

THERMALVIEW 380L

Uncooled Infrared Camera for Applications at 8 μm to 14 μm



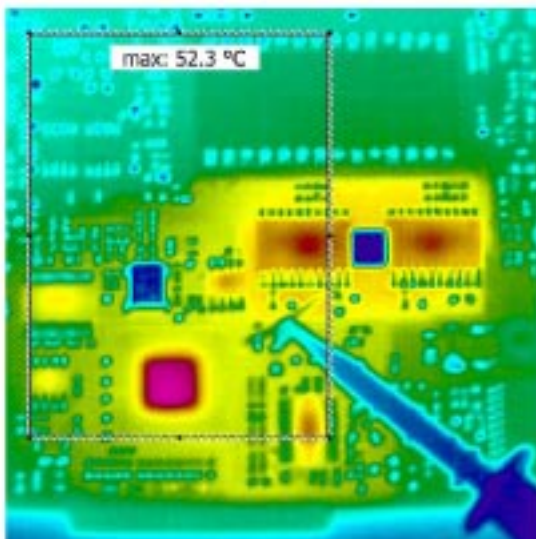
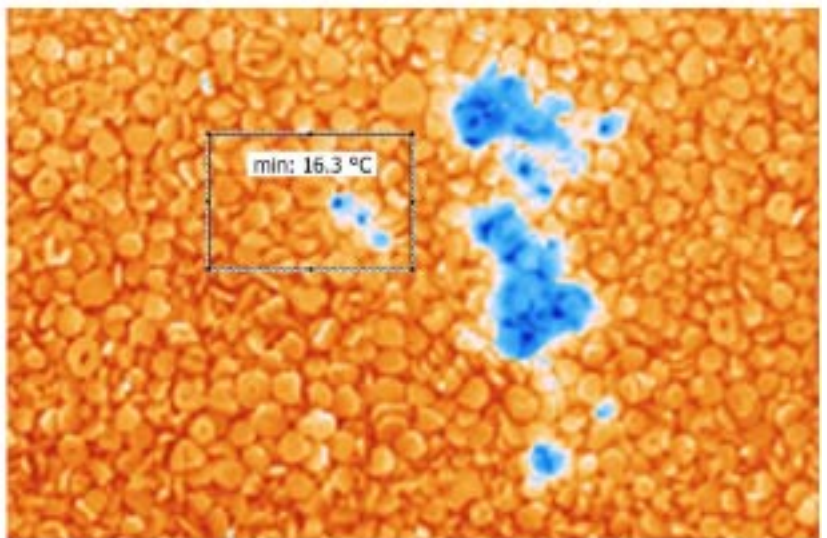
Features

- 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)
- Robust housing for use in harsh environments (to IP 65 Standard) with optional water-cooling system and air purge
- Interchangeable lenses with different fields of view
- Real-time data acquisition via Fast Ethernet, optional fiber optic
- Triggered measurements, alarm and threshold monitoring
- Large dynamic range and 16 bit A/D conversion
- 2 years warranty
- Customized system solutions with modified hardware and software
- No US export license necessary

Applications

THERMALVIEW 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 THERMALVIEW 380L include process control and monitoring, quality control, fire detection and measurements in resarch and development.



Software

The powerful online software THERMALSOFT 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)
Lens¹	30° × 23°, measurement distance > 30 cm, spatial resolution 1.4 mrad, optional 59° × 46°, measurement distance > 50 cm, spatial resolution 2.7 mrad, optional 15° × 12°, measurement distance > 1 m, spatial resolution 0.7 mrad, optional macro 80 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, ..., optional internal 100 Hz, selectable: 100 Hz, 50 Hz, 25 Hz, ...
Response Time	internal 40 ms (optional 20 ms), selectable: 2/measurement frequency
Interfaces³	Fast Ethernet (real time, 50 Hz), optional PCI fiber optic (real time, 50 Hz, optional 100 Hz)
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), fiber optic plug connector with self-locking (2 fibers), water supply tube (nominal width 4 mm, 2 bar max), compressed air tube (nominal width 6 mm, 2 bar max)
Power Supply	18 V to 36 V DC, typical 5 VA
Weight	approx. 3.2 kg
Dimensions	100 mm (W) × 266 mm (D) × 196 mm (H) without lens and mounting base
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)
Fiber Optic Operating Temperature Range	-20 °C to 70 °C (fiber optic indoor cable), -30 °C to 70 °C (fiber optic outdoor cable)
Storage Conditions	-20 °C to 70 °C, rel. humidity 95 % max
Software	Control and imaging software THERMALSOFT for Windows®, customized modifications on request
VdS Certification	VdS Certification No. G 204106 204106 for use in automatic fire surveillance systems

¹ Other available.

² Specification for black body reference and ambient temperature 25 °C.

³ Depending on configuration.

Technical details are subject to change without notice. January 2007.

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