
## To perform the test:

**STEP 1** The test well (thermowell) should be within a few inches of the temperature transmitter and sensor assembly to be tested.

**STEP 2** Make sure that the probe of the temperature standard is long enough to reach the bottom of the test well and that air gaps between the probe and well are minimized.

**STEP 3** Wait for the temperature standard to reach the temperature of the test well. This will take a few minutes.

**STEP 4** Check for temperature stability. A graphing digital thermometer such as the 1524 makes stability easier to recognize.

**STEP 5** Record the reading from the measurement system and the temperature standard to determine whether the measurement system's readings are suspect.

## TECH TIPS

- For this type of application a battery powered digital thermometer is usually preferred.
- A graphing display helps the technician visualize trends such as stability quickly and easily.
- Ensure that both the probe and the readout of your temperature standard have traceable calibration certificates from a competent laboratory.
- If the probe and readout separate from each other, smart connectors, which include probe calibration constants, provide a best practice method of ensuring that the readout is using the correct probe calibration in its temperature readings.

### Additional resources

For more in depth information about this application check out these videos and application notes from Fluke.

*Temperature measurement and calibration: What every instrument technician should know*
*Industrial temperature readout and probe* selection guide
*Process Calibration Tools: Temperature Applications*