

**FOTRIC**  
CONNECTING THE DIGITAL FUTURE

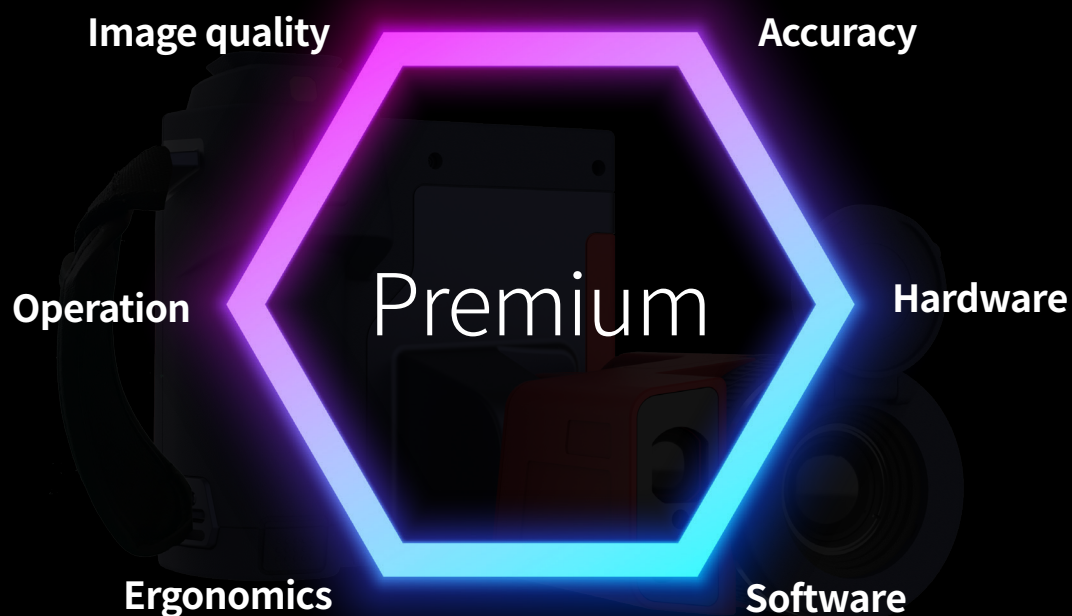
# Premium Thermal Camera

**FOTRIC P** *Series*



# 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 unparalleled precision for your inspection work

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Covers

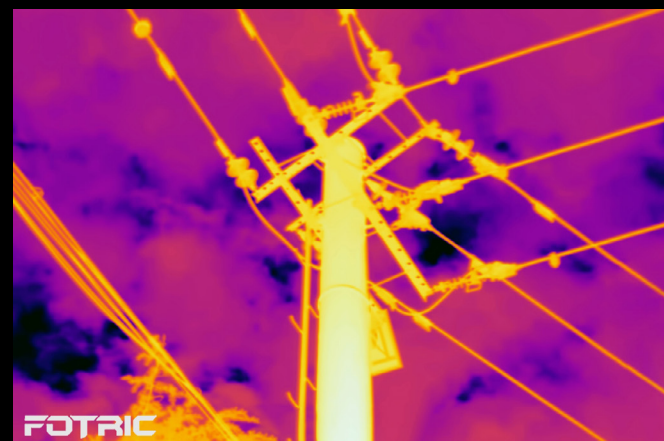
# 100% sRGB

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)

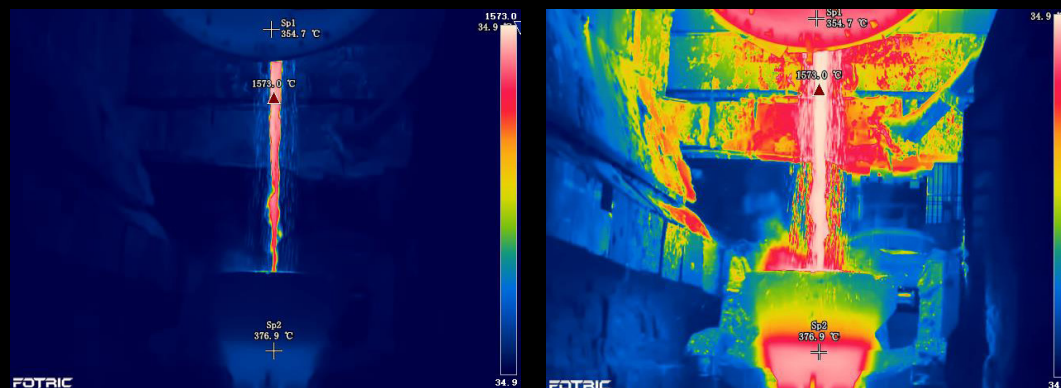


640\*480 IR resolution (25° lens at 30m distance)

# Compelling Image Quality -Firmware

## TWB (thermal white balance) Feature

Magnifies subtle differences even at broad temperature range.

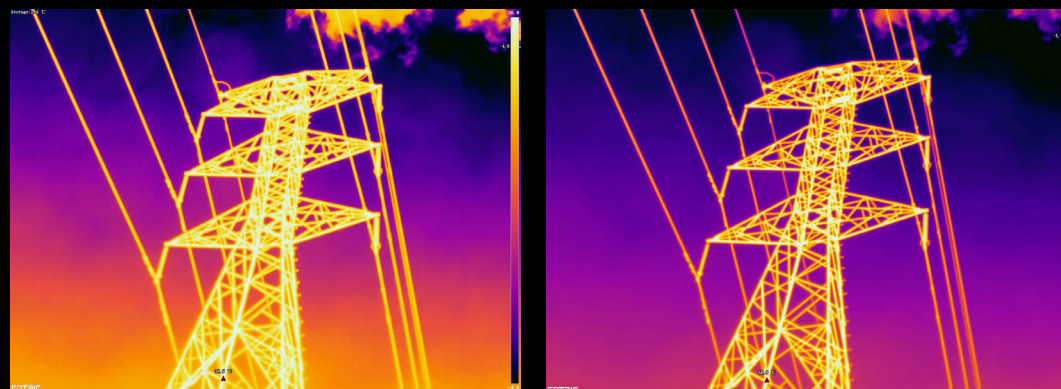


TWB OFF

TWB ON

## IREdge Imaging Algorithm

Optimize color pixel distribution to enhance image line prominence.



IREdge OFF

IREdge ON

# Impeccable Accuracy

Reach

**$\pm 1\%$**

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

Built-in 13 MP digital camera for dynamic image quality

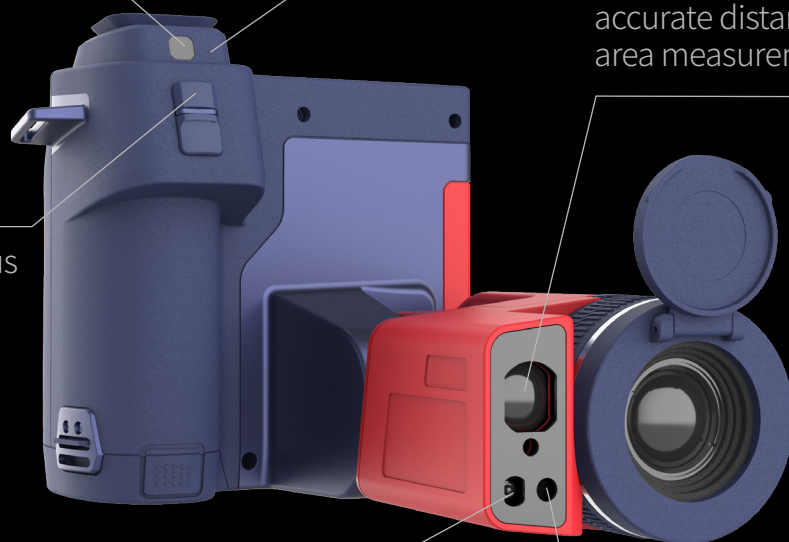
0.5 inch OLED view finder

Laser ranger for accurate distance and area measurement

TurboFocus button

Bright LED lamps to illuminate the dark

Built-in 5 MP lens-side digital camera



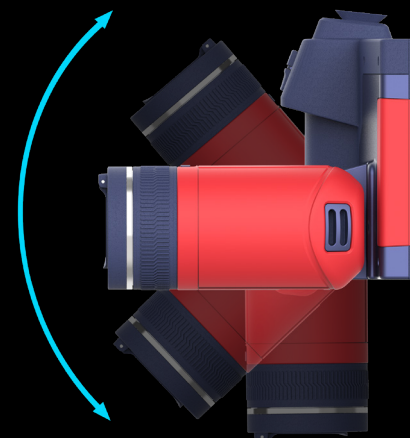
AI programmable button

Built-in speaker for temperature alarm

5" HD LCD screen



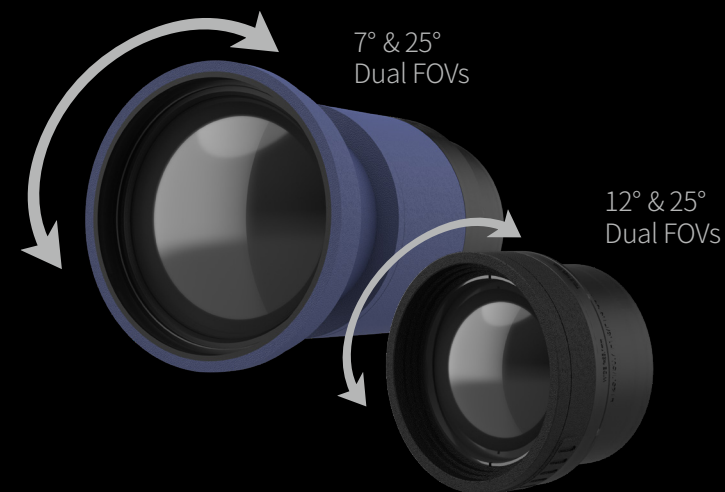
Interchangeable lens on a 40-level rotary axis, provides the finest flexibility as well as stability



# 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



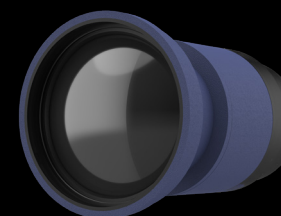
**12°**  
Telephoto Lens



**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.



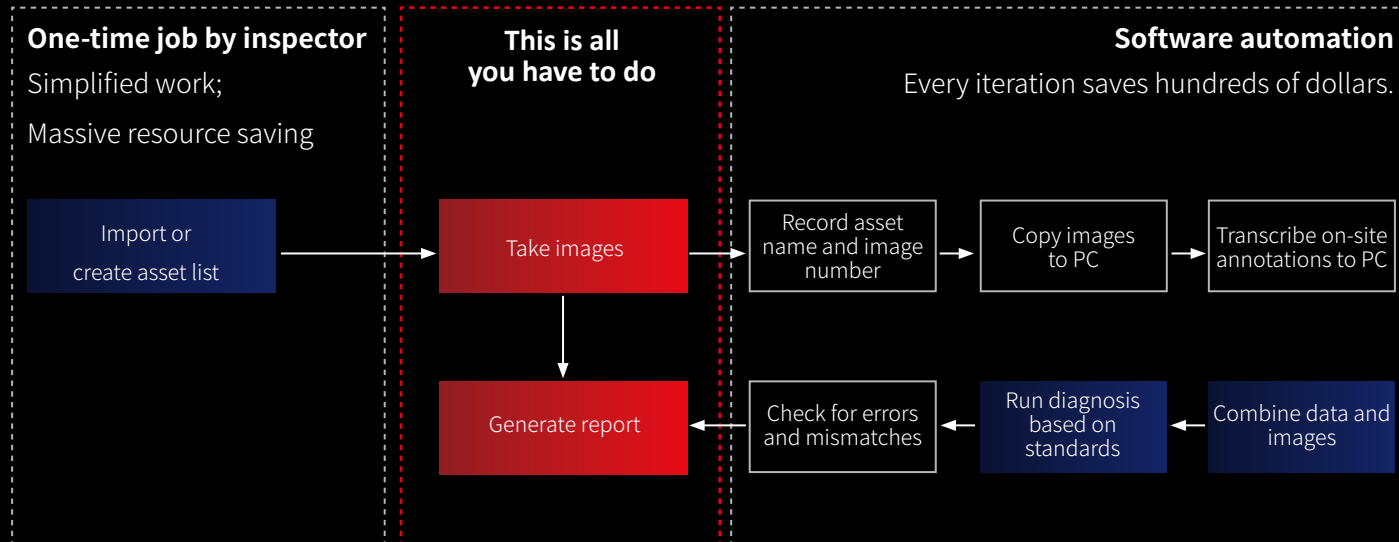
## One click favorite

Filtering key information from vast sea of thermal images.



# Powerful software-NaviPdM<sup>®</sup>

## Boost Efficiency with AI-powered Automation





# Powerful software-NaviPdM<sup>®</sup>

## AI assistant at your hand

Object identification & Automatic diagnosis.



Ordinary thermal camera



NaviPdM

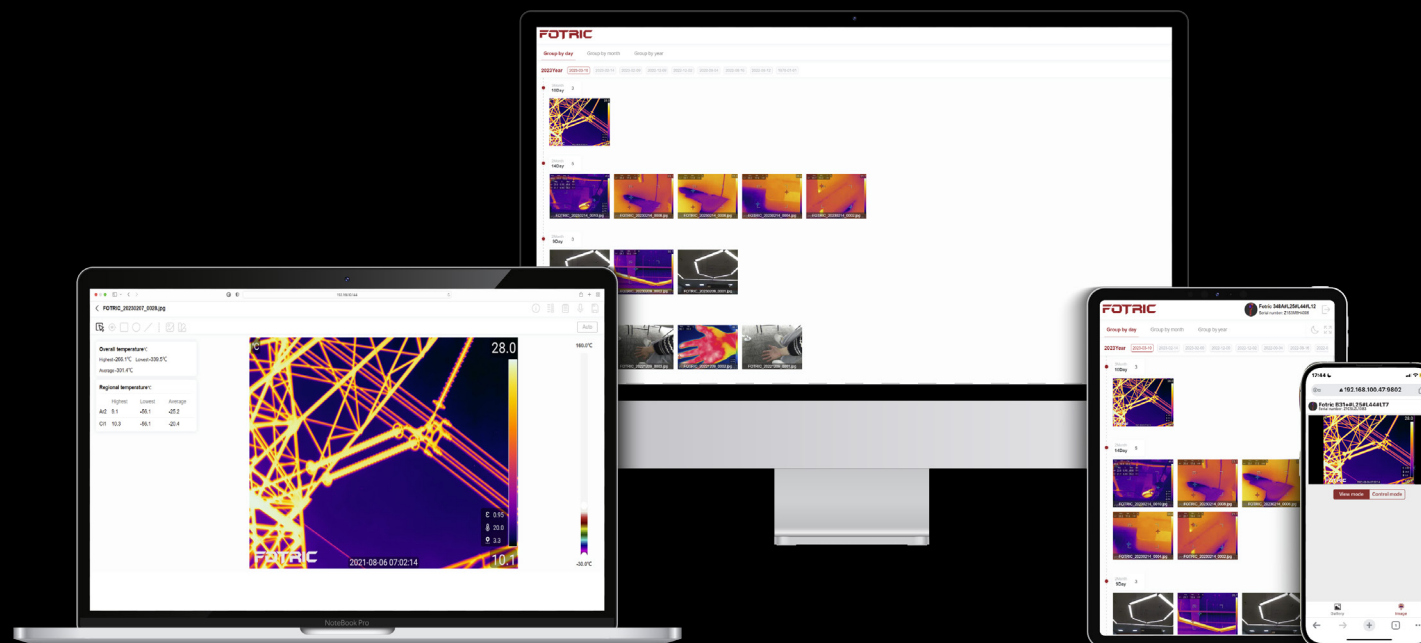


IRExplorer

# Powerful software-IRExplorer™

## Brings untrammelled 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
<b>Thermal Imaging Parameters</b>						
Infrared Resolution	1280*1024	1024*768	640*480	480*360	384*288	320*240
Super Resolution (SR)	2560*2048	2048*1536	1280*960	960*720	768*576	640*480
Detector Type	Uncooled infrared focal plane detector					
Detector Pitch	12μm	12μm	17μm	17μm	17μm	17μm
Thermal Sensitivity (NETD)	30mk (0.03° C)					
Spectral Range	7 ~ 14μm					
Image Frame Rate	30Hz					
Field of View (FOV)	25° x 20°	25° x 19°	25° x 19°	25° x 19°	25° x 19°	25° x 19°
Spatial Resolution (IFOV)	0.34 mrad	0.43 mrad	0.68 mrad	0.91 mrad	1.14 mrad	1.36 mrad
Minimum Imaging 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™ system for continuous, laser-assisted, thermal contrast AF; Manual focus					
Lens Recognition	Auto					
Optional Lens	Refer to "Lens" Sheet					
Digital Zoom	1-32x	1-32x	1-16x	1-16x	1-12x	1-12x
<b>Unique Features</b>						
NaviPdM®	Optional					
T-DEF®	Support					
IREdge	Support					
T-TWB®	Support					

Temp Analysis						
Complete Temperature Range	-20 ° C ~ 2000 ° C			-20 ° C ~ 1550 ° C		
Temperature Range	-20 ° C ~ 120° C, 0 ° C ~ 700° C, 300 ° C ~ 2000° C (Not applicable to dual-view or macro lenses)			-20 ° C ~ 120° C, 0 ° C ~ 700° C, 300 ° C ~ 1550° C (Not applicable to dual-view or macro lenses)		
Temperature Range Extension	support extension: lowest to -40°C (Not applicable to dual-view or macro lenses)					
Intelligent Range	Support					
Accuracy	± 1°C or ± 1 %, whichever is greater (ambient temp at 25°C , temperature range 0° C-100° C), ± 2°C or ± 2 % for other temperature range			± 2°C or ± 2 %, whichever is greater, (ambient temp at 25°C )		
Uniformity	±2 ° C or 2%					
ROI Spot	30 spot markers	30 spot markers	25 spot markers	20 spot markers	20 spot markers	20 spot markers
ROI Area	30 (rectangle or circle)	30 (rectangle or circle)	25 (rectangle or circle)	20 (rectangle or circle)	20 (rectangle or circle)	20 (rectangle or circle)
ROI Line	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					
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) 1280*720					
View-Finder (Optional)	0.5 inch OLED, 800*600					
Image Mode	Thermal\Digital\Picture-in-Picture\T-DEF® Blend					

Palettes	16 standard palettes: Grey,Iron10,Iron,Rainbow,Grey10,GreyRed,MidGrey,Yellow,Rain,Rain10,Blue,GlowBow,Medical,Medical10,MidGreen,Prism. 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		
<b>Capture Features</b>			
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\Favorite		
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		
<b>Data Connection</b>			
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 PC Software, IRExplorer	
IRExplorer™	Support	
<b>Auxiliary Features</b>		
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	
GPS	Yes	
Compass	Yes	
LED	Support	
<b>Battery</b>		
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 Managment	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)	
<b>Reliability and Certification</b>		
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	



<b>Operating Temperature</b>	-20°C to +50°C (-4 °F to 122 °F )	
<b>Storage Temperature</b>	-40°C to +70°C (-40 °F ~158 °F ) without battery	
<b>Relative Humidity</b>	< 95%RH	
<b>Size (H x W x L)</b>	175*151*95mm	
<b>Weight (withouth lens)</b>	1.3kg	
<b>Hard Case</b>	Hard rubber: PC + ABS, Soft rubber: TPE,Magnesium alloy, Flame retardant grade: UL94 HB	
<b>Tripod</b>	UNC ¼"-20 interface	
<b>Warranty</b>	2 years (standard), extended warranties are available,10 years for core detector	
<b>Recommended Calibration Cycle</b>	2 years (assumes normal operation and normal aging)	
<b>Languages</b>	English, Spanish, German, Italian, Korean, Portuguese, Chinese Traditional	
<b>Packaging</b>	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), portable soft bag, hard case	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, 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	1280*1024	FOV	25° x 20°	46° x 37°	12° x 10°	7° x 6°	—		—
		IFOV	0.34 mrad	0.63 mrad	0.16 mrad	0.1 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	—		—
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° x 9°	7° x 5°	25° x 19° \ 12° x 9°	25° x 19° \ 7° x 5°	50µm
		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	N/A
		Minimum Distance	0.25 m	0.1 m	1 m	3 m	0.25 m\1 m	0.25 m\3 m	98mm
		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	28mm
P6	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°	50µm
		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	N/A
		Minimum Distance	0.25 m	0.1 m	1 m	3 m	0.25 m\1 m	0.25 m\3 m	98mm
		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	28mm
P5	384*288	FOV	25° x 19°	46° x 35°	15° x 11°	7° x 5°	—		50µm
		IFOV	1.14 mrad	2.09 mrad	0.68 mrd	0.32 mrad	—		N/A
		Minimum Distance	0.1 m	0.1 m	0.25 m	1 m	—		98mm
		Focal Length	15 mm	8 mm	24.8 mm	51.2 mm	—		28mm
P4	320*240	FOV	25° x 19°	46° x 35°	15° x 11°	7° x 5°	—		50µm
		IFOV	1.36 mrad	2.51 mrad	0.82 mrd	0.38 mrad	—		N/A
		Minimum Distance	0.1 m	0.1 m	0.25 m	1 m	—		98mm
		Focal Length	15 mm	8 mm	24.8 mm	51.2 mm	—		28mm

# Innovation Excellence Integrity

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[www.fotric.com](http://www.fotric.com)

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Messtechnik mit KnowHow.

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