

Product Catalog 2024

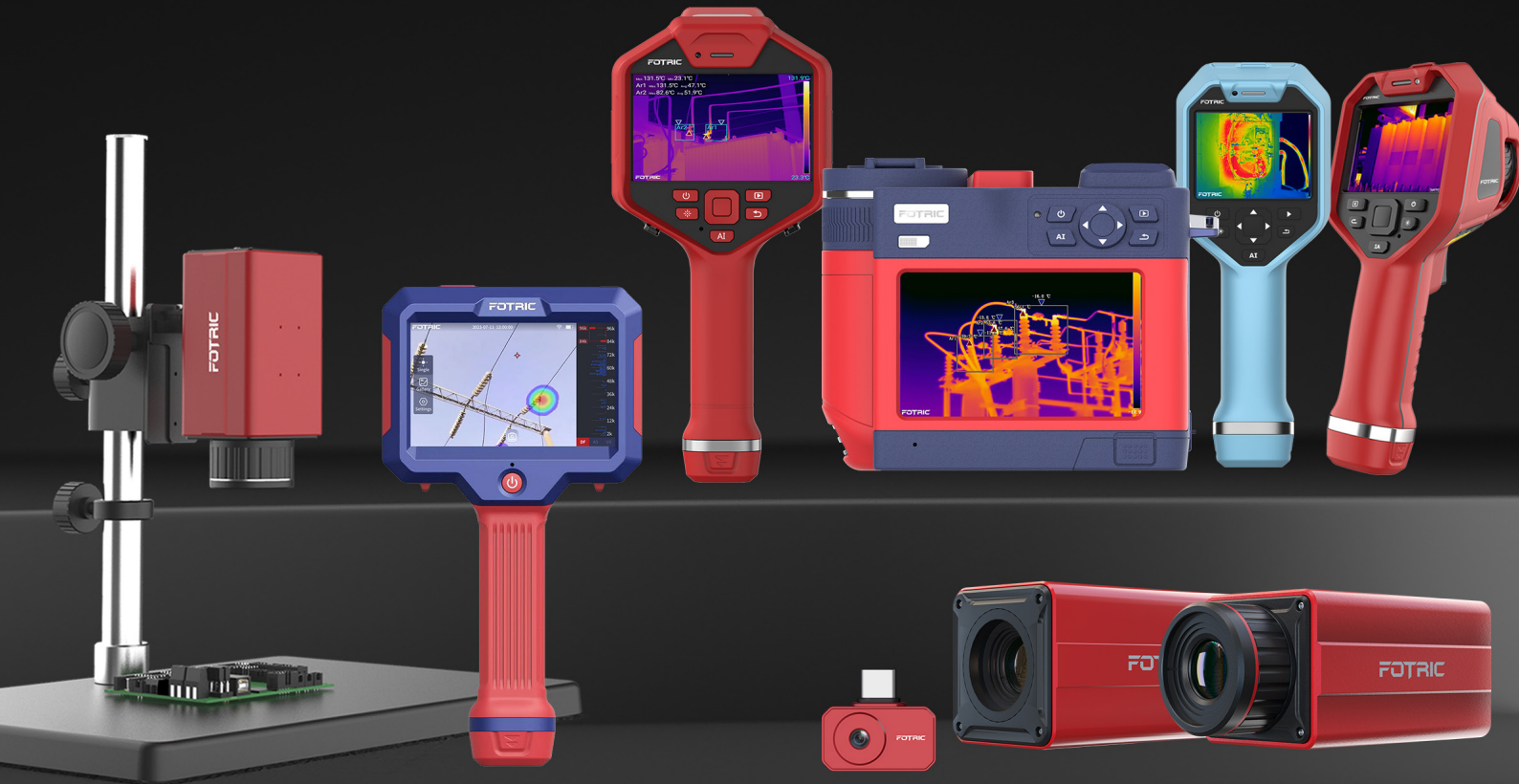


Table of Contents



96

MEMS Digital
Microphone Channel

192KHz

Sampling rate

2kHz–96kHz

Maximum bandwidth range

All-in-one Portable

Compact and light; Two
detection modes: leakage and
partial discharge

Display Mode

Mono, Multi, Filter modes

5 Inches

Touchscreen display

Robust Sustainability

Powered by 3 replaceable
batteries

FOTRIC TD3-LD

Handheld Acoustic Imaging Camera

The FOTRIC TD3-LD is a simple and practical acoustic imager, primarily utilized for detecting gas leaks under pressure in factories, partial discharges from electrical equipment, and mechanical vibrations from industrial equipment among other anomalies.

This product is lightweight, and its handheld design adheres to ergonomic standards, making operation straightforward and user-friendly, requiring no training! It's an invaluable tool for engineers to swiftly pinpoint gas leak sources.

The FOTRIC TD3-LD camera is equipped with 96 built-in MEMS digital microphones, capable of visually displaying ultrasonic information with precision, even within noisy industrial environments, generating accurate acoustic images. The acoustic image overlays in real time onto a visible digital image, enabling users to accurately identify the source of defects. This ensures a consistent supply of pressurized gas, reduces unnecessary gas loss, enhances product quality and operational efficiency, all while ensuring safety in production.



Increase Efficiency

Easy to Use

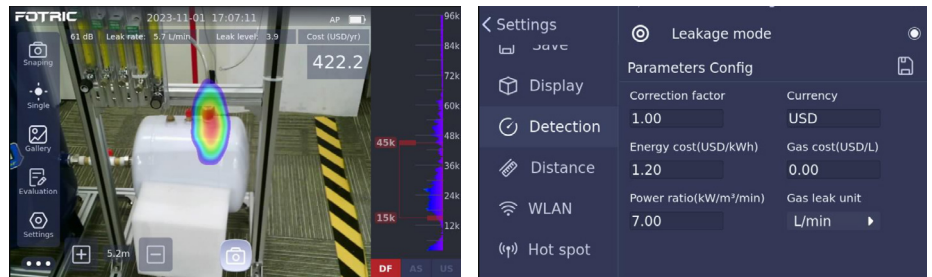
Lower Energy Consumption

Improve Safety

Gas Leak Detection

Gas leaks represent a common challenge faced by various factories, including leaks of compressed gas, flammable gas, toxic gas, corrosive gas, and inert gas among others. Leaks of compressed gas can lead to substantial energy waste and may even cause equipment downtime, increasing factory production costs and risks. Leaks of flammable or toxic gases can create safety hazards, potentially leading to fires and posing threats to personal health, while also causing negative environmental impacts.

FOTRIC’s acoustic imagers can assist users in efficiently, intuitively, and accurately locating leak sources, quickly estimate the financial loss due to the loss, alerting users to take timely measures to prevent further losses.



Electrical Partial Discharge Detection

FOTRIC’s acoustic imagers identify and locate discharge sources by detecting sound wave signals produced by partial discharges from high-voltage equipment, power cables, insulators, and other devices. This assists maintenance personnel in promptly discovering and handling potential electrical faults, thereby ensuring the consistent and safe operation of power equipment.



Specifications

Models	FOTRIC TD3-LD
Microphone channels	96 MEMS digital microphones
Acoustic image field of view	45°
Positioning frequency range	2kHz ~ 96kHz
Sound pressure sensitivity	>0.03 L/min (0.3 MPa, 3m), >0.05 L/min (0.3 MPa, 10 m)
Measured sound pressure range	6 dB SPL to 120 dB SPL \pm 1 dB SPL 5 kHz, -10 dB SPL to 120 dB SPL \pm 2 dB SPL 20 kHz, -5 dB SPL to 120 dB SPL \pm 1 dB SPL 35 kHz, 5 dB SPL to 120 dB SPL \pm 3 dB SPL 50 kHz, 20 dB SPL to 120 dB SPL \pm 1 dB SPL 65 kHz, 25 dB SPL to 120 dB SPL \pm 1 dB SPL 80 kHz
Operating Modes	Single, Multi, Hologram
Auto enhancement	Highlight source intensity and location
Threshold adjustment	Filtering background noise
Frequency range selection	Touch screen selection
Sound Pressure Display	Show maximum sound pressure on screen
Sound Sampling Rate	192kHz
Acoustic Refresh Rate	25FPS
Working distance	0.3m ~ 130m
Detection Mode	Leakage Mode + Partial Discharge Mode (PRPD graph is available in partial discharge mode)
Analysis Software	SonicLab
Display	size 5", 800*480, LCD capacitive touch screen
Display Brightness	500nits
Visible light camera	5 megapixels
Storage Capacity	32GB
Image Format	JPG
Video Format	MP4
Video Duration	7 minutes
WiFi connection	Support
USB port	Support
Software and firmware upgrades	Support free upgrade
Headphones	3.5mm 3-part headphone jack (monitor audible sound only supported)
Battery type	7.4V, 3500mAh lithium battery, field replaceable, rechargeable
Battery operating time	single battery continuous operating time \geq 2.5 hours (actual use time depends on the environment and use at the time)
Charging method	Charging dock
Charging time	2.5 hours to 90% of the battery power
Safety Standard	SELV (Safety Extra Low Voltage Circuit) (GB 4943.1-2011/IEC60950-1:2005)

Electromagnetic compatibility	GB/T17626.2/IEC 61000-4-2
Explosion-proof grade	None
Protection class	IP51
Operating temperature	-20° C to 50° C
Storage temperature	-40° C to 70° C without battery
Operating Humidity	<95%RH
Dimension	276*150*59mm(H*W*L)
Weight	1.2kg
Housing material	Hard rubber: PC+ABS, Soft rubber: TPE, Aluminum alloy
Warranty	2 years
Language	English, Chinese
Standard Configurations	Main unit, charging dock, power adapter, Li-ion battery*3, portable hard case, wrist strap, user manual, packing list, USB flash drive, TypeC-USB adapter cable



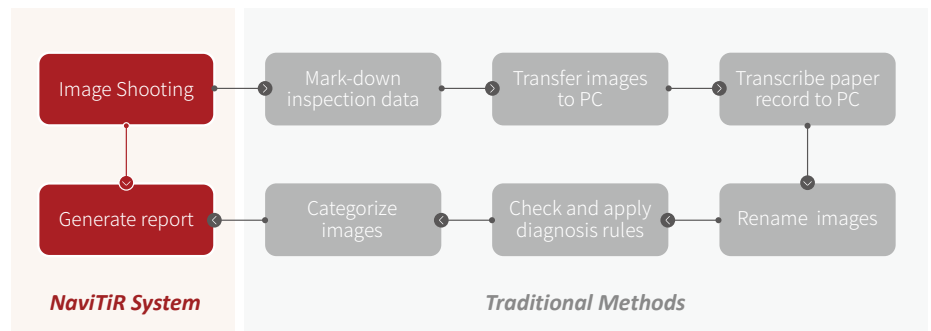
NaviTiR System

Redefine Routine Inspection

NaviTiR system is compatible with all FOTRIC handheld cameras.

Thermal imagers have been an integral part of routine inspection for a long time. Yet it remains just a tool to take thermal image. In this era of hyper interconnectivity, FOTRIC believes it should be more. It should facilitate everything an inspector would need on field. And we made it so.

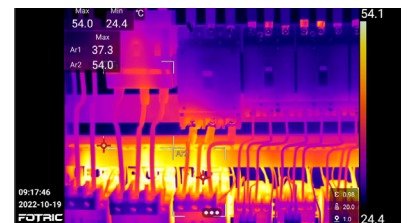
The NaviTiR system is an AI-infused digital upgrade from the traditional thermal camera, including features like digitalized data management, automatic diagnosis, object identification, instant data synchronization and one-click report generation. It perfectly assists thermal inspectors on every link of their assignment, from preparation to presentation.



Object Identification + Automatic Diagnosis

When using FOTRIC NaviTiR, the device can automatically recall the pre-set diagnostic rules, intelligently diagnose the current state of the equipment, and save the diagnostic conclusion in the inspection task. Even a novel technician with limited experience can perform inspections with the same high quality as a full-time worker when assisted with FOTRIC NaviTiR.

The NaviTiR is flexible as it is convenient. Experienced inspectors can overwrite the device’s diagnosis, should the scenario demands a superior judgement.



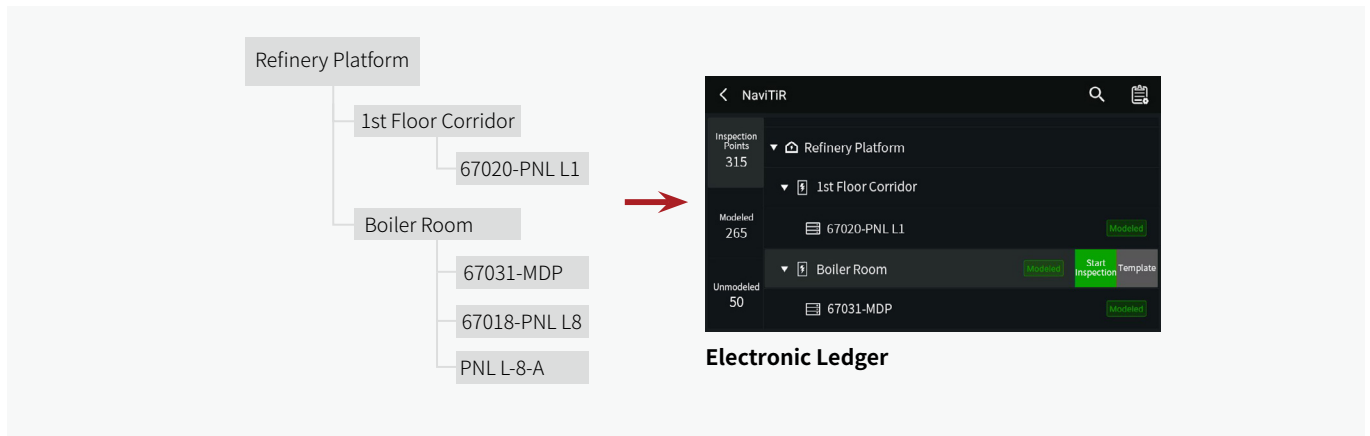
Traditional



NaviTiR

Digital Data Management

FOTRIC NaviTiR system offers a superior alternative to the traditional inspection data management system, which often involves paper documentation and manual transcription that’s laborious and susceptible to human error, with an efficient and error-proof electronic ledger system.



Instant Synchronization + Report Generation

The NaviTiR system offers mutual synchronization between the thermal camera and the PC, instantly filling the gap between inspection and presentation.



It allows users to skip over drudgerous data organization and diagnosis assignment to generate a robust and comprehensive report in a swift manner.



FOTRIC *P*Series

Premium Thermal Camera

Up to
1280*1024
IR resolution

Up to
30mK
Thermal sensitivity

Reach
±1%
Accuracy







Up to
2000°C
Temperature range

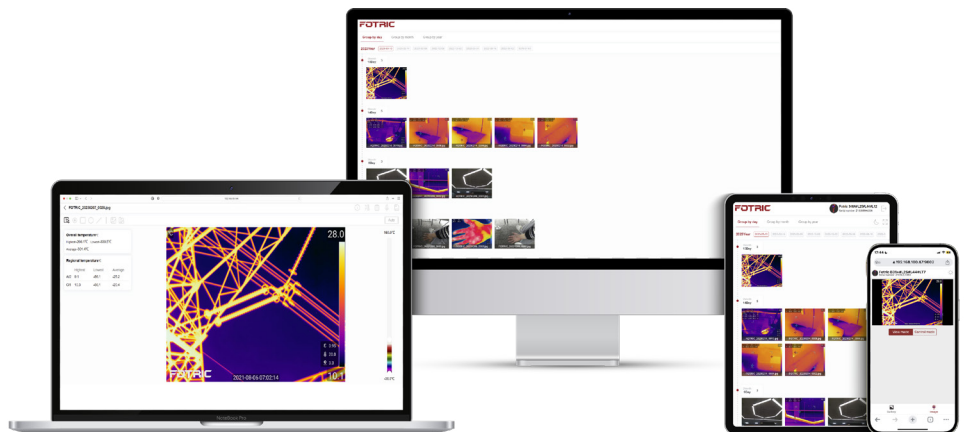


IRExplorer

Powerful Software-IRExplorer

Brings untrammled 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

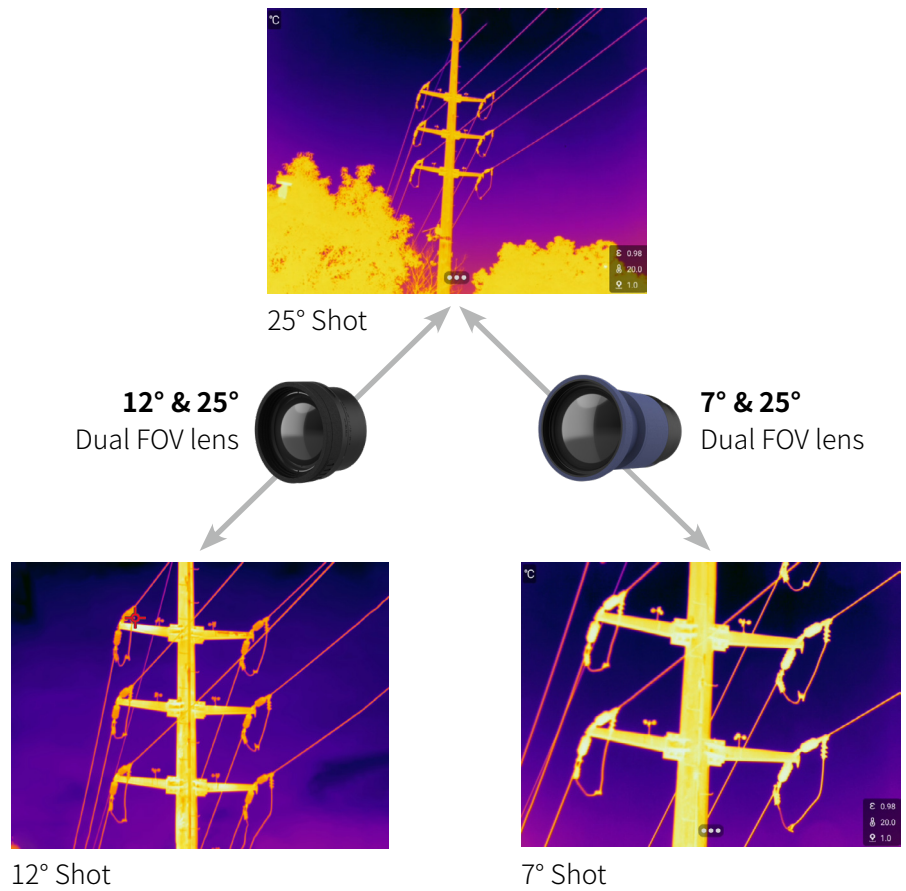




Meticulously Designed Hardware

One Lens to See them All

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



A Wealth of Alternatives





FOTRIC 340 Series

Advanced Handheld Thermal Imager

Up to
640*480
IR resolution

Up to
30mK
Thermal sensitivity

Up to
-20~1550°C
Temperature range

Up to
0.19mrad
IFOV

Cutting-Edge Image Algorithms

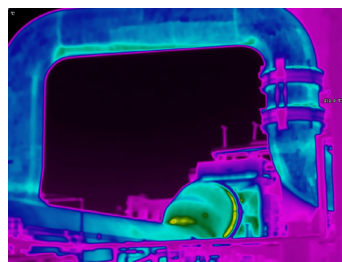
FOTRIC's imaging enhancement algorithms, such as TWB and IREdge, enable prominent image representation in complex environments.

IREdge function

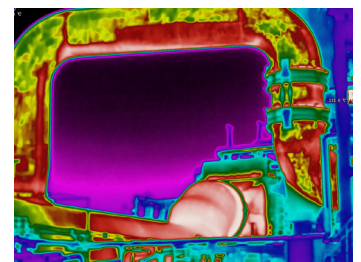
The IREdge function strengthens the visual impact of object contour and edges to help users distinguish them from the background.

TWB function

TWB essentially re-scales the palette ribbon based on the number of pixels in representing each temperature range. Consequently, the temperature distribution of the entire image is more clearly laid out for the inspector.



TWB OFF



TWB ON

Extraordinary Performance

Reveal miniscule thermal difference at any temperature range.

- Hand work eased like never before with programmable AI Quick-Access button.

- Turbo-Focus system enables swift and meticulous measurements.
- Interchangeable lenses provide coverage for any target, any scene.
- Complimentary access to the Face Detection feature.

Exceptional Field Work

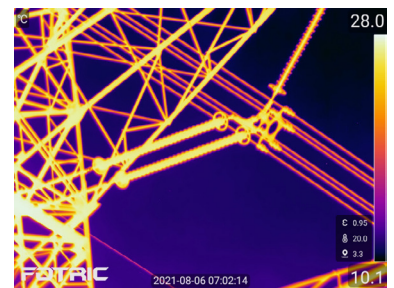
FOTRIC's fine-tuned new series is equipped to help you thrive in the toughest environments.

Inspectors need to deal with objects far and near, large and small. And that's what FOTRIC products can accommodate. FOTRIC 340 series cameras come with **interchangeable 44° , 25° ,12° and 7° lenses**, making sure the owner can accurately acquire object's condition and temperature at any distance.

- Professional laser meter for distance and area measurement. (*Only for 340A series)
- Full-range radiometric video for post-analysis.
- Voice annotation via Bluetooth Headset.
- QR-code scan to save in Tags, for auto-naming of files.
- Outstanding battery performance for extended work sessions.



44° lens



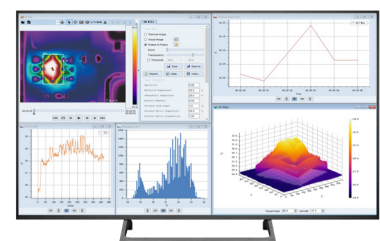
7° lens

Professional Workflow

The 340 series cameras produce standardized radiometric JPEGs that's accessible through different media. Not only are they supported by the professional, analytical software-AnalyzIR, they are compatible with the Inspection assistant NaviTiR system and cross-platform IRExplorer system.

AnalyzIR

The powerful analytical software is designed for comprehensive and professional evaluation of the thermal images. Combined with strong connectivity and multi-dimensional capabilities, it's a robust tool that can meet even the most stringent requirements.



AnalyzIR



FOTRIC 320 Series

Semi-Professional Compact Thermal Imagers

Up to
384*288
IR resolution

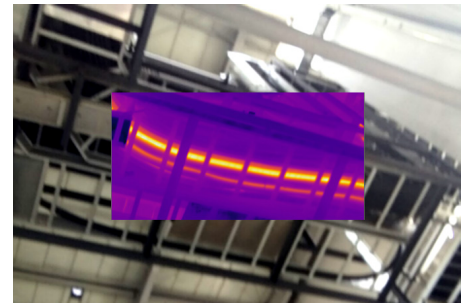
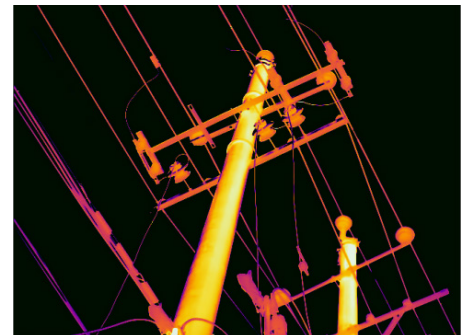
Up to
40mK
Thermal sensitivity

Up to
-20~650°C
Temperature range

Up to
1.14mrad
IFOV

Decades of Thermography Expertise in Your Hands

- Perform inspections in more industries with its extended, -20 to 650° C intelligent range.
- Powered with TWB image-balancing technology for more intuitive inspections.
- More alternatives on working distances
 - Assess electrical targets with 25° lens.
 - Work in confined spaces or fit larger targets with 49° & 46° wide-angle lens.
- Get deeper insights of complex analysis with up to 20 ROIs on screen.



More Intuitive Inspections

- Total focus control:
 - Achieve sharper details by easily switching from focus-free to manual focus.
 - Get as close as 0.1 m from targets to capture more details*.



- Enriched inspection results:
 - Record and listen to valuable voice annotations using a Bluetooth headset.
 - Add important written notes to videos and pictures.
- Enhanced operability:
 - Responsive 3.5" LCD touch screen & fast user interface for a smooth professional experience.
 - Light-weight, compact design that fits in any toolbox or overall pocket.

Technology-Assisted Inspections

- Spot problems faster with Touch-scale mode to reveal hidden details.
- Organize images of same assets by scanning QR-Codes for Auto-Naming.
- High-Quality Reporting:
 - One-click automatic reports via FOTRIC AnalyzIR software.
 - Easy-sharing JPEG thermal pictures with embeded temperature values.
 - On-device radiometric video recording.
 - Transfer images in seconds via Wi-Fi or Memory Card (64GB).

Reliable from the Inside-out

- Top-class images by combining world-leading high sensitive sensors (40 mK*) with FOTRIC's unique image-enhancing algorithms.
- Up to one day shift of combined battery life makes it the perfect companion for long shifts.
- Lifetime free upgrades of camera software based on global users' insights.
- IP54 enclosure rating, 2 meters-drop tested. Highly durable against common field environment.





FOTRIC TK7

Industrial Grade Thermal Camera

384*288

IR resolution

40mK

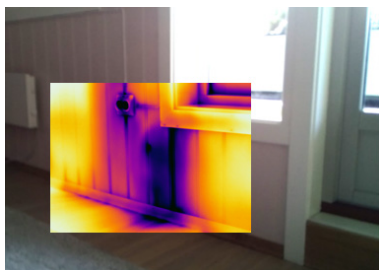
Thermal sensitivity

-20~350°C

Temperature range

Focus free+Manual focus

Focus Mode



Accurate Temperature Measurement

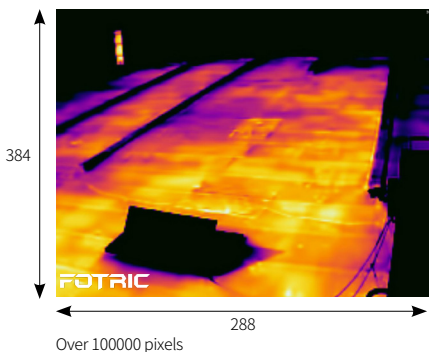
Precision at your fingertips – Perfect focus for flawless temperature readings.

- Manual focus, 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. A damp spot never escapes your sight.

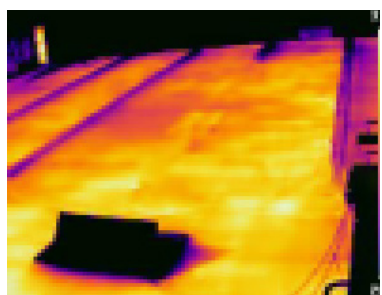
Superior Image Quality

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

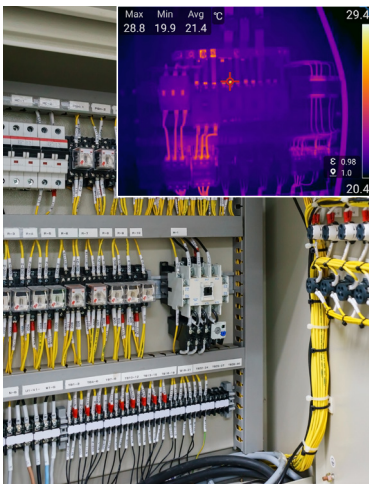
- 384*288 thermal pixels, presenting your findings with unprecedented clarity.
- Super resolution, boost the performance to expert level.
- TEF-Fusion 0~100% adjustable transparency. Select the best way present your finding.
- Touch span to highlight the anomaly against the environment.



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.

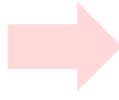
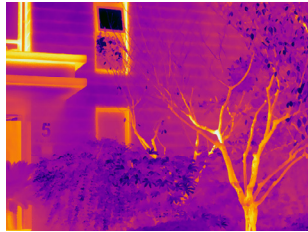
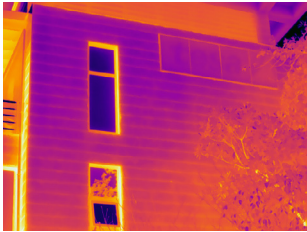
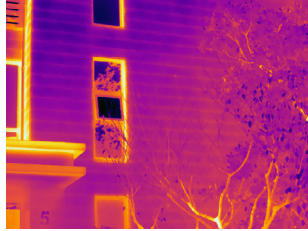
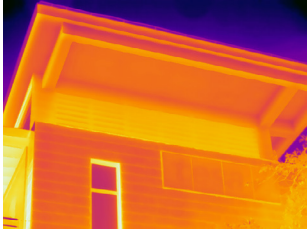
Unparallel Response Speed

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.

Panorama Mode

To help you see the big picture.





FOTRIC TA3

Plug-in Thermal Camera

256*192

IR resolution

60mK

Thermal sensitivity

-20~550°C

Temperature range

Focus free

Focus Mode

Designed for the Big Picture

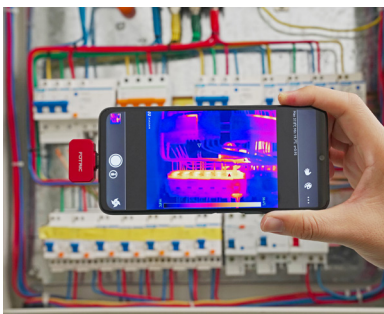
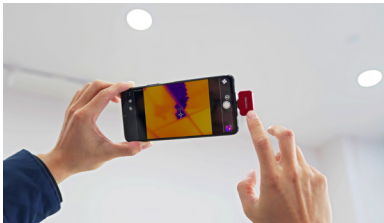
- Takes vivid images with 256*192 thermal resolution.
- 56° Field of view, more information, broader perspective.

Compact Size, Extensive Power

- With the size of a dollar coin, it never gets in the way of your operation.
- Resizable and movable PIP feature, allows seamless fusion between the thermal and digital view.
- 10 color palettes, offers more ways to look at the infrared world.
- Temperature range from -10 to 550°C , from hunting, to electrical inspection, to furnace inspection, the limit is your imagination.

Intuitive and Ready to Go

- Take 1 second to plug it in and start shooting.
- Powered by your phone, so it always keeps going.





Specifications	Advanced						Professional				
Model	P9	P8	P7	P6	P5	P4	348A	347A	346A	345A	345M
Infrared Resolution	1280*1024 (1310720 pixels)	1024*768 (786432 pixels)	640*480 (307200 pixels)	480*360 (172800 pixels)	384*288 (110592 pixels)	320*240 (76800 pixels)	640*480 (307200 pixels)	480*360 (172800 pixels)	384*288 (110592 pixels)	320*240 (76800 pixels)	320*240 (76800 pixels)
Super Resolution	Yes						Yes				
Remote Control Function	Yes						Yes				
Thermal Sensitivity (NETD)	< 0.03°C (30mk)@30°C						< 0.03°C (30mk)@30°C				< 0.04°C (40mk)@30°C
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 (at 25°C ambient temperature)		± 2°C or 2%, whichever is greater (at 25°C ambient temperature)				
Temperature Measurement 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)		-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)			-20°C to 1550°C (-4°F to 2822°F)			-20°C ~ 120°C, 0°C ~ 650°C, (-4°F~248°F, 32°F~1202°F)		
Standard Field of View (FOV)	25° x 19°						25° x 19°				
Focus Mode	Manual focus+ laser/thermal contrast assisted auto focus						Manual focus+ laser/thermal contrast assisted auto focus				Manual focus
Alternative Lenses	46° ; 12° ; 7°		46° ; 12° ; 7° ; 25° /12° dual-view lens; 25° /7° dual-view lens		46° ; 15° ; 7°		44° ; 12° ; 7°			44° ; 12°	
Touchscreen	5 inch						5 inch				
Measurement tools	Spot: 30; Line: 30 ; Rectangle/Circle: 30		Spot: 25; Line: 25; Rectangle/Circle: 25		Spot: 20; Line: 20 ; Rectangle/Circle: 20		Spot: 16; Line: 8 ; Rectangle/Circle: 12			Spot: 12; Line: 4 ; Rectangle/Circle: 8	
Connectivity	USB to USB-C cable; HDMI to Micro HDMI cable; Bluetooth; WLAN; Hotspot; FTP Transfer; Web service(IRExplorer)						USB to USB-C cable; HDMI to Micro HDMI cable; Bluetooth; WLAN; Hotspot; FTP Transfer; Web service(IRExplorer)				
Video Format	MP4; Radiometric						MP4; Radiometric				
Laser	Yes, as ranger and measurement tool						Yes, as ranger and measurement tool				Yes, as pointer
Palettes	16 standard+16 inverted						16 standard+16 inverted				
Storage Memory	256 GB	256 GB	128 GB	128 GB	64 GB	64 GB	128 GB	128 GB	128 GB	128 GB	32 GB
On-Device Analysis	Yes						Yes				
Software	AnalyzIR; NaviTiR(Compatible); IRExplorer						AnalyzIR; NaviTiR(Compatible); IRExplorer				



Compact										Plug-in	
326M	325M	323M	322M	326F	325F	323F	322F	321F	TK7	TA3	
384*288 (110592 pixels)	320*240 (76800 pixels)	264*198 (52272 pixels)	160*120 (19200 pixels)	384*288 (110592 pixels)	320*240 (76800 pixels)	264*198 (52272 pixels)	160*120 (19200 pixels)	128*96 (12288 pixels)	384*288 (110592 pixels)	256*192 (49152 pixels)	
Yes				Yes					Yes	-	
Yes				Yes					Yes	-	
0.04°C (40mk)@30°C		0.06°C (60mk)@30°C		0.04°C (40mk)@30°C		0.06°C (60mk)@30°C		0.04°C (40mk)@30°C		≤ 0.05°C (50mk)@25°C	
±2 °C or 2% , whichever is greater (at 25 °C ambient temperature)				±2 °C or 2% , whichever is greater (at 25 °C ambient temperature)					±2 °C or 2% , whichever is greater (at 25 °C ambient temperature)		±3 °C or ±3% of reading whichever is greater
-20 °C ~ 120° C, 0 °C ~ 650° C (-4° F~248° F, 32° F~1202° F)				-20 °C ~ 120° C, 0 °C ~ 550° C (-4° F~248° F, 32° F~1022° F)					-20°C ~ 120°C, 0°C ~ 650°C (-4° F~248° F, 32° F~1202° F)		-10° C ~ 150°C, 50°C ~ 550°C (Uncalibrated below 0°C)
49° x 36.8°		46.5° x 35°		49° x 36.8°		46.5° x 35°		49° x 36.8°		56° x 42.2°	
Focus free+Manual focus				Focus free					Focus free+Manual focus		Focus free
Optional 25 degree lens				-					-		-
3.5 inch				3.5 inch					3.5 inch		-
Spot: 10; Line: 2; Rectangle/ Circle: 8		Spot: 6; Line: 1; Rectangle/ Circle: 4		Spot: 6; Line: 1; Rectangle/ Circle: 4		Spot: 4; Line: 1; Rectangle/ Circle: 4		Spot: 6; Line: 3; Rectangle/ Circle: 4		Spot; Line; Rectangle	
USB to USB-C cable; HDMI to Micro HDMI cable; Bluetooth; WLAN; Hotspot; FTP Transfer;Web service(IExplorer)				USB to USB-C cable; HDMI to Micro HDMI cable; Bluetooth; WLAN; Hotspot; FTP Transfer;Web service(IExplorer)					USB to USB-C cable; HDMI to Micro HDMI cable; Bluetooth; WLAN; Hotspot; FTP Transfer;Web service(IExplorer)		USB-C port
MP4; Radiometric				MP4; Radiometric					MP4		-
Yes, as pointer				Yes, as pointer					Yes, as pointer		-
8 Standard+8 Inverted				8 Standard					8 Standard+8 Inverted		10
TF card, 64 GB				TF card, 64 GB					TF card, 32 GB		-
Yes				Yes					Yes		-
AnalyzIR; NaviTiR(Compatible); IExplorer				AnalyzIR; NaviTiR(Compatible); IExplorer					AnalyzIR; NaviTiR(Compatible); IExplorer		Reshi Android App



FOTRIC 600 R&D

R&D Station

The device adopts cutting-edge hardware including infrared detector, main processing chip, FPGA, power supply chip, etc., which guarantee the quality, performance and stability of the camera.

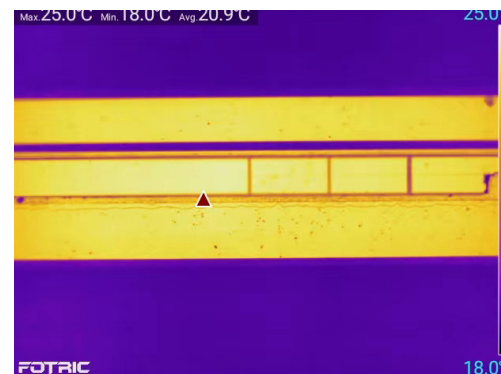
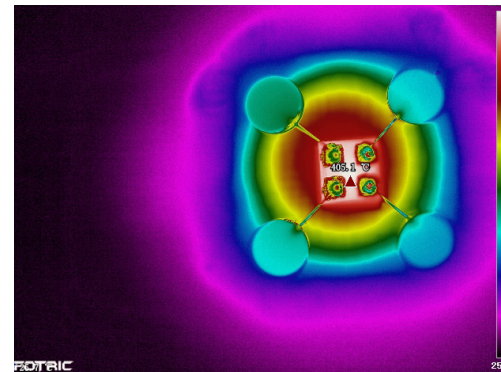
The thermal imaging camera can be equipped with 20 μ m and 50 μ m macro lenses to obtain temperature distribution and detailed data of microstructures such as chips.

The thermal imaging camera is equipped with a dedicated R&D test platform, allowing researchers to observe and analyze in a flexible, fine and stable manner.

Outstanding Performance

FOTRIC R&D cameras' excellent hardware configuration, combined with extraordinary imaging algorithms, results in superior product performance.

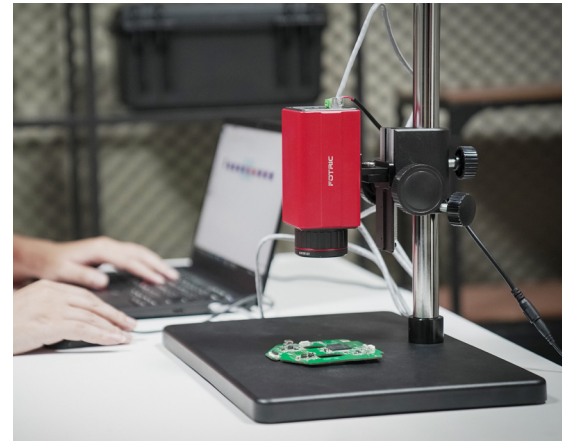
- The infrared detector of up to 640*480 pixels provides a thermal map with well over 300000 temperature points as data matrix
- State of the art imageing algorithm significantly reduces noise and boosts image clarity
- Thermal sensitivity of 0.04 $^{\circ}$ C , more sensitive to temperature change and makes more accurate temperature measurement
- High EMC compatibility, effectively prevent electromagnetic interference and electrostatic breakdown



Designed with R&D Purposes in Mind

FOTRIC R&D cameras are designed for education and research related applications. The simple and elegant design that makes operations intuitive and efficient.

- The test platform allows for easy lifting, rotation, fixation and other practical adjustment movements
- The 50 μ m lens help users obtain thermal maps of microstructure temperature distribution and detailed temperature data
- Manual focus offers flexible and accurate focusing and fine thermograph acquisition.



Powerful Software Support

- Enables the camera to communicate with a PC to display, transmit, record, and analyze full radiometric video streams in real time
- Modification of the thermal parameters of the thermal image file, including emissivity, reflected temperature, atmospheric temperature, relative humidity, target distance, external optical transmittance, GPS location information, etc.
- Set partial emissivity for individual measurement tools to improve accuracy
- Display, export, save, and overlay time of temperature curves for any measurement tool
- Full radiometric thermal video supports both raw mode and temperature difference mode analysis
- The thermal image file supports histogram, 3D graph, and line temperature distribution display
- Combine thermal images into full-radiation thermal videos or split videos into images.
- Edit customized report templates and batch process thermal image files. Batch generate of thermal image inspection reports.
- I/O external trigger recording.
- DB, TCP/IP Modbus, RS232 Modbus serial communication and data transfer with external systems.

Specifications

Models	FOTRIC 618C R&D Station		FOTRIC 616C R&D Station	
Basic Parameters				
Infrared resolution	640*480		384*288	
Detector type	Uncooled infrared focal plane detector			
Thermal sensitivity NETD)	< 0.03°C @30°C ,30mk		< 0.05°C @30°C ,50mk	
Infrared spectral band	7μm~14μm			
Standard lens	29° *22°		30° *22°	
IFOV	0.79mrad		1.36mrad	
Minimum focus distance	0.1m		0.15m	
Focal length	21.6mm		13mm	
Optional macro lens	M20	M50	M34	M100
Focal length	20mm	50mm	50mm	20mm
Image pixel size	20μm	50μm	34μm	100μm
Lens to object distance	12.8mm	66.3mm	45.2mm	110.6mm
Focus type	Manual			
Measurement Analysis				
Temperature Measurement Range	-20°C -150°C ; 0°C -650°C			
Accuracy	± 2°C or ± 2 % , whichever is greater (ambient temp between 15°C ~35°C)			
Measurement parameters	Emissivity; Ambient temperature; Reflected temperature; Relative humidity; Distance; External optics compensation			
Partial emissivity	Support			
Image display				
Palettes	10 standard palettes and 10 inverted palettes			
Image process	Non-uniform calibration, digital enhancement			
Mirror mode	Left-right, up-down, center			
Video compression standard	H.264			
Radiometric stream	25Hz radiometric stream		30Hz radiometric stream	
Pan-tilt-zoom station compatibility	Support Pelco-D protocol			
Measurement tools	5 points, 10 lines and 10 regions, support Modbus output			
Software	AnalyzeIR			

Network Connection	
Ethernet type	10M/100M/1000M adaptive
Simultaneous stream	Mainstream and substream: 10; Radiometric stream: 1
IP connection interface	ONVIF
Electrical connection	
Power connector	Screw-on wire terminal
Network connector	Screw-on RJ45 with status indicator LED
Serial port	RS-485 : 1 input 1 output
Alarm input/output	Relay: 1 input 1 output, load capacity: 24V, 1.5A Optocoupler: 1 input(5~15mA) 1 output(<35mA) 1 GND, Voltage: 3.3-24V
Power system	
Power supply	12V/24V DC, PoE
Power consumption	4W 3W
Reliability and certificates	
Safety standards	GB 4943.1-2011 EN 62368-1:2014+A11:2017; GB/T 19870-2018
Electromagnetic compatibility	GB/T 18268.1-2010 EN 61326-1:2013 GB 17625.1-2012 EN IEC 61000-3-2:2019 GB/T 17625.2-2007 EN 61000-3-3:2013/A1:2019 GB/T 19870-2018 GB 4824-2019 EN 55032:2015/A11:2020 EN 55035:2017 FCC CFR47 Part15 subpart B
Protection level	IP40
Impact	25g, GB/T 2423.5-2019 IEC 60068-2-27:2008
Vibration	2g, GB/T 2423.10-2008 IEC 60068-2-6:2007
RoHS compliant	Directive 2011/65/EU and amendment (EU) 2015/863
Physical parameters	
Working temperature	-20°C -65°C
Storage temperature	-40°C -70°C
Relative humidity	< 90%
Size	112mm*68mm*60mm (without lens or base)
Weight	485g (without lens or base)
Outer casing material	Aluminum alloy



FOTRIC 600 Series

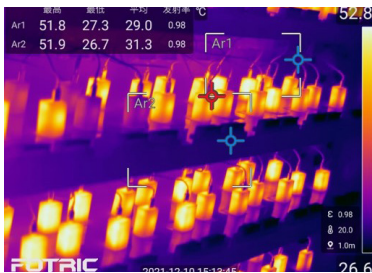
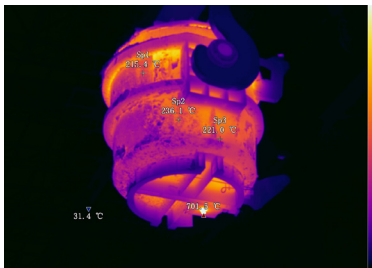
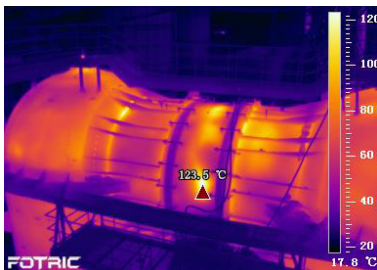
Fixed-mount infrared camera

Up to
640*480
IR resolution

Up to
30mK
Thermal sensitivity

Up to
-20~2000°C
Temperature range

Up to
30Hz
Radiometric video stream



Product Features

- Support a wide variety of configuration, complying with every scenario.
- Support radiometric video output, providing robust temperature data for analysis.
- Maximum temperature range expandable to 2000°C .
- Compliant with multiple data transmission protocols, adaptive for connection integration.

More Options; More Liberty

Multiple available models

Support resolution of 640*480, 384*288, 320*240 and 160*120, fulfilling every need from different environments.

Open source API software

The FOTRIC SDK offers users the possibility to create softwares tailored for their unique needs.

Specifications

Models	613C	615C	616C	618C	625C	626C	628C	626CH	628CH
Basic Parameters									
Thermal resolution	160*120	320*240	384*288	640*480	320*240	384*288	640*480	384*288	640*480
Detector type	Uncooled focal plane array detector								
Thermal sensitivity	<60 mk	<50 mk	<50 mk	<30 mk	< 50mk	<50 mk	<30 mk	<50 mk	<30 mk
Detector pitch	17 μ m								
Spectral range	7.5 μ m~14 μ m								
FOV	Dependent on the lens configuration								
IFOV	Dependent on the lens configuration								
Minimum focus distance	Dependent on the lens configuration								
Focal distance	Dependent on the lens configuration								
Focus type	Manual					Automatic			
Measurement Analysis									
Temperature range	-20 $^{\circ}$ C - 150 $^{\circ}$ C 0 $^{\circ}$ C -350 $^{\circ}$ C	-20 $^{\circ}$ C - 150 $^{\circ}$ C 0 $^{\circ}$ C -350 $^{\circ}$ C	-20 $^{\circ}$ C - 150 $^{\circ}$ C 0 $^{\circ}$ C -550 $^{\circ}$ C	-20 $^{\circ}$ C - 150 $^{\circ}$ C 0 $^{\circ}$ C -550 $^{\circ}$ C	-20 $^{\circ}$ C - 150 $^{\circ}$ C 0 $^{\circ}$ C -350 $^{\circ}$ C	-20 $^{\circ}$ C - 150 $^{\circ}$ C 0 $^{\circ}$ C -650 $^{\circ}$ C	-20 $^{\circ}$ C - 150 $^{\circ}$ C 0 $^{\circ}$ C -650 $^{\circ}$ C	-20 $^{\circ}$ C - 150 $^{\circ}$ C 0 $^{\circ}$ C -650 $^{\circ}$ C 300 $^{\circ}$ C - 2000 $^{\circ}$ C	-20 $^{\circ}$ C - 150 $^{\circ}$ C 0 $^{\circ}$ C -650 $^{\circ}$ C 300 $^{\circ}$ C - 2000 $^{\circ}$ C
Accuracy	$\pm 2^{\circ}$ C or $\pm 2\%$, whichever is greater								
Measurement parameters	Emissivity (0.01-1.0); Ambient temperature; Reflected temperature; Relative humidity; Distance; External optics compensation								
Partial emissivity	Support								
Image display									
Palettes	10 standard palettes and 10 inverted palettes								
Image process	Non-uniform calibration, digital enhancement								
Mirror mode	Left-right, up-down, center								
Video compression standard	H.264								
Radiometric stream	30Hz	30Hz	30Hz	25Hz	30Hz	30Hz	25Hz	30Hz	25Hz
Pan-tilt-zoom station compatibility	Support Pelco-D protocol								
Measurement tools	5 points, 10 lines and 10 regions, support Modbus output								
Software	AnalyzIR; Open API FOTRIC SDK								
Network Connection									
Ethernet type	10M/100M/1000M adaptive								
Network protocols	IPv4, UDP, TCP, RTSP, RTCP, RTP								
Simultaneous stream	Mainstream and substream: 10; Radiometric stream: 1								
IP connection interface	ONVIF								

Electrical connection

Power connector	Screw-on wire terminal								
Network connector	Screw-on RJ45 with status indicator LED								
Alarm input/output	1 relay output, load capacity: 24V, 1.5A 1 optocoupler output: Voltage: 3.3-24V, Max current: 35mA 1 optocoupler input: Voltage: 3.3-24V, Input current : 5mA-15mA								
Serial port	1 RS-485								

Power system

Power supply	12V/24V DC, PoE								
Power consumption	3W	3W	3W	4W	3W	3W	4W	3W	4W

Reliability and certificates

Safety standards	GB 4943.1-2011 EN 62368-1:2014+A11:2017; GB/T 19870-2018								
Electromagnetic compatibility	GB/T 18268.1-2010 EN 61326-1:2013 GB 17625.1-2012 EN IEC 61000-3-2:2019 GB/T 17625.2-2007 EN 61000-3-3:2013/A1:2019 GB/T 19870-2018 GB 4824-2019 EN 55032:2015/A11:2020 EN 55035:2017 FCC CFR47 Part15 subpart B								
Protection level	IP40								
Impact	25g, GB/T 2423.5-2019 IEC 60068-2-27:2008								
Vibration	2g, GB/T 2423.10-2008 IEC 60068-2-6:2007								
RoHS compliant	Directive 2011/65/EU and amendment (EU) 2015/863								

Physical parameters

Working temperature	-20°C -65°C								
Storage temperature	-40°C -70°C								
Relative humidity	< 90%								
Size	112mm*68mm*60mm (without lens)			142.25mm*71mm*70mm (standard lens) 157.25mm*80mm*79mm (standard lens) 164.6mm*80mm*79mm (standard lens)					
Weight	485g (without lens or base)			706g (standard lens)	718g (standard lens)	713g (standard lens)	993g (standard lens)		
Outer casing material	Aluminum alloy								

Optional Lenses

Model	Parameters	Standard lens	Wide-angle lens	Telephoto lens
628CH	FOV	25°* 18.7°	50°* 37.5°	12°* 8.9°
	IFOV	0.67mrad	1.39mrad	0.32mrad
	Minimum focus distance	0.5m	0.7m	5m
	Focal distance	25.3mm	-12.2mm	-53.9mm
626CH	FOV	25°* 18.7°	50°* 37.5°	12°* 8.9°
	IFOV	1.13mrad	2.32mrad	0.53mrad
	Minimum focus distance	0.5m	0.5m	1.5m
	Focal distance	15mm	7.34mm	-32.2mm
628C	FOV	25°* 18.7°	50°* 37.5°	12°* 8.9°
	IFOV	0.68mrad	1.31mrad	0.34mrad
	Minimum focus distance	0.3m	0.3m	1m
	Focal distance	25mm	13mm	50mm
626C	FOV	25°* 18.7°	50°* 37.5°	12°* 8.9°
	IFOV	1.13mrad	2.07mrad	0.57mrad
	Minimum focus distance	0.3m	0.3m	1m
	Focal distance	15mm	8.2mm	-30mm
626C	FOV	25°* 18.7°	50°* 37.5°	12°* 8.9°
	IFOV	1.13mrad	2.07mrad	0.57mrad
	Minimum focus distance	0.3m	0.3m	1m
	Focal distance	15mm	8.2mm	-30mm

Model	Parameters	Standard lens	Wide-angle lens	Telephoto lens	Super wide-angle lens
625C	FOV	21°* 15.6°	42°* 31.2°	10°* 7.4°	—
	IFOV	1.13mrad	2.07mrad	0.57mrad	—
	Minimum focus distance	0.3m	0.3m	1m	—
	Focal distance	15mm	8.2mm	-30mm	—
618C	FOV	29°* 22°	45°* 34°	18°* 13°	92°* 74°
	IFOV	0.78mrad	1.21mrad	0.49mrad	2.93mrad
	Minimum focus distance	0.1m	0.3m	1m	0.3m
	Focal distance	21.6mm	14mm	35mm	5.8mm
616C	FOV	30°* 22°	47°* 35°	15°* 11°	91°* 71°
	IFOV	1.3mrad	2.125mrad	0.68mrad	4.59mrad
	Minimum focus distance	0.3m	0.3m	2m	0.3m
	Focal distance	13mm	8mm	25mm	3.7mm
615C	FOV	25°* 18.7°	39°* 29°	13°* 9°	76°* 59°
	IFOV	0.68mrad	2.125mrad	0.68mrad	4.59mrad
	Minimum focus distance	0.3m	0.3m	2m	0.3m
	Focal distance	25mm	8mm	25mm	3.7mm
613C	FOV	28°* 21°	50°* 37.5°	—	—
	IFOV	3.06mrad	5.43mrad	—	—
	Minimum focus distance	0.1m	0.1m	—	—
	Focal distance	5.56mm	3.13mm	—	—



Company Introduction

FOTRIC, a global leader in industrial thermal camera manufacturing, is at the forefront of industrial innovation with a significant presence globally. Our expertise extends beyond the mere production of thermal imaging technology; we are dedicated to empowering professionals to work smarter, safer, and faster. Our company slogan, 'Connecting the digital future,' encapsulates our commitment to revolutionizing industries through advanced technological solutions.

Central to our business is a profound understanding of our customers' needs, fostered through meaningful partnerships with distributors worldwide. We serve a diverse range of sectors, including building inspection, electrical utility inspection, R&D, oil and gas, manufacturing, and predictive maintenance. Our solutions, crafted to address specific industry challenges, not only leverage the finest thermal imaging technology but also incorporate a robust user experience with the latest technological advancements.

Our unwavering dedication to innovation has propelled our company since its inception. We consistently integrate state-of-the-art technology into our products:

2013: Embraced Android for agile software development.

2017: Incorporated cloud architecture for intuitive online data management.

2019: Integrated artificial intelligence, adding advanced features such as voice command and text recognition.

2022: Harnessed the power of deep learning for object recognition and automated diagnostics.

2023 Milestone: Expanded our portfolio by introducing acoustic cameras, significantly enhancing our comprehensive industrial solutions.

Our extensive network, spanning over 50 countries including the US, Canada, Germany, UK, Latin America, and South East Asia, is a testament to our commitment to delivering global solutions. We prioritize efficiency without sacrificing quality, enabling us to offer best-in-class products at competitive prices.

Our mission is steadfast: to forge long-term, mutually successful partnerships, driven by our determination to address our clients' challenges with cutting-edge solutions. At FOTRIC, we do more than create technology; we are shaping a smarter, safer, and more interconnected digital future.

Innovation Excellence Integrity

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www.FOTRIC.com