

# TEMPERATURE SENSORS

A guide to temperature sensors for the Oil & Gas, Petrochemical, Chemical and Power segments.

- Thermocouples • RTDs
- Thermowells • Sample Probes
- Industrial and High Temp Assemblies
- Multipoint and Surface Mount Sensors
- Engineered and Specialty Temp Sensors



TEMPERATURE SENSORS

A photograph of an industrial power plant component, likely a turbine or compressor, with a white SSi temperature sensor assembly mounted on it. The sensor is connected to a yellow cable. The background is a blurred industrial setting.

SSi temperature sensor measurement assembly installed at a power plant in the Gulf region.

# Why SSi Temperature Sensors

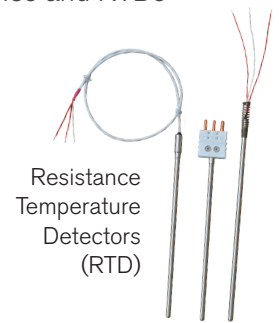
SSi manufactures a complete line of temperature sensors including thermocouples, Resistance Temperature Detectors (RTD) and specialty surface temperature measurement sensors and assemblies. The staff brings almost a century of experience and technical expertise in the design, production, sales and application of temperature sensors and assemblies. With state-of-the-art facilities, including a sophisticated instrumentation lab for testing on-line and in-house, SSi can meet the most demanding temperature measurement requirements.



- Manufactured in our world class machine shop and assembled in the USA
- Field proven rugged and reliable sensors and thermowells
- Top quality, performance and durability
- Short lead times on standard units
- Ability to cross over legacy parts and assemblies quickly and accurately
- Wide range of inventory including exotic flanges and bar stock
- Full testing and calibration certifications available
- Willingness to bring in inventory to support plant material specs and requirements
- **All your temperature needs from one source**

## Temperature Sensors and Thermowells

- Industrial, remote mount and field adjustable thermocouples and RTDs
- Sanitary RTDs and thermocouples
- High pressure thermocouples
- High temp and ceramic protection tube assemblies
- General purpose sensors
- Transmitters and indicators
- Size and material of thermowells are fully customizable
- Barstock and pipe thermowells



Resistance  
Temperature  
Detectors  
(RTD)

Temperature Assembly  
with a Ceramic Terminal Block  
and Flanged Thermowell



1340 Remote Sensor  
Assembly

Temperature  
Assembly with a  
Digital Display and  
Thermowell



Thermowells

# Engineered and Specialty Sensors

SSi Temperature Sensors designs and manufactures engineered to order temperature solutions to meet your specific application. This includes retrofitting assemblies for existing equipment.

## Multipoint Sensors

*Typically used in applications where there is a need for temperature profiling at various points over a distance.*

- Can be designed using either thermocouples, RTDs or both.
- Secondary seals can be supplied for even greater safety assurance.
  - Dye penetrant, X-ray and hydrostatic testing are available.
  - Up to 100ft in length.



## High Temp Assemblies

*High temp assemblies are for applications where the temperatures are in excess of 2000°F/1093.3°C.*

- These types of assemblies can be configured using a variety of materials and construction types.
- Protection tubes can be made of alumina, mullite, silicon carbide, sapphire and metal-ceramic.
- Platinum thermocouples are available.



## Tubeskin Thermocouples



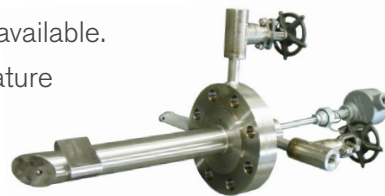
*Measures temperature of the tube wall to determine tube life and temperature trending along with detection of coke buildup on tubes.*

- Can be designed with expansion loops, bends and weld pads.
- Parallel or radial heat shields are optional.
- Replaceable and pipe strap style available.

## Sample Probes

*Used in applications where a representative sample needs to be extracted from a process. Installing a sample probe with a valve in a nozzle allows for simple and controlled extraction.*

- Custom probe designs include flanged, threaded or retractable styles.
- Includes wake frequency calculations.
- Single or multiple valves are available.
- Can add pressure or temperature measurement functionality.



# Temperature Sensors and Thermowells



SHORT LEAD TIMES



EASY TO ORDER



QUALITY PERFORMANCE AND DURABILITY



IN-HOUSE TESTING SERVICES



WIDE RANGE OF INVENTORY INCLUDING  
EXOTIC FLANGES AND BAR STOCK



1 YEAR WARRANTY



**EASY | RUGGED | RELIABLE**

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