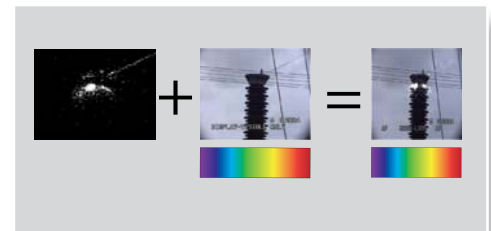


# DayCor<sup>®</sup> Technology



Ofil's cameras claim to be the most sensitive non-intrusive apparatuses that detect UVC discharge sources. This claim is affirmed and certificated officially by the unbiased RWE German HV Laboratory. The high sensitivity is attained by incorporating "DayCor<sup>®</sup> technology" into Ofil's products. DayCor<sup>®</sup> technology, in a nutshell, is an encapsulation of Ofil's proprietary building blocks namely: solar blind filters, UV optics, precise mechanics & electronics and sophisticated algorithms. Products incorporating this technology feature absolute solar blindness with extended UV detection capabilities of even a single UV photon. On the whole, DayCor<sup>®</sup> technology enables collecting UV beams, processing and displaying them as meaningful digital images of the complete inspected scene with indications of the UV photons scored.



## >> SBUV FILTERS

Ofil's imagers utilize the fact that ultra violet between 240-280nm is being absorbed by the Ozone so that signals detected on earth in this spectral range originate on earth. Ofil's solar blind filters completely block the sun radiation on the ground, yet have high transmission in the solar blind spectrum (240-280nm). While the conventional UV sensors are saturated by daylight, Ofil's solar blind filters, enable absolute detection of extremely weak UV signals in full daylight with high signal-to-background ratio and only negligible background noise.

## >> OPTICS

The optics in DayCor<sup>®</sup> technology collects and transmits both the regular visible spectral range and the invisible UV photons and therefore efficiency is of a major concern. Ofil's systems offer, by default, narrower Field-of-View (FOV) as more appropriate for longer viewing distances experienced in the field. Wider FOVs are available for shorter distances inspection routines.

Ofil's optics are made for and designed with special objective lens, automatic/manual focus and aperture of F/2.75.

## >> BI-SPECTRAL

Ofil cameras simultaneously detect and display the same image, but at two different spectral ranges: UV spectrum for detection of UV phenomena, and visible spectrum for accurate orientation of the source.

Accurate detection and display are maintained over all possible working distances and fields of view. This is provided by overlapping the optic properties of both channels.

The optical system merges the two optical axes, so there is never any parallax between them.

## >> DIGITAL PROCESSING

Once signals are captured and filtered they undergo a digital processing towards their presentation as an image. The goal is to present a flaw less representation of reality by

Minimizing extraneous noise and quantifying magnitude of corona activity. The results

- Aid in the detection of weak or intermittent sources
- Help pinpoint origin of corona activity
- Improve quality of recorded images

DayCor<sup>®</sup> Technology is the brains of Ofil's corona detection systems in-charge of their performances and features. The term "High Sensitivity" is fundamental to corona detection because it enables observation of small and remote corona emitting sources. The building blocks of Ofil's high sensitive corona cameras are exclusive to Ofil and are in ongoing research and development processes aiming at providing updated cutting edge results.