



## Key Features:

- Provides continuous 24/7 condition monitoring, enabling early detection of partial discharge (PD), corona, arcing, and other electrical anomalies to help prevent unplanned outages and improve operational safety.
- Detects, locates, assesses and classifies partial discharge, supporting safe inspections, integrates into Assetlink where multi-sensor data can be tagged to assets to provide a holistic summary about asset health.
- AI enhanced detection and analysis that delivers accurate results with minimal operator intervention and enables enterprise ready system integration and data management.

## Main Applications:

- Early fault detection across transmission, distribution, and substation assets in electrical utility environments to reduce outages, emergency maintenance, and high cost failures.
- Continuous and permanent monitoring of medium and high voltage switchgear in industrial facilities to identify early stage partial discharge and prevent unplanned outages, safety risks, and costly downtime.
- Condition monitoring of gas insulated switchgear (GIS) to detect insulation degradation, moisture ingress, or contamination early and avoid catastrophic failures and expensive repairs.

## Specifications

| Acoustic Specifications        |                                                                                                   |
|--------------------------------|---------------------------------------------------------------------------------------------------|
| Acoustic measurements          | 124 low-noise MEMS microphones, real-time sound visualization                                     |
| Detection threshold            | 20kHz: -19.5 dB;<br>35 kHz: -11.2 dB;<br>50 kHz: -9.8 dB;<br>80 kHz: 12.2 dB;<br>100 kHz: 22.8 dB |
| Bandwidth                      | 2–130 kHz                                                                                         |
| Directional resolution         | From 1° up to 0.125°                                                                              |
| Operating distance             | From 0.3 m (1.0 ft) up to 200 m (656 ft)                                                          |
| PD type recognition            | Surface or Internal Discharge, Positive and Negative Corona, Negative Corona, Floating Discharge  |
| PRPD pattern recognition       | Automatic                                                                                         |
| Severity assessment            | Automatic AI-based severity assessment including recommended actions                              |
| Imaging and Optical            |                                                                                                   |
| Digital camera                 | 12 MP Color                                                                                       |
| Camera field of view           | 75° diagonal                                                                                      |
| Video frame rate               | Streaming: 15 fps;<br>Snapshots: 30 fps                                                           |
| Video image resolution         | 960 × 540 streaming                                                                               |
| Aspect ratio                   | 16:9                                                                                              |
| Communication and Connectivity |                                                                                                   |
| Network interfaces             | M12 x-code 8-pin Ethernet, PoE IEEE 802.3at                                                       |

| Wireless connectivity                 | Wi-Fi 2.4 GHz / 5 GHz, IEEE 802.11 b/g/n/ac                  |
|---------------------------------------|--------------------------------------------------------------|
| Supported protocols                   | TCP/IP, RTSP<br>MQTT, SMTP, FTP                              |
| Data transfer                         | Video streaming bandwidth: 7.5 Mbps (typical)                |
| Firmware updates                      | Via configurator tool web interface                          |
| Digital I/O                           | 2-pin output / 2-pin input                                   |
| Current loop output                   | 4–20 mA, 8 discrete levels (2 mA resolution)                 |
| System Integration and Event Handling |                                                              |
| API                                   | HTTP, REST (documentation in the acoustic configurator tool) |
| Event Triggering                      | PD Severity / PD Type / dB SPL Threshold                     |
| Data Formats                          |                                                              |
| Export file                           | .nlz (compatible with Flir Thermal Studio)                   |
| Data messages                         | .json                                                        |
| Analysis and Reporting                |                                                              |
| Offline                               | Flir Thermal Studio (desktop software)                       |
| Web Interface                         | Flir Assetlink platform, with built-in configurator          |
| Power                                 |                                                              |
| Primary power source                  | PoE+ Type 2 (30 W)                                           |
| Power consumption                     | 18 W typical, 25.5 W maximum                                 |
| DC voltage range                      | 42.5–57 V DC                                                 |

Specifications subject to change. For the most up-to-date specifications, please visit [flir.com](https://flir.com).

For technical or sales support, please visit:

[flir.custhelp.com](https://flir.custhelp.com)

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## Specifications, continued

| Environmental Data          |                                                                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature range | -20°C to 50°C (-4°F to 122°F)                                                                                                                                                 |
| Storage temperature range   | -20°C to 50°C (-4°F to 122°F)                                                                                                                                                 |
| Relative humidity           | 0–90% recommended                                                                                                                                                             |
| EMC                         | FCC CFR 47 Part 15 Subpart B Class B, FCC CFR47 Part 15 Subpart C/E, FCC Rule §15.207, §15.247(d), §15.407(b)<br>EN 55032, EN 55035, EN 301 489-1/-17, EN 300 328, EN 301 893 |
| Ingress protection          | IP66                                                                                                                                                                          |
| Safety                      | IEC 62368-1                                                                                                                                                                   |
| Declaration of conformity   | See: <a href="https://support.flir.com/resources/DoC">https://support.flir.com/resources/DoC</a>                                                                              |
| Physical Data               |                                                                                                                                                                               |
| Camera size                 | 182 × 171 × 79 mm (7.2 × 6.8 × 3.1 in)                                                                                                                                        |
| Camera weight               | ~ 1.4 kg (3.1 lb)                                                                                                                                                             |
| Mounting dimensions         | VESA mount: 100 × 100 4 × M4, thread 10 mm                                                                                                                                    |
| Warranty and Service        |                                                                                                                                                                               |
| Warranty                    | <a href="http://www.flir.com/warranty/">http://www.flir.com/warranty/</a>                                                                                                     |

| Shipping Information |                                                                                                                                                                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging, type      | Cardboard box                                                                                                                                                                                                                                                  |
| Packaging, contents  | Camera<br>Wi-Fi Antenna (Included with models that support Wi-Fi)<br>Printed documentation including the username and password for log in to the web interface of the camera<br>License card: Flir Si-series Plugin for Flir Thermal Studio, Perpetual license |
| Packaging, weight    | 1.8 kg (4 lb)                                                                                                                                                                                                                                                  |
| Packaging, size      | 362 × 230 × 109 mm (14.2 × 9.1 × 4.3 in)                                                                                                                                                                                                                       |
| EAN-13               | Wi-Fi: 7332558036402<br>No Wi-Fi: 7332558036426                                                                                                                                                                                                                |
| UPC-12               | Wi-Fi: 845188034337<br>No Wi-Fi: 845188034351                                                                                                                                                                                                                  |
| Part number          | Wi-Fi: T912643<br>No Wi-Fi: T912645                                                                                                                                                                                                                            |

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TEST & MEASUREMENT

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