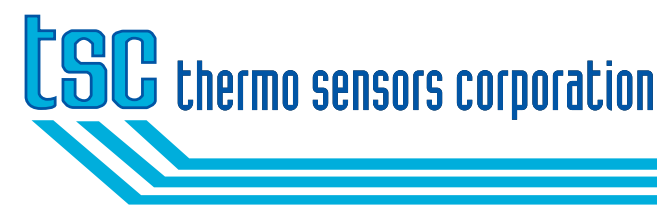
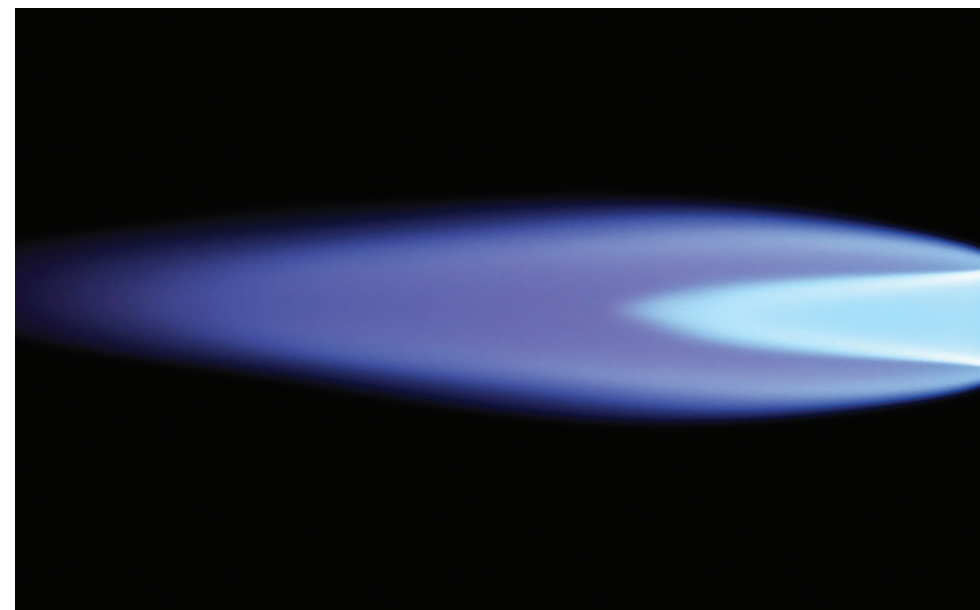
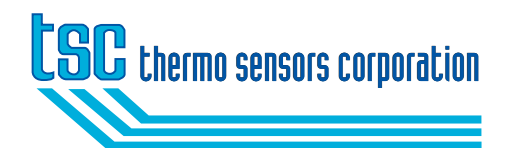


Reliatemp | the ultimate RTD



PREMIER TEMPERATURE MEASUREMENT PRODUCTS

P.O. Box 461947 Garland, TX 75046
Phone: 972.494.1566 1.800.889.5478 Fax: 972.272.2112
thermosensors.com



PREMIER TEMPERATURE MEASUREMENT PRODUCTS



Lifetime moisture-free RTD with excellent vibration resistance.

For years Thermo Sensors Corporation (TSC) has developed and manufactured quality RTDs to control industrial processes worldwide. Dedicated to employing state-of-the-art techniques and materials, TSC constantly strives for innovation and improvement in all its products. A prime example is our development of Reliatemp, our lifetime moisture-free RTD with excellent vibration resistance, which addresses the industry's two main problems. We are dedicated to continuing to develop precision, high-quality products.

tsc

Standard Testing

- 100% of our sensors are thoroughly tested.
- All sensors are checked for proper output at room temperature and at elevated temperatures.
- Insulation resistance of all sensors is checked.
- Every sensor is checked by QC personnel to assure it matches gross specifications, e.g., sensor type, fitting options, lengths, etc.
- Every passing sensor is given an engraved traceability number. This number allows TSC to resurrect a unit's material test report, calibration data and part number.

Advantages

- Great insulation resistance due to highly compacted MGO along with proprietary techniques performed during manufacturing. TSC's standard IR test is 100 volts' input with a pass being greater than 2,000 megohms.
- Wide span of temperature (-200 to +400°C), with optional I-600 sheath (-200 to +600°C).
- Vibration-resistant due to encapsulation method of element.
- Improved time response due to moisture-free MGO compaction.
- Less drift due to MGO compaction and iron-free backing power in RTD tip.

TSC dedicated eight years of R&D to perfecting the industry's standard RTD. Testing was conducted at our in-house lab, at Oak Ridge National Laboratory, and at the University of Tennessee.

TSC and the other independent labs which tested these RTDs were surprised that all RTDs survived the six tests with no failures. In addition, to the best of our knowledge, there have never been more extensive tests performed using the same RTDs for most of the tests.

Test 1.

Time Response: RTDs plunged into 70°C water flowing 3 fps.

Result:

2.1-second response time average.

Test 2.

Thermal Shock: RTDs were heated to 450°C in air and plunged into room-temperature water at 3 fps five times. The average heating rate for the RTDs was about 400°C per minute, and the cooling rate an average of 1300°C per minute.

Result:

No failures.

Test 3.

Thermal Cycling: RTDs were cycled 284 times between 26°C and 480°C. Each cycle took approximately 62 minutes. Resistance data for the test articles was recorded digitally eight times per minute for each RTD.

Result:

No failures or intermittent behavior.

Test 4.

Vibration: RTDs were individually tested at room temperature on three axes with 3 g's acceleration from 5 to 500 Hz.

Result:

No failures.

Test 5.

High-temperature Vibration: RTDs were tested on one axis with 20 g's acceleration from 30 to 550 Hz at 540°C. This test was continuous for two hours.

Result:

No failures (power amplifier burned up, but RTDs survived).

Test 6.

Insulation Resistance: RTDs were completely submerged in water for 2,000 hours. RTDs were then checked at 100 volts DC.

Result:

No failures (RTDs showed 2,000 megohms or greater).