



High-resolution thermal camera for plant and building inspections

SKF Thermal Camera TKTi 31

Plant and building inspectors can quickly and easily detect troublesome hot and cold spots with the user-friendly SKF Thermal Camera TKTi 31. Equipped with a high-resolution thermal detector of 380 × 280 pixels and a visual camera, the TKTi 31 caters to a wide range of applications. A high thermal sensitivity of just 0,06 °C allows small temperature differences to be clearly displayed.

- A wide temperature measurement range of –20 to +600 °C (212 to 1 112 °F) makes the TKTi 31 suitable for many proactive maintenance programmes and high temperature applications.
- High thermal sensitivity enables applications, such as air ingress and building moisture, to be easily visualised where small temperature variations matter.
- Visual and audible temperature limit alarm function alerts the user to abnormal conditions.
- Automatic hot and cold spot cursors quickly pinpoints the extremes in a scene.
- Up to five moveable temperature cursors/ areas with individual emissivity settings for analysing complex scenes.
- Temperature difference of two cursors can be displayed on screen enabling quick and easy temperature comparisons.
- Isotherms, temperature gradients and area analysis boxes for advanced scene analysis.
- Built-in emissivity tables allow for easy emissivity value setting.
- Eleven selectable colour pallets for ease of use.
- Images can be voice annotated for later reviewing with the PC software.
- Video output function allows the live image to be shown on an external display, useful when showing to a group of people.
- Fully radiometric thermal and visual images are stored on the micro SD card provided.
- Supplied with two standard camcorder batteries and with an independent charger, allowing for long field usage.
- Rugged construction and, with an IP 54 rating, enabling use almost anywhere.
- Comprehensive PC software suite for an unlimited number of users enables advanced image analysis and professional report writing.



Note: pictures are for illustration purposes only.



Technical data

Designation	TKTI 31
Performance	
Thermal detector (FPA)	380 × 280 uncooled FPA microbolometer
Display	3.5 in. colour LCD with LED backlight, 11 colour palettes, thermal or visual image
Thermal sensitivity	NETD ≤60 mK (0.06 °C) at 23 °C (73 °F) ambient and 30 °C (86 °F) scene temperature
Field of view (FOV)	25 × 19°
Spectral range	8–14 microns
Theoretical spatial resolution IFOV	1.15 mrad
Measureable spatial resolution IFOV	3.46 mrad
Accuracy	The greater of ±2 °C or ±2% of reading in °C
Focus	Manual, easy turn ring, minimum distance 10 cm (3.9 in.)
Visual camera	1,3 Megapixel digital camera
Laser pointer	Built-in class 2 laser
Frame rate and image frequency	9 Hz
Measurement	
Standard mode	–20 to +180 °C (–4 to +356 °F)
High temperature mode	100 to 600 °C (212 to 1 112 °F)
Measurement modes	Up to 4 movable spots. Up to 3 movable areas and 2 movable lines (maximum, minimum and average temperatures). Automatic temperature difference. Hot and cold spots. Visual and audible alarms. Isotherms.
Emissivity correction	User selectable 0.1 to 1.0 in steps of 0.01 with reflected and ambient temperature compensation. Emissivity can be individually adjusted on each cursor. Emissivity table of common surfaces built-in.
Image Storage	
Medium	2 GB Micro SD card
Number	Up to 10 000 images on Micro SD card supplied
Voice annotation	Input via built-in microphone for up to 60 seconds clip per image
Software	Included SKF TKTI Thermal Camera suite. Comprehensive image analysis and report generation software compatible with TKTI 21 and TKTI 31, Free updates available on SKF.com
Computer requirements	PC with Windows XP, Vista, Windows 7 or above
Connections	
PC connection	Mini USB connector for image export to PC software (Cable provided)
External DC input	12 V DC Input connector (DC Charger not provided)
Video output	1 × Mini-jack output for live image viewing (mini-jack to video cable provided)
Mounting	Handheld and tripod mounting 0.25 in. BSW.
Battery and Power	
Battery	2 × 14,8 W, 7,4 V standard camcorder Li-ion batteries. Rechargeable and field replaceable
Operation time	Up to 4 hours continuous operation with 80% brightness
Power adapter	External 100–240 V, 50–60 Hz AC battery compact charger with Europe cable, USA, UK and Australian plugs
Charging time	2 hours and 45 minutes
Complete system	
Contents	Thermal camera TKTI 31 with 2 × batteries; AC Battery Charger; Micro SD card (2GB); Mini USB to USB connection cable; Mini-jack to video connection cable; Micro SD card to USB adapter; CD containing instructions for use and PC software; Certificate of calibration and conformance; Quick start guide (English); Carrying case.
Warranty	2 years standard warranty
Carrying case dimensions (w × d × h)	105 × 230 × 345 mm (4.13 × 9.06 × 9.65 in.)
Weight (incl. battery)	1,1 kg (2.42 lb)

© SKF is a registered trademark of the SKF Group.

Windows XP, Vista, Windows 7 are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

© SKF Group 2013

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

PUB MP/P8 13998 EN · November 2013

