

# PYROVIEW 380L compact

Uncooled infrared camera for applications at 8  $\mu\text{m}$  to 14  $\mu\text{m}$



## Features

- Precise non-contact temperature measurements from  $-20\text{ }^{\circ}\text{C}$  to  $500\text{ }^{\circ}\text{C}$
- Measurement frequency 50 frames per second
- Uncooled microbolometer array with  $384 \times 288$  pixels (40 % more than  $320 \times 240$  pixels)
- Optics with motor or manual focussing
- Real-time data acquisition via Fast Ethernet
- Option of stand-alone operation without computer
- Alarm and threshold monitoring
- Triggered measurements
- Large dynamic range and 16 bit A/D converter
- Customized system solutions with modified hardware and software

## Description and applications

PYROVIEW 380L compact camera provide instant non-contact measurement of 2D temperature distributions with high thermal and spatial resolution at 8  $\mu\text{m}$  to 14  $\mu\text{m}$ . The camera is specially designed for long-term use in fixedmounted applications.

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

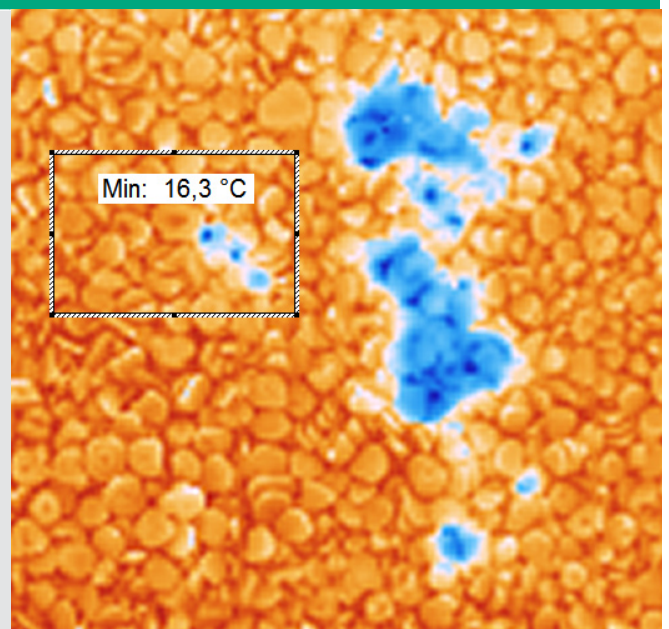
## Software

The powerful online software PYROSOFT for Windows <sup>®</sup> allows you to control the camera and record, view, manipulate and store the measured data.

Special features are:

- Real-time data recording
- Definition of zones and monitoring of alarm thresholds
- Analysis of trends
- Data export (text, bitmap, video)
- Support of process interfaces, e.g. Profibus, analogue and digital inputs/outputs, and other

A programming interface (Windows <sup>®</sup>-DLL) is available for system integration.



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## Technical data

Spectral ranges	8 $\mu\text{m}$ to 14 $\mu\text{m}$
Temperature ranges <sup>1</sup>	range 1: -20 °C to 120 °C, range 2: 0 °C to 500 °C
Sensor	uncooled microbolometer array (384 × 288 pixels)
Aperture angle <sup>1,4</sup>	30° × 23°, measurement distance > 20 cm, spatial resolution 1.4 mrad, X = 2.7 mm optional 90° 74°, measurement distance > 20 cm, spatial resolution 4.1 mrad, X = 6.0 mm optional 60° × 47°, measurement distance > 20 cm, spatial resolution 2.7 mrad, X = 11.0 mm optional 44° × 34°, measurement distance > 20 cm, spatial resolution 2.0 mrad, X = 4.0 mm optional 22° × 16°, measurement distance > 20 cm, spatial resolution 1.0 mrad, X = 9.5 mm optional 11° × 8°, measurement distance > 1.5 m, spatial resolution 0.5 mrad, X = 29.2 mm optional 7° × 5° <sup>6</sup> , measurement distance > 2 m, spatial resolution 0.3 mrad, optional macro 60 $\mu\text{m}$ . X = 17.5 mm
Measurement uncertainty <sup>3</sup>	2 K (object temperature < 100 °C) or 2 % of measured value in °C
NETD <sup>2,3</sup>	< 0.08 K (30 °C, 50 Hz)
Measurement frequency <sup>5</sup>	internal 50 Hz, selectable: 50 Hz, 25 Hz, 12,5 Hz, ...
Response time	internal 40 ms, selectable: 2/measurement frequency
Interfaces	Ethernet (real-time, 50 Hz), optional fibre optics
Digital inputs	2 galvanically isolated digital inputs (trigger)
Digital outputs	2 galvanically isolated digital outputs (alarm)
Connectors	circular plug connector HR10A (12 pins, power supply, digital inputs and outputs), circular plug connector M12-L (Ethernet)
Power supply	12 V to 36 V DC, typical 10 VA
Weight	approx. 1.6 kg
Housing	aluminium compact housing IP54, 85 mm (W) × 175 mm (L) × 107 mm (H), without lens and connectors, optional built in weatherproof housing with pan-tilt-unit
Camera operating temperature	-10 °C to 50 °C
Storage conditions	-20 °C to 70 °C, max. 95 % relative humidity
Software	Control and imaging software PYROSOFT for Windows ®, customized modifications on request

<sup>1</sup> Others available. <sup>2</sup> Noise equivalent temperature difference. <sup>3</sup> Specification for black body reference and ambient temperature 25 °C. <sup>4</sup> Optics with motor or manual focussing.

<sup>5</sup> Export version < 9 Hz available. <sup>6</sup> NETD < 0,2 K (30 °C, 50 Hz, range 1). Lens with manual focussing only.

## Dimensional drawing

