Thermal imaging cameras

KT-400 / KT-385 / KT-200 / KT-195

indeks: WMXXKT400 / WMXXKT385 / WMXXKT200 / WMXXKT195

Description

Characteristic.
Regardless of whether you take photos or record videos, the newest cameras supplied by Sonel, equipped with modern detectors, a wide range of temperature measurement and high-quality lenses, ensure highly detailed images and accurate measurements. The cameras are available in several versions, thus enabling the appropriate configuration for the user's needs.

More to see, less to hold.
A large display combined with innovative data processing electronics is placed in a compact housing, thus ensuring a perfect balance between high performance and small dimensions – the best choice for everyday use. Moreover, due to the centrally located navigation button supported by a menu on the touchscreen, this model ensures simple and intuitive operation.

Thermal imaging is not everything.
Cameras are additionally equipped with visual lenses and related image mixing technologies: PIP, MIF. Support from the built-in LED torch and laser improves operational quality by facilitating photography and then image interpretation.

The picture is just the beginning.
The built-in report module allows for the preparation and printing out of reports directly from the camera. Built-in communication interfaces ensure constant communication between the camera and the computer or mobile device, also over a wireless network. Thanks to state-of-the-art technologies and solutions, the cameras ensure full control and flexibility in various situations, and are an ideal tool for both novice users and professional thermographic inspectors.

Camera features

- high sensitivity of detectors and a wide temperature range
- comprehensive image analysis tools
- intuitive user interface
- IR video recording (on the SD card or computer disc)
- built-in report module
- different imaging modes: IR, visual, PIP, MIF
- built-in visual camera: 5 Mpx
- built-in: LED torch, laser pointer
- interfaces: Micro USB2.0, Wi-Fi, Gigabit Ethernet, Mini HDMI, slot microSD

Technical specification

Model	KT-195	KT-385	KT-200	KT-400
Detector resolution	192x144	382x288	192x144	382x288
Spectral range	8~14 um			
Pixel size	25 um			
Thermal sensitivity	50 mK	45 mK	50 mK	45 mK
Focusing	Fixed focal		Manual	
IFOV (standard lens)	3.45 mrad	1.29 mrad	3.45 mrad	1.29 mrad
Minimum focus distance (standard lens)	0.5 m			
Lens (field of view/focal length)	37.8°*28.8°/7 mm	28.4°*21.5°/19 mm	37.8°*28.8°/7 mm (option: 14.4°*10.8°/19 mm)	28.4°*21.5°/19 mm (option: 57.0°*45.0°/8.8 mm and 13.7°*10.3°/40 mm)
Display	4", high-quality LCD touchscreen			
Imaging mode	IR /Visual/InfraFusion MIF/PiP			
Zoom	1.1...4			
Temperature range	Range 1: -20°C...150°C Range 2: 150°C...650°C		Range 1: -20°C...150°C Range 2: 150°C...650°C Range 3: 650°C...1500°C (option)	
Accuracy	±2°C or 2% of reading (for ambient temperatures between 15°C and 35°C and object temperature above 0°C)			
Image analysis mode	5 points, 2 lines, 5 areas. Temp. readings: min., max., mean. Isotherms. Temp. difference Alarm temp. Dew point.			
Palettes	8			
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			
Notes to IR photos	Audio (60 seconds), text, graphic, photo.			
Report module	PDF reports, report printing through WiFi			
Video file format	AVI, IRV (including information on temperature)			
Built-in functions	Visual camera 5 MP, LED torch, laser pointer, microphone, speaker.			
Wireless communication	WiFi			
Interfaces	MicroSD card port, mini HDMI, micro USB 2.0			
Power supply	Li-ion battery (operating time >4 hours), built-in charger, AC 110-230 V (50/60 Hz) / 12V power supply adapter			
Operating temperature	-10°C...50°C			
Storage temperature	-40°C...70°C			
Humidity	10% ... 95%			
Shock/vibration resistance	30g 11 ms (IEC 60068-2-27) / 10 Hz~150 Hz~10 Hz 0.15 mm (IEC 60068-2-6)			
Housing	IP54			
Weight	approx. 0.74 kg (with battery)		approx. 0.84 kg (with battery)	
Dimensions (with standard lens and battery)	274 mm x 97 mm x 78 mm		274 mm x 106mm x 78 mm	274 mm x 110mm x 78 mm

Standard accessories

7.4V 3 Ah Li-ion battery	WAAKU24
micro-USB data transfer cable	WAPRZUSBMICRO
Wrist strap	WAPOZPAS4
HDMI cable	WAPRZHDMI
Touchscreen work gloves	WAREK1
microSD 16GB card	WAPOZMSD16
Z13 battery charger	WAZASZ13
Hard suitcase for KT-195/200/385/400	WAWALL6
Operating manual and software on disk	

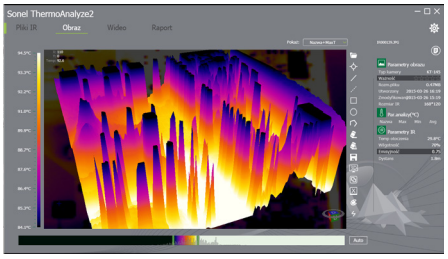
Additional accessories

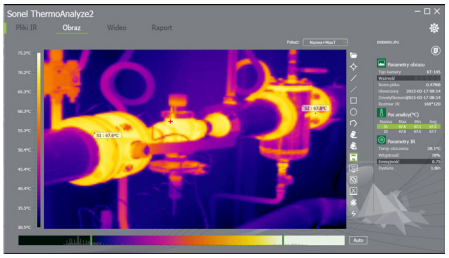
KT-195 / 200 / 385 /400 external battery charger	WAZASZ18
IR 8.8 mm wide-angle lens for KT-400 (57.0°x45.0°)	WAADAO8X8
IR 40 mm tele lens for KT-400 (13.7°x10.3°)	WAADAO40
IR 19 mm tele lens for KT-200 (14.4°x40.8°)	WAADAO19
Lens - high temperature filter up to 1500°C for KT-200, KT-400	WAADAOF2
M-11 camera case	WAFUTM11

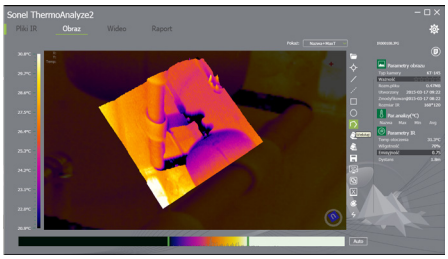
Sonel ThermoAnalyze

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

- possibility of adjusting the emissivity coefficient for the entire thermogram or its parts – the coefficient may be adjusted separately for each selected area;
- selection of the analysed areas – marking out an area of a rectangular, oval or any other shape;
- temperature readout at any point – after moving the cursor, temperature readout and current coordinates are presented continuously in the “Information” box; other recorded data are also available (maximum temperature, humidity, emissivity);
- use of the InfraFusion technology – a thermogram in any palette chosen by the user is superimposed on a part of visual picture. The thermogram is superimposed with a set transparency, thus enabling optimal presentation and marking of areas of interest, especially when the visual comparison of the thermogram area and the details of visual image of the observed object is difficult;
- 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 all that 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 the images in real time on a mobile phone and to remotely perform many other activities by managing the camera from a mobile device.