PROCESS SENSORS CORPORATION

THERMALVIEW 380 & THERMALVIEW 320

Industrial Infrared Cameras

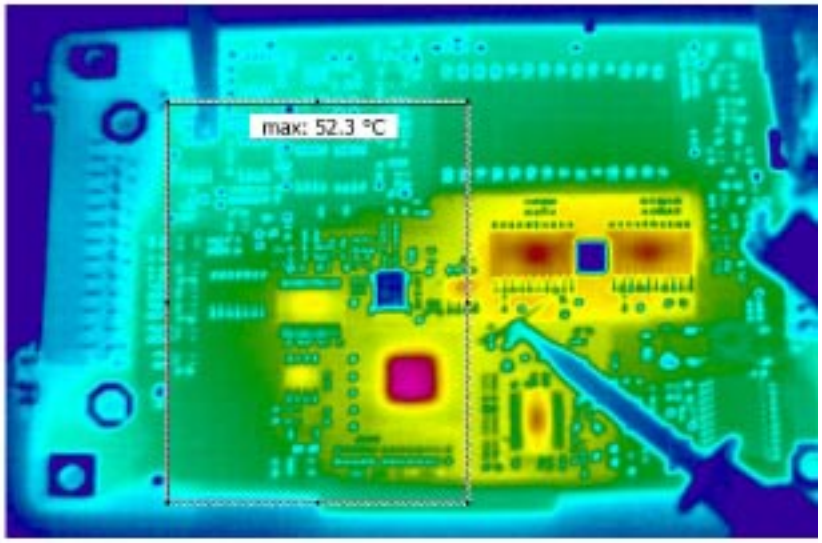
Features

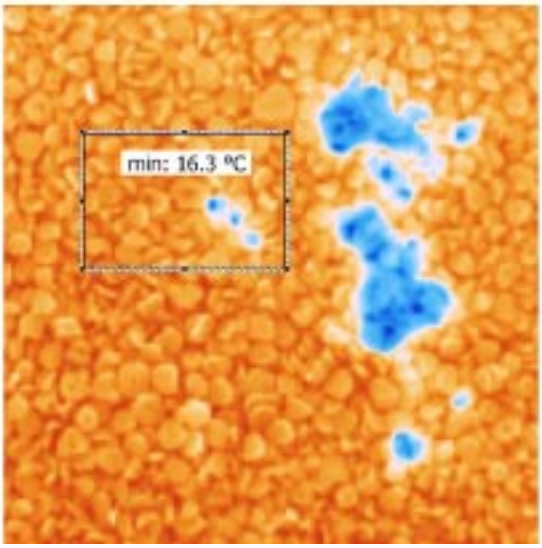
- Precise non-contact temperature measurement over the range –20 °C to 1250 °C in different spectral ranges
- Measurement frequency 50 frames per second
- Robust housing for use in harsh environments (to IP 65 Standard) with optional water-cooling system and air purge
- Uncooled microbolometer with 384 × 288 pixels or 320 × 240 pixels
- Interchangeable optics and add-on lenses with different fields of view
- Real-time data acquisition via Fast Ethernet, optional via fiber optic
- Triggered measurements
- Alarm and threshold monitoring
- 16 bit A/D converter
- Customized system solutions with modified hardware and software
- No US export license neccessary

Applications

THERMALVIEW cameras provide instant non-contact measurement of 2D temperature distributions with high thermal and spatial resolution. All models are specially designed for long-term use in harsh industrial environments.

For general measurements the spectral ranges 8 μm to 14 μm and 3 μm to 5 μm are available. The spectral range 4.8 μm to 5.2 μm has been specially designed for measurements on glass.





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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Model	Spectral Range[1]	Temperature Measurement Range[1]	NETD[2]	Field of View[1]
THERMALVIEW 380 (384 × 288 pixels)				
THERMALVIEW 380L	8 µm to 14 µm	Range 1: –20 °C to 120 °C, Range 2: 0 °C to 500 °C	0.08 K (30 °C, 50 Hz)	30° × 23° (optional 59° × 46°, 15° × 12°, macro 80 µm)
THERMALVIEW 320 (320 × 240 pixels)				
THERMALVIEW 320L	8 µm to 14 µm	Range 1: –20 °C to 120 °C, Range 2: 0 °C to 500 °C	0.08 K (30 °C, 50 Hz)	25° × 19° (optional 50° × 39°, 13° × 10°, macro 80 µm)
THERMALVIEW 320M	3 µm to 5 µm	Range 1: 100 °C to 300 °C, Range 2: 200 °C to 500 °C	0.5 K (200 °C, 50 Hz)	32° × 24° (optional 16° × 12°)
THERMALVIEW 320G	4.8 µm to 5.2 µm	Range 1: 200 °C to 500 °C, Range 2: 400 °C to 1250 °C	1 K (300 °C, 50 Hz)	32° × 24° (optional 16° × 12°)
THERMALVIEW 320F	3.9 µm	600 °C to 1250 °C	1 K (600 °C, 50 Hz)	32° × 24° (optional 16° × 12°) [3]

Measurement Uncertainty[2]

2 K (measured temperature < 100 °C) or 2 % of the measured value in °C

Measurement Frequency

internal 50 Hz (THERMALVIEW 380: optional 100 Hz), selectable: (100 Hz), 50 Hz, 25 Hz, 12,5 Hz, ...

Response Time

internal 40 ms (THERMALVIEW 380: optional 20 ms), selectable: 2/measurement frequency

Interfaces

Fast Ethernet (real time, 50 Hz), optional PCI fiber optic (real time, 50 Hz, optional 100 Hz), electrically isolated digital inputs (trigger) and digital outputs (alarm)

Camera Housing

Protection to IP 65 Standard. Options include integrated water cooling system and air purge, and fixed or swivel mounting base. Wt. approx. 3.2 kg

Camera Operating Temperature Range

–10 °C to 50 °C (without water-cooling), –25 °C bis 150 °C (with water-cooling)

Storage Conditions

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

Software

Control and imaging software THERMALSOFT for Windows®, costumized modifications on request

VdS Certification

VdS Certification No. G 204106 204106 for use in automatic fire surveillance systems (THERMALVIEW 320L/380L)

[1] Others available. [2] Specificaton for black body reference and ambient temperature 25 °C. [3] On request with special lens for combustion chambers e.g. (54° × 29°, 74° × 41° with inclination). Technical details are subject to change without notice. January 2007.

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