# MELLON

## BC-10 Corona Detection Camera (Mono UV base module)

BC-10 UV camera uses 240-280nm out-of-band rejection UV imaging technology, which can filter out the interference of the sunlight. Its SDK provides developing options for corona inspection systems such as onsite (OS), drone (DR), or robot (ROB) systems.

BC-10 can "see" the corona discharge, invisible to human eyes since it is weak radiation emitted by electric facilities. BC-10 provides output, including video stream and photon counting for quantitative analysis. The photon number indicates the corona intensity. BC-10 camera comprises a high-performance detector, UV enhanced components, UV optical components, and signal processing units, which can also be customised for different applications according to your existing system configurations.

BC-10 camera has advantages of high detection sensitivity, excellent anti-interference ability, low power consumption, robust scalability, etc. This daytime UV module can apply to high voltage electrical equipment such as substations, transmission and distribution lines, railway lines, generators, transformers, mines, petroleum, heavy industry, fire prevention and inspection services.



## 1. FEATURES

#### High Sensitivity Detector

Small, Light & Stable

Compact. Dedicated aerial plug cable and power adapter. It

can work for a long time in harsh environments with stable

performance

#### Out-of-band Rejection Filter

A high-performance ultraviolet detector is used, which is very suitable for detecting the weak ultraviolet rays generated by the corona. Q

A high-performance filter has the characteristic of deep cut-off 240 to 280nm waveband and high transparency. To ensure the operation can run under sunlight.

#### Adjustable UV Gain

Gain adjustable. If used for integrated development, it can adjust to read the current UV gain voltage through the serial port.

#### UV Photon Counting

Photons counting to evaluate the intensity of corona discharge is available. Data are flexible to use for various developments.

#### **Customer Customisation**

As a mono UV detection component, it is highly expandable provided with SDK for different customised applications.





## 2. OPTIMIZED APPLICATION





## **3. TECHNICAL SPECIFICATIONS**

UV - IMAGE INTENSIFIER	
Cathode Sensitivity	≥40mA/W@255nm
Quantum Efficiency	≥25%
MCP Gain	≥105@1750V
Resolution of Image Intensifier	>18 lp/mm
FILTER	
Out-of-band Rejection	240nm ~ 280nm
Center Wavelength of Optical Filter	265nm
LENS	
Angle of Vision	13°x10° (Optional: 5°x4° Telephoto; 21.5°x12.5° Wide-angle)
Focal Length	50mm (Optional: 112mm Telephoto; 35mm Wide-angle)
Image Resolution	720H x 576V (Optional: 1280 x 720 for Wide-angle)
Signal	PAL (Optional: HDMI & LVDS Digital Output for Wide-angle)
Communication Control	RS-232
Interface	J30J-21ZK Aviation Plug
PHYSICAL CHARACTERISTICS	
Size with Shell (Plug Not Included)	152 x 53 x 53mm (Optional: 100 x 50 x 50mm for Wide-angle)
Weight with Shell	750g (Optional: 400g for Wide-angle)
Size of Inner UV Module	145 x 45 x 45mm (Optional: 90 x 42 x 40mm for Wide-angle)
Weight of Inner UV Module	500g (Optional: 160g for Wide-angle)
WORKING ENVIRONMENT AND POWER SUPPLY	
Operating and Storage Temperature	-25°C ~ +55°C
Operating Humidity	≤95% (No Condensation)
Power Supply	DC 12V
Power Consumption	≤4W

### **4. ACCESSORIES**







BC-10 Basic Unit Cables & Power

Control & Display Supply

Unit (Options)

Carrying Case

SDK

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