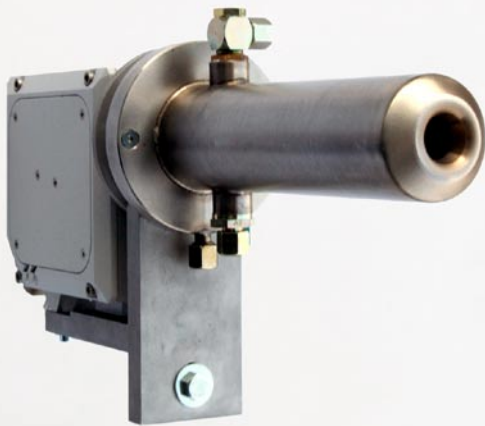


PYROINC 320

Infrared 2D Camera with Furnace Probe



Features

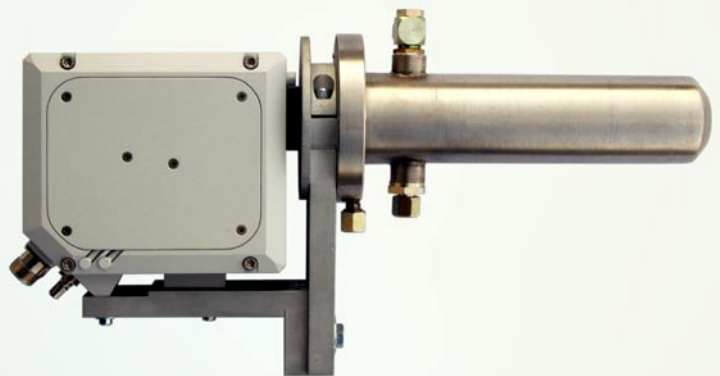
- Temperature measurement range 600 °C to 1500 °C
- Measurement frequency 50 frames per second
- Uncooled microbolometer with 320 × 240 pixels
- Furnace probe lens with air purge and water-cooling system for combustion chambers
- Lenses with different probe lengths and various fields of view, optional with inclination
- Robust housing (IP 65) with optional water-cooling system
- Real-time data acquisition via Fast Ethernet
- Triggered measurements, Alarm and threshold monitoring
- Large dynamic range and 16 bit A/D converter
- Customized system solutions with automatic retract and rotation units, control cabinet for monitoring of cooling media and purging air, modified software

Applications

PYROINC 320 cameras provide non-contact measurement of temperature in combustion chambers or furnaces.

Different spectral ranges are designed for measurements through flames (3.9 μm) or measurements on different materials like glass (4.8 μm to 5.2 μm) or metal (3 μm to 5 μm).

Typical applications for the camera include thermal process optimization and the slag and deposit detection.

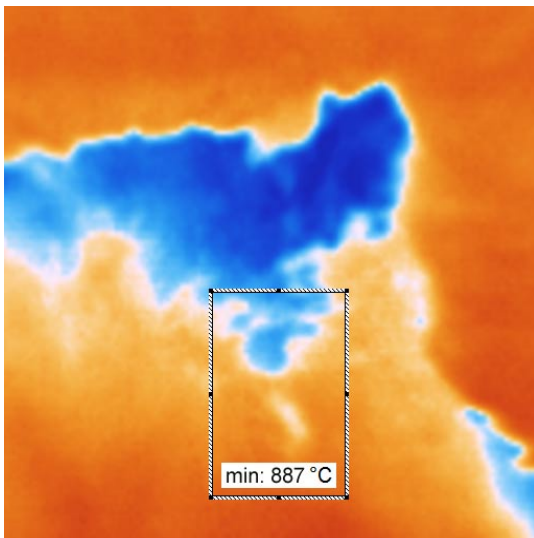


Software

The powerful online software PYROSOFT for Windows® allows you to control the camera and record, view, manipulate and store the measured data. Specific features are:

- Real-time data recording
- Definition of zones and monitoring of alarm thresholds
- Analysis of trends
- Data export (text, bitmap, video)
- Process control via PROFIBUS, analog and digital inputs, outputs, and other interfaces

A programming interface (Windows®-DLL) is available for system integration.



PYROINC 320

Infrared 2D Camera with Furnace Probe

Model	Spectral Range ¹	Temperature Measurement Range ¹
PYROINC 320M	3 μm to 5 μm	range 1: 100 °C to 300 °C, range 2: 200 °C to 500 °C
PYROINC 320G	4.8 μm to 5.2 μm	range 1: 200 °C to 500 °C, range 2: 400 °C to 1250 °C
PYROINC 320F	3.9 μm	600 °C to 1250 °C

Furnace Probe Lens with Cooling Jacket¹

FOV (diameter, free length)

28° × 21° (∅ 70 mm, 200 mm), 43° × 33° (∅ 70 mm, 200 mm), 67° × 52° (∅ 89 mm, 430 mm),
 61° × 48° (∅ 104 mm, 900 mm, with inclination 60° to the left), 48° × 61° (∅ 104 mm, 900 mm, with inclination 60° downward)

Measurement Uncertainty²

2 % of the measured value in °C

Measurement Frequency

internal 50 Hz, selectable: 50 Hz, 25 Hz, 12.5 Hz, ...

Response Time

internal 40 ms, selectable: 2/measurement frequency

Interfaces

Fast Ethernet, optional fibre optics
 electrically isolated digital inputs (trigger) or digital outputs (alarm)

Camera Housing

Protection to IP 65 Standard. Options include integrated water cooling system and air purge.

Camera Operating Temperature Range

0 °C to 50 °C (without water-cooling), -25 °C to 150 °C (with water-cooling)

Storage Conditions

-20 °C to 70 °C, rel. humidity 95 % max

Accessories (optional)

Traversing unit for camera with furnace optics, boiler auto-closure device, rotation unit, control and supply cabinet

Software

Control and imaging software PYROSOFT for Windows®, customized modifications on request

¹ Other available. ² Specification for black body reference and ambient temperature 25 °C. Technical details are subject to change without notice. April 2008.

