

Engineering / Research and Production



- **Rocket temperatures**

Monitoring the temperature on the outer casing of a rocket on a static test bed, up to 250°C.

- **Diesel engine research**

Logging conditions in and around diesel engines used in lighthouses.



- **Machine outputs**

Logging outputs from various production machines.

- **NASA Space shuttle**

Gas analysis in cargo compartment on space craft.



- **Cement / Gypsum**

Measuring hydration rates of cement pastes or gypsum.

- **Semiconductor ovens**

Monitoring of semiconductor oven temperatures.

- **Cables**

Monitoring of cable pressure and temperature variations.

- **Steelworks**

Monitoring gas analysis, pressure, flow rate and temperature in steelworks.

- **Road temperatures**

Recording road temperatures at various sites throughout Britain.

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- **Car brakes**

Monitoring temperature of car brake systems.
Monitoring temperature of brake discs.

- **Oil rig maintenance**

Monitoring bearing temperature of large expensive pumps used on oil rigs to determine best time for replacement (planned maintenance).

- **Engine efficiency**

Checking engine temperatures at various points when starting and monitoring length of running time to check engine efficiency under different climatic conditions.

- **Battery efficiency**

Monitoring temperature, pH and voltage of car batteries under various operating conditions. Monitoring battery condition of wheelchairs.

- **Transmitter maintenance**

Monitoring backup battery conditions of transmitter stations in Greenland.

- **Design of storm drains**

Monitoring rainfall in built-up areas to design storm drains.

- **Building site selection**

Measuring wind speed direction to check conditions to find sites for industrial buildings.

- **Racing car research**

Monitoring temperature and pressure in brakes, engines, turbocharger and other components in racing cars with a view to improving performance.
'In car' testing in racing cars, monitoring 'ride height', suspension deflection, air and brake fluid pressures, etc.

- **Oil pipelines**

Logging temperature of oil pipelines.

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- **Telecommunications**

Monitoring temperature and humidity of piping and ducting containing telephone lines.
Evaluating different types of primary cross connection cabinets by monitoring temperature and relative humidity inside the cabinets.

- **Welding**

Monitoring rail temperatures while welding.

- **Ceramic curing**

Recording time and temperature of the ceramic curing process involved in the manufacture of turbine blades.

- **Heating cycles**

Monitoring heating cycles and reaction exotherms.

- **Slitting machine performance**

Investigating slitting machine tension variation.

- **Climatic testing of cars**

Testing cars in extreme conditions, down to -40°C in the Artic Circle.