OFIL SYSTEMS
Empowering Electrical Asset Health

OFIL Systems
UV EYEs Product Family Presentation

UV EYEs

DayCor UV EYEs Family are Solar Blind UV Camera cores for OEM integration, specifically designed to detect and pinpoint corona partial discharge - a major but often unseen hazard to electrical equipment.
The cameras offer high sensitivity, precise fault pinpointing and high-definition imaging.
With an IP65 environmental protection rating, the cameras are built to withstand challenging weather conditions, ensuring optimal performance regardless of the environment. Ease of integration is ensured through their API.

Applications

- Vehicle mounted inspection of power lines
- Train mounted inspection of railways overhead lines
- Continuous monitoring of substations / HV components
- Robot-mounted installations
- Fixed installations
- Integration in OEM systems

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UV EYEs

Product Key Features

- **High Sensitivity**
  High sensitivity to corona partial discharge as certified by Innogy lab.
- **Completely Solar Blind**
  Unaffected by solar radiation, ensuring reliable operation in daylight.
- **Spectral Range**
  UVC 240 – 280nm
- **Precise Pinpointing**
  Guarantees precise location of faults
- **High-Definition Video**
  Delivers high-resolution imaging for detailed fault analysis through RTSP ethernet streaming.
- **Environmental Protection IP65**
  Offers robust protection against dust ingress and low-pressure water jets.
- **Easy to Integrate**
  Quickly connect and control through API, ONVIF support, customizable UV thresholds for setting alerts.
- **Pan & Tilt Compatibility**
  Supports versatile positioning options for optimal coverage and fault detection.
- **DayCor Inside**
  Embedded with proprietary DayCor technology for superior performance

UV EYEs

Product Benefits

Proactive Detection: Detect corona discharges early, protect your power system's health.

Timely Identification and Rectification: Don't react, act! Identify potential equipment failures before they cause costly disruptions.

Prevent Outages: Save on unexpected expenses and maintain a smooth, efficient operation.

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Specifications

Category	UV Eye	UV Eyelite	UV EyeScope
Dimension	3.6Kg, 30.4 cm x 16.6 cm x 12 cm	2.1Kg, 25.5 cm x 15.5 cm x 9.2 cm	1.2Kg, 18 cm x 14 cm x 8 cm
Sensitivity	1pc @ 15m	1pc @ 15m	Medium {1pc @ 8m}
Working distance*	3m up to 150m	3m up to 100m	5m up to 30m
FOV	10° x 5.6°	8° x 6°	20° x 11.25°
Zoom	Optical & digital(*) { 12x | 12x continuous}	Digital	3x Optical
UV zoom	Optical & digital {2x, 6.25x slaved to visible}	Digital	3x continuous digital zoom
Video type	HD 720p	HD 720p	HD 720p
Protocol Support	ONVIF, OFIL command protocol	ONVIF, OFIL command protocol	ONVIF, OFIL command protocol
Connectors	HDMI, RTSP 1GB ethernet, power	RTSP 1GB ethernet, power	HDMI, RTSP 1GB ethernet, power
Accessories	ConecTOP	ConecTOP	ConecTOP
IP rating	IP65	IP65	IP65

*The inspection distance can vary according to environmental conditions and corona severity

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Applications

Application	UV Eye	UV Eyelite	UV EyeScope
Vehicle mounted inspection of transmission lines	V		
Vehicle mounted inspection of distribution lines	V	V	
Train mounted inspection of railways overhead lines	V	V	V
Continuous monitoring of substations / HV Components	V	V	V
Fixed Installation	V	V	V
Integration in OEM Systems	V	V	V

The optimal camera selection for each application will be collaboratively determined in consultation with OFIL Systems, based on the precise technical specifications and requirements unique to each scenario.

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Application: Vehicle Mounted Inspection of Power Lines

- Equipped on a PTZ system for comprehensive coverage, mounted atop inspection vehicles.
- Integrates with advanced thermal imaging and/or high-resolution RGB sensors, ensuring a multi-sensor inspection approach.
- Specifically deployed for the thorough inspection of transmission or distribution lines, enhancing fault detection and maintenance accuracy.

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Application: Train Mounted Inspection of Railways Overhead Lines

- Mounted on train rooftops for optimal visibility and range.
- Engineered for high-speed inspection of railway's HV overhead lines, applicable to both laboratory cars and passenger cars.
- Offers flexibility in integration with AI monitoring software for comprehensive analysis or operates independently for immediate UV threshold alerts and fault detection.

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Application: Continuous Monitoring of Substations

- Mounted within substations on either a PTZ unit for dynamic scanning or a fixed installation for continual observation.
- Utilized to scan substation components, identifying PD anomalies, establishing asset health trends, and monitoring PD conditions over time.
- Capable of integration with existing Video Management Systems (VMS) using ONVIF standards, ensuring seamless connectivity and data sharing.

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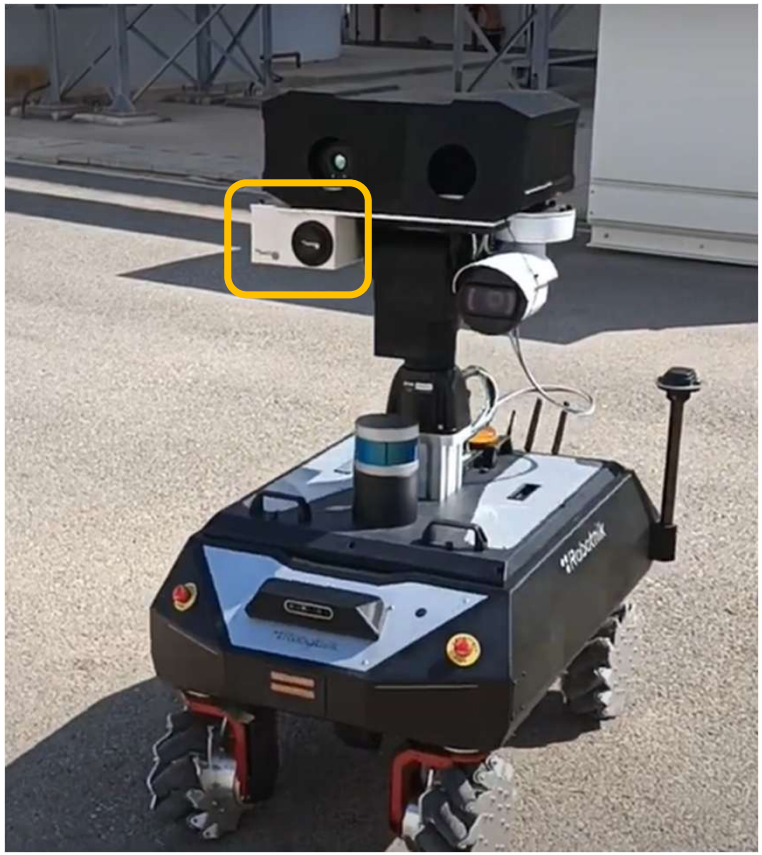
Application: Robot Mounted Installations

- Installed on inspection robots tasked with conducting thorough substation inspections.
- Versatile application allows for pre-programmed inspection routines, manual control for specific investigations, or automated fault detection.
- Designed for easy integration with a wide range of robotic operating systems, enhancing adaptability and functionality in robotic inspection scenarios.



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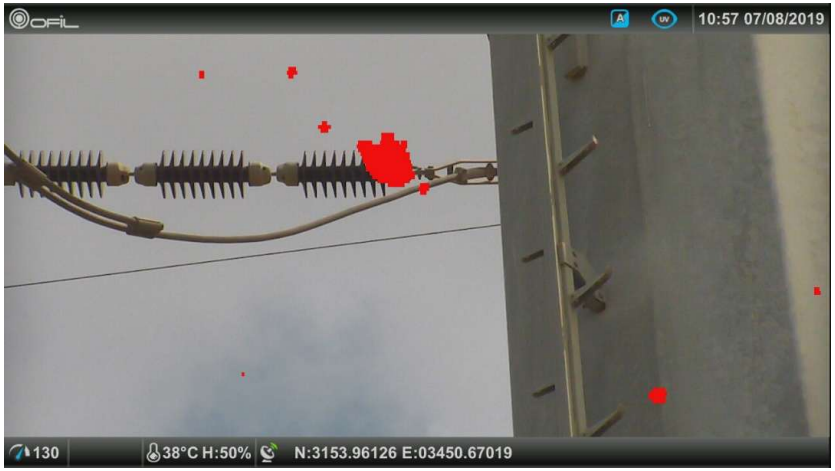
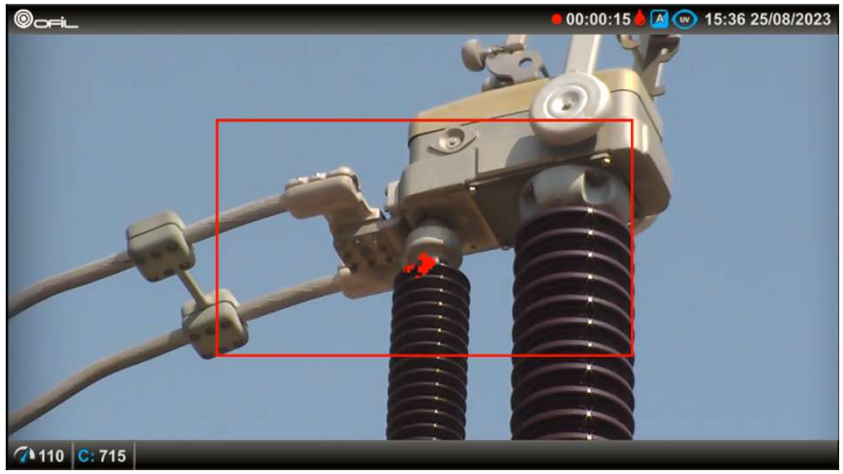
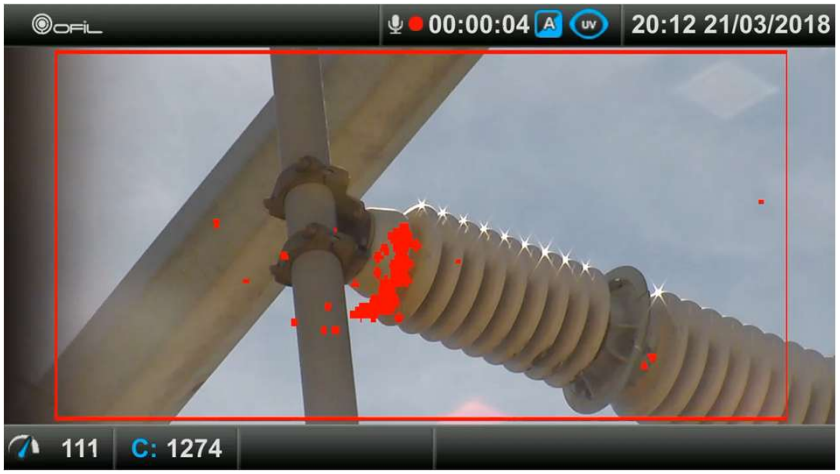
Images - Examples







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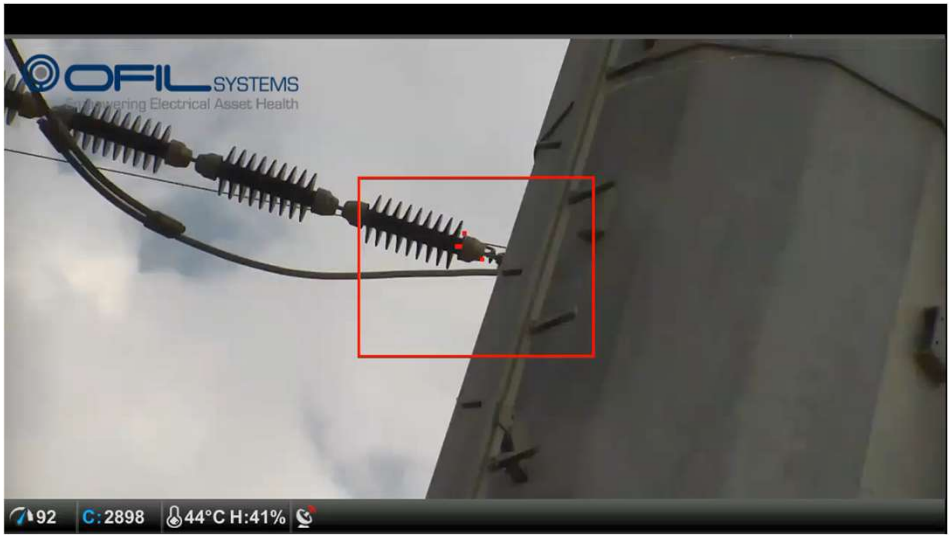
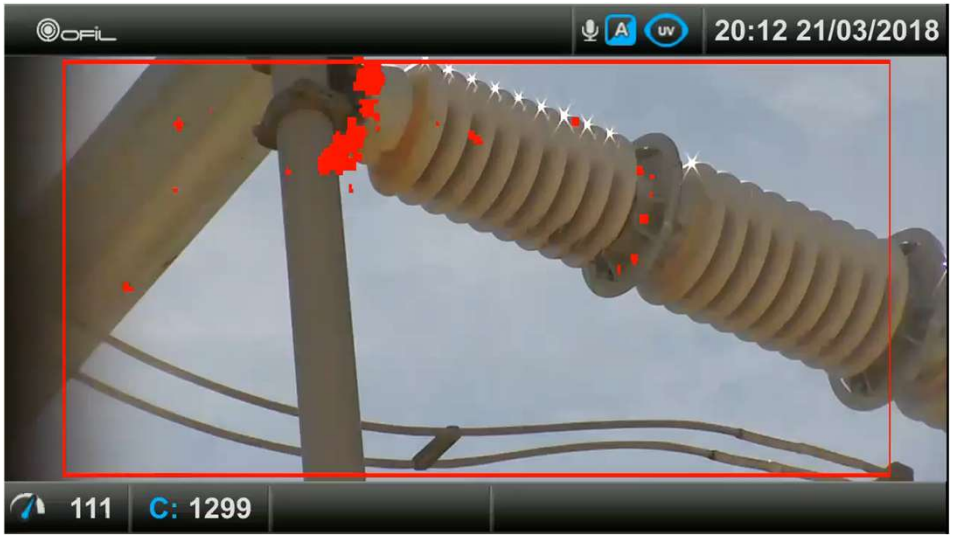
Videos - Examples





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Thank you