



Temperature Sensing **Solutions**



Pyrotek[®]

Why Pyrotek?

Pyrotek is a global engineering leader and innovator of performance-improving technical solutions, integrated systems and consulting services for customers in the aluminium industry. Our products and solutions are in use around the world in automotive, aerospace, transportation and high-tech manufacturing. We have global resources and local support in more than 35 countries and 60 locations.

Pyrotek provides a full line of thermocouple elements, protection

Meeting a Need

Accurate temperature sensing is key to producing high-quality metal and end products that are and free of defects. Maintaining temperature and selecting the right thermocouple elements and protection tube material to suit a particular application can also help efficiency in many processes. Pyrotek offers a range of thermocouples and protection tubes for a variety of applications, from furnaces to crucibles to transfer troughs.



Thermocouple features include:

- Standard and specialized tolerances
- Variety of materials, ceramic to cast iron
- Calibration certification
- Manufacturing centres worldwide

Global Distribution and Local Support

Pyrotek's locations supply customers throughout the world and provide local service and support. Our global network of application engineers are trained to assist in selecting the correct temperature measuring solutions for general and specific applications. Other services include inventory management, repair and recycling.

Pyrotek's Temperature Sensing Solutions

Pyrotek offers melt, atmospheric, mould and sampling thermocouples and assemblies for a variety of industries.

Aluminium—from the Smelter to the Foundry

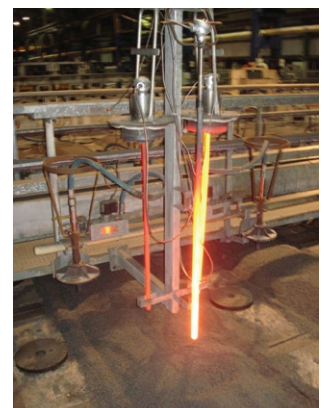
Pyrotek provides comprehensive temperature sensing solutions for aluminium manufacturing and industrial applications, from primary aluminium smelting and casting to foundry and die casting processes.

This includes a complete line of thermocouple elements, protective tubes and assemblies for a range of molten metal applications. Pyrotek offers a wide variety of thermocouple protection tube material options: cast iron (plain or enameled), reinforced fibreglass material (RFM®), high-performance ceramics and standard refractory types.

Other Industries

In addition to aluminium, Pyrotek manufactures temperature sensing solutions for the following industries:

- Cement
- Glass
- Iron and steel
- Lead
- Petrochemical
- Power plants
- Zinc/galvanizing





tubes and assemblies for high-temperature applications

Temperature Sensing Products

Pyrotek's selection of durable thermocouple protection tubes and quick sampling thermocouples offer a complete solution, from direct immersion and atmospheric to quick temperature sampling applications.

Thermocouples

Available Element Types:

K, N, J, E, T, R, S, B—simplex, duplex and triplex, covering temperature range 0–1820°C (32–3308°F)

Sheaths:

Sizes from 0.5–12.7 millimetres (0.02–0.5 inch) diameter; mineral insulated

Thermocouple Protection Tubes

Material types:

- Cast iron (plain and enameled)
- Sialon B100 ceramics
- O'-Sialon ceramics
- Reinforced fibreglass material (RFM)
- Pinnacle ceramic
- Stainless steel
- Inconel® alloy
- Silicon-nitride
- Clay-bonded silicon-carbide
- Alumina
- Mullite



Thermocouple and Protection Tube Assemblies

Pyrotek provides complete assemblies with thermocouple element, protection tube and process termination. Pyrotek engineers are skilled at determining the proper materials needed for exact requirements.



Thermowells

Pyrotek designs and supplies all types of thermowells, both standard and custom. Through proper engineering and material selection Pyrotek thermowells meet all process conditions.

Resistance Temperature Detectors (RTDs)

Pyrotek sensors offer accurate temperature measurement from -200–800°C (-328–1472°F). Types include wire-wound and thin film sensors, ceramic encapsulated, class A and B. Protection sheaths include stainless steel (SS316 and SS304), other grades and sizes and more.

Accessories

Pyrotek stocks a complete line of thermocouple wire, hardware and accessories including:

- Plugs and jacks
- Transitions
- Bushings and flanges
- Compression fittings
- Ceramic insulators



