

Food and Pharmaceutical



Process Monitoring and HACCP Using Infrared Thermometers

Temperature monitoring is stringent in many industries, not only to meet legislation, but also to guarantee the highest quality product for the end-customer.

Q Why are Infrared (IR) temperature sensors beneficial for the food and pharmaceutical industry?

A IR sensors and imaging cameras are noncontact, so they measure temperature without contaminating or damaging the material to be measured. They are fast, precise, safe and have a long life cycle. They help guarantee product quality, optimize your process, and save material and energy. Integrated software for data recording and analysis makes it easy to keep required verification records and provide evidence that regulations (e.g. HACCP) have been met.

An infrared thermometer can pay for itself the first time you use it!

Low Temperature Range

Storing, Freezing, Cooling, Ripening, Whipping, etc.



Tunnel Freezer

Medium Temperature Range

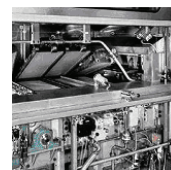
Mixing, Blending, Emulsifying, Ripening, Storing, Fermenting, Drying, Brewing, etc.



Mixing Machine

High Temperature Range

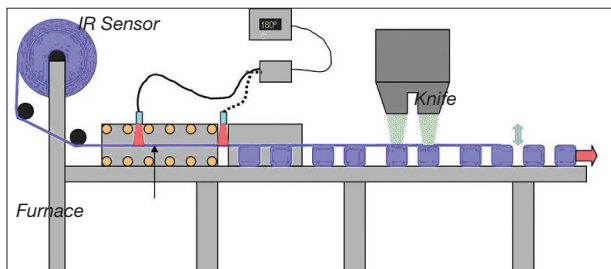
Baking, Cooking, Blanching, Sterilization, Roasting, Deep-frying, Pasteurization, Extruding, etc.



Baking Machine




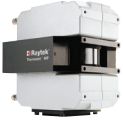
Other applications:

- Tobacco Drying
- Plastics Extrusion and Moulding
- Packaging and Sealing
- Pill Coating
- Cleaning and Sanitizing
- Sterilizing



Raytek® infrared sensors and cameras are designed for integration into process control systems and can be built into machinery for OEM applications. A wide choice of models is available to suit the specific needs of our customers.

Table of Instruments

| Sensor | Model | Temperature Range* | Output/Interface | Remarks |
|---|----------------------------------|-------------------------------------|---|---|
|  | Raytek MI IR Point Sensor | -40°C to 600°C (-40°F to 1112°F) | 4-20mA, 0-20mA, 0-5V Thermocouple J/K RS232 or RS85 | Very Small Stainless Steel Sensing Head |
|  | Raytek TX IR Point Sensor | -18°C to 500°C (0°F to 1000°F) | 4-20mA and digital HART/RS232 | 2-Wire Sensor, Stainless Steel Housing |
|  | Raytek MM LTS IR Point Sensor | -40°C to 800°C (-40°F to 1472°F) | 4-20mA, 0-20mA, RS485 | Fast Response Time, Stainless Steel Housing, Video Function |
|  | Raytek MP150 IR Linescanner | 20°C to 800°C (68°F to 1472°F) | 4-20mA, 0-20mA, RS485 Ethernet OPC | Fast (150Hz), 2-Dimensional Thermal Image |

* Temperature ranges specific for food and pharmaceutical applications

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