

Flir Si2a-PD



Grid
monitoring



Switchgear
monitoring



GIS
monitoring



Assetlink
Integrated

PARTIAL DISCHARGE DETECTION AROUND THE CLOCK

The Flir Si2a-PD is the always-on, fixed-mount acoustic imaging camera built for continuous partial discharge detection in medium- and high-voltage environments.

Designed for utilities and industrial teams responsible for switchgear, substations, transformers, and GIS, it detects, locates, classifies, and assesses partial discharge plus corona and arcing from up to 200 m to help prevent unplanned outages and protect people and assets.

When partial discharge is intermittent and inspections miss the moment, Si2a-PD keeps listening and flags risk early with configurable monitoring zones and alarms.

Compatible with Flir Assetlink for optimized data collection and asset insights, the Si2a-series of cameras offer advanced analytics, secure data transfer options, to modern asset-management ecosystems. The Si2a-PD supports scalable, enterprise-level deployment. Its low-maintenance design, accessory ecosystem, and installation flexibility help organizations standardize condition monitoring across multiple sites while reducing the time and expertise needed to keep systems online.



Rugged by design with IP66 protection and VESA mounting for reliable installations outside hazardous zones, it also fits neatly into your workflow with AI-enhanced analysis and enterprise integration options including PoE or Wi-Fi, or TCP/IP-enabled and RSTP-capable, and MQTT SMTP or FTP event actions.



Key values



Always on partial discharge protection

- Fixed mount acoustic imaging for continuous partial discharge detection plus corona and arcing
- Catches intermittent faults and peak load activity that spot checks often miss, recording events on-board the camera and in the Flir Assetlink ecosystem
- Set monitoring zones and alarm thresholds for unattended operation
- Helps reduce unplanned outages by flagging issues early before they escalate



Built for harsh environments

- IP66 rated for outdoor substations and demanding industrial sites
- Install and leave with remote monitoring that reduces unnecessary site visits
- Designed to protect technicians by highlighting risk before doors and panels are opened



Integrates into how you work

- AI enhanced detection classification and assessment for confident decisions with minimal operator input
- Fits existing workflows with TCP/IP-enabled and RSTP-capable, plus MQTT SMTP or FTP event actions
- Supports SCADA and alarm systems with 4 to 20 mA current loop and digital I/O
- Collects PD events in Flir Assetlink to show history, severity and further analytics; may also be utilised as a standalone monitoring system

Primary market

Utilities and grid operators responsible for transmission distribution and substation assets including switchgear transformers cable joints and terminations and overhead line infrastructure

Secondary market

Industrial facilities running medium and high voltage equipment including switchgear motors generators and critical power distribution plus energy storage sites such as BESS

Additional features

- Detects locates classifies and assesses partial discharge faults at distance for safer diagnosis
- Power over Ethernet and Wi-Fi connectivity for flexible installation options
- Alarm driven workflows that notify teams instantly when thresholds are exceeded
- Designed for permanent condition monitoring where faults are intermittent or sites are remote
- Accessories available including dust cover, Ethernet cables, and PoE injector
- Collect and analyze data in Flir Assetlink, onboard the build-in configurator, or via manual transfer into the Flir Acoustic Viewer.

Quick Specs
PD type recognition: Surface or Internal Discharge, Positive and Negative Corona, Negative Corona, Floating Discharge
Detection: Up to 50 m (164 ft)
IP66 protection
PoE Wi-Fi connectivity
TCP/IP and RSTP capable

