FOTRIC

CONNECTING THE DIGITAL FUTURE

Premium Thermal Camera

FOTRIC *P Series*

Powerful software-NaviPdM®

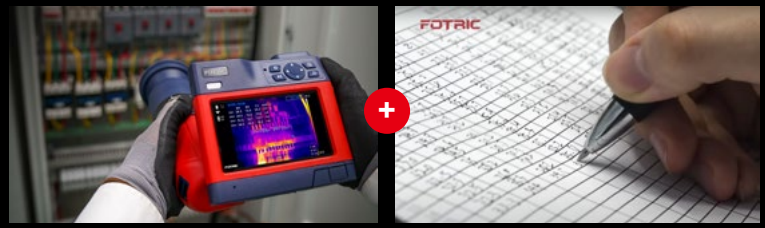
NaviPdM

Automatic Asset Info Recording

Remember how you used to have to write down the asset information?

Not with NaviPdM !

Traditional Recording Method



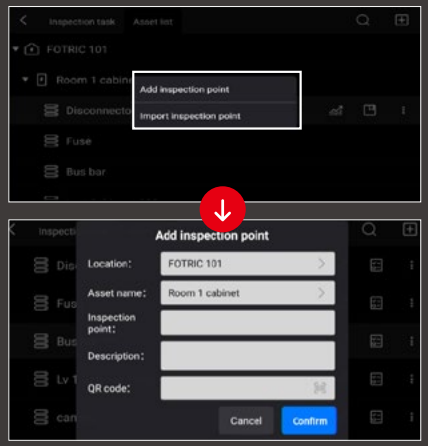
FOTRIC NaviPdM

Option 1: **Record Asset via QR Code**

First time on site

Afterwards

Option 2: **Record Asset Digitally**



Powerful software-NaviPdM®

Asset Recognition

- A.I. algorithm on the camera recognizes and tracks previously inspected components with measurement boxes.
- The QR code assisted archive system registers and identifies assets.

Auto-diagnosis

- NaviPdM® automatically run diagnosis on-device based on user-selected standards such as Delta-T or absolute temperature.
- It keeps a dynamic trend graph of the asset's temperature that makes predictive maintenance easy and intuitive.

FOTRIC NaviPdM®

Compelling Image Quality

Up to

1280*1024

IR Resolution

Renders pristine image clarity and unlocks unparallel precision for your inspection work

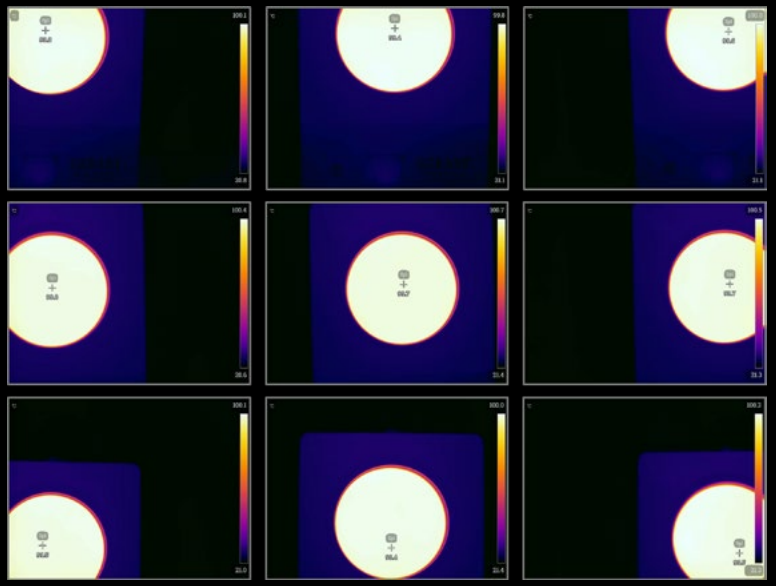
1280*1024 IR resolution (25° lens at 30m distance)

640*480 IR resolution (25° lens at 30m distance)

±0.4°C

Extraordinary Temperature Uniformity

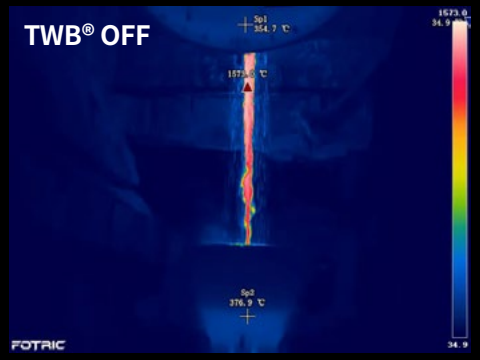
In the experiment, the thermal camera was aimed at a 100° C black body, with temperatures measured at the center, four corners, and edges of the screen. Results across all nine points were nearly identical, demonstrating exceptional measurement uniformity.

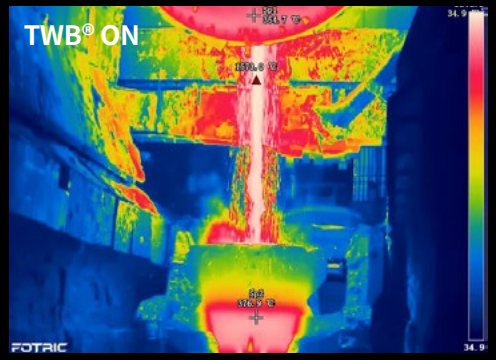


Compelling Image Quality

MagicThermal®: A.I.-driven object contour detection and markup.

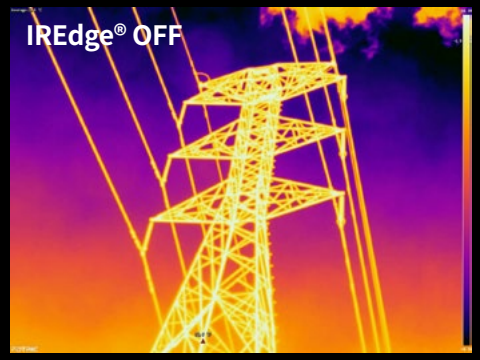
- Automatic contour markup of thermal targets.
- Facilitates more accurate temperature analysis by ensuring measurement zones.





TWB® (thermal white balance) Feature

Magnifies subtle differences even at broad temperature range.



IREdge® Imaging Algorithm

Optimize color pixel distribution to enhance image line prominence.

Impeccable Accuracy

Reach

±1%

Accuracy

Stay accurate at any ambient temperature

Up to

2000°C

Temperature Range

-20°C ~ 120°C , 0°C ~ 700°C
Extendable to -40°C

Up to

<1°C

Image Uniformity

Precise measurement throughout

Achieves

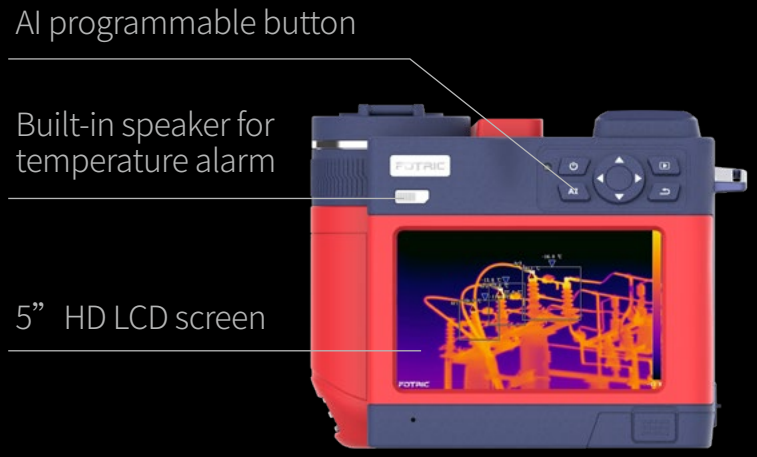
30mk

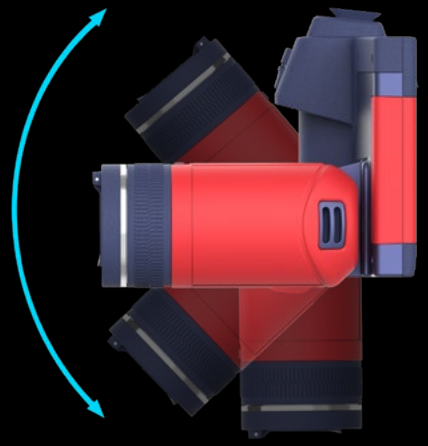
Thermal Sensitivity

Reveal the most subtle details

Meticulously Designed Hardware

Ergonomic Construct

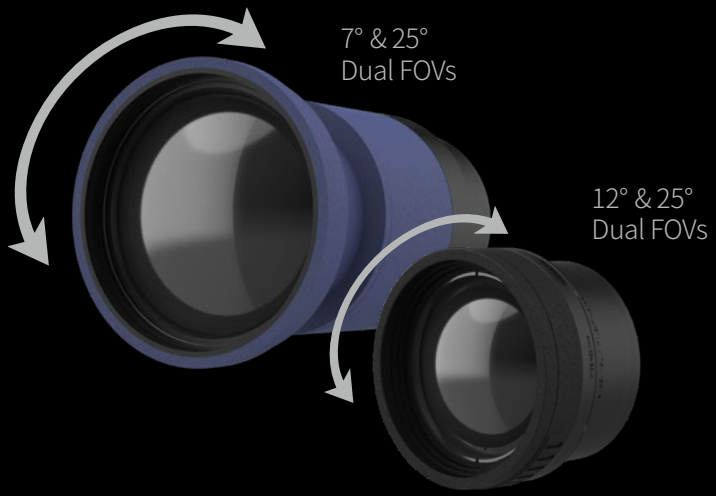




Meticulously Designed Hardware

One Lens to See them All

Eliminate the need to carry and change an extra lens, saving both your time and space



25° Lens

12° Lens

7° Lens

Meticulously Designed Hardware

A Wealth of Alternatives

46°
Wide-angle Lens

25°
Standard Lens

12°
Telephoto Lens

7°
Ultra Telephoto Lens

12° & 25°
Dual Field of View Lens

7° & 25°
Dual Field of View Lens

Extraordinary Operation Experience

Laser Assisted Area Measurement

Laser-assisted measurement of area, height, and distance data.

Android Platform

Interface movement stay fluid even with **1TB** max storage.

HawkAI

OCR instantly extract essential information during inspection.

Robust and Easy Data Management

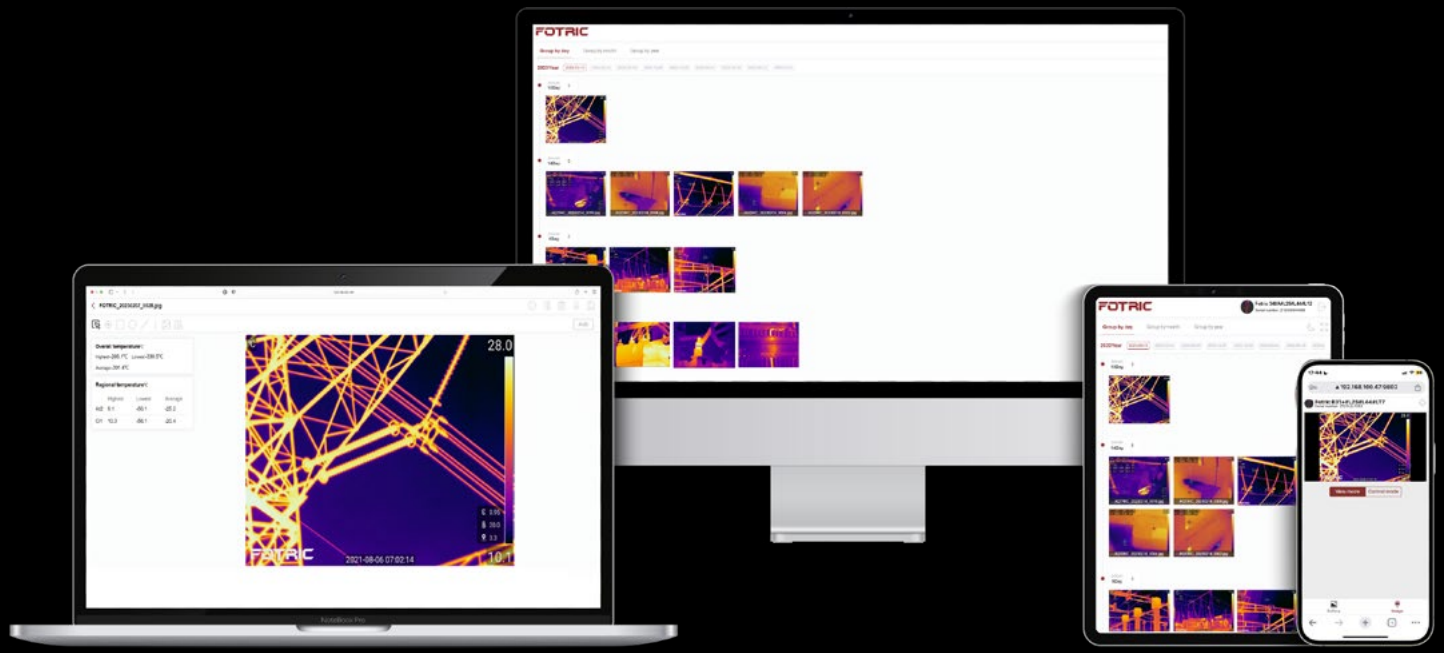
Elevates data accessibility while maintaining data integrity.

IRExplorer

Powerful software-IRexplorer ™

Brings Untrammeled Communication

- Remote control via WiFi or Self-equipped Hotspot
- Access and edit thermal files
- Across any platform Windows Linux MacOS/IOS Android
- No need for installation



Specification

Model	FOTRIC P9	FOTRIC P7	FOTRIC P5
Thermal Imaging Parameters			
Infrared Resolution	1280x1024	640x480	384x288
Super Resolution (SR)	2560x2048	1280x960	768x576
Detector Type	Uncooled infrared focal plane detector		
Detector Pitch	12μm	17μm	17μm
Thermal Sensitivity（NETD)	＜0.03°C (30mk)@30°C (86 °F)		＜0.04°C (40mk)@30°C (86 °F)
Spectral Range	8 ~ 14μm		
Image Frame Rate	30Hz		
Field of View（FOV)	25° x 20°	25° x 19°	25° x 19°
Spatial Resolution (IFOV)	0.34 mrad	0.68 mrad	1.14 mrad
Minimum Imaging Distance	0.4m	0.25 m	0.1 m
Focal Lengths	f35	f24.8	f15
Focus Mode	TurboFocus® system (thermal contrast AF, laser-assisted AF, continuous AF); Touch AF; Manual		
Lens Recognition	Auto		
Optional Lens	Refer to "Lens" Sheet		
Digital Zoom	1-32x	1-16x	1-12x
Unique Features			
NaviPdM®	Support, AI inspection assistan		
T-DEF®	Support, thermal and visible light image blend, transparency 0% ~100%		
IREdge®	Support, contour detail enhancement		
T-TWB®	Support, temperature visual representation normalization		
MagicThermal®	Support, A.I.-driven object contour detection and markup		

Temp Analysis			
Complete Temperature Range	-20 °C ~ 2000 °C (-4 °F to 3632 °F)		-20 ° C ~ 1550 ° C (-4 °F to 2822 °F)
Temperature Range	-20°C ~ 120°C (-4 °F to 248 °F), 0°C ~ 700°C (32 °F to 1292 °F), 300°C ~ 2000°C (572 °F to 3632 °F) (Depending on the mounted lens)		-20°C ~ 120°C (-4 °F to 248 °F), 0°C ~ 700°C (32 °F to 1292 °F), 300°C ~ 1550°C (572 °F to 2822 °F) (Depending on the mounted lens)
Temperature Range Extension	support extension: lowest to -40°C (-40 °F) Does not guarantee measurement accuracy between -40°C ~-20°C (-40 °F ~-4 °F)		
Intelligent Range	Support		
Accuracy	± 1°C (1.8 °F) or ± 1 %, whichever is greater (ambient temp at 25°C (77 °F) , temperature range 0°C -100°C (32 °F ~212 °F)), ± 2°C or ± 2 % for other temperature range		±2°C or 2% , whichever is greater (at 25°C ambient temperature)
Uniformity	±2 °C or 2%		
ROI Spot	30 spot markers	25 spot markers	20 spot markers
ROI Area	30 (rectangle or circle)	25 (rectangle or circle)	20 (rectangle or circle)
ROI Line	30 measurement lines	25 measurement lines	20 measurement lines
User-definable ROI on PC software	Unlimited		
Measurement Parameters	Emissivity, Partially emissivity, Reflected temperaure, Ambient temperature, Humidity, Distance and IR window compensation.		
Temperature Rise Feature	Support		
Area Alarms	Area alarm; High temperature alarm and low temperature alarm		
Color Alarm	High temperature, low temperature, and interval isotherms		
PC Software	AnalyzIR®,NaviPdM®		
Image Display			
Display	5inch (landscape) 1280x720		
View-Finder (Optional)	0.5 inch OLED，800x600		
Image Mode	Thermal\Digital\Picture-in-Picture\T-DEF® Blend		
Palettes	16 standard palettes; 16 inverted palettes		

Temp Span Mode	Auto (Minimum Temp Span 3°C), Manual (Minimum Temp Span 2°C), Touch-screen(Minimum Temp Span 2°C)		
High/Low Temperature Tracking	Yes, full-screen and measurement boxes both with highest/lowest temp spot marker		
Capture Features			
Digital Camera	5-mega pixel and 13-mega pixel		
Storage	SD card of 256GB memory, support expansion to 2TB	SD card of 128GB memory, support expansion to 2TB	SD card of 64GB memory, support expansion to 2TB
Capture Mode	Support on single frame, video and Time-lapse Capture		
Image/video File Formats	Standard JPEG full radiometric thermal images, digital images, .IRS full radiometric thermal videos, .MP4 non-radiometric videos		
Freeze Interface	Support single frame thermal image and radiometric video edition		
QR Code Functionality	Support QR code and Barcode scanning		
Annotation	Supprt Voice\Text\Bookmark\Favorate		
Voice Annotation Length	200 s		
Thermal Image On-device Analysis	Support		
Radiometric Video On-device Analysis	Support		
MP4 Video Recording	Support		
Gallery	Image preview and analysis, video preview and analysis		
Data Connection			
WiFi Connection	Support 2.4GHz and 5 GHz frequency, support 802.11a/b/g/n/ac		
Bluetooth Connection	BT4.2 LE, connectable to bluetooth headphone		
USB Interface	USB type-C type; conforms to USB 3.0 / 2.0 specification, supports USB OTG; USB 3.0 has a maximum speed of 5Gbps; USB 2.0 supports a maximum speed of 480Mbps, and is downward compatible with full speed (12Mbps) mode		
HDMI Interface	Micro HDMI type,Comply with HDMI 1.4 specification, support 1080p image video transmission at 60Hz frame rate		
FTP Data Transfer	Accessible through WiFi or Hotspot, rapid data transfer		
Remote Control	Support from AnalyzIR® and IRExplorer ™		

Auxiliary Features		
Software Upgrade	Support on OTA upgrade and local upgrade through USB	
Laser	Independent key activation; Laser level: 2; Wavelength: 635nm; Power: <1mW; Laser distance: 0.1~50m, Accuracy: d*0.01%±2mm	
Laser Measurement	Distance, Length, and Area	
Compass	Yes	
LED	Support	
GPS	Yes	
Battery		
Battery Type	3.6V，10000mAh lithium	
Battery Life	Over 2.5 hours per battery	Over 4 hours per battery
Battery Charging System	Battery charger, DC 13V charging, USB charging	
Battery Charging Time	2.5 hours to 90% full charge	
Energy Management	User-selectable screen-off modes	
AC Operation, adaptor	AC operation with included power supply (adaptor, input: 100V ac -240V ac, 50/60Hz, output 12v, 3A, 24w)	
Reliability and Certification		
Safety	EN 62368-1:2014+A11:2017 (Power Supply)	
Electromagnetic Compatibility	EN 61326-1:2013 (immunity) EN 61326-1:2013 Class A (emission) FCC 47 CFR Part15 Class A (emission)	
Shock	25g(IEC60068-2-27:2008)	
Vibration	2g (IEC 60068-2-6:1995)	
Enclosure Rating	IP54	
RoHS	Yes	

Physical Parameters	
Operating Temperature	-20°C to +50°C (-4 °F to 122 °F)
Storage Temperature	-40°C to +70°C (-40 °F ~158 °F) without battery
Relative Humidity	＜ 95%RH
Size (H x W x L)	175x151x95mm
Weight (withouth lens)	1.3kg
Hard Case	Hard rubber: PC + ABS, Soft rubber: TPE,Magnesium alloy, Flame retardant grade: UL94 HB
Tripod	UNC ¼"-20 interface
Warranty	2 years (standard), extended warranties are available,10 years for core detector
Recommended Calibration Cycle	2 years (assumes normal operation and normal aging)
Languages	English, Spanish, German, Italian, Korean, Portuguese, French, Thai, Chinese Traditional
Packaging	Thermal imaging camera, lens, lens cap, 3 rechargeable lithium batteries, battery charger, power adapter, USB Type-C to USB interface cable, Micro HDMI interface to HDMI, SD card, SD card reader, accessory bag (wrist strap), information bag (packing list, calibration certificate, user manual), hard case

Lens

Model	IR Resolution	Lens	Standard	Wide-angle	Telephoto	Ultra-telephoto	Dual view 25/12	Dual view 25/7
P9	1280x1024	FOV	25° x 20°	46° x 37°	12° x 10°	——	——	
		IFOV	0.34 mrad	0.63 mrad	0.16 mrad			
		Minimum Distance	0.4 m	0.2 m	1.3 m			
		Focal Length	35 mm	17.3 mm	73.2 mm			
		Measurement Range	-20~120°C , 0~700°C , 300~2000°C	-20~120°C , 0~700°C , 300~2000°C	-20~120°C , 0~700°C , 300~2000°C			
P7	640x480	FOV	25° x 19°	46° x 35°	12° x 9°	7° x 5°	25° x 19° \12° x 9°	25° x 19° \7° x 5°
		IFOV	0.68 mrad	1.25 mrad	0.33 mrad	0.19 mrad	0.68 mrad\0.33 mrad	0.68 mrad\0.19 mrad
		Minimum Distance	0.25 m	0.1 m	1 m	3 m	0.25 m\1 m	0.25 m\3 m
		Focal Length	24.8 mm	13.7 mm	51.2 mm	82.5 mm	25.1 mm\ 50.7 mm	25.4 mm\ 76.8 mm
		Measurement Range	-20~120°C , 0~700°C , 300~2000°C	-20~120°C , 0~700°C , 300~2000°C	-20~120°C , 0~700°C , 300~2000°C	-20~120°C , 0~700°C	-20~120°C , 0~700°C	-20~120°C , 0~700°C
P5	384x288	FOV	25° x 19°	46° x 35°	15° x 11°	7° x 5°	25° *19° \12° *9°	——
		IFOV	1.14 mrad	2.09 mrad	0.68 mrd	0.32 mrad	1.14mrad\ 0.55mrad	
		Minimum Distance	0.1 m	0.1 m	0.25 m	1 m	0.25m\1m	
		Focal Length	15 mm	8 mm	24.8 mm	51.2 mm	15mm\31mm	
		Measurement Range	-20~120°C , 0~700°C , 300~1550°C	-20~120°C , 0~700°C , 300~1550°C	-20~120°C , 0~700°C , 300~1550°C	-20~120°C , 0~700°C	-20~120°C，0~700°C	

Innovation
Excellence
Integrity

Dec 2024

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