

Temperature Dry Wells (-40 to 400°C)

The HTR and LTR Series temperature references are dry wells specifically designed to fully automate sensor calibration when used with GE Kaye validation software and traceable temperature standards.

GE Kaye dry wells employ unique inserts which minimize cooling of the thermocouple tips due to heat conduction providing an uncertainty of merely 0.1°C. Without proper inserts, for example, transfer uncertainty in excess of 0.5°C can occur with 22 gage, type T thermocouples.

Both the HTR and LTR series models feature fast heat up and cool down, a capacity to hold from 18 to 24 thermocouples and require no messy oils.

Calibrating sensors in the environment where they will be used provides the highest degree of accuracy as system temperature coefficient errors are eliminated. The references are lightweight and rugged so you can calibrate sensors almost anywhere.

The HTR-400 with an operating range from 25°C above ambient to 400°C is ideal for calibrating sensors for autoclaves, dry heat ovens and sterilization tunnels.

For freezers, cold rooms, incubators, and autoclaves, select from the LTR series of dry wells with operating ranges of -40 to 140°C or -25 to 140°C.



CALIBRATION

IRTD Temperature Standards

The intelligent resistant temperature device (IRTD) is a secondary standard with a completely self-contained measurement system, including electronics for calibration and temperature conversion.

GE Kaye's IRTD provides ultra-high accuracy temperature data to your computer with no additional measurement or readout equipment required. The IRTD removes common sources of error because its integrated electronics and sensor are calibrated as a single instrument. Analog to digital conversion is automatic - no manual interpolations or calculations are necessary. The self-contained IRTD allows you to cut system error in half while eliminating the cost and effort of calibrating supporting equipment. For thermal validation applications, the IRTD communicates bath temperature directly with the GE Kaye systems.



Specifications for IRTD Temperature Standards

IRTD-400

Temperature range -195 to 420°C

Accuracy over range ±0.025°C

Resolution 0.001°C

Sensor element 200 Ohm Platinum sensor

Sheath material Inconel™ 600

Immersion depth 101.6mm (4")

Calibration Traceable to NIST or PTB; Recommended calibration period is 1 year

Measurement rate 30 readings per second

Ambient temperature range 0 to 60°C (32 to 140°F)

Humidity Humidity 0 to 95% non-condensing

Dimensions Overall length: 603mm (23.75");
Grip: 89mm x 32mm (3.5" x 1.25")
Sensor sheath: 457mm x 6.35mm (18" x 0.25")

The IRTD is an integral part of GE Kaye's automated sensor calibration system. In addition, the IRTD is invaluable for confirming the accuracy of other temperature standards. For this purpose, GE Kaye has developed IRTDWin™ software. This software automatically records data and computes any delta between two probes so you can easily confirm the accuracy of your traveling standard. Simply plug in your stationary and traveling IRTDs to your PC. The IRTDWin™ software displays and records the probes serial numbers and live temperature values. One convenient interface screen lets you track probe stability, numerically and graphically, and confirm system accuracy.



