



# DayCor® ROMEYE HD

## High Definitions HD Corona Camera Core

ROMeye<sup>HD</sup> is a corona imager that incorporates a UVc detector and a HD visible camera that enable seeing and recording corona discharges in daylight. Corona, which is invisible to the human eye, can be seen only with bi-spectral UV-Visible corona cameras. ROMeye<sup>HD</sup> is a high definition, highly sensitive bi-spectral corona camera with Ofil's proprietary DayCor® technology inside, capable of pinpointing corona sources, visualizing them, recording and transmitting in real time to a remote receiver or a monitor. Due to its small dimensions and high performance, ROMeye<sup>HD</sup> fits well into gimballed payloads and is an excellent choice for fast moving airborne inspections of overhead high voltage grid lines. ROMeye<sup>HD</sup> assists in the diagnosis of medium/high voltage systems by locating deficiencies that are related to electrical fields, or caused by bad design, structural & mechanical problems, contamination, eroded insulation, loss of hydrophobicity and other. ROMeye<sup>HD</sup> fits monitoring and surveillance systems mounted on fixed mounts. Users of ROMeye<sup>HD</sup> benefit from fast results, high resolution video clips, reliable data & pinpointed information, in real time.

- » HD camera
- » Light weight
- » Recording & playback
- » Highest sensitivity to UV
- » Built-in recorder
- » Bi-Spectral UV-Visible
- » Fit for speedy inspections
- » Corona events counting
- » Powerful optical zoom
- » Camera core for OEM

### HIGH SPEED INSPECTION

ROMeye<sup>HD</sup> transmits HD video on-the-fly, without image processing nor frames integration. The resulted videos are sharp, showing pinpointed information without smearing even during high speed motion.

### EASY INSTALLATION

ROMeye<sup>HD</sup> can be mounted onto existing gimbals or on any standard 1/4" thread tripod mount. Installation is simple and standard.

### HD VIDEO RECORDING & STORING

ROMeye<sup>HD</sup> records High Definition videos with corona events count, date & time and (if attached) external GPS. Videos are stored internally onto a portable memory and transmitted to a remote monitor.

### DAYCOR® TECHNOLOGY INSIDE

ROMeye<sup>HD</sup> is a solar blind bi-spectral UV-Visible camera that incorporates Ofil's exclusive proprietary DayCor® technology [Registered Patent EP1112459B1]. ROMeye<sup>HD</sup> provides reliable accurate data, showing the original occurrences of corona anchored to the emitters, operating continuously without overheating.

### REMOTELY CONTROLLED

ROMeye<sup>HD</sup> is controlled through a set of communication commands: RS232, Ethernet or Wi-Fi.

### ENHANCED INSPECTION FEATURES

ROMeye<sup>HD</sup> has a powerful optical and digital zoom for both visible & ultraviolet spectral ranges, and interchangeable fields-of-views.

# TECHNICAL SPECIFICATIONS

## ULTRA VIOLET (UV) - OPTICAL PROPERTIES

Sunlight Rejection	Absolute – at all sunlight and all weather conditions, target can be inspected with the sun in the field of view
Minimum Discharge Detection	1pC @ 15 m, Innogy SE - Eurotest, Test Regulation IEC 60270:2000 PD Measurement
Minimum UV Sensitivity	$1.9 \times 10^{-18}$ watt/cm <sup>2</sup>
Minimum RIV Detection	3.6dBμV (RIV) @1MHz@10m
Fields of View H x V	H: 10° - 1.6°   V: 5.6°-0.9° Continuous. UV & visible channels synchronized
Focus	Full manual and auto focus for both UV & Visible channels
UV Zoom	2x (Opt.), 6.25x (Dig.), Slaved to the visible channel, continuous zoom
UV Frames Integration	On   Off
UV Display Colors	Poly chromatic: Red, Green, White, Black, Yellow
Spectral Range	240-280nm

## VISIBLE - OPTICAL CONFIGURATION

UV/Visible Overlay Accuracy	Deviation < 1 miliradian
Minimum Visible Light Sensitivity	0.07Lux
Fields of View	H: 10° - 1.6°   V: 5.6°-0.9° Continuous. UV & visible channels synchronized
Visible Zoom	25x optical & digital, continuous
Noise Suppression	Yes
Focus Range	0.6m   1.96ft to infinity, automatic & manual

## DATA STORAGE

Video Out Standard	HD 1280x720p 60fps
Video Format	MOV
Image Format	JPG
Storage	FAT-32, exFAT

## I/O CONTROLS AND OPERATION

Video Interface	HDMI
Control Functions	1GB Ethernet, RS232, USB, Inbound/Outbound, Wi-Fi
UV & Visible Output Combination Modes	Combine (UV & Visible), UV only, visible only

## PHYSICAL CHARACTERISTICS & POWER SOURCE

Storage and Operation Temp	-20 °C up to +55°C   -4°F up to +131°F
Block Camera Weight	1650 gr   3.10lb
Camera Core Weight	1265 gr   2.12lb
Camera with Enclosure Dimensions L x W x H	L259 x W128 x H117 mm   L10.2" x W5.03" x H4.6"
Camera Core Dimensions L x W x H	L255 x W124 x H87mm   L 10" x W4.88" x H3.42"
Nominal Power Supply & Consumption	12V DC, 12 Watts
Vibration and Shock	ETSI EN 300 019-2-5 V3.0.0 (2002-12), IEC 60068-2-64

## ACCESSORIES

CoronaWise - Corona Management Software; Inspection Guide

Specifications are subject to changes without notice. Imagery used for illustration purposes only.

