

## Cornerstones of a Premium Thermal Camera

Here in FOTRIC, We believe that achieving an exceptional level of performance in the following six aspects is essential for a premium camera.



# Compelling Image Quality - Hardware

Up to

1280\*1024

IR resolution

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

Covers

**100% SRGB** 

Color gamut

LCD display accurately reproduces the entire sRGB color gamut, ensuring that it showcases the full extent of the camera's capabilities.



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

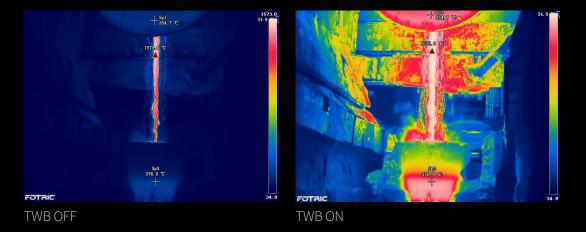


640\*480 IR resolution (25° lens at 30m distance)

# Compelling Image Quality -Firmware

#### 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.



IREdge OFF



IREdge ON

## 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 and 2000°C

Up to

<1°C

image uniformity

Precise measurement throughout

Achieves

30mk thermal sensitivity

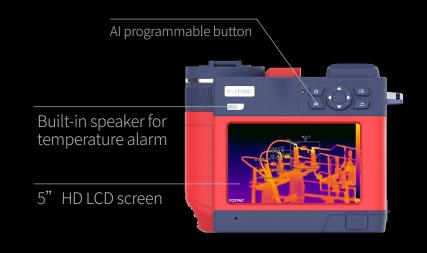
Reveal the most subtle details

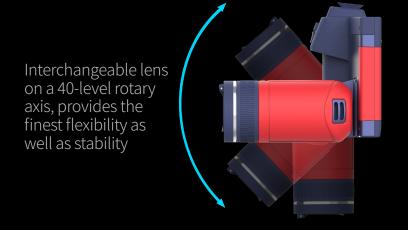


## Meticulously Designed Hardware

### **Ergonomic Construct**



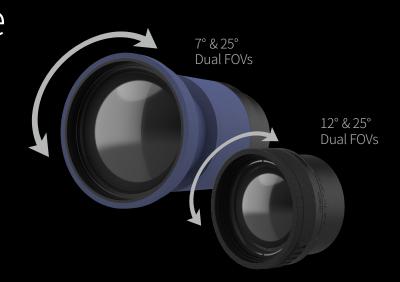




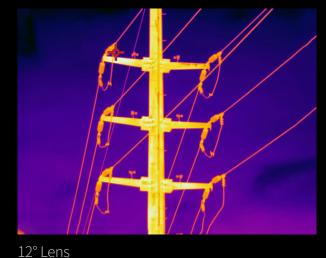
# Meticulously Designed Hardware

#### One Lens to See them All

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









# Meticulously Designed Hardware

## A Wealth of Alternatives





**46°** Wide-angle Lens



25° Standard Lens



12°
Telephoto Lens



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.



#### **HawkAl**

OCR instantly extract essential information during inspection.



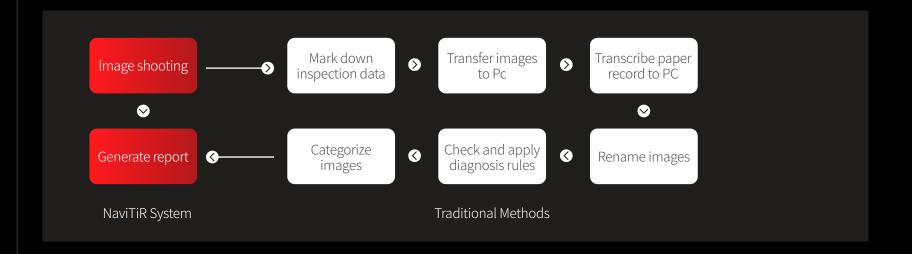
#### One click favorite

Filtering key information from vast sea of thermal images.



## Powerful software-NaviTiR

## **Revolutionizing routine inspection**











## Powerful software-NaviTiR

## Al assistant at your hand

Object identification & Automatic diagnosis.



Traditional



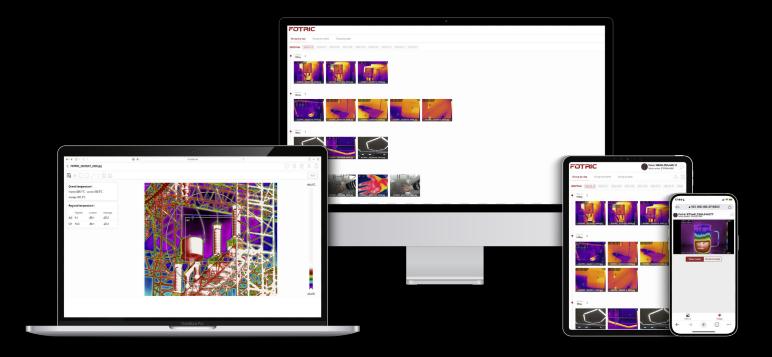
NaviTiR - Object recognition



## Powerful software-IRexplorer

## **Brings untrammeled communication**

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



# Specification

Model	FOTRIC P9	FOTRIC P8	FOTRIC P7	FOTRIC P6	FOTRIC P5	FOTRIC P4		
Common Features								
Infrared Resolution	<b>plution</b> 1280*1024 1024*768		640*480	480*360	384*288	320*240		
Super Resolution (SR)	lution (SR) 2560*2048 2048*1536		1280*960	960*720	768*576	640*480		
Detector Type	Uncooled infrared focal plane detector							
Detector Pitch	ector Pitch 12μm 12μm		17μm 17μm		17μm	17μm		
Thermal Sensitivity (NETD)	30mk(0.03° C)							
Infrared Spectral Band	7~14μm							
Frame Rate	30Hz							
Field of View (FOV)	25° x 19°							
IFOV with Standard Lens (spatial resolution)	0.34 mrad	0.43 mrad	0.68 mrad	0.91 mrad	1.14 mrad	1.36 mrad		
Minimum Focus Distance	0.4m	0.4m	0.25 m	0.25 m	0.1 m	0.1m		
Focal Lengths	f35 f35		f24.8 f24.8		f15	f15		
Focus Mode	TurboFocus ™ Speedy Intelligent Autofocus system for continuous, laser distance, graphic contrast,manual							
Lens Recognition	Auto							
Optional Lens	Refer to "Lens" Sheet Below							
Digital Zoom	1-32x	1-32x	1-16x	1-16x	1-12x	1-12x		
Key Features								
NaviTiR	Optional							
T-DEF <sup>®</sup>	Support							
IREdge	Support							
T-TWB°	Support							

Temp Analysis								
Temperature Range	-2	.0°C ~ 2000°C (-4° F to 3632° F	-)	-20°C ~ 1550°C (-4° F to 2822° F)				
Measurement Range		°F to 248°F),0°C ~ 700°C (32 0°C ~2000°C (572°F to 3632°		-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)				
Low Expansion (Optional)		Support extension: lowest to -40°C		Support extension: lowest to -40°C				
Intelligent in Temperature Range Adjustment	Support							
Accuracy	$\pm$ 1°C or $\pm$ 1 %, whichever is greater (ambient temp at 25°C , temperature range 0° C-10° C), $\pm$ 2°C or $\pm$ 2 % when reaching 1500°C $\pm$ 2°C or $\pm$ 2 %, whichever is greater, (ambient temp at 25°C)							
User-definable Spot Markers (on device)	30 spot markers	30 spot markers	25 spot markers	20 spot markers	20 spot markers	20 spot markers		
User-defined Measurement Boxes (on device)	30 (rectangle or circle)	30 (rectangle or circle)	25 (rectangle or circle)	20 (rectangle or circle)	20 (rectangle or circle)	20 (rectangle or circle)		
User-defined Measurement Lines (on device)	30 measurement lines	30 measurement lines	25 measurement lines	20 measurement lines	20 measurement lines	20 measurement lines		
User-definable ROI on PC software	Unlimited							
On-screen Analysis	Emissivity, Partially emissivity, Reflected temperature, Ambient temperature, Humidity, Distance and IR window compensation.							
On-Screen Temperature Test	Temp Rise Test, Temp Differentiation Test							
Sound Alarms	Area alarm; High temperature alarm and low temperature alarm							
Color Alarms (temperature alarms)	High temperature, low temperature, and interval isotherms							
PC Software	AnalyzIR,NaviTiR							
Image Display								
Display	5inch (landscape)1280*720							
View-Finder (Optional)	0.5inch OLED,800*600							
Image Mode	Thermal\Digital\Picture-in-Picture\T-DEF®							
Palettes	16 standard palettes: Grey、Iron10、Iron、Rainbow、Grey10、GreyRed、MidGrey、Yellow、Rain、Rain10、Blue、GlowBow、Medical、Medical10、MidGreen、Prism. 16 inverted palettes							
Temp Scale	Auto (Minimum Temp Span 3°C ), Manual (Minimum Temp Span 2°C ), Touch-screen(Minimum Temp Span 2°C )							
Highest/Lowest Temp Spot Mark	Yes,full-screen and measurement boxes both with highest/lowest temp spot marker							

Imaging Mode								
Digital Camera	5-mega pixel and 13-mega pixel							
Storage	SD card of 256GB memory, SD card of 256GB memory, SD card of 128GB memory, support expansion to 2TB support expansion to							
Shooting Mode	Support on Single Frame Rate Capture and Timing Capture							
Image/video File Formats	Standard JPEG full radiometric thermal images, digital images, .IRS full radiometric thermal videos, .MP4 non-radiometric videos							
Image Freezing	Support on Single Frame Rate thermal imager and full-radiometric video							
Scan Function	Support for QR code and Barcode							
Annotation	Support Voice\Text\Bookmark\Favorate							
Analyze Radiometric Image Data (On-screen)	Support							
Analyze Radiometric Video Data (On-screen)	Support							
Non-Radiometric Video	Support							
Gallery	Image preview and analyze, video preview and analyze							
Data Connectivity								
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							
EasyIR APP	Support							
IRExplorer	Support							
General Specifications								
Software Upgrade	Support on OTA upgrade and local upgrade through USB							
Laser Ranger/Pointer	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							

LED Light (torch and flash lamp)	Support
Battery	
Battery Type	3.6V,10000mAh lithium
Battery Life	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
Power Saving	User-selectable screen-off modes
AC Operation	AC operation with included power supply (100V ac -240V ac, 50/60Hz)
Reliability Test	
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(GB/T 2423.5-2019/IEC60068-2-27:2008)
Vibration	2g (GB/T 2423.10-2008/IEC 60068-2-6:1995)
Enclosure Rating	IP54
RoHS	Yes
Operating Temperature	-20°C to +50°C (-4 °F to 122 °F )
Storage Temperature	-40°C to +70°C (-40 °F $\sim$ 158 °F ) without battery
Relative Humidity	< 95%RH
Size (H x W x L)	175*151*95mm
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)
Supported Languages	Chinese Traditional, English, Spanish, French, German, Italian, Korean, Portuguese
Standard configuration	Thermal imaging camera, lens, lens cap, 2 rechargeable lithium batteries, battery charger, power adapter, USB Type-C to USB interface cable, Micro HDMI interface to HDMI interface cable, SD card, SD card reader, accessory bag (wrist strap), information bag (packing list, calibration certificate, user manual), portable soft bag, hard case

# Lens

Model	IR Resolution	Lens	Standard Lens	Wide-angle Lens	Telephoto Lens	Ultra Telephoto Lens	Dual-View Lens		Macro lens
P9	1200*1024	FOV	25° x 20°	46° x 37°	12° × 10°	7° x 6°			
		IFOV	0.34 mrad	0.63 mrad	0.16 mrad	0.1 mrad			
	1280*1024	Minimum Distance	0.4 m	0.2 m	1.3 m	3 m			
		Focal Length	35.1 mm	17.3 mm	73.2 mm	-102.6 mm			
P8	1024*768	FOV	25° x 19°	46° x 35°	12° x 9°	7° x 5°			
		IFOV	0.43 mrad	0.78 mrad	0.2 mrad	0.12 mrad			
		Minimum Distance	0.4 m	0.2 m	1.3 m	3 m			
		Focal Length	35.1 mm	17.3 mm	73.2 mm	-102.6 mm			
P7	640*480	FOV	25° x 19°	46° x 35°	12° × 9°	7° x 5°	25° x 19° \12° x 9°	25° x 19° \7° x 5°	20 μm
		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	29 mm
		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	48.9 mm
	480*360	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°	27 μm
P6		IFOV	0.91 mrad	1.67 mrad	0.44 mrad	0.25 mrad	0.85 mrad\0.44 mrad	0.85 mrad\0.25 mrad	-
FO		Minimum Distance	0.25 m	0.1 m	1 m	3 m	0.25 m\1 m	0.25 m\3 m	29 mm
		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	48.9 mm
P5	384*288	FOV	25° x 19°	46° x 35°	15° x 11°	7° x 5°			
		IFOV	1.14 mrad	2.09 mrad	0.68 mrd	0.32 mrad			
		Minimum Distance	0.1 m	0.1 m	0.25 m	1 m			
		Focal Length	15 mm	8 mm	24.8 mm	51.2 mm			
P4	320*240	FOV	25° x 19°	46° x 35°	15° x 11°	7° x 5°			
		IFOV	1.36 mrad	2.51 mrad	0.82 mrd	0.38 mrad			
		Minimum Distance	0.1 m	0.1 m	0.25 m	1 m			
		Focal Length	15 mm	8 mm	24.8 mm	51.2 mm			

# Innovation Excellence Integrity

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