

# DayCor® SUPERB



## PORTABLE CORONA CAMERA

Superb is a portable handheld daytime corona and arcing video & stills camera. It is a robust solar blind bi-spectral UV-Visible imager with high sensitivity to surface partial discharges. Superb detects ultraviolet emission in full daylight with high signal to background ratio, from far-off and nearby sources. Superb is a most effective workhorse used as a non destructive testing (NDT) equipment to inspect and monitor high and medium voltage apparatuses. The camera provides information about existing discharges and is used by utilities, heavy industry, mines, data centers, laboratories etc., that need to ensure corona free environment. Its unique ergonomic design supported by a dedicated carrying harness allows extended continuous inspection intervals.



- >> Highest corona detectivity
- >> Rapid optical zoom of the visible channel
- >> Digital UV zoom
- >> Auto focus of the UV and Visible channels
- >> Background noise reduction

- >> Built-in video, stills and audio recording
- >> Integral folding high resolution color LCD
- >> UV events counter
- >> Supporting comfortable harness
- >> Optional multilingual display

### OUTSTANDING UV SENSITIVITY

Superb can detect UV radiation of corona emission as weak as 1pC at a distance of 10m and 7.7dB $\mu$ V (RIV) @ 1MHz, and display both the signals and their emitting sources overlapped accurately with indications of the corona strength.

### PINPOINTS CORONA LOCATION

Equipped with exclusive lenses and powerful zooming capabilities Superb can pinpoint corona on far-away as well as on very close objects. These features and the outstanding sensitivity make Superb an ideal inspection camera for overhead transmission & distribution lines and substations.

### EASY TO OPERATE

Control is via keyboard with direct access to functions and with on-screen indication of the selected functions. Straightforward intuitive operation.

### DAYCOR® TECHNOLOGY INSIDE

Based on Ofil's DayCor® technology Superb is a bi-spectral solar blind UV-Visible camera allowing operation in full daylight [Registered Patent EP1112459B1].

### BUILT-IN RECORDING & STORING

Superb has built-in recording, playback and storing of high resolution video clips with voice annotations, still pictures and optional GPS data. Media is stored on a removable compact flash card. NTSC/PAL compatibility.

### RUGGED AND LIGHTWEIGHT

Superb is a heavy-duty workhorse system fit for harsh environment and extreme weather conditions. An anatomically form-fitted harness distributes the camera's weight and allows extended inspection intervals.

### REMARKABLE ERGONOMICS

Superb is unique in its ergonomic design that enables long continuous inspection eliminating hands and eyes strain and back aches. No need to grasp the camera to hold it.

### SINGLE AND TEAMWORK

The reflective 5" adjustable bright color LCD is ideal for outdoor inspections and for sharing images with team members. The use of LCD is essential in hazardous locations.

# TECHNICAL SPECIFICATIONS

UV - OPTICAL PROPERTIES	
Minimum Discharge Detection	1pC @ 10 meters (RWE certified: IEC 60270:2000)
Minimum RIV Detection	7.7dB $\mu$ V (RIV) @1MHz (RWE certified: NEMA107-1987)
Minimum UV Sensitivity	2.2x10 <sup>-18</sup> watt/cm <sup>2</sup>
Field of View H x V	5° x 3.75°
Detector Life Span	No degradation
Focus	Manual and full Auto-Focus for the UV and visible channels
Focus Range	3m   9ft - infinity (0.5m   1.6ft with close up lens)
UV Zoom	X2 and X4
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, color Transflective Sunlight Readable LCD
Brightness	450 cd/m <sup>2</sup> reflective, adjustable
Resolution	640x480 pixels, color
Size	5"
Modes	Combine (UV & Visible), UV only, visible only
Video Output	NTSC via BNC jack
CONTROLS & OPERATION	
Method	Keyboard
Rapid Zoom	Continuous, max attained withing 1 second
Mounting Point	Standard 1/4" thread tripod mount
COMMUNICATION	
Interface	RS232, GPS
MEDIA CAPTURE & STORAGE	
Video Format (Internal)	AVI
Stills Format (Internal)	BMP
Audio	External microphone
Playback	Video and still pictures
Digital Storage	Memory flash card
PHYSICAL CHARACTERISTICS & POWER SOURCE	
Weight	3.3 Kg   7.3 lb
Dimensions L x W x H	L23 x W18 x H15 cm   L9.1" x W7.1" x H5.9"
Nominal Power Consumption	12V DC, 16 Watts
Power Source	Rechargeable battery for over 2.5 hours continuous operation Universal AC/DC 12V Adapter
ENVIRONMENTAL	
Storage and Operation Temp	-20°C up to +55°C   -4°F up to +131°F
Encapsulation	IP54, Certified
ACCESSORIES	
GPS; Flight table; Remote control; Corona Base - Database Repeating Software; Close-up Lens; Wide Field-of-View Lens	

\* Specifications are subject to changes without notice. Imagery used for illustration purposes only. Copyright Ofil Ltd. 2014

## Ofil LTD

P.O.B 4016 Nes-Ziona, Israel 74000  
T +972.8.940.7953 | F +972.8.940.7873

## Ofil USA LTD

P.O.B. 675017 Marietta, GA 30006 USA  
T +1.770.485.0675 | F +1.888.950.5557

[www.OfilSystems.com](http://www.OfilSystems.com)

ofil@ofilsystems.com