





High quality thermography for industry and construction



## **KT-640** THERMAL IMAGER

A fully radiometric camera which records temperature at each point of the image - high resolution 640 x 480!

Recording in the extended jpg format (all data is included in the file but the image can be viewed as simple graphics)

Live IR video recording - record video to SD card or PC's HDD / live view on PC

Infra Fusion technology – viewing a combined real and infrared image for effective locating of the measurement place

Video PAL/NTSC output to connect an external display or a recording unit and perform monitoring in real time

Automatic hot spot and an automatic alarm. Enlarging images and video. 8 moving points, 8 vertical and horizontal line profile, isotherm.

Simple, clear menu and configuration - easily navigable even for beginners

**Recording visual image 5 Mpix** 

8 colour palettes available

Built-in Wi-Fi and USB

Voice annotation - up to 60 secounds per file

Built-in laser sight and LED flashlight

5,7" LCD touch screen + 0,6" OLED 640x480 viewfinder

Large memory capacity - replaceable SD card 16 GB

Image refreshing rate: 50/60 times per second Digital zoom x2, x4, x8

Power supply from rechargeable batteries

Water and dust proof casing (IP54);

Stable, sharp images without the need of a tripod Compliance with EN61326-1



## THERMAL IMAGER

Technical specification	
Detector type	Uncooled microbolometric matrix (640 x 480 pixel, 25 µm)
Spectral range	8-14 µm
Thermal sensitivity	≤0.05°C at 30°
Field of view/ Focus distance	standard: 25.8° x 19.5° / 35 mm /F1.0 option: 11,4° x 8.6° / 80mm/F1.1, option: 45.7° x 35.1° / 19mm/F1.1
Focus	Automatic or manual
Recording of visual images	5 Mpix
External display	5.7" high resolution touch screen color VGA LCD $$ 640 x 480 pixels
Viewfinder	0.6" bulit-in high resolution color OLED, 640 x 480 pixels
Video output	VGA / 50 Hz PAL / 60 Hz NTSC
InfraFusion technology	Combining visual and IR image
Temperature range	Two range: -20 °C to 250 °C and 200 °C to 800 °C
Accuracy	± 2 °C, or 2% of the reading
Emissivity correction	Variable from 0.01 to 1.00
Optical transmission correction	Auto, based on signals from sensors
Measurement properties	<ul> <li>8 moving points, display of maximum, minimum or average values.</li> <li>8 vertical and horizontal lines profiles, isotherms in live / frozen for the picture or video.</li> <li>Automatic hot spot and an automatic alarm.</li> <li>Enlarging images and video.</li> </ul>
Image storage	Removable 16 GB SD card (max. 32 GB)
File format	JPEG (an invidual file consists of infrared image, visual image, voice annotation / AVI video
Voice annotation	Up to 60 secound per file
Laser pointer	Class 2, semiconductor laser
Batteries	2 x Li-ion rechargeable
Charging	Built-in charger + external
Battery opetaring time	Over 2 hours of continuous use
AC operation	AC adapter - 110/230 VAC, 50/60Hz
Working temperature	-15°C to 50°C
Storage temperature	-20°C to 60°C
Humidity	< 95%
Casing	lp54, IEC 60529
Shock	Working: 25G, IEC 60068-2-29
Vibration	Working: 2G, IEC 60068-2-6
Communication	<ul> <li>- USB 2.0: transfer of image and voice to PC; video real-time transfer,</li> <li>- Wi-Fi (802.11.a/b.g)</li> </ul>
Weight	1.3 kg (including batteries and LCD screen)
Dimensions	186 mm x 106 mm x 83 mm



## Standard accessories:

• LCD screen

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- SD card/reader
- Battery charger
- Universal AC adapter 110 / 230 V
- Power cable with lemo interface
- VGA cable
- USB extension cable • Video / RS232 cable with lemo interface
- Safety case
- SD Memory Card (16 GB)
- Gloves,
- Cloth cleaner
- Sonel ThermoAnalyze software and the driver
- Lens cover

## Infra**Fusion** technology overlays thermal image on the corresponding visual image.



THERMAL IMAGE



THERMAL IMAGE + REAL IMAGE



THERMAL IMAGE WITH THRESHOLD + REAL IMAGE



NALYSE AND REPORT RESULTS

WITH THE ATTACHED SOFTWARE

**Correct the emissivity for the whole or a part of the thermograph** – emissivity can be corrected separately for each selected image area.

**Selection of reviewed areas** – select a rectangular or oval area or an area of any shape. Then you can select the joint part of selected areas, combine or cut the areas, and move their borders.

**Read the temperature at any point** – when the cursor is placed in the Information window, it displays continuously read temperature with current coordinates. Other saved information (maximum temperature, humidity, emissivity) is also available.

**InfraFusion technology – thermograph is overlaid on a part of visual image**, in a palette chosen by the user. The thermograph is overlaid with selected transparency for optimized presentation and marking of images, particularly when visual comparison of the area from the thermograph with the details on the visual image is difficult.

**Determine and read the minimum, maximum and average temperature for the whole area or for each selected area.** Select the section (straight o broken line) for which the averaged temperature can be determined and an automatic temperature distribution profile can be made.

Sharpen, smooth, average, emphasize the edges of the object visible on the thermograph. Rotate or make a mirror image.

**Create reports** – also as an overlay for MS Word or Excel. Use the "drag and drop" method to transfer to the report all that you want to include in it: thermographs, corresponding visual images, analysis results for the whole or part of the image, histograms, etc.

Save all corrections and characteristic points for further review at a later time.

Select an optimum colour palette (from among 9 palettes available in the software) for the best visual presentation of temperature changes. Define the temperature range for the best presentation of the distribution (auto or manual mode).





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**Automatic histograms** for the whole image and each selected area; including graphic presentation of percent distribution of individual temperature ranges.









The software licence is unlimited – you can use it on many computers simultaneously.

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