



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

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| 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 | 12V 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. |
| 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) |

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