

# POWER INDUSTRY SOLUTIONS

Thermocouples and RTDs manufactured by Applied Sensor Technologies have been supporting the operations of the Power Industry for many years. If you look around, you might find us monitoring the temperature of your turbine exhaust, or controlling the heater on your precipitator hopper, or providing input to your natural gas flow computer, or monitoring the heat in your HRSG or boiler tubes.







## THERMOCOUPLES

From the bearings to the boiler, thermocouples and RTDs manufactured by Applied Sensor Technologies are designed for reliability and durability, and are proven in the field. We have designed sensors for your gas turbine exhaust and your heat tracing system, for the gas flow computers you rely upon and the cooling water outflow. Our philosophy is not only one of Lean *Manufacturing*, but also of Lean *Enterprise* – we strive to provide the maximum value to the customer in everything we do.



We provide a wide range of thermowell designs, in many different materials, for applications from the natural gas supply lines to the HRSG. From threaded wells for the water treatment equipment, to flanged wells, socket-weld and weld-in styles in a variety of carbon steels, stainless steels and high-nickel alloys. We also supply special protection tube designs for applications such as bag houses and precipitators, where fast response is required in an abrasive environment.



- Boiler tube temperature
- HRSG efficiency

**APPLICATIONS** 

- Gas turbine exhaust gas
- Heat tracing monitoring
- Ash hopper heater control



- Bag house and precipitator monitoring
- Gas flow computer temperature input
- Cooling water monitoring
- Bearing temperature
- Stack emissions monitoring





### TRANSMITTERS

In many applications, it is not feasible to wire a temperature sensor directly into the control system, due to distance or signal quality. One of our temperature transmitters is an ideal choice to convert the sensor's output signal to a reliable 4-20 mA or HART® protocol. Designed to fit into one of the many terminal head variations that we offer, our UNI5 transmitter line offers reliability and value.



A flexible, cost-effective program designed for the specific applications in your plant, the Sensor Box<sup>TM</sup> contains parts that allow you to put together a wide variety of assemblies. If a temperature sensor fails in the field, rather than go into "emergency mode" to buy a new one, just get out your Sensor Box<sup>TM</sup> and assemble a replacement! Useful not only for emergency situations, it has also proven to be effective during outages, where timing is critical and requirements may not be known until the last minute.





### **CUSTOM SOLUTIONS**

Applied Sensor Technologies offers a wide variety of standard assemblies that meet most applications, but we also understand that some needs are unique. Give us a call if you have a challenge, or can't find exactly what you're looking for – chances are we can come up with the perfect sensor for you.

#### **TEMPERATURE SENSOR ASSEMBLIES**

- Wide variety of terminal heads and configurations
- Complete assemblies for HRSG's
- RTDs for heat tracing/hopper heater control
- Special designs for gas flow computer input
- Boiler tube thermocouples with weld pads and expansion loops

#### THERMOWELLS AND PROTECTION TUBES

- Wide variety of carbon steels, stainless steels and high nickel alloys
- Thread-in, weld-in, socket-weld and flanged designs
- Special protection tube designs for bag houses

Wide variety of thermocouple and RTD inputs

**TEMPERATURE TRANSMITTERS** 

Terminal head mounted 4-20 mA or HART output







### **TX200H SERIES**

**ONE SERIES** 

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- HART Smart pressure transmitter
- 4-20 mA output with HART® 7 communication protocol
- 316 stainless steel enclosure and pressure connection

Electronic pressure, DP and temperature switches

Digital display includes process, status and self-diagnostics

2-wire and loop-powered 4-20 mA models available

Provides the functions of a switch, gauge and transmitter

Fully adjustable set point and deadband

- Simple system commissioning and start-up
- 10:1 range turndown reduces inventory







- Pressure, vacuum, DP and temperature switches
- Single, dual or triple switch outputs provide multi-switching for level control and pump staging
- Epoxy-coated aluminum enclosure designed to meet enclosure type 4X
- Wide variety of pressure sensors and materials
- Heat tracing and freeze protection thermostats

