FOTRIC 320M Series

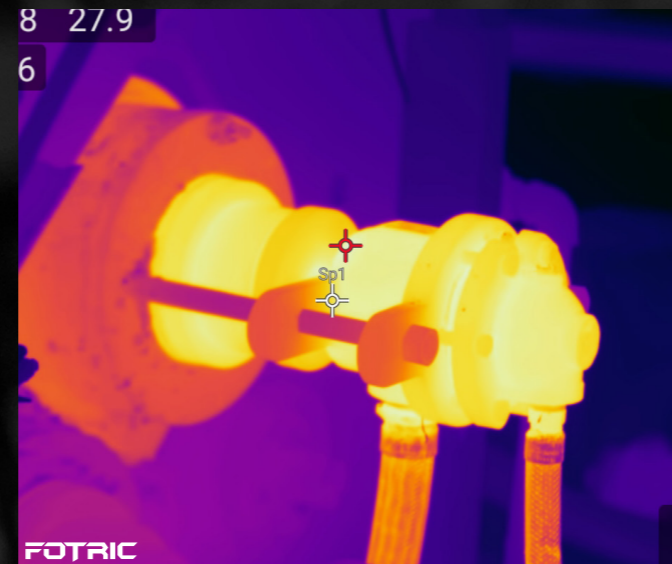## Semi-Professional Compact Thermal Imagers

Compact
High Performance
Alternative

Flexible | Intuitive | Reliable

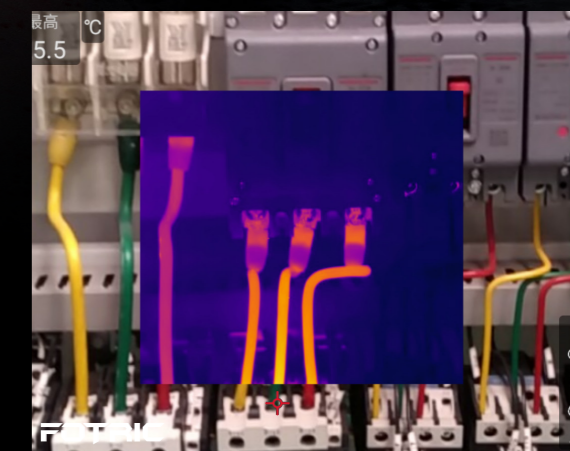# Decades of Thermography Expertise in your hands

- Perform inspections in more industries with its extended, -20 to 650°C intelligent range.

- 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.

- Powered with TWB image-balancing technology for more intuitive inspections.

- Get deeper insights of complex analyses with up to 20 ROIs on screen.
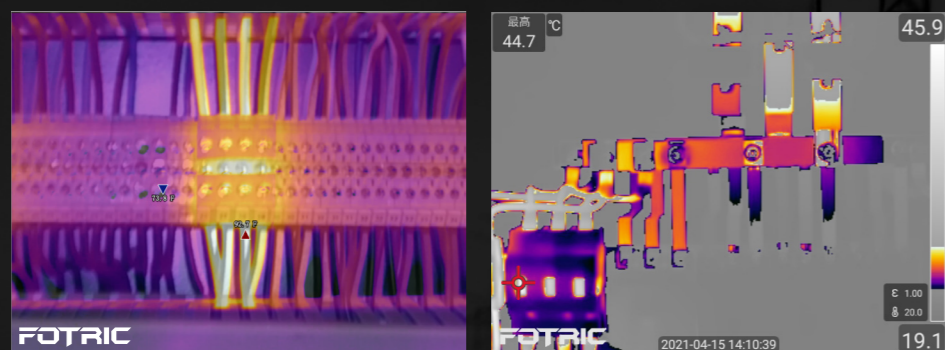
More Intuitive Inspections

- 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.

* Available for 49° lens models.

Technology-Assisted Inspections

- Spot problems faster with Touch scale mode to reveal hidden details.

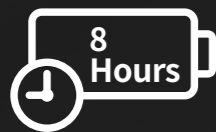- Organize images of same assets by scanning QR-Codes for Auto-Naming.

- 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 senstive 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.

  8 Hours

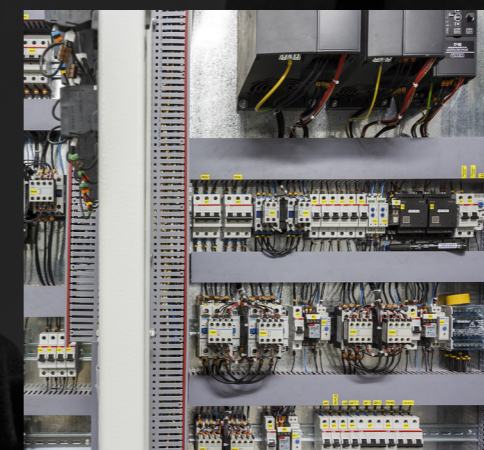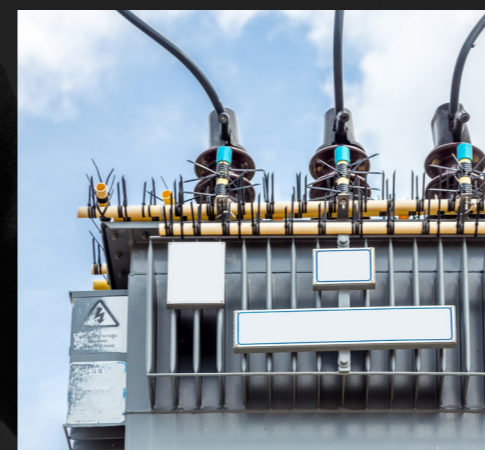- Lifetime Free upgrades of camera software based on global users' insights.

  LIMITED LIFETIME Free Upgrades

- IP54 enclosure rating, 2 meters-drop tested. Highly durable against common field environment.

  IP54   **2m**

* Available for specified models

Specifications

Core parameters	FOTRIC 326M		FOTRIC 325M		FOTRIC 323M		FOTRIC 322M	
Thermal Resolution	384*288		320*240		264*198		160*120	
Super Resolution(SR)	768*576		640*480		528*396		320*240	
Thermal Sensitivity (NETD)	40mk(0.04℃)		40mk(0.04℃)		40mk(0.04℃)		60mk(0.06℃)	
Lens Options(Not interchangeable)	49°x 36.8°	25°x 19°	49°x 36.8°	25°x 19°	49°x 36.8°	25°x 19°	49°x 36.8°	25°x 19°
IFOV (spatial resolution)	2.27 mrad	1.14 mrad	2.78 mrad	1.37 mrad	3.40 mrad	1.66 mrad	5.15 mrad	2.73 mrad
Focal length	f 7.5	f 15	f 7.5	f 15	f 7.5	f 15	f 3.3	f 7.5
Minimum Focus Distance	0.1m	0.15m	0.1m	0.15m	0.1m	0.15m	0.1m	0.1m
Focus Mode	Manual focus, and 0.5 meters focus free (available for 49° and 46.5° lens)							
Frame Rate	30Hz							
AI programmable key	Support							
Wi-Fi & Bluetooth	Support							
Wi-Fi FTP Transfer	Transfer imaging data to computer, by Wi-Fi FTP protocol							
Geographic Location	Support, GPS							
Thermal and visible light Image fusion	Support,transparency 0% ~100%							
Picture in Picture	Support, resizable and adjustable							
TWB Non-linear thermal color display	Support							
Build-in digital camera	8 MP industrial camera							
LED flash lamp	Support							

Temperature Analysis

Temperature Range	-20 ℃ ~ 120℃, 0 ℃ ~ 650℃						-20℃~120℃,0℃~550℃	
Intelligent Range Auto-fit	Support						Support	
Measurement Tools	Spot：10；Line：2；Rectangle/Circle：8						Spot：6；Line：1；Rectangle/Circle：4	
Measurement Accuracy	±2 ℃ or 2% , whichever is greater (at 25 ℃ ambient temperature)							
Emissivity	Support							
Ambient Temp	Support							
Reflected Temp	Support							
Relative Humidity	Support							
Measurement Distance	Support							
IR Window Compensation	Support							
Temperature Rise & Difference	Support							
ROI Sound Alarm	Support, via Speaker or Bluetooth headset							
ROI Partial Emissivity	Support							

Image Display

Display Screen	3.5 inch Touch Screen
Image Mode	Thermal, Visible light, Picture in Picture & Image Fusion
Palettes	8,Grey, Iron, Rainbow, Grey-red, Rain, GlowBow, Medical, Prism
Inverted Palettes	Support
Isotherm/Color Alarms	Support (Above, Below, and in-between)
Auto Scale	Support
Manual Scale	Support
Touch Scale	Support
Minimum Temperature Span	Auto:3℃ , Manual:2℃

Storage & Analysis	FOTRIC 326M	FOTRIC 325M	FOTRIC 323M	FOTRIC 322M
Storage Card	TF card，64GB			
Capture Mode	Single frame capture and Time-lapse			
Video Recording	Radiometric thermal video(IRS.) and MP4 video recording			
File Format	Radiometric thermal photo(JPEG.), visible light photo, radiometric thermal video(IRS.) and MP4 video			
On screen Analysis	Support			
Voice Annotation	Support, record up to 120 seconds; via Mic or Bluetooth headset			
Text Annotation	Support			
Tags	Support, Manual input and QR-code scan			
Favorite	Support			
PC analysis and Report Software	Fotric AnalyzIR software, FREE			
Remote Display&Analysis	Support			

Power System

Battery	3.6V, 5000mAh Li-battery	
Battery operation time	≥4 hours	≥5 hours
Battery charging time	3.5 hours to full-charge by battery dock. 3 hours to full-charge by connectting to camera.	
Charging methods	Support battery dock adaptor or Type-C interface on camera.	
Power supply	Support Type-C interface charging method, from power adaptor or computer.	
Auto screen-off	Support	

General Specifications

Spectral range	7-14μm
IR Detector type	Polysilicon uncooled FPA infrared detector
Detector Pitch	17μm
Digital Zoom	1-8 times, continuous
Wi-Fi Connection	Support 2.4GHz&5GH channel，Support 802.11a/b/g/n/ac
Bluetooth Connection	BT4.2 LE，Support connect to Bluetooth headset
USB Interface	USB Type-C type；USB 3.0 / 2.0 compliant，Support USB OTG
HDMI Interface	Micro HDMI type, HDMI 1.4 compliant, Support 1080P imaging video streaming in 60Hz.
Storage Card Interface	TF Card, Support Hot-plug.
Laser pointer	Level2；wavelength:635nm；Power:<1mW
Operation temperature	-20℃ to 50℃
Storage temperature	-40℃ to 70℃, without battery
Humidity	<95%RH
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	243mm*95mm*142mm
Weight (include battery)	730g
Enclosure rating	IP54
Tripod interface	UNC 1/4 -20 threaded hole for tripod
Warranty	2 years warranty on camera, 10 years for IR detector.
Recommended calibration cycle	2 years
Supported languages	English, Spanish, Korean, Traditional Chinese
RoHS compliant	Yes
Box Contents	FOTRIC 320 handheld thermal camera, Documentations(certificate of inspection, certificate of calibration, warranty card, packing list), Quick-start user manual, USB-Type C cable, Micro-HDMI cable, TF card, TF card reader, Power adaptor, Battery charger dock, 2 pieces of batteries.

Innovation
Excellence
Integrity

Equipment described herein may require EU, US and UNSC
authorization for export purposes.
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FOTRIC
— Thermal Intelligence —