

PYROVIEW 380L

Uncooled Infrared Camera for Applications at 8 μm to 14 μm



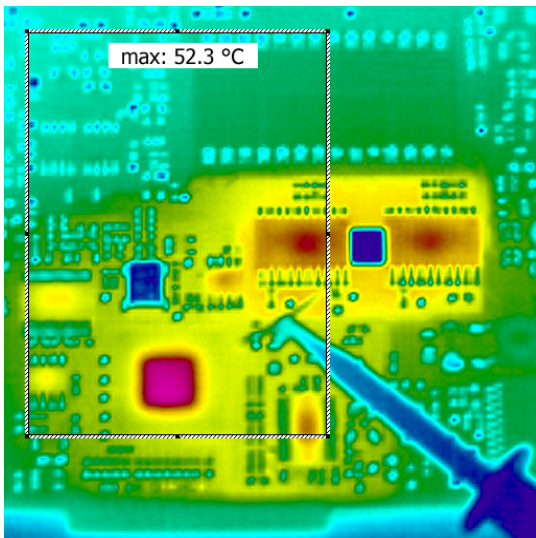
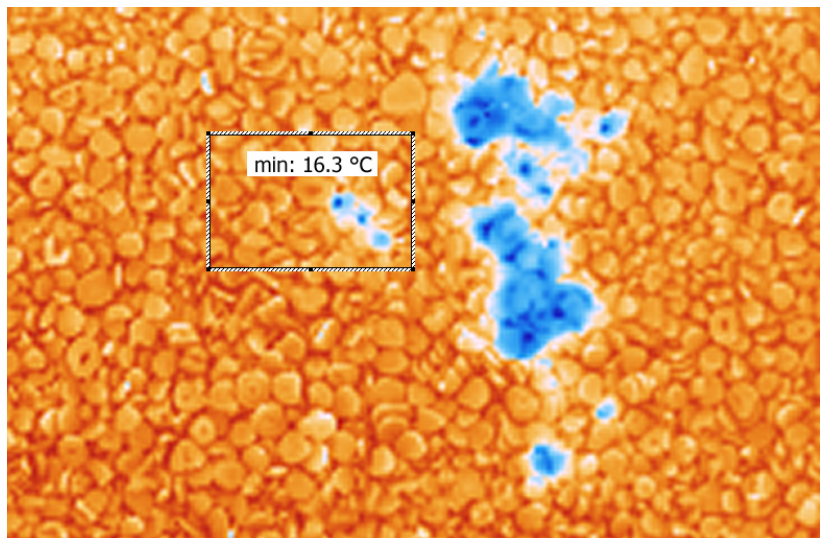
Features

- Standard temperature measurement range $-20\text{ }^{\circ}\text{C}$ to $500\text{ }^{\circ}\text{C}$
- Measurement frequency 50 frames per second
- Uncooled microbolometer with 384×288 pixels (40 % more than 320×240 pixels)
- Option of stand-alone operation without computer
- Robust housing for use in harsh environments (to IP 65 Standard) with optional water-cooling system and air purge
- Optics with motor or manual focussing
- Real-time data acquisition via Fast Ethernet, optional fibre optics
- Triggered measurements, alarm and threshold monitoring
- Large dynamic range
- 16 bit A/D conversion
- 2 years warranty
- Customized system solutions with modified hardware and software
- No US export license necessary

Applications

PYROVIEW 380L camera provide instant non-contact measurement of 2D temperature distributions with high thermal and spatial resolution. The camera is specially designed for long-term use in harsh industrial environments.

Typical applications for the PYROVIEW 380L include process control and monitoring, quality control, fire detection and measurements in research and development.



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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Spectral Range	8 μm to 14 μm
Temperature Measurement Range¹	range 1: -20 °C to 120 °C, range 2: 0 °C to 500 °C
Sensor	uncooled microbolometer array (384 × 288 pixels)
Lens^{1,5}	30° × 23°, measurement distance > 20 cm, spatial resolution 1.4 mrad, optional 43° × 33°, measurement distance > 50 cm, spatial resolution 2.0 mrad, optional 22° × 16°, measurement distance > 20 cm, spatial resolution 1.0 mrad, optional 11° × 8°, measurement distance > 2 m, spatial resolution 0.5 mrad, optional 7° × 5°, measurement distance > 2 m, spatial resolution 0.4 mrad, ⁴ optional macro 60 μm
Measurement Uncertainty²	2 K (measured temperature < 100 °C) or 2 % of the measured value in °C
Noise equivalent temperature difference²	<80 mK (30 °C, 50 Hz, range 1)
Measurement Frequency	internal 50 Hz, selectable: 50 Hz, 25 Hz, 12.5 Hz, ...
Response Time	internal 40 ms, selectable: 2/measurement frequency
Interfaces³	Fast Ethernet (real time, 50 Hz), optional fibre optics
Digital Inputs	2 electrically isolated digital inputs (trigger)
Digital Outputs	2 electrically isolated digital outputs (alarm)
Connectors³	round plug connector with screw connection (16 pins), round plug connector M12-L (Ethernet), fibre optics plug connector with self-locking (2 fibres), water supply tube (nominal width 4 mm, 2 bar max), compressed air tube (nominal width 6 mm, 2 bar max)
Power Supply	10 V to 36 V DC, typical 4 VA to 10 VA
Weight	approx. 3.2 kg
Dimensions	100 mm (W) × 266 mm (D) × 196 mm (H) without lens and mounting base
Housing	Industrial housing, protection to IP 65 Standard. Options include integrated water cooling system, air purge and pan-tilt-unit.
Mounting Base	fixed or swivel mounting base
Camera Operating Temperature Range	-10 °C to 50 °C (without water-cooling), -25 °C to 150 °C (with water-cooling)
Fibre Optics Operating Temperature Range	-20 °C to 70 °C (fibre optics indoor cable), -30 °C to 70 °C (fibre optics outdoor cable)
Storage Conditions	-20 °C to 70 °C, rel. humidity 95 % max
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. ³ Depending on configuration. ⁴ NETD <2.0 K (30 °C, 50 Hz). ⁵ Optics with motor or manual focussing.

Technical details are subject to change without notice. May 2010.