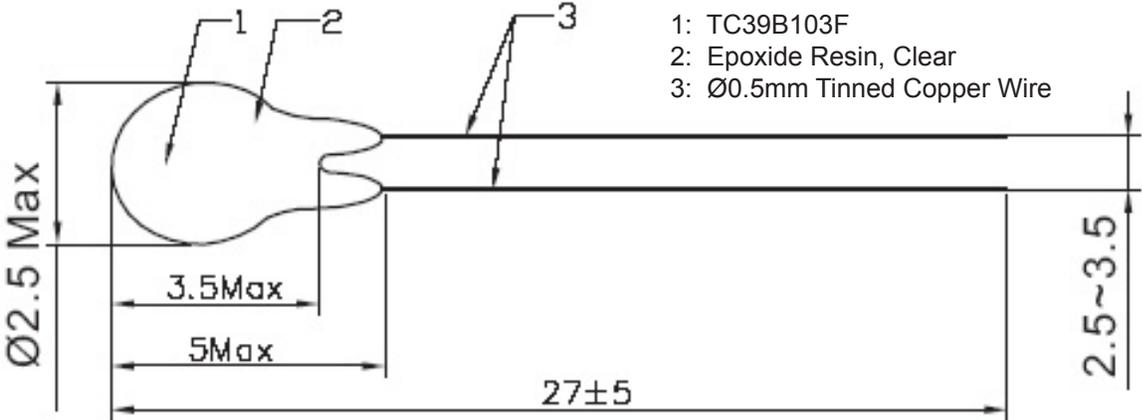
| Code | Temperature Curve |
|------|-------------------|
| 7 | 10K Type2 |

*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

RTS-Raw 10K NTC Thermistor, Temco's standard thermistor element



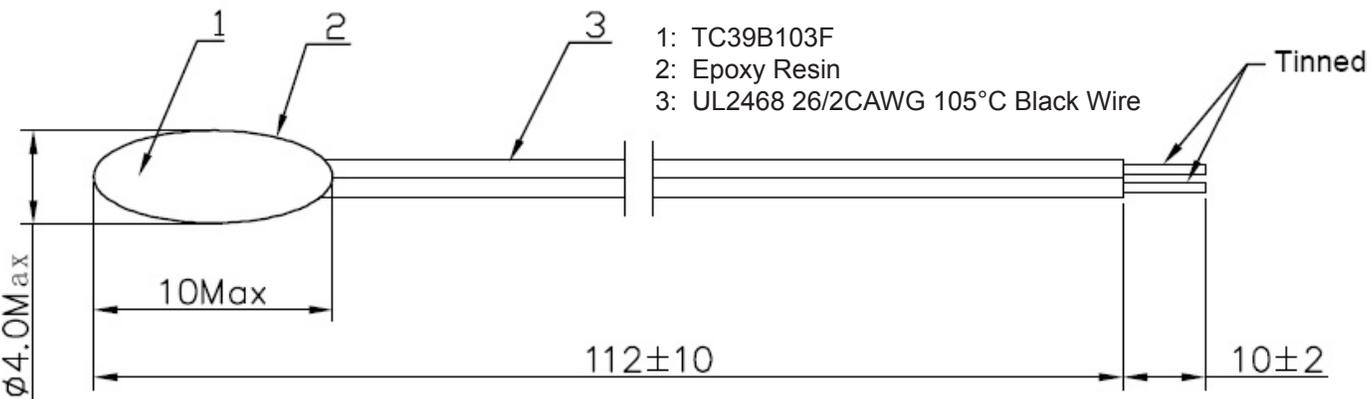
Dimensions (mm):



RTS-Bead-4: Thermistor bead, 4"(10cm) lead, 10mm wire trimmed and tinned, 0.2DegC accuracy



Dimensions (mm):

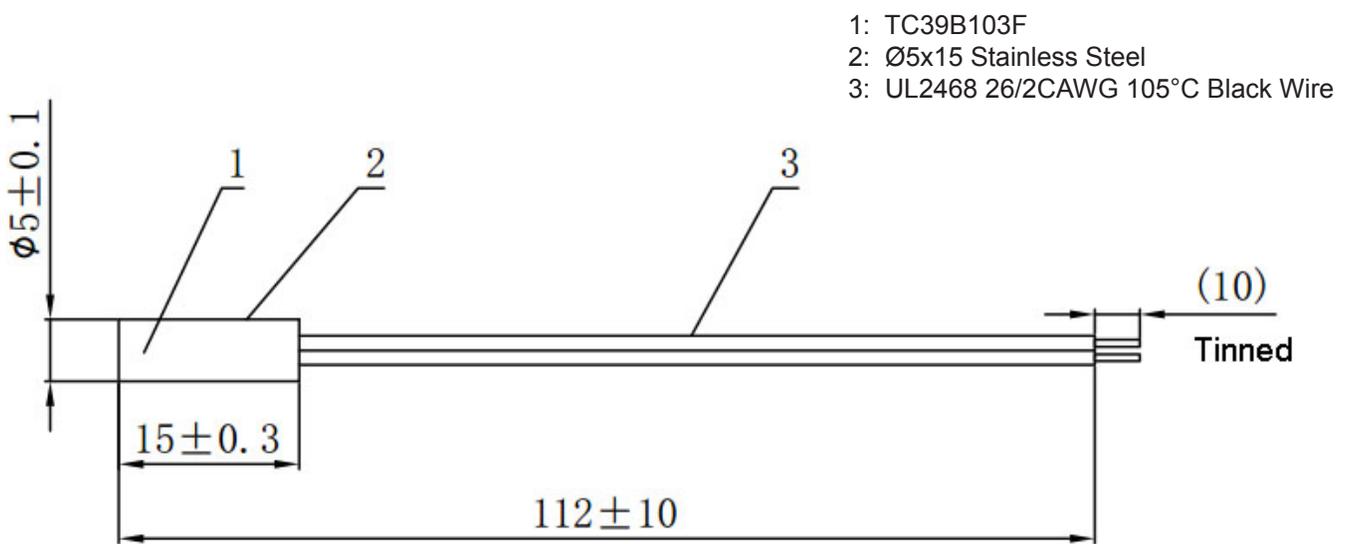


*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

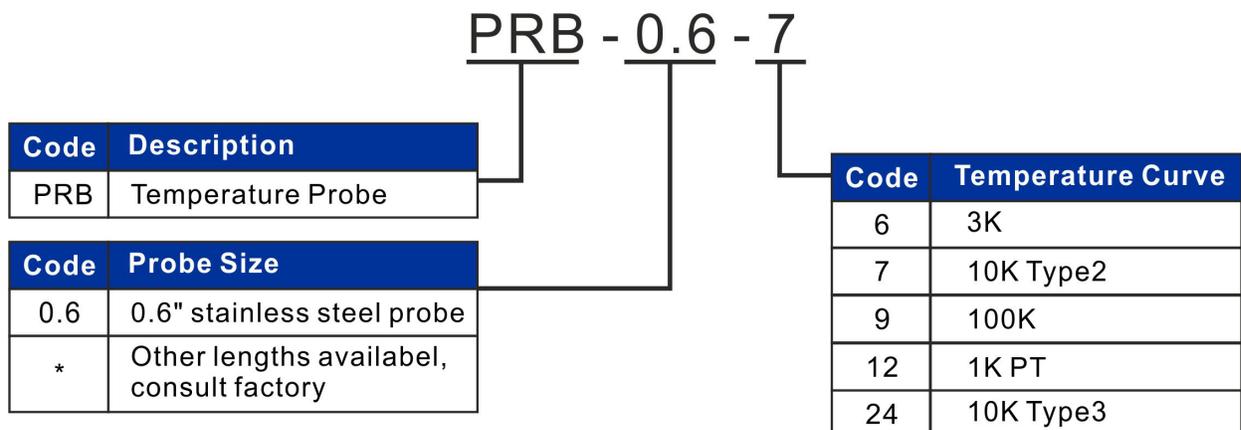
PRB-0.6-7 Temperature Sensor: 0.6" SS probe temp sensor, 10K thermistor, Type 2



Dimensions (mm):

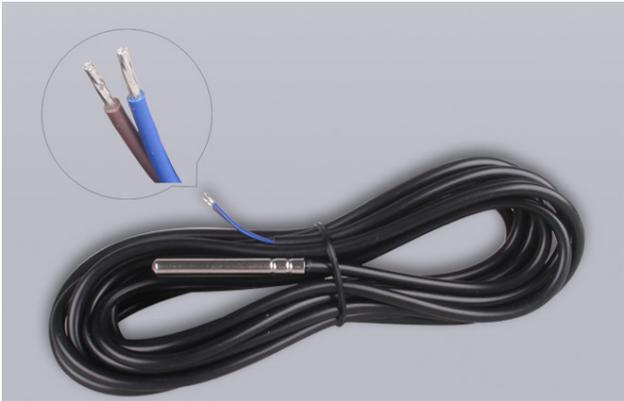


Part Number Scheme:



*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

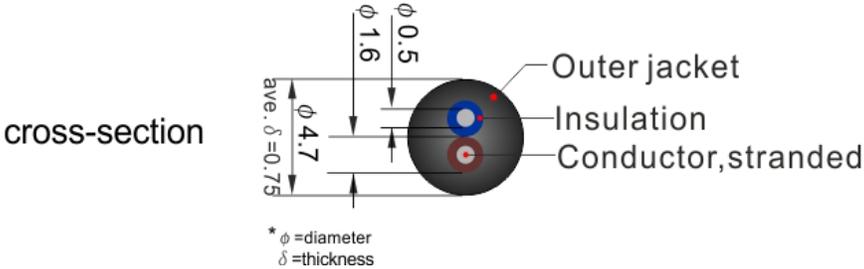
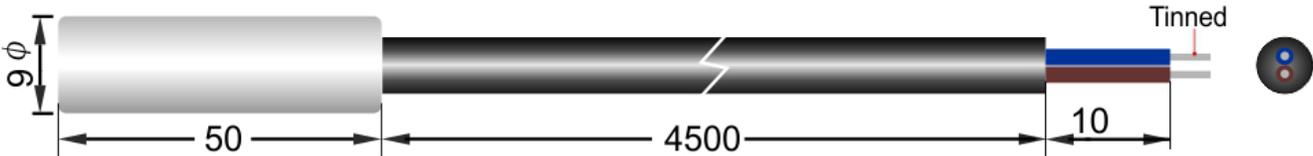
PRB-50-45-7 Temperature Sensor: ID6 X 50mmprobe temp sensor, 10K thermistor, Type 2



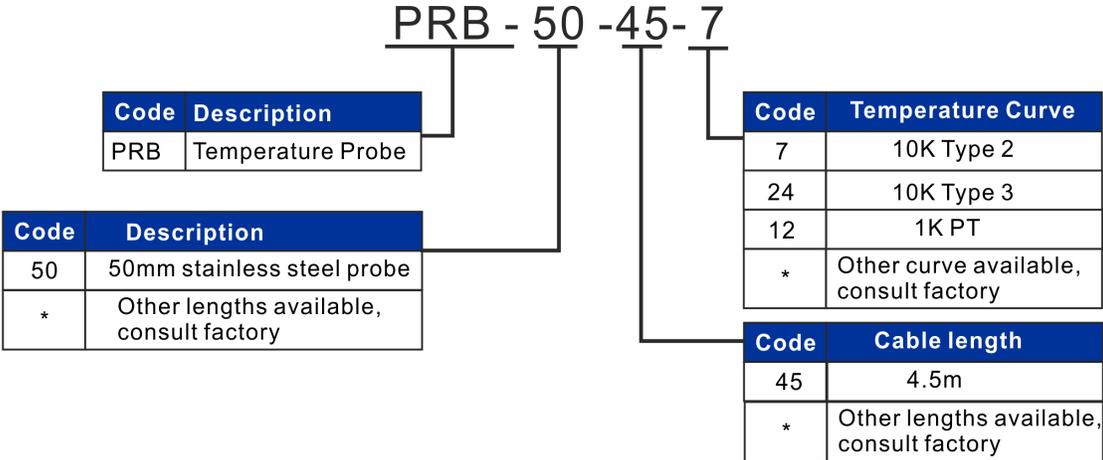
Dimensions:

unit:mm

- 1: Ø6x50 Stainless Steel
- 2: UL2464 20/2CAWG 105°C Black Wire



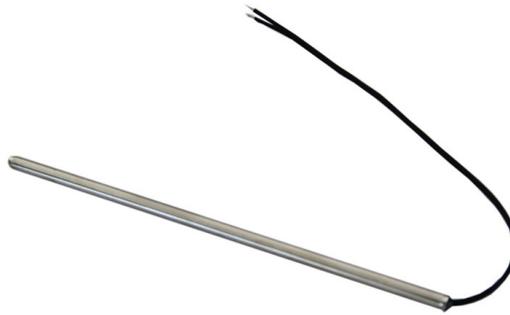
Part Number Scheme:



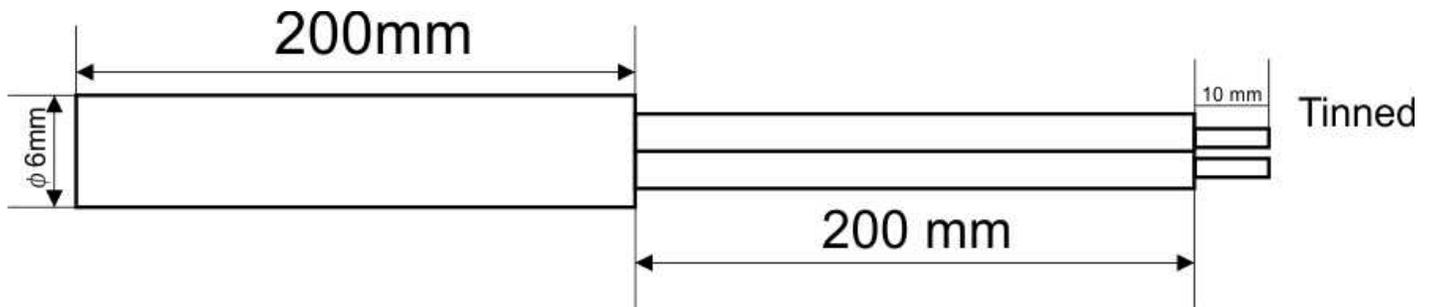
*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

Temperature Sensors

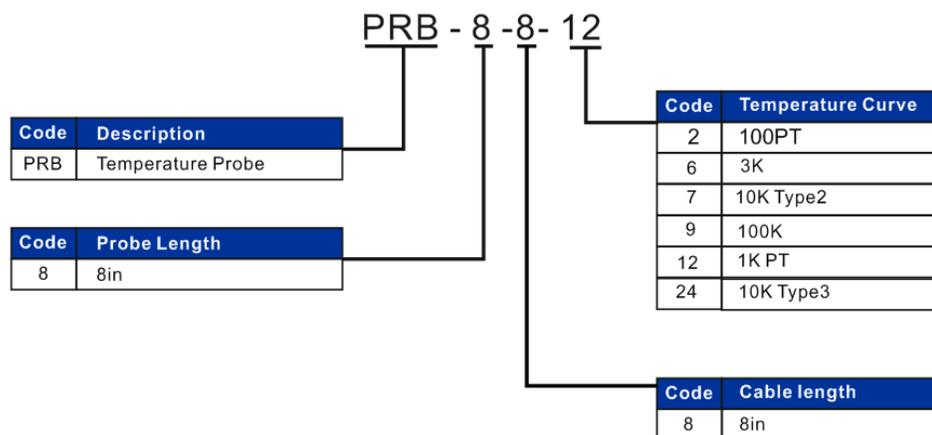
PRB-8-8-12 Temperature Sensor: ID6mm X 200mm probe temp sensor, 1K Platinum thermistor



Dimensions (mm):



Part Number Scheme:



*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

Accuracy Table:

| ACTUAL | RTD ACCURACY +/- °C PT100 Ω ALPHA 0.003850 to DIN 43760 IEC751 DIN EN 60 751 | | | |
|---------|--|---------|------------------|-------------------|
| | B GRADE | A GRADE | BAND 3 (1/3 DIN) | BAND 5 (1/10 DIN) |
| -200 °C | 1.30 °C | 0.55 °C | 0.39 °C | 0.38 °C |
| -150 °C | 1.05 °C | 0.45 °C | 0.23 °C | 0.21 °C |
| -100 °C | 0.80 °C | 0.35 °C | 0.15 °C | 0.12 °C |
| -90 °C | 0.75 °C | 0.33 °C | 0.14 °C | 0.10 °C |
| -80 °C | 0.70 °C | 0.31 °C | 0.13 °C | 0.09 °C |
| -70 °C | 0.65 °C | 0.29 °C | 0.12 °C | 0.08 °C |
| -60 °C | 0.60 °C | 0.27 °C | 0.11 °C | 0.07 °C |
| -50 °C | 0.55 °C | 0.25 °C | 0.10 °C | 0.06 °C |
| -40 °C | 0.50 °C | 0.23 °C | 0.10 °C | 0.06 °C |
| -30 °C | 0.45 °C | 0.21 °C | 0.09 °C | 0.05 °C |
| -20 °C | 0.40 °C | 0.19 °C | 0.09 °C | 0.04 °C |
| -10 °C | 0.37 °C | 0.17 °C | 0.08 °C | 0.03 °C |
| 0 °C | 0.30 °C | 0.15 °C | 0.08 °C | 0.03 °C |
| 10 °C | 0.35 °C | 0.17 °C | 0.09 °C | 0.04 °C |
| 20 °C | 0.40 °C | 0.19 °C | 0.10 °C | 0.04 °C |
| 30 °C | 0.45 °C | 0.21 °C | 0.11 °C | 0.05 °C |
| 40 °C | 0.50 °C | 0.23 °C | 0.12 °C | 0.06 °C |
| 50 °C | 0.55 °C | 0.25 °C | 0.13 °C | 0.07 °C |
| 60 °C | 0.60 °C | 0.27 °C | 0.14 °C | 0.08 °C |
| 70 °C | 0.65 °C | 0.29 °C | 0.16 °C | 0.09 °C |
| 80 °C | 0.70 °C | 0.31 °C | 0.17 °C | 0.10 °C |
| 90 °C | 0.75 °C | 0.33 °C | 0.18 °C | 0.11 °C |
| 100 °C | 0.80 °C | 0.35 °C | 0.19 °C | 0.12 °C |
| 110 °C | 0.85 °C | 0.37 °C | 0.20 °C | 0.13 °C |
| 120 °C | 0.90 °C | 0.39 °C | 0.21 °C | 0.14 °C |
| 130 °C | 0.95 °C | 0.41 °C | 0.22 °C | 0.15 °C |
| 140 °C | 1.00 °C | 0.43 °C | 0.24 °C | 0.15 °C |
| 150 °C | 1.05 °C | 0.45 °C | 0.25 °C | 0.16 °C |
| 160 °C | 1.10 °C | 0.47 °C | 0.26 °C | 0.17 °C |
| 170 °C | 1.15 °C | 0.49 °C | 0.27 °C | 0.18 °C |
| 180 °C | 1.20 °C | 0.51 °C | 0.29 °C | 0.19 °C |
| 190 °C | 1.25 °C | 0.53 °C | 0.30 °C | 0.21 °C |
| 200 °C | 1.30 °C | 0.55 °C | 0.31 °C | 0.22 °C |

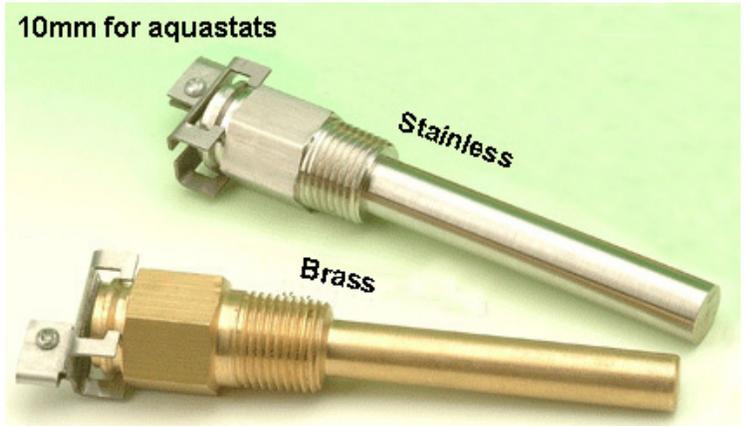
Wells (Brass and Stainless Steel):

Description:

The stainless steel and brass thermowells which is machined from a single piece of bar stock, no welds, are designed for mounting temperature sensors in pipes and tanks. The thermowells are designed to reduce the stress encountered in a flowing fluid installation which produces a constantly oscillating force that can eventually crack a probe unless mounted within one of these wells. The wells are designed to handle the stress, while providing good thermal contact with fluid. They also provide isolation, if the sensor needs to be serviced the system can remain in operation without having to drain the lines.

Features & Options:

- Five Lengths: 2", 3", 4", 6", and 8"
- Stainless Steel (304) or Brass
- Construction: machined from a single piece of bar stock, no welds.
- Other Lengths or Materials Available Upon Request
- Limited Lifetime Warranty
- NPT or BSP thread need to be specified when order

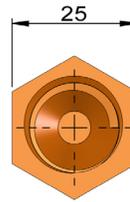
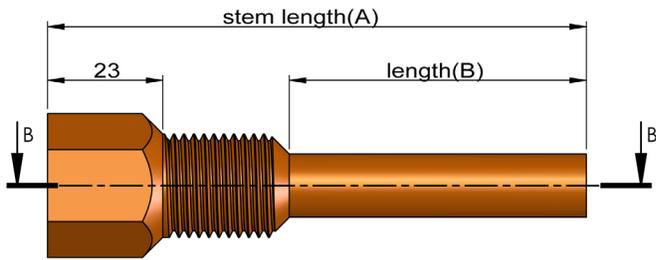


Specifications:

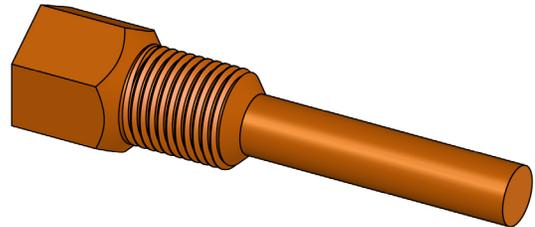
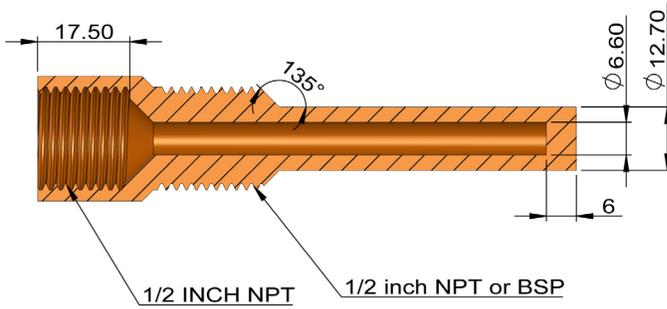
| Maximum Fluid Velocity (Stainless steel 304) | | | | |
|---|------------|-------------|-------------|-------------|
| Thermowell lengths | 2.5" | 4" | 6" | 10" |
| Steam, air, gas & fluids with similar density | 300 ft/sec | 109 ft/sec | 39.5 ft/sec | 20.1 ft/sec |
| Water flow (safe values) | 148 ft/sec | 82.2 ft/sec | 39.5 ft/sec | 20.1 ft/sec |

| Maximum Fluid Velocity (Stainless steel 304) | | | | |
|--|----------|----------|----------|----------|
| Temperature | 70F | 200F | 400F | 600F |
| Pressure | 1600 psi | 1600 psi | 1600 psi | 1600 psi |

Dimensions



| standard | | |
|----------|----------------|-----------|
| inch | stem length(A) | length(B) |
| 2" | 60mm | 11.5mm |
| 3" | 70mm | 26.5mm |
| 4" | 108mm | 59.5mm |
| 6" | 155mm | 106.5mm |
| 8" | 200mm | 151.5mm |



note
internal thread is standard for NPT



Part Number Scheme:

WL-H-B-4-N

| Code | Description |
|------|-------------|
| WL | Thermo well |

| Code | Inner Diameter |
|------|----------------------|
| H | 10mm for aquastats |
| - | DDC type, 6mm probes |

| Code | Material |
|------|---------------------|
| B | Brass |
| S | Stainless steel 304 |

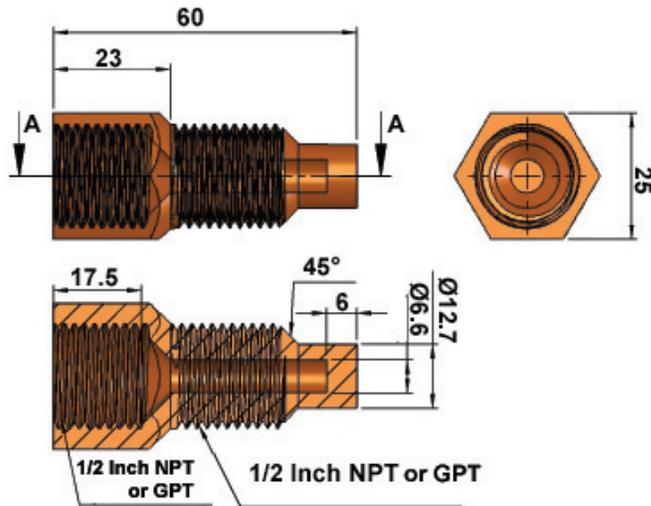
| Code | Thread |
|------|----------------------|
| N | NPT tapered thread |
| B | BSP British standard |

| Code | Probe Length |
|------|--------------|
| 2 | 2 inch probe |
| 3 | 3 inch probe |
| 4 | 4 inch probe |
| 6 | 6 inch probe |
| 8 | 8 inch probe |

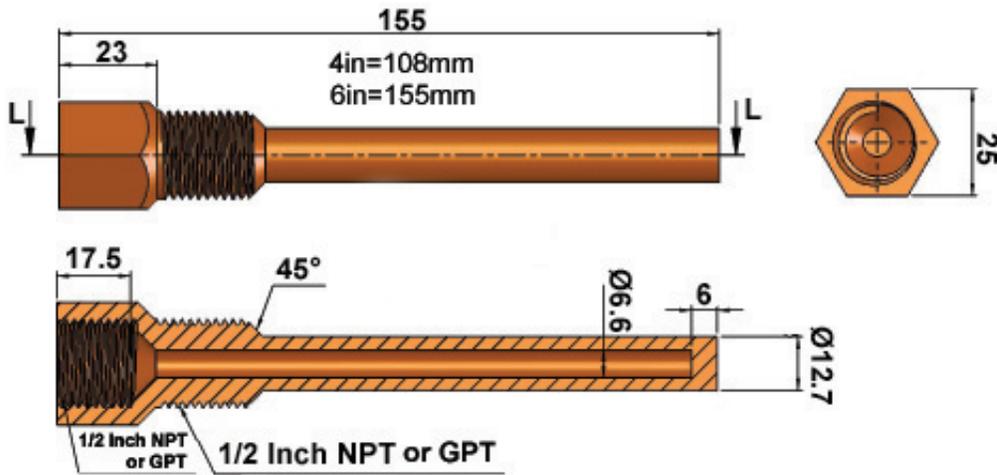
*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

DDC Type:

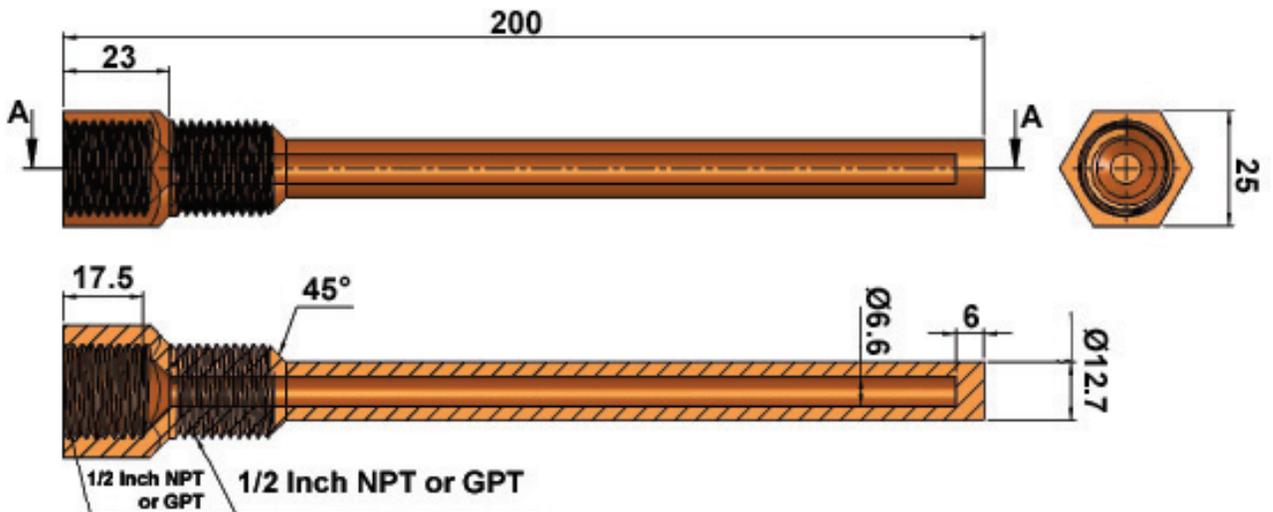
2 inch Dimensions (mm):



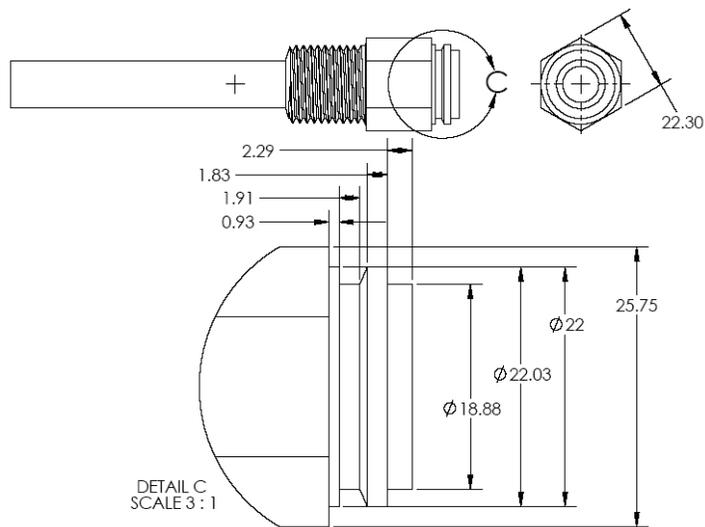
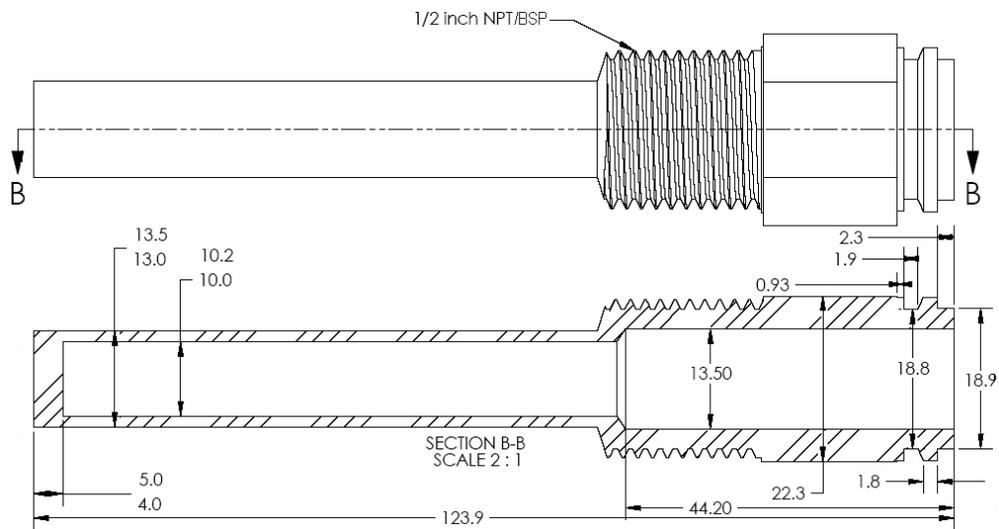
4 inch & 6 inch Dimensions (mm):



8 inch Dimensions (mm):



10mm for aquastats:



Strap On Temperature Sensor

Features

- Sensing elements
- Thermistors and RTDs in all industry standard ranges.
- Included 300 mm adjustable strap-on band, for pipe diameter 13 to 92 mm (1/4" to 3")
- IP 54 protection
- Simple two wire connection
- Economical way to measure temperature
- Metal Wing: Stainless steel 304
- Main Tube: Stainless steel 304

Application/Description

The strap-on temperature sensor is used for sensing the temperature of pipework in heating, ventilation and air conditioning systems.

The strap on sensor is available with RTD and PT type passive sensor elements.

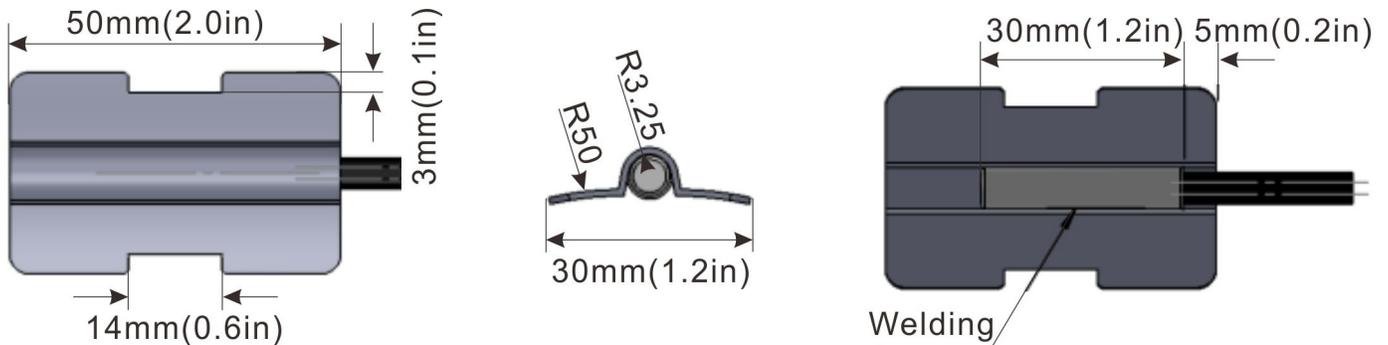
Passive sensing elements is a low cost alternative to measure temperature with simple two wire connection.

The sensing element is housed in a 50 mm long metal wing.

The probe will be fixed to the pipe with an adjustable 300 mm, strap-on band, other strap-on lengths on request.



Dimension:



Part Number Scheme:

WTS6 - 40 - M - S1 - 7

| Code | Description |
|------|---------------------------|
| WTS6 | Water temperature Sensor6 |

| Code | Description |
|------|------------------|
| 40" | (1m)Length cable |
| 120" | (3m)Length cable |

| Code | Temperature Curve |
|------|-------------------|
| 7 | 10K Type 2 |
| 12 | 1K PT |
| 24 | 10K Type3 |

| Code | Description |
|------|-------------------------------------|
| S1 | Pipe diameter 91to114mm(3.5"to4.9") |
| S2 | Pipe diameter105to127mm(4.1"to5") |

| Code | Temperature Curve |
|------|-------------------|
| M | Metal box |
| P | Plastic box |
| - | No box |

*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

Strap On Insert Temperature Sensor:



Strap-on Insert Sensor

The strap-on Insert sensor consists of a stainless steel sheath temperature sensor, thermal conducting compound, and an adjustable pipe bracket accessory. The stainless steel sheath temperature sensor is suitable for direct application to pipe surfaces for chilled or hot water measurement. It is also used for freezer cases, where moisture protection is important.

Strap-on Applications

Where it is not practical to install immersion wells, the stainless sheath sensor may be strapped to the pipe. A pipe strap accessory provides a bracket to hold a thermally conductive compound and clamps the sensor securely in place.

Make electrical connections to the sensor in accordance with the installation wiring diagram for the job and in accordance with national and local electrical codes. Use the one big-foot lead furnished with the sensor. **Do not use wire nuts.**

Though the sensor itself does not require shielded cable, some controllers and microprocessors do; check with the controller supplier.

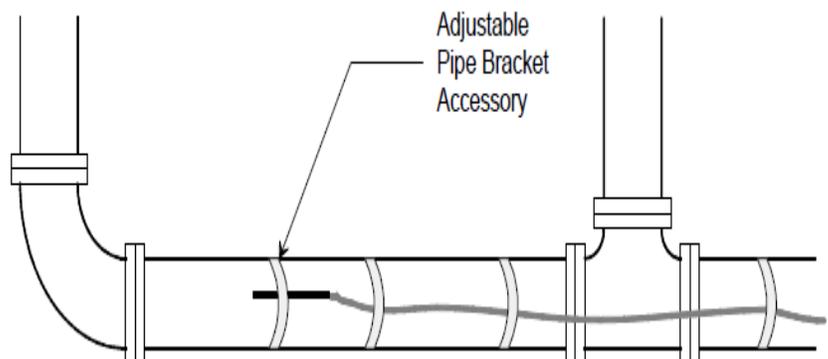
Accuracy $\pm 36^{\circ}\text{F}$ from 32°F to 158°F ($\pm 2^{\circ}\text{C}$ from 0°C to 70°C)

Stability 24°F (-4.4°C) over 5 years

Basic Model Basic model comes with one foot lead and a 0.24-inch stainless steel tube.

Typical Mounting

When used as a strap-on Insert sensor, best results are obtained when conductive compound is applied between the sensor and the pipe. In addition, the sensor should be inserted under insulation with at least 4mm of the sensor lead covered. A pipe clamp accessory is available for use with this sensor.



Strap On Insert Temperature Sensor:

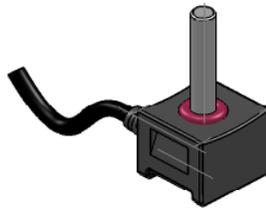
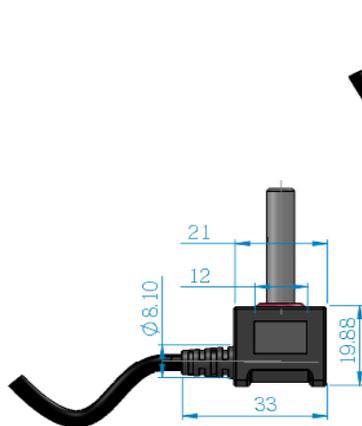
Adjustable Pipe Bracket Accessory

The pipe bracket is designed for use with the stainless sheath sensor. The bracket can be used on pipe sizes from 2" (50.8mm) to 8" (203mm) outside diameter. Thermal conducting compound should be used with the bracket to improve heat transfer between the pipe and the temperature sensor.

130~152mm adjustable 304 stainless steel strap as a standard accessory with larger size available on request.



Dimensions



Unit: mm

Part Number Scheme:

WTS6 - I - P - 7

| Code | Description |
|------|---------------------------|
| WTS6 | Water Temperature Sensor6 |

| Code | Description |
|------|--|
| I | Insert Strap on |
| * | Other lengths available, consult factory |

| Code | Temperature Curve |
|------|-------------------|
| 6 | 3K |
| 7 | 10K Type2 |
| 9 | 100K |
| 12 | 1K PT |
| 24 | 10K Type3 |

| Code | Enclosure |
|------|-------------------|
| P | Plastic Enclosure |

*Thermistors, pt elements and probe sizes for all popular control systems are available, send us an email if you don't see what you need online.

Installation

1. Drill a hole which diameter is 8mm in the pipe



2. Put sensor into the hole



3. Attach with a stainless steel strap

