

#### FOTRIC 320 F Series

Compact handheld thermal imaging cameras



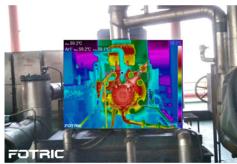
Ready-to-Go All-Purpose Inspection Tool

All-Purpose | Price-wise | Reliable

#### Ready-To-Go All-purpose, All-budgets

- Detect Mechanical, Electrical and Building hidden thermal abnormalities with enhanced images.
- Measure temperatures from -20 to 550°C with automatic range adjustment.
- Reveal low visibility details with LED flash lamp and Laser pointer.
- Aim and shoot large scenes with wide-angle lens.







## **Easy Inspections**

Always in Focus

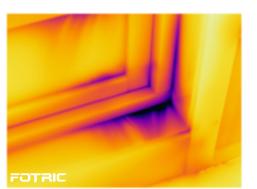
Focus-free thermal and digital camera, suitable working distance as close as 0.5m.

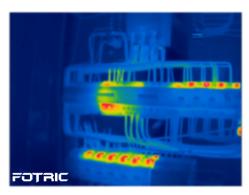
Easy Operation

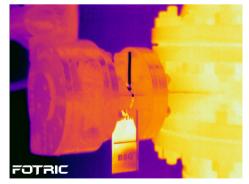
Highly-responsive 3.5" touch-screen and fast user interface for a smoother experience.

Compact and light

Its weight and size fit as one more tool in the box or overall pocket.







# Convenient and Compatible

- Hands-free annotations
  - Record voice-notes and listen to alarms via a Bluetooth headset.
  - Tag images with equipment name using QR-Code scanner.





- Easy Sharing
  - Transfer images in seconds via Wi-Fi or Memory Card (64GB).
  - View thermal photos and videos in almost any device (JPEG & MPEG4 formats).
  - One-click automatic reports via FOTRIC AnalyzIR software.

### Reliable from The Inside-out

- Dust and water resistant (IP54), 2 meters drop designed. Highly durable against common field environments.
- Lifetime Free camera software upgrades to meet global users' s needs.





■ FOTRIC is committed to deliver state-of-art products with world-class components and unique software.









#### **Specifications**

| Core parameters   | FOTRIC 326F   | FOTRIC 325F   | FOTRIC 323F  | FOTRIC 322F   | FOTRIC 321F       |  |  |
|---|---|---|--|---|-------------------|--|--|
| Thermal Resolution  | 384*288   | 320*240   | 264*198  | 160*120   | 128*96            |  |  |
| Super Resolution(SR)  | 768*576   | 640*480   | 528*396  | 320*240   | 256*192           |  |  |
| Thermal Sensitivity (NETD)  | 40mk(0.04°C)  | 40mk(0.04°C)  | 40mk(0.04°C)   | 60mk(0.06°C)  | 60mk(0.06°C)      |  |  |
| Lens Options(Not interchangeable)   | 49°x 36.8°  | 49°x 36.8°  | 49°x 36.8°   | 46.5°x 35°  | 46.5°x 35°        |  |  |
| IFOV (spatial resolution)   | 2.78 mrad   | 2.78 mrad   | 3.40 mrad  | 5.15 mrad   | 6.44 mrad         |  |  |
| Focal length  | f 7.5   | f 7.5   | f 7.5  | f 3.3   | f3.3              |  |  |
| Minimum Focus Distance  | 0.5m  | 0.5m  | 0.5m   | 0.5m  | 0.5m              |  |  |
| Focus Mode  | 0.5 meters focus free   |   |  |   |                   |  |  |
| 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   |   | 5 0   | Support, GPS   | •   |                   |  |  |
| Thermal and visible light Image fusion  |   | Supp  | ort, transparency 0%   | ~100%   |                   |  |  |
| Picture in Picture  |   |   | ort, resizable and adj   |   |                   |  |  |
| TWB Non-linear thermal color display  |   |   | Support  |   |                   |  |  |
| Build-in digital camera   |   |   | 8 MP industrial came   | era   |                   |  |  |
| LED flash lamp  | Support   |   |  |   |                   |  |  |
| Temperature Analysis  |   |   |  |   |                   |  |  |
| Temperature Range   | -20 °C ~ 120°C, 0 °C ~650°C   |   |  |   |                   |  |  |
| Intelligent Range Auto-fit  | Support   |   |  |   |                   |  |  |
| Measurement Tools   | Spot:6; Line:1; Rectangle/Circle:4 Spot:4; Line:1; Rectangle/Circle |   |  |   |                   |  |  |
|   |   | , Line 1, Rectarigie,                               | CITCLE.4   | эрос. 4, ште. 1,  | Rectangle/Circle. |  |  |
| Measurement Accuracy  |   | -   | er is greater (at 25 °C  |   | -                 |  |  |
| Measurement Accuracy Emissivity   |   | -   |  |   | -                 |  |  |
| Emissivity  |   | -   | er is greater (at 25 °C  |   | -                 |  |  |
| Emissivity<br>Ambient Temp  |   | -   | er is greater (at 25 °C<br>Support   |   | -                 |  |  |
| Emissivity<br>Ambient Temp<br>Reflected Temp  |   | -   | er is greater (at 25°C<br>Support<br>Support   |   | -                 |  |  |
| Emissivity<br>Ambient Temp<br>Reflected Temp<br>Relative Humidity   |   | -   | er is greater (at 25°C<br>Support<br>Support<br>N/A  |   | -                 |  |  |
| Emissivity<br>Ambient Temp<br>Reflected Temp<br>Relative Humidity<br>Measurement Distance   |   | -   | er is greater (at 25°C<br>Support<br>Support<br>N/A<br>Support   |   | -                 |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation  |   | -   | er is greater (at 25 °C<br>Support<br>Support<br>N/A<br>Support<br>Support   |   | -                 |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation Temperature Rise & Difference  |   | 2°C or 2% , whichev                                 | er is greater (at 25 °C<br>Support<br>Support<br>N/A<br>Support<br>Support<br>N/A  | ambient temperatur  | -                 |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation Temperature Rise & Difference ROI Sound Alarm  |   | 2°C or 2% , whichev                                 | er is greater (at 25 °C Support Support N/A Support Support N/A N/A N/A Speaker or Blueton   | ambient temperatur  | -                 |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation Temperature Rise & Difference ROI Sound Alarm ROI Partial Emissivity   |   | 2°C or 2% , whichev                                 | er is greater (at 25 °C<br>Support<br>Support<br>N/A<br>Support<br>Support<br>N/A<br>N/A   | ambient temperatur  | -                 |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation Temperature Rise & Difference ROI Sound Alarm ROI Partial Emissivity Image Display   |   | 2°C or 2% , whichev                                 | er is greater (at 25 °C Support Support N/A Support Support N/A N/A N/A N/A Speaker or Blueton N/A   | ambient temperatur  | -                 |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation Temperature Rise & Difference ROI Sound Alarm ROI Partial Emissivity Image Display Display Screen  |   | 2 °C or 2% , whichev                                | er is greater (at 25 °C Support Support N/A Support Support N/A N/A N/A A Speaker or Bluetod N/A   | ambient temperatur  | -                 |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation Temperature Rise & Difference ROI Sound Alarm ROI Partial Emissivity Image Display Display Screen Image Mode   | ±   | 2 °C or 2% , whichev Support, v Thermal, Visible l  | er is greater (at 25 °C Support Support N/A Support Support N/A N/A N/A ia Speaker or Bluetor N/A 3.5 inch Touch Screen  | ambient temperatur  oth headset  n re & Image Fusion                      | re)               |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation Temperature Rise & Difference ROI Sound Alarm ROI Partial Emissivity Image Display Display Screen Image Mode Palettes  | ±   | 2 °C or 2% , whichev Support, v Thermal, Visible l  | er is greater (at 25 °C Support Support N/A Support Support N/A N/A N/A as Speaker or Blueton N/A 3.5 inch Touch Screetight, Picture in Pictu  | ambient temperatur  oth headset  n re & Image Fusion                      | re)               |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation Temperature Rise & Difference ROI Sound Alarm ROI Partial Emissivity Image Display Display Screen Image Mode Palettes Inverted Palettes                                  | ±   | 2°C or 2% , whichev  Support, v  Thermal, Visible I | er is greater (at 25 °C Support Support N/A Support Support N/A N/A N/A a Speaker or Blueton N/A 3.5 inch Touch Screenight, Picture in Pictur, Grey-red, Rain, Glo N/A                                 | ambient temperatur  oth headset  n re & Image Fusion wBow, Medical, Prisi | re)               |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation Temperature Rise & Difference ROI Sound Alarm ROI Partial Emissivity Image Display Display Screen Image Mode Palettes Inverted Palettes Isotherm/Color Alarms            | ±   | 2°C or 2% , whichev  Support, v  Thermal, Visible I | er is greater (at 25 °C Support Support N/A Support Support N/A N/A is Speaker or Blueton N/A 3.5 inch Touch Screen ight, Picture in Pictu V, Grey-red, Rain, Glo N/A Above, Below, and in             | ambient temperatur  oth headset  n re & Image Fusion wBow, Medical, Prisi | re)               |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation Temperature Rise & Difference ROI Sound Alarm ROI Partial Emissivity Image Display Display Screen Image Mode Palettes Inverted Palettes Isotherm/Color Alarms Auto Scale | ±   | 2°C or 2% , whichev  Support, v  Thermal, Visible I | er is greater (at 25 °C Support Support N/A Support Support N/A N/A N/A is Speaker or Bluetor N/A 3.5 inch Touch Screet ight, Picture in Pictu v, Grey-red, Rain, Glo N/A Above, Below, and in Support | ambient temperatur  oth headset  n re & Image Fusion wBow, Medical, Prisi | re)               |  |  |
| Emissivity Ambient Temp Reflected Temp Relative Humidity Measurement Distance IR Window Compensation Temperature Rise & Difference ROI Sound Alarm ROI Partial Emissivity Image Display Display Screen Image Mode Palettes Inverted Palettes Isotherm/Color Alarms            | ±   | 2°C or 2% , whichev  Support, v  Thermal, Visible I | er is greater (at 25 °C Support Support N/A Support Support N/A N/A is Speaker or Blueton N/A 3.5 inch Touch Screen ight, Picture in Pictu V, Grey-red, Rain, Glo N/A Above, Below, and in             | ambient temperatur  oth headset  n re & Image Fusion wBow, Medical, Prisi | re)               |  |  |

|                                 | 1  | I I  |                        | l I                  |                  |  |  |  |
|---------------------------------|--|--|------------------------|----------------------|------------------|--|--|--|
| Storage & Analysis              | FOTRIC 326F  | FOTRIC 325F  | FOTRIC 323F            | FOTRIC 322F          | FOTRIC 321F      |  |  |  |
| 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 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                         |  | 3.6  | V, 5000mAh Li-batte    | erv                  |                  |  |  |  |
| Battery operation time          |  | ≥4 hours   |                        | >5 h                 | ours             |  |  |  |
| Battery charging time           | 3.5 hours to   | , , , , , ,  | dock, 3 hours to full  | , , , ,              |                  |  |  |  |
| Charging methods                | 3.3 110413 to 1  | 3.5 hours to full-charge by battery dock. 3 hours to full-charge by connectting to camera.   |                        |                      |                  |  |  |  |
| Power supply                    | Suppor   | Support battery dock adaptor or Type-C interface on camera.  Support Type-C interface charging method, from power adaptor or computer. |                        |                      |                  |  |  |  |
| Auto screen-off                 | Заррог   | t type e interiace en  | Support                | power adaptor or co  | inputei.         |  |  |  |
| General Specifications          |  |  | Зирроге                |                      |                  |  |  |  |
| Spectral range                  |  |  | 7-14μm                 |                      |                  |  |  |  |
|                                 |  | unco   |                        | taatar               |                  |  |  |  |
| IR Detector type                | 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  | 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°C to 50°C  |  |                        |                      |                  |  |  |  |
| Storage temperature             | -40°C to 70°C, 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                    | calibration, warr  | dheld thermal camer<br>anty card, packing lis<br>card reader, Power a  | t), Quick-start user n | nanual, USB-Type C c | able, Micro-HDMI |  |  |  |

### Innovation Excellence Integrity

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#### **Contact FOTRIC**





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