

# PYROVIEW 640N compact

Infrared camera for measurements of high temperatures at  $0.8 \mu\text{m}$  to  $1.1 \mu\text{m}$



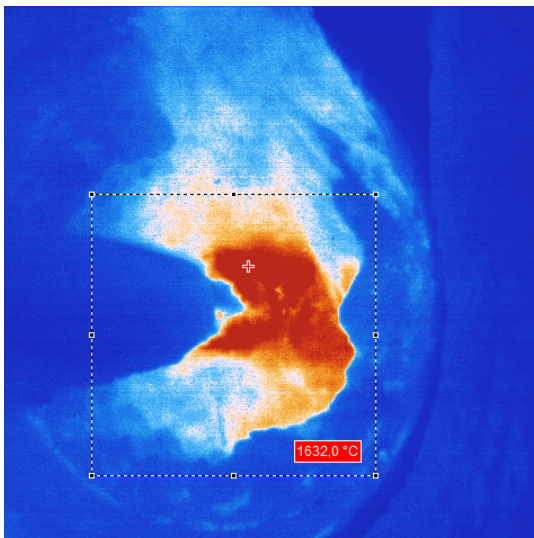
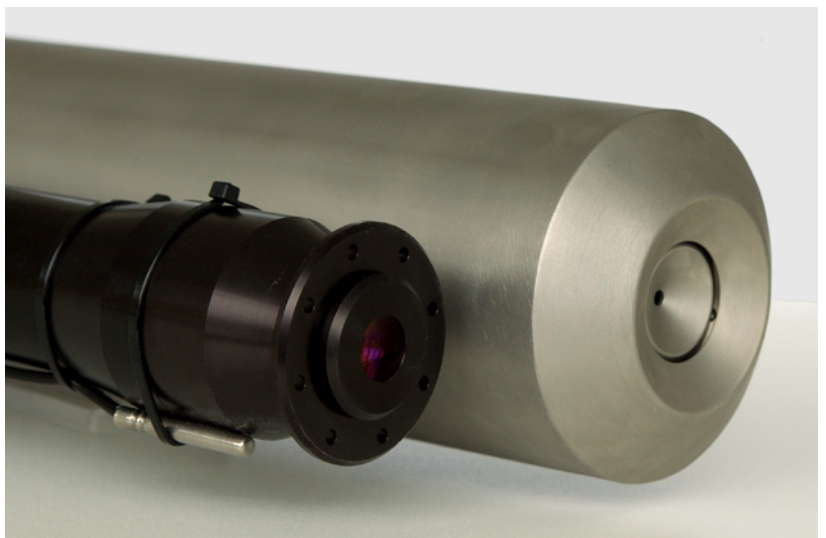
## Features

- Large continuous temperature measurement range 600 °C to 1500 °C, optional 2500 °C
- Measurement frequency 25 frames per second
- High dynamic 2D Si CMOS array with  $640 \times 480$  pixels
- Robust stainless steel housing
- Optional with furnace probe lens and cooling jacket
- Lenses with different fields of view
- Real-time data acquisition via Fast Ethernet
- Option of stand-alone operation without computer
- Triggered measurements
- Alarm and threshold monitoring
- 2 years warranty
- Customized system solutions with modified hardware and software

## Applications

PYROVIEW 640N compact cameras provide non-contact measurement of 2D temperature distributions with high dynamic and high spatial resolution.

The camera is specially designed for long-term use in harsh industrial environments. Typical applications for the camera PYROVIEW 640N compact include measurement of high temperatures for process control, process monitoring and quality control in the metal, glass and cement industries.



## 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.

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<b>Spectral Range</b>	0.8 $\mu\text{m}$ to 1.1 $\mu\text{m}$
<b>Temperature Measurement Range<sup>1</sup></b>	600 °C to 1500 °C, optional 2500 °C
<b>Sensor</b>	high dynamic 2D Si CMOS array (640 × 480 pixels)
<b>Lens<sup>1</sup></b>	32° × 24°, spatial resolution 0.9 mrad, optional 46° × 35°, spatial resolution 1.3 mrad, optional 23° × 17°, spatial resolution 0.6 mrad, optional 17° × 13°, spatial resolution 0.5 mrad, optional borescope lens 71° × 55°, spatial resolution 1.9 mrad (PYROINC 640N)
<b>Measurement Uncertainty<sup>2</sup></b>	2 % of the measured value in °C (object temperature < 1000 °C) <sup>3</sup>
<b>Noise equivalent temperature difference<sup>2</sup></b>	< 2 K (600 °C, 25 Hz) <sup>4</sup>
<b>Measurement Frequency</b>	internal 25 Hz, selectable: 25 Hz, 12.5 Hz, 6.25 Hz, ...
<b>Response Time</b>	internal 80 ms, selectable: 2 / measurement frequency
<b>Interfaces</b>	Fast Ethernet (real-time, 25 Hz max)
<b>Digital Inputs</b>	2 electrically isolated digital inputs (trigger)
<b>Digital Outputs</b>	2 electrically isolated digital outputs (alarm)
<b>Connectors</b>	round plug connector HR10A (12 pins, power supply, digital inputs and digital outputs), round plug connector M12-L (Ethernet)
<b>Power Supply</b>	18 V to 36 V DC, typical 4 VA
<b>Housing</b>	60 mm × 60 mm × 160 mm (camera stainless steel housing without lens), optional with weatherproof housing or furnace probe lens with cooling jacket (IP65), incl. retract unit, auto-closure device, control and supply cabinet (PYROINC 640N)
<b>Operating Temperature Range</b>	-10 °C to 50 °C (without water-cooling), -25 °C to 150 °C (with water-cooling)
<b>Storage Conditions</b>	-20 °C to 70 °C, rel. humidity 95 % max
<b>Software</b>	Control and imaging software PYROSOFT for Windows®, customized modifications on request

<sup>1</sup> Other available. <sup>2</sup> Specification for black body reference and ambient temperature 25 °C. <sup>3</sup> From 1000 °C additionally 0.75 % per 100 K increase of object temperature.

<sup>4</sup> Additionally 0.75 K per 100 K increase of object temperature. Technical details are subject to change without notice. March 2009.



PYROINC 640N