

DayCor® LUMINAR



HANDHELD CORONA CAMERA

Luminar is an outstanding NDT - Non Destructive Testing equipment that pinpoints corona and arcing emitting sources in full daylight and denotes discharge severity. Luminar is designed to maximize the efficiency of reliability-based-maintenance and productivity of predictive maintenance engineers by providing exact and relevant information output. It is a powerful tool with DayCor® technology embedded and enhanced optical and display features. Luminar brings an innovative approach to corona detection.

- >> Supreme sensitivity to UV signals
- >> Outstanding corona & arcing detectivity
- >> Precise location of corona emitting sources
- >> Interchangeable fields of view
- >> Effective powerful zoom
- >> High resolution color LCD

- >> Videos & images capturing and playback
- >> Built-in GPS
- >> Voice narration and text annotation
- >> Light and ergonomic
- >> Hot keys to functions
- >> Compatible with Corona Base Reporting Software

SUPREME SENSITIVITY TO UV SIGNALS

With detection of at least 1pC from a distance of 10 meters and 7.7dBµV (RIV) @ 1MHz Luminar makes the faintest corona perceivable and displayed clearly. UV events counter supported by a dedicated algorithm designate detected corona severity.

DAYCOR® TECHNOLOGY INSIDE

Luminar is a high fidelity bi-spectral solar blind camera implementing Ofil's DayCor® technology [Registered Patent EP1112459B1]. Luminar, as such, allows operation in full daylight, capturing nearby and remote faint UV signals and displaying real corona images.

PRECISE LOCATION OF EMITTING SOURCES

Luminar displays in real time and accurately both corona and the emitting sources. Luminar portrays the real condition of the inspected object with embedded GPS data, ambient conditions, narrations and annotations.

INTERCHANGEABLE FIELDS OF VIEW

Luminar enables adjusting fields of views (FOV) to the desired angle and match inspection conditions. Wide FOV is handy in congested areas and while inspecting nearby installations. Narrow FOV is handy in open areas and when inspecting remote objects.

EFFECTIVE POWERFUL ZOOM

Powerful rapid zoom enables a close view of the emitting sources to reveal imperfections that create corona. A rapid response to zooming in/out saves operation time and makes Luminar's operation more intuitive and user friendly.

LIGHT AND ERGONOMIC

Luminar is light in weight and compact in size. Hot keys provide direct access to favorite frequently used functions. An easy to navigate setup menu controls the device.

BUILT-IN VIDEO & IMAGE RECORDING AND PLAYBACK

Recorded video clips and stills are internally stored on a removable flash memory card and displayed as a gallery with playback option.

COMPATIBLE WITH OFIL'S REPORTING SOFTWARE

Luminar is compatible with Ofil's reporting software. Stored images, videos and the auxiliary data of date, location, titles and ambient conditions are used in the database as references to findings, and displayed in reports.

TECHNICAL SPECIFICATIONS

UV - OPTICAL PROPERTIES

Minimum Discharge Detection	1pC @ 10 meters (RWE certified: IEC 60270:2000)
Minimum RIV Detection	7.7dB μ V (RIV) @1MHz (RWE certified: NEMA107-1987)
Minimum UV Sensitivity	2.2x10 ⁻¹⁸ watt/cm ²
Fields of View H x V	5° x 3.75° and 10° x 7.5°
Detector Life Span	No degradation
Focus	Full manual and auto focus for both channels
Focus Range	3m 9.10ft - infinity (0.6m 1.96ft with close up lens)
Spectral Range	240-280nm

VISIBLE - OPTICAL PROPERTIES

UV/Visible Overlay Accuracy	Deviation < 1 miliradian
Minimum Visible Light Sensitivity	0.1 Lux
Video Standard	NTSC
Rapid Visible Zoom	25 optical x 12 digital attained within 1 sec

DISPLAY

Type	Adjustable integral color Transflective-Sunlight-Readable LCD,
Brightness	450 cd/m ² reflective, adjustable backlight
Resolution	640x480 pixels, color
Size	5"
Modes	Combine (UV & Visible), UV only, Visible only
External Display	Composite NTSC via RCA jack
Corona Colors	Red, Green, White, Black, Yellow

CONTROLS & OPERATION

Method	Hot keys & on screen menu
Functions Activation	One touch button & menu selection
GPS	Built-in
Text Editor	Built-in
Mounting Point	Standard 1/4" thread tripod mount

ENVIRONMENTAL

Storage and Operation Temp	-20°C up to +55°C -4°F up to +131°F
Encapsulation	IP 54, Certified

MEDIA CAPTURE & DATA STORAGE

Video & Stills Capture	Internal
Video Format	AVI (MPEG4 AVC)
Stills Format	BMP
Audio	Internal speaker, External microphone
Playback	Video, audio & still pictures
Digital Storage	Memory flash card

PHYSICAL CHARACTERISTICS & POWER SOURCE

Weight	2.2 Kg 4.8 lb
Dimensions L x W x H	L29 x W13 x H12 cm 11.4" x 5.1" x 4.7"
Nominal Power Consumption	15 Watts
Power Source	Rechargeable battery for over 3 hours, Universal AC/DC 5V Adapter

COMMUNICATION

Interface	Temperature & Humidity meter, RS232, Mic
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ACCESSORIES

Close-up Lens; Corona Base - Database Reporting Software; Stock;Temp & Humidity Meter plugin
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