



Description

Solid and portable tool for daily tasks. This is the main goal when designing a line of budget cameras with a visible spectrum lens. Modern IR sensors available in three resolution versions are supported with the visible spectrum lens, which allows operation in four modes: IR, visual, PIP (picture in picture) and MIF (contours visible on IR image). A high-quality image is presented on a clear display with backlighting adjustment. Despite the low price, the camera has been equipped with a set of the essential, but necessary tools for analyzing and correcting images/measurements. The results of the work can be saved on an SD card or sent via USB or WiFi for further processing. Professional software for thermogram analysis completes the unit. This makes the camera an ideal tool for maintenance personnel, electricians, the construction industry and others, in their daily tasks.

Thanks to state-of-the-art technologies and solutions, the cameras of the Sonel company ensure full control and flexibility in various situations, and are an ideal tool for both novice users and professional thermographic inspectors.

Features

- solid and portable tool,
- intuitive user interface
- 1-hand operation,
- high-capacity, replaceable Li-Ion battery
- different imaging modes: IR, visual, PIP, MIF
- built-in visual camera: 5 MPix

Technical specification

Model	KT-165	KT-250	KT-320
Detector resolution	160 x 120	256 x 192	320 x 240
Spectral range	7.5~14 μm		
Pixel size	25 μm		
Thermal sensitivity	80 mK	60 mK	60 mK
Focusing	Fixed focal		
IFOV (standard lens)	3.30 mrad	2.36 mrad	2.33 mrad
Minimum focus distance (standard lens)	0.5 m		
Lens (field of view/focal length)	30.0° x 23.0°/5 mm	34.5° x 26.5°/7 mm	42.5° x 32.5°/7 mm
Display	3.5", high-quality LCD		
Imaging mode	IR / Visual / MIF / PiP		
Zoom	x2 / x4		
Temperature range	-20°C...350°C		
Accuracy	$\pm 2^\circ\text{C}$ or $\pm 2\%$ of reading (for ambient temperatures between 15°C and 35°C and an object temperature of above 0°C)		
Image analysis mode	Temp. readings: min., max. Temp. alarm		
Palettes	6		
Emissivity coefficient	Adjustable from 0.01 to 1.00 or taken from the material list.		
Measurement correction	Settable distance, relative humidity, ambient (reflected) temperature		
Photo image format	JPG		
Video	Sending images via USB or Wi-Fi (option)		
Built-in functions	Visual camera 5 MPix		
Wireless communication	Wi-Fi		
Interfaces	SD card port, microUSB 2.0		
Power supply	Li-ion battery (operating time >4 hours), built-in charger, AC 110-230 V (50/60 Hz) power supply adapter		
Operating temperature	-10°C...50°C		
Storage temperature	-20°C...60°C		
Humidity	10%...95%		
Shock/vibration resistance	30 g 11 ms (IEC 60068-2-27) / 10 Hz~150 Hz~10 Hz 0.15 mm (IEC 60068-2-6)		
Housing	IP43		
Weight	approx. 0.72 kg (with battery)		
Dimensions (with standard lens and battery)	258 mm x 98 mm x 90 mm		

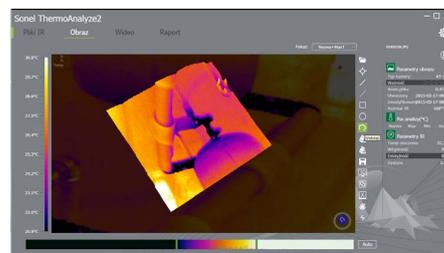
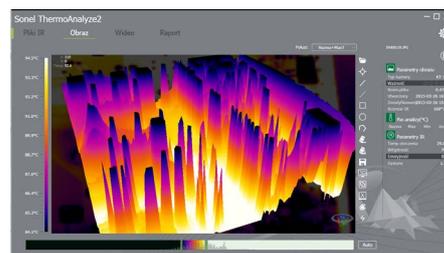
Standard accessories

Li-Ion 7.4 V 2.3 Ah rechargeable battery (KT-165 – 1 pc, KT-250 – 2 pcs, KT-320 – 2 pcs)	WAAKU26
MicroUSB cable for data transfer	WAPRZUSBMICRO
Wristband	WAPOZPAS1
SD card	WAPOZSD
Power supply (USB) for battery charging	WAZASZ20
M-11 carrying case	WAFUTM11
User manual	
Calibration certificate issued by an accredited laboratory (no accreditation)	

Sonel ThermoAnalyze

A programme for analysing and reporting, included in the set of thermal imaging cameras.

- the possibility of adjusting the emissivity coefficient for the entire thermogram or its parts – the coefficient may be adjusted separately for each selected area;
- the selection of the analysed areas – marking out a rectangular or oval area, or one of any other shape;
- the temperature readout at any point – after moving the cursor, the temperature readout and current coordinates are presented continuously in the “Information” box; other recorded data are also available (maximum temperature, humidity, emissivity);
- the use of InfraFusion technology – a thermogram in any palette chosen by the user is superimposed on any part of the visual picture. The thermogram is superimposed with a set transparency, thus enabling the optimal presentation and the marking of areas of interest, especially when the visual comparison of the thermogram area and the details of the visual image of the observed object is difficult;
- the determination and readout of the minimum, maximum and mean temperature for the whole area or in each selected area; Segment selection (straight line or polyline);
- easy report writing by transferring to the report everything which you want to include – thermograms and corresponding visual pictures;
- saving all characteristic points and corrections made, allowing for further analysis at a later time;
- unlimited software licence – the programme can be used on many computers simultaneously.



Sonel KT Mobile



Mobile version of the programme supporting Sonel thermal imaging cameras. This application enables the user to view images in real time on a mobile phone and to remotely perform many other activities by managing the camera from a mobile device.