

THERMOWORKS TEST CAPS

When a PT100 or Thermistor Probe is heated or cooled, the tiny sensor in the probe varies in electrical resistance. This resistance is interpreted by the instrument and converted to a display.

ThermoWorks Test Caps replicate the resistance that would have been produced by sensors at certain test temperatures, thus enabling regular checks, by the user, of accuracy of an instrument. (This does not confirm the accuracy of the probe.)

Using a ThermoWorks Test Cap

Ideally the instrument should have been stored at ambient (room) temperature of between 59° and 86°F (15° and 30°C) for a minimum of 4 hours before testing. Screw the test cap into the instrument socket. Switch on and leave until the reading has settled. If the Low Battery warning shows, replace the battery before proceeding. Note down the reading. Repeat with all your test caps.

ThermoWorks Test Caps are sold in 5 values; 0°F (-17.8°C), 32°F (0°C), 158°F (70°C) and 212°F (100°C). Each Cap comes with a certificate of accuracy with an uncertainty of $\pm 0.18^\circ\text{F}$ ($\pm 0.1^\circ\text{C}$).

For a Thermistor Test Cap, between the range 14°F (-10°C) to 158°F (70°C) the instrument should read within $\pm 0.7^\circ\text{F}$ ($\pm 0.4^\circ\text{C}$) of the Test Cap's **Certified Value**. For 0°F (-17.8°C) and 212°F (100°C) Test Caps, the instrument should read within $\pm 1.6^\circ\text{F}$ ($\pm 0.9^\circ\text{C}$).

For a PT100 Test Cap, between the range -4°F (-20°C) to 212°F (100°C) the instrument should read within $\pm 0.5^\circ\text{F}$ ($\pm 0.3^\circ\text{C}$) of the Test Cap's **Certified Value**.

For example if you connect a Thermistor 32°F (0°C) test cap whose **Certified Value** is 32.0°F ($\pm 0.0^\circ\text{C}$), the instrument should read between 31.3°F (-0.4°C) and 32.7°F (0.4°C).

An instrument whose readings fall outside of the above tolerances may require repair or simple adjustment. Our Service Department will be pleased to arrange this for you.

For continued confidence, your Test Cap should be calibrated on annual basis or at any time that it may be considered faulty.