

VIGOcam v50



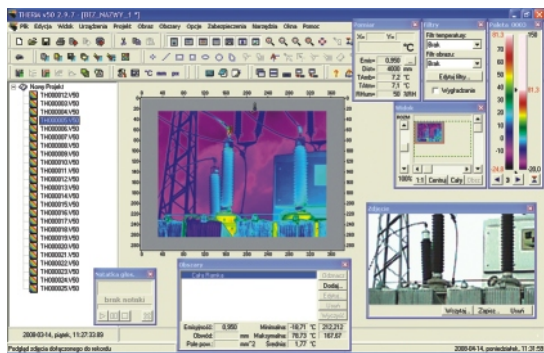
Compact Thermographic Camera

CHARACTERISTIC

- Compact package
- Accurate temperature measurement
- High thermal and spatial resolution
- Frame rate: 30/60Hz
- Built-in video camera and microphone (voice memos)
- On-line data transmission to computer (Ethernet)
- Radio link
- User-friendly interface
- Sophisticated THERM v50 software which offers extensive analysis capabilities and report generator (in set)
- Software designed by group of engineers and technicians from VIGO System in cooperation with camera v20 users
- Fast customer support
- Flexible system with custom modifications possibility

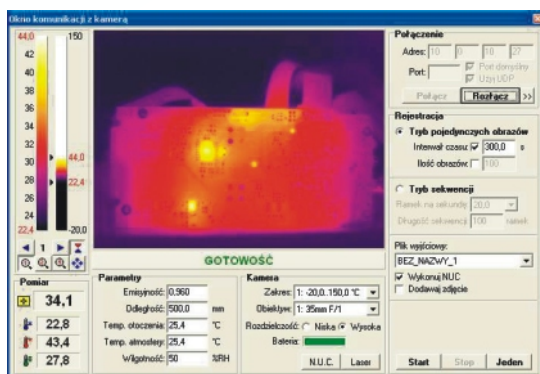
Versatile communication

Thermal data can be transferred from the camera to a PC computer via Ethernet port. It is also possible to display thermal images on TV via a direct connection. Single thermal and visual images and their sequences can be recorded on a SD memory card. The camera is equipped with a radio link that enables remote control. The image recording can be synchronised with an external control signal.



Analysis and documentation

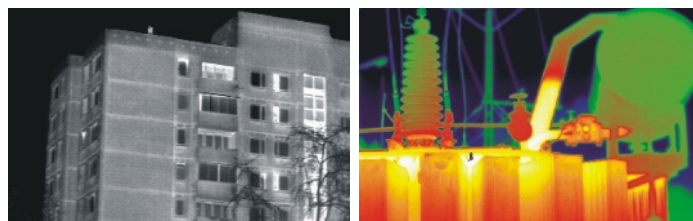
The data sent to a PC computer can be processed and analysed with the THERM v50 software. This software gives the possibility of using various analytical functions to process temperature distribution data including charts, histograms within user-defined regions. Test results can be easily presented and printed using a report generator.



The VIGOcam v50 thermographic camera is constructed with the use of a 384 x 288 microbolometric detector array. The new generation, 35 μm pixel, detector array and excellent optics, ensure high thermal and spatial resolution of the camera. The camera was designed by VIGO System's team of engineers and technicians on the basis of years of own and customers' experience with the v20 camera. Up to date technologies were applied in camera's design. The camera and its software could be easily adjusted to the customer's specific requirements.

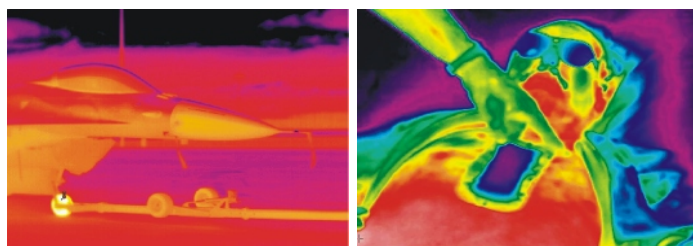
Precise visualisation

The VIGOcam v50 camera can be used in various scientific and industrial applications thanks to its high thermal sensitivity (NETD: 0.08°C @ 30°C), measurement accuracy and high spatial resolution (1 mrad). The camera is designed for temperature distribution measurement and recording in technological device diagnostics, for industrial process control, power and building industry, for medical diagnostic and scientific research.



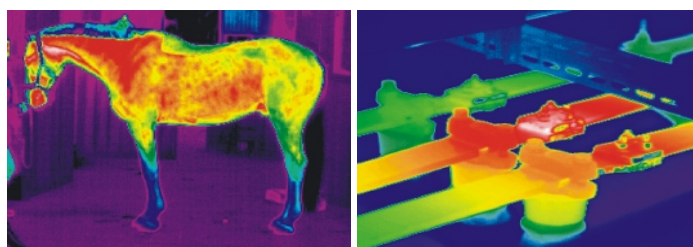
Easy-to-operate

The camera has ergonomic design and small dimensions (175 x 155 x 73 mm). It is equipped with a laser pointer, video camera with a microphone and loudspeaker, SD memory card reader (1 GB memory card is included in the set). Thermal and visual images are presented on a 3.5" LCD display. Its brightness and position can be easily adjusted to meet customer's specific requirements.

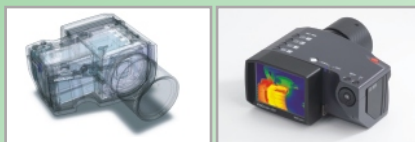


Applications

Infrared camera thermal imaging is an exciting technology that allows the user to "see" heat energy. There are many proven uses for infrared cameras and new applications are being created daily. Since years the infrared cameras are being used in various R&D and industrial process control applications. Currently the main applications are connected with Electrical and Mechanical Predictive Maintenance. Virtually any electrical component can be surveyed with an infrared camera. Almost all mechanical failures are a result of friction. Friction is indicated by an increase in temperature that thermal cameras can easily spot far before failure occurs. Infrared cameras are more and more used in building applications – in moisture & mold spore detection, block wall constructions defects detection and roof inspection. Home Energy Audits permit to detect voids around windows and doors as well as missing or damaged insulation. Thermography is also increasingly used in medicine and related areas.



VIGOcam v50



TECHNICAL SPECIFICATION

Thermal Image Specification			
Detector	FPA (Focal Plane Array) microbolometer 384x288 pixels		
Image resolution	384x288 or 320x240 pixels		
View	Standard lens	Telephoto lens	Angle lens
	22°x16° (standard)	13°x10° (option)	41°x31° (option)
Min measurement's range	0.5m	1.0m	0.1m
Focal length	35mm	60mm	18mm
F/#	1.0	1.0	1.1
Spatial resolution	1.0mrad	0.6mrad	1.9mrad
Frame rate	30/60 Hz		
Thermal resolution	≤ 0,08 C° for 30°C		
Spectral range	8 - 14 μm		
Digital zoom	x2, x4		
Adjustment focus	Manual		
Video Image Specification			
Built-in video camera	Color, 640x480 pixels		
Visualisation			
LCD display	Color 3,5" with adjustable position and brightness		
PC computer	On-line data transmission (Ethernet)		
Information on LCD	Thermal or visual image, current color palette, measured temperature distribution, minimal and maximal temperature values (depending on operating mode), battery indicator, free space on SD memory card, operating mode, digital zoom, laser pointer indicator		
Information visualized with LEDs	Power supply indicator, operation and communication indicator		
Image recording			
Thermal image	Images and sequences recording to SD memory card or to the computer hard disc via Ethernet port. Possibility of image export to typical graphic and text file formats (also calculation sheets).		
Vision image	Recording to SD memory card or to the computer hard disc		
Voice memo	Max 3 minutes of remarks to each image (built-in microphone and loudspeaker)		
Measurement			
Temperature range	-10 to 100°C, 0 to 350°C or individually specified up to 1500 °C		
Accuracy	±2°C, ±2% of range, whichever is higher		
Operating modes	- pyrometric, temperature measurement in the center of image - temperature measure in any point of image - temperature measure in 5 freely selected points at the same time - measurement of minimal and maximal temperature		
Correction	Transmission correction through the atmosphere (complying moisture, ambient temperature and distance). Emissivity correction (0.01 to 1.0 or predefined list of materials). Ambient temperature correction.		
Interfaces			
Ethernet	10/100 BASE TX		
Audio / Video out	NTSC		
Radio link	Record trigger using radio remote control (option)		
Synchronization input/output	CMOS 3.3V, record trigger		
Supply			
Battery	Li-ion, 1800mAh / 7,4V, replaceable, rechargeable		
Battery charging	External charges to power supply 230VAC and car installation 12 VDC		
Battery operation time	2 hours		
External power supply	9 - 16 VDC		
Laser pointer			
Semiconductor laser	= 650nm, max power: 3mW, class 2		
Dimension and weight, working and storage conditions			
Overall dimension (with standard lens)	175 x 155 x 73 mm		
Camera weight (including battery and standard lens)	1.5 kg		
Operating temperature range	-20°C to 40°C		
Storage temperature range	-30°C to 70°C		
Case protection classification	IP 54		
Tripod adapter			
Standard	1/4"-20		
Software			
THERM v50 – data downloading and analysis with built-in report generator (English and Polish version)			



STANDARD EQUIPMENT:

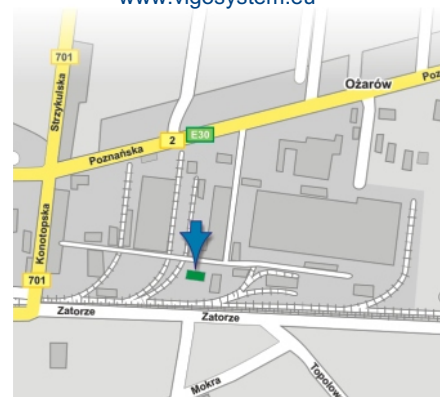
- Camera v50
 - built-in video camera
 - built-in laser pointer
 - 22°x16° field of view lens
 - 3.5" LCD display
- Battery Li-ion 1800 mAh/7.4 V, 2 pcs
- Battery chargers
- Power supply adaptor for the battery charger and camera, 230 V
- Carrying case
- Neck strap
- Radio remote control
- Audio/video cable
- Ethernet cable
- SD memory card 1GB
- SD memory card reader
- Operation manual
- THERM v50 software (on CD-ROM)

OPTIONS:

- Telephoto Lens
- Angle Lens
- Remote control
- Tripod MANFROTTO



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 Printed in the Poland 07/2008