

REOTEMP[®]

INSTRUMENTS

THERMOCOUPLE & RTD



REOTEMP is a globally recognized ISO 9001:2008 manufacturer of temperature and pressure instrumentation. REOTEMP sells through a mature distribution network that reaches all 50 states and 30 countries worldwide.

Our reputation is built on high quality products, quick standard lead times, and exceptional customer support. We're dedicated to providing our customers with complete satisfaction, from the first phone call to the design and quality of the instrument they receive.



Measuring your world since 1965[™]

 MADE IN THE USA

WHY REOTEMP?



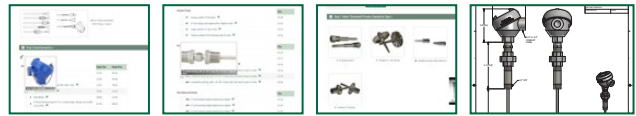
Customer Support

Direct access to our friendly and knowledgeable inside sales team, product managers, engineers, and product specialists.



Online Product Configurator

Visit www.REOTEMP.com for Pricing, Lead Time, Photos, 2D Drawings and 3D Models, and Quotes.



5-7 Day Standard Lead Time

Call for specific lead times.



Expedites Available

Call for specific lead times.

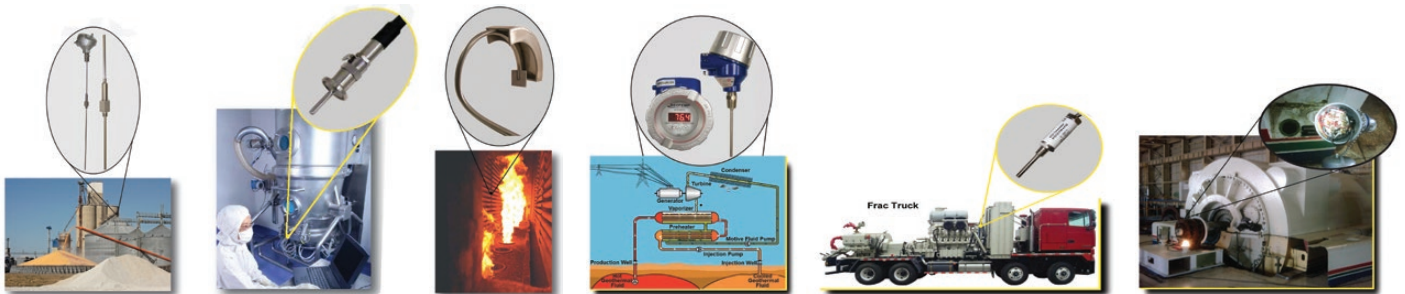


Hi-Vibe™ is an optional feature on many of our RTD sensors. It's a proprietary sensor design that significantly improves lifespan and helps to maintain calibration in high vibration environments.



Hi-Accuracy™ is an optional feature on many of our RTD sensors. REOTEMP uses high-end fixed point calibration cells to determine precise coefficients for the sensor you purchase. You will later input these values into your transmitter. Once the precision coefficients are entered, your sensor will be roughly 5 times more accurate!

APPLICATION SPECIFIC SOLUTIONS



MARKETS / MAJOR CUSTOMERS

Oil, Gas, and Refining



ConocoPhillips



NOV

Industrial



Pharma/Biotech



Johnson & Johnson



Utility / Municipality

conEdison



Government/Military



Engineering & Construction



Food & Beverage



HEAD ASSEMBLIES



- Large Head Selection (Explosion Proof, Corrosion Resistant, Economical, ATEX, FM, CSA, IECEx, IP65 or Greater, NEMA 4X)
- A transmitter can be added inside the head (HART or 4-20mA)
- LED Display Available

Z-TEMP™



The Z-Temp™ temperature transmitter is perfectly suited for applications where an explosion-proof sensor with a digital readout is required, but all of the extra features of a smart transmitter are not.

Features/Benefits:

- The Core Functionality of a Fully Featured Smart Transmitter at a Fraction of the Cost.
- Bright Red, Easy-to-read LED Display
- Explosion Proof Housing
- FM, CSA, ATEX, EExd, IP68, NEMA 4X
- 4-20 mA output, HART Available

FLAMEBLOCK™



The FlameBlock™ sensor improves safety by eliminating a flame path out of the head, while maintaining a spring loaded stem for positive thermowell contact.

Features/Benefits:

- CSA Certified
- Spring Loaded Sensor without Direct Flame Path from the Head
- RTD or Thermocouple
- Class I, Div. 1, Gr A, B, C, & D

STEM ASSEMBLIES



- Come in a Wide Variety of Styles and Terminations
- Customized to Your Process or Application

Cut-to-Length Sensors

- Field Cuttable
- Cut to length using tube cutter.

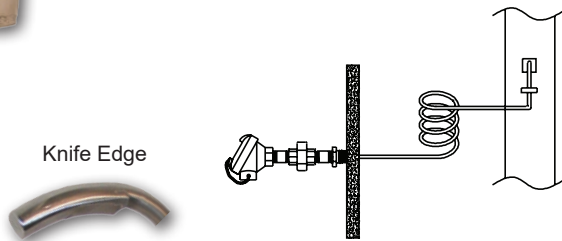


WELD PAD THERMOCOUPLES



Full line of standard and custom weld pad thermocouples.

Allows a temperature sensor to be welded directly onto piping or other metal surfaces.



Applications/Markets:

- Fired Heater Tubes
- Steam Super Heaters, Cokers, Re-Heaters & Drums
- Boilers & Furnaces in Refineries, Power Plants & Processors
- Industrial Boilers & Heat Exchangers
- Vessel Surfaces

PROTECTION TUBES



Ceramic protection tubes are used in high temperature applications where a traditional thermowell would not be able to withstand the extreme temperatures.

Metal tubes are used in applications where corrosion is a concern. They are also used for their economical price point when compared to thermowells.

- Large stock of Noble Metals (R & S)



Metal Sheath Materials

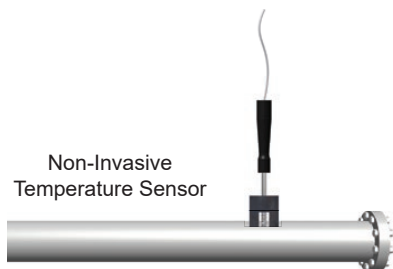
- | | |
|-------|--------------|
| 304SS | Carbon Steel |
| 316SS | Inconel 600 |

Ceramic Sheath Materials

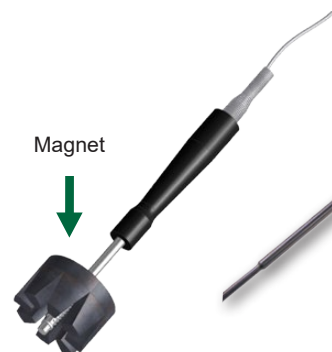
- | | |
|---------|----------|
| | MAX TEMP |
| Mullite | 2,700° F |
| Alumina | 3,400° F |

HANDHELD PROBES

REOTEMP Handheld Probes come in a wide variety of shapes and styles. REOTEMP has made a number of probes for specific applications or to meet a customer's unique needs.



Magnetic Thermocouple



Magnet



"Tuna Probe"



All Stainless Steel

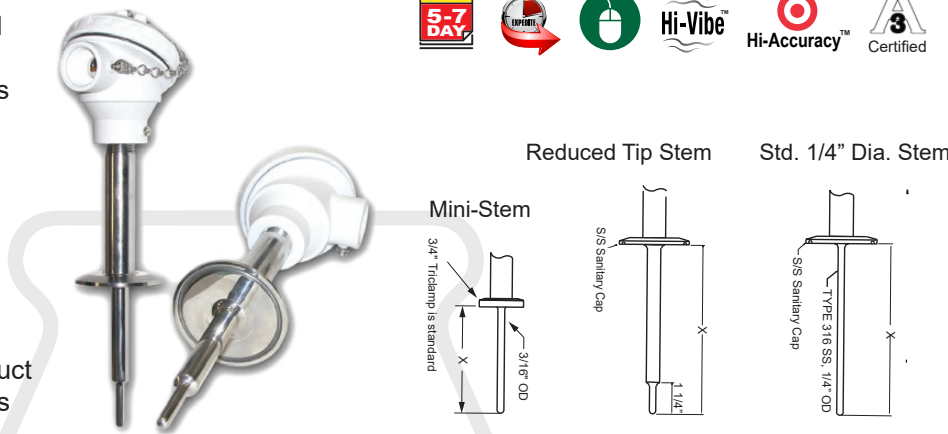
(Piercing Probes)

SANITARY PRODUCTS

REOTEMP's Sanitary RTDs are designed for temperature sensing in food, dairy, beverage and pharmaceutical applications where sensor corrosion and product contamination are critical factors.

Features/Benefits:

- Ideal for CIP (clean-in-place) or SIP
- All Wetted Parts Highly Polished to Exceed 3-A Requirements
- Tri-Clamp® Design
- 3-A Certificate Included with Each Product
- Variety of Stem and Termination Options



Sanitary SlimLine™

REOTEMP's SlimLine™ Sanitary Temperature Transmitter is a compact, rugged transmitter perfectly suited to applications where space is limited. The fully sealed design keeps out any water, liquids, or contaminants. It's great for applications where the transmitter is exposed to the elements or equipment is washed down.

Features/Benefits:

- Minimal installation space required
- High vibration & shock resistance
- Hermetically sealed (To NEMA 7, IP67)
- All-Welded 316SS construction



ReoClick™

- Disconnect/re-connect temperature sensor with the click of a button.
- Can be placed directly in a calibration bath.
- Maintains process pressure when disconnected.



Patent Pending



Wire Out & Plug Assemblies

RDP M12 Plug assemblies allow for a quick and easy connection of the process wiring. Choice of the mating connector with or without attached wiring available.

RDW Sealed Cable assemblies allow you to wire directly to your PLC or transmitter. These units come standard with a nylon relief spring for added protection of the extension wires.



ReoCube™

REOTEMP's ReoCube™ Isolation Bottles are used to monitor the temperature of ultralow freezers or refrigerators. By submerging the temperature sensor(s), the ReoCube™ ensures the temperature readings will not be thrown off when the freezer door is opened and ambient air rushes in.



MULTIPOINT SENSORS

REOTEMP manufactures Multipoint sensors for chemical silos, scrubbers, storage tanks and a host of other process applications where a temperature profile is beneficial.

In a Multipoint sensor, the temperature sensors are spread out along the length of the stem at strategic locations. This data creates a temperature cross section of the process. A Multipoint sensor gives the operator more data points, which allows them to optimize their process and identify hot spots.

Common Applications:

- Scrubbers/NOX/SCR
- Chemical Silos
- Crude Oil Distillation
- Ovens
- Ducts
- Exhaust Stacks
- Grain Silo
- Beverage Processing
- Storage Tanks

Why are Multipoints used?

- Identify Hot Spots
- Discrete Temperature Mapping
- Temperature Averaging Across Large Areas
- To Better Understand and Optimize Process Efficiency



Stem Styles



Exposed



Protection Tube



Flexible



Provides a detailed view of the process

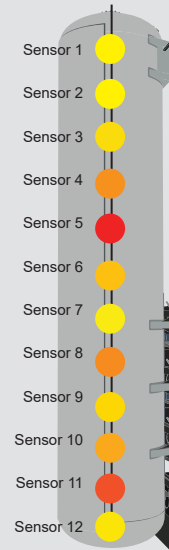


Junction Box

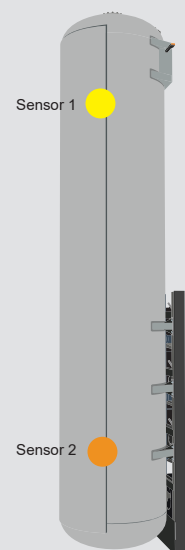
Heat Map Example



Multi-Point Sensor



vs 2 Sensors



SLIMLINE™

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TURBINE SENSORS

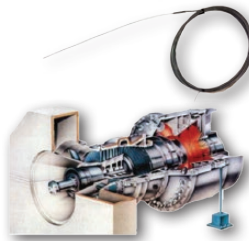
REOTEMP provides a wide-range of turbine sensors to the power generation industry. Below are some of the more common types of turbine sensors REOTEMP manufactures. Contact us with your specific application and needs.



REOTEMP Turbine Sensors Characteristics:

- Long Life Span
- Vibration Resistant
- Durable Design

Flashback Thermocouples



Blade Path Thermocouples



Bearing Thermocouples



THERMOWELLS

REOTEMP Threaded Thermowells make it possible to remove an instrument without dropping pressure or losing contents of the process. Thermowells also protect the instrument from getting bent by the process media.



Available Options:

- Wake Frequency
- Hydrostatic Test
- Full Penetration Welding
- NACE Certified

Threaded



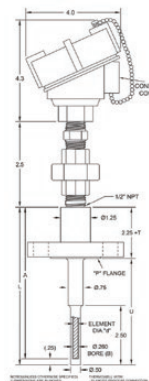
Flanged



Weld-in

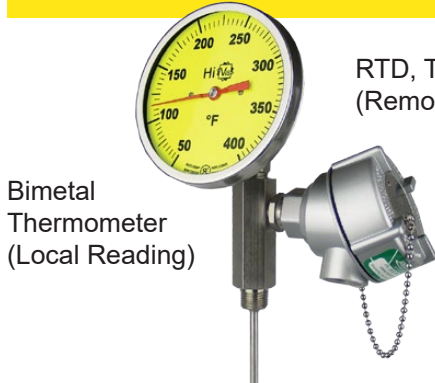


Sanitary
(3-A Certificate Included)



- Online configurator provides you detailed drawing of a matched thermowell and sensor.
- Custom and standard thermowells
- Large Stock

DUAL MODE THERMOMETERS



Bimetal Thermometer (Local Reading)

RTD, Thermocouple or 4-20 mA Transmitter (Remote Reading)

- Mechanical reading locally and an electrical reading remotely
- Redundant temperature sensing increases safety
- 2 independent sensors in 1 stem



This product is available in a mil-spec approved model that is build to withstand tough shock and vibration environments (MIL-STD-167-1A and MIL-S-901D).



ACCESSORIES

Connection Heads



Plugs & Jacks



RTD & TC Wire



Transmitters (in-head)



- Calibration software available
- (HART, Profibus, Fieldbus or analog 4-20mA)

Spring Loaded Kit



Terminal Blocks



CALIBRATION & CERTIFICATION SERVICES



REOTEMP uses a combination of fixed point calibration cells and fluid-filled calibration equipment to perform sensor calibrations from -196° C to 1,300° C. Our friendly and knowledgeable calibration technicians will ensure your sensors have the accuracy required for your application.

- Certificate of Conformance (General conformance to published specs)
- Certificate of Calibration (Includes logged points and sticker)
- 3A Sanitary Certificates
- Compliance and material certs for all wetted components



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