Product Datasheet - Technical Specifications

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FOTRIC
CONNECTING THE DIGITAL FUTURE

Your First Step to
Professional Thermography

FOTRIC TK7
Industrial Grade Thermal Camera

Accurate Temperature Measurement

Precision at your fingertips – Perfect focus for flawless temperature readings.

- Focus free, ensures concise measurement at all distances.

- 49° wide angle shot, to always see the big picture. Help you infer the root of the thermal anomaly.

- 40mk thermal sensitivity, unveil subtle flaws. No damp spot ever escapes your sight.

40mk thermal sensitivity reveal every anomaly

Superior Image Quality

Image quality is more about aesthetics, but directly impacts the quality of your presentation.

- 384*288 thermal pixels, presenting your findings with unprecedented clarity.

- Super resolution, boost the performance to expert level.

- TEF-Fusion 0~100% adjustable transparency. Select the best way present your finding.

- Touch span to highlight the anomaly against the environment.
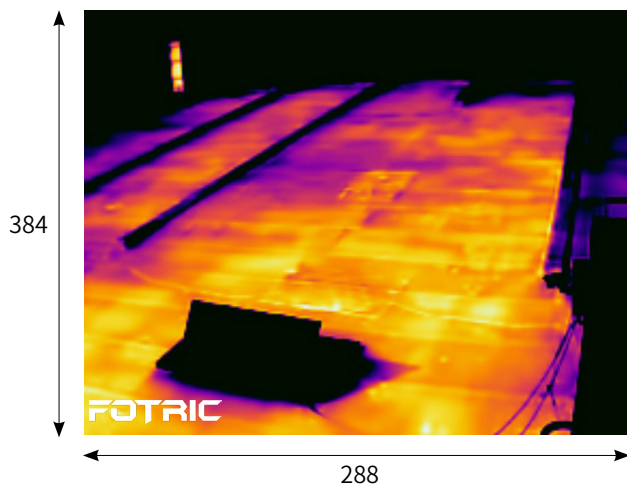
Over 100000 pixels
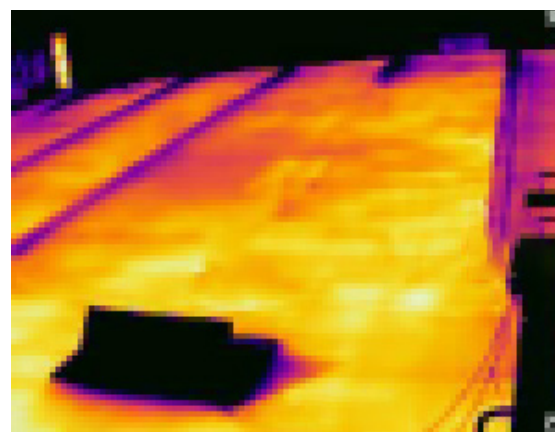
Under 10000 pixels

Robust and Intuitive Design
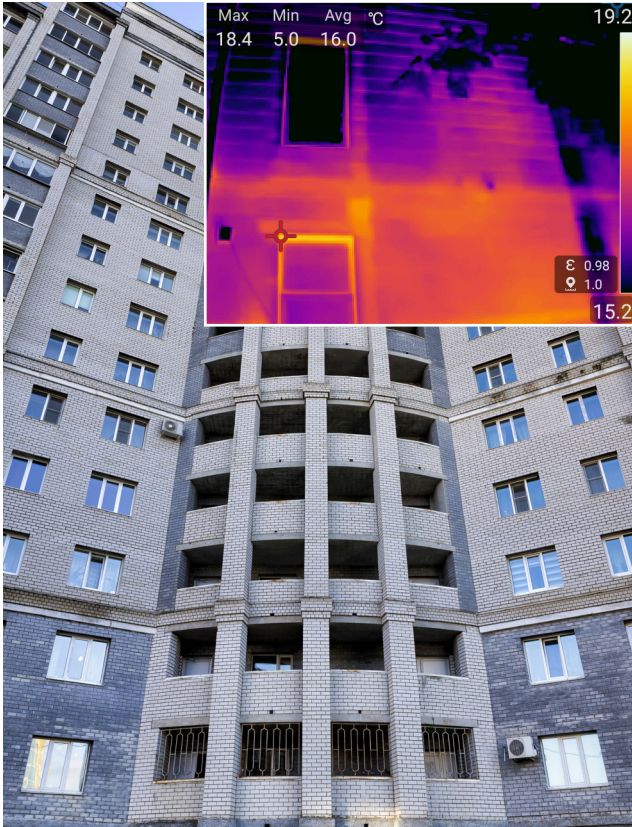
A perfect combination of ruggedness ingenuity.

- Function shortcut button, tailor what the camera does to what you need.
- Spacious 3.5'' LCD touch screen that enable both screen and button operation.
- 8MP industrial grade digital camera, enables flawless inspection result presentation.
- Dust and water resistant (IP54), made for durability and industrial adaptability.

Unparallel Response Speed

Your thermal camera should never slow you down. It's all about user experience.

- Powered by Android, it flows as smoothly as your smartphone.
- Fluent remote control with every operation system (Windows, MacOS, Android, IOS), so you can access your work from everywhere.

Applications

Max 23.1 Min 21.3 Avg 22.3 ℃ 23.4
ε 0.98
1.0
21.4

Max 28.8 Min 19.9 Avg 21.4 ℃ 29.4
ε 0.98
1.0
20.4

Max 25.4 Min -6.2 Avg 18.2 ℃ 28.9
ε 0.98
1.0
14.9

Max 18.4 Min 5.0 Avg 16.0 ℃ 19.2
ε 0.98
1.0
15.2
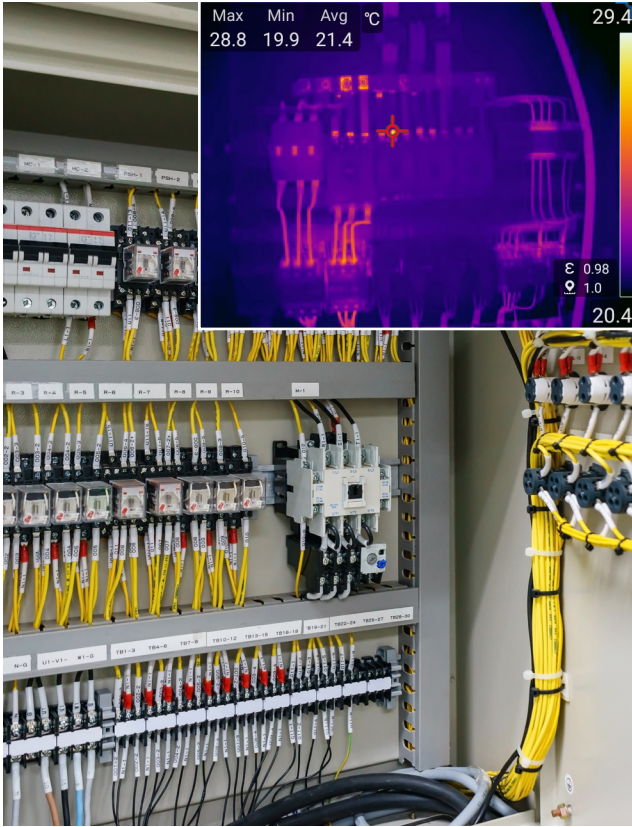
Specifications

Model	FOTRIC TK7
Core Parameters	
Thermal Resolution	384*288
Super Resolution(SR)	768*576
Thermal Sensitivity （NETD）	40mk(0.04° C)@30° C
Field of View (FOV)	49° x 36.8°
IFOV with Standard Lens (spatial resolution)	2.27 mrad
f-number (Focal length)	f7.5
Minimum Focus Distance	0.1m
Focus Mode	Focus free
Spectral Range	~7-14μm
IR Detector Type	Uncooled FPA infrared detector
Detector Pitch	17μm
AI programmable Key	Support, for function shortcut
T-DEF ™ Thermal and visible light Image fusion	Support, thermal and visible light image fusion, transparency 0% ~100%
Picture in Picture	Support, resizable and movable
TWB™ Histogram thermal color display	Support
IRExplorer	Support, cross plaform data transmission and remote control system
Build-in Digital Camera	8 MP industrial camera
LED Flash Lamp	Support
Frame Rate	30Hz
Temperature Analysis	
Temperature Range	-20 ° C ~350° C
Measurement Accuracy	±2 ° C or 2% , whichever is greater (at 25 ° C ambient temperature)
Measurement Parameters	Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation.
Measurement Tools	Spot：6；Line：3；Rectangle/Circle：4
Delta T/Temperature Rise	Yes
Image Display	
Display Screen	3.5 inch Touch Screen
Image Mode	Thermal image、Visible light、Picture in Picture & T-DEF ™
Palettes	8 Palettes，8 Inverted Palettes
Isothermal Alarm/Color Alarm	Yes, Above, Below, and Interval
Temperature Span Mode	Automatic; Manual; Touch
Minimum Temperature Span	Auto:3° C , Manual and Touch:2° C
Info Display	Max; Min; Avg; Measurement parameters
Max and Min Point Tracing	Support
Digital Zoom	1-8x, continuous
Storage & Analysis	
Storage Card	TF card, 32GB
Capture Mode	Single frame capture and Time-lapse
Video Recording	MP4 video recording
File Format	Full radiation thermal photo(JPEG.), visible light photo, MP4 video
Gallery	Support
On Device Analysis	Support
Voice Annotation	Support (120 seconds)

Specifications

Text Annotation	Support
Tags	Support
Favorite	Support (filter favorite files)
PC Analysis and Report Software	AnalyzIR
Data Connection	
Wi-Fi Connection	Support 2.4GHz&5GH channel，Support 802.11a/b/g/n/ac
USB	USB Type-C type；USB 3.0 / 2.0 compliant，Support USB OTG
HDMI	Micro HDMI type，HDMI 1.4 compliant，Support 1080P imaging video streaming in 60Hz.
Bluetooth	Support
Remote Display	Support
Remote Control	Support
Power System	
Battery	Rechargeable Li-ion, 3.6V, 5000mAh
Battery Operation Time	≥ 4 hours
Battery Charging Time	3.5 hours to full-charge by battery dock. 2.5 hours to full-charge by connect to camera.
Charging Methods	Support battery dock adaptor and Type-C interface (compatible with cell phone charger).
Auto Screen-off	Support
General Specifications	
GPS	Yes
QR code Scanning	Support
Storage Card Interface	TF Card，Support Hot-plug.
Laser Pointer	Level 2；wavelength：635nm；Power：<1mW
Operation Temperature	-20° C to 50° C
Storage Temperature	-40° C to 70° C，without battery
Relative Humidity	<95%RH (Operation and Storage)
Safety	SELV relay (GB 4943.1/IEC60950-1)
Electromagnetic Compatibility	GB/T17626.2/IEC 61000-4-2
Vibration	2g(GB/T 2423.10/IEC 60068-2-6)
Shock	25g(GB/T 2423.5/IEC 60068-2-27)
Collision	10g(GB/T 2423.6/IEC 60068-2-29) with packing
Drop	Designed for 2 meters drop test. (GB/T 2423.8/IEC 60068-2-32)
Dimension (mm)	243 * 95 * 142
Weight (include battery)	800g
Enclosure Rating	IP54
Tripod Interface	UNC 1/4 -20 threaded hole for tripod
Warranty	1 year warranty on camera, 10 years for IR detector.
Recommended Calibration Cycle	2 years
Supported Languages	English, Spanish, Korean, Italian, Germany, Portuguese, Traditional Chinese
RoHS Compliant	Yes
Box Contents (Standard Configuration)	FOTRIC handheld thermal camera，documentations(certificate of quality, certificate of calibration, warranty card, packing list), user manual, USB-Type C cable, TF card TF card reader, power adaptor, 1 piece of battery.