



# ProTIR

## Infrared Thermal Imaging System for Continuous Temperature Monitoring

Based on high resolution thermal cameras and a specific software, ProTIR provides real radiometric images that measure temperature inside of furnaces, rotary kilns, coolers, incinerators and boilers in the steel, minerals, power generation and process industries.

In addition, ProTIR is also ideal for glass melt furnaces, steam reformer and cracker tube furnaces, enabling process control optimization, energy efficiency savings and prolonging the lifetime of the furnaces and reformer tubes.

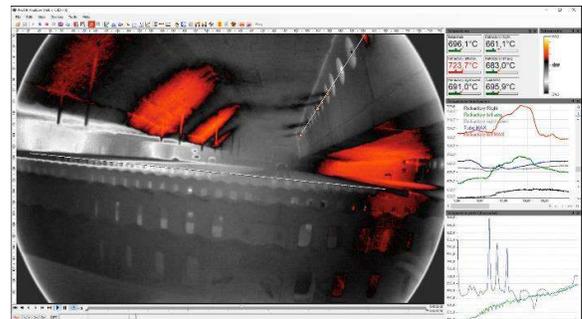


Biomass plant

With 86° viewing angle optic, our system provides accurate temperature information (from any of 367,000 live data points) of an extensive area with just a narrow opening in the wall.



Rugged housing ProTIR made of stainless steel



Temperature monitoring inside furnace with tubular profiles

Protected by a rugged protective housing and using a high-performance water-cooling system, ProTIR system resists up to 2.200 °C (3,992°F). In addition, our thermographic measurement solution provides a wide range of temperature measurement from 450°C to 1.800°C (842°F to 3.272°F).

### Features

#### Real time inspection at the highest resolution

86° angle for maximum inspection details. para los máximos detalles de inspección. 764\*480 pixel resolution, giving 367.000 data points.

#### Protection mechanisms

Different protection mechanisms available against overheating (automatic retraction system and wall fixing device) for long-term trouble-free use.

#### Range of housing dimensions and mounting options

There are different lengths and diameters available to provide the best solution for every installation.

#### Full feature software

It provides accurate data analysis, configuration of different areas, temperature trends, automated alarm outputs and control for 24/7 monitoring, in order to instantly alert the user of any problem from the control area.

#### Communications via Profinet / Profibus / OPC Client

Data Integration and communication to the different levels of the factory (SCADA, data bases, communications with PLC and sensors).

## Benefits

- High-definition thermal images
- Radiometric images with information of temperature
- Flame shape monitoring
- Process control optimization
- Energy efficiency savings
- Long term reliability
- Minimal maintenance
- 2 years warranty
- Automated alarm outputs
- Communications via Profinet/Profibus/OPC Client



ProTIR retractable system in reheating furnace



Wall fixing mechanism

## Applications

- Rotary kilns
- Vertical kilns
- Sintering furnaces
- Reheating furnaces
- Reformers furnaces
- Coolers
- Glass melt tanks
- Boilers

## Performance

- Temperature range: from +450°C to +1.800°C (+842°F to 3.272°F)
- Operating temperature: up to 2.200°C (3.992°F)
- Frame rate: 80 Hz
- Spectral range: 0,92 – 1,1 μm
- Resolution: 764 \* 480 pixels
- Different view angle: 86° (diagonal)
- Axial and angular view
- Data output: Ethernet or fiber optic
- Housing length: 350, 700 or 1200 mm (13,8", 27,6" or 47,2")
- Housing diameter: 89 mm or 101,6 mm (3,5" or 4")

## Industries

- Cement
- Lime
- Steel
- Glass
- Refining
- Petrochemical
- Biomass
- Power generation

- Sealing: IP66
- Power supply: 24 Vcc
- Made by stainless steel AISI 316L
- Standard accessories: control cabinet, cables software, power supply, water/air cooling system, air purge system.
- High temperature resistance and long term reliability thanks to its high performance water and air cooling system. The air purge system maintains the lens clean for an accurate measurement.
- Different view of angle inclination: Axial and angular ( 60°).
- Communications via Profinet/Profibus/OPC Client and automated alarm outputs



**CONSERO**

9603 Gayton Road, Suite 102, Henrico, VA 23238  
sales@conseroinc.com | 804-359-8448 | www.conseroinc.com