



Making the invisible visible

SUVi

High Power Camera Intensifier

The new Invisible[®] Vision Super-UVi (SUVi) series of patented camera intensifiers are designed for the most exacting scientific applications.

They offer an unparalleled resolution of over 75 lp/mm in both 25mm and 40mm image formats coupled with extremely high output power/life and **linear** signal amplification necessary for quantitative data capture.

Easily synchronized and optically lens coupled to a high speed video camera, each video frame may be programmably gated from 50ns and upwards in 10ns steps to repetition rates of up to 1MHz.



Available with both S20 and S25 photo-cathodes, the unique patented system offers deep UV to visible response (**200 to 900nm**) with modest system gain into a P46 (green) fast decay output phosphor, but may also be coupled to a front end MCP derived intensifier (reducing linearity & MTF/resolution) for higher gain or faster gating.

- ★ Combustion Studies
- ★ PIV
- ★ Biomedical
- ★ Electric Discharge
- ★ Ballistics

The SUVi is easily programmed by its integral menu driven LCD display/control panel or via its USB interface and software to synchronize to external TTL or video signals; offering multiple programmable exposures and delays from 30ns at repetition rates of up to 1MHz and beyond in 100 frame burst trigger mode.

Advanced features such as a fully user programmable output shutter monitor and an independent output strobes complement the system.

Intensifier

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|-----------------|------------------------------------------------------|
| Input Window | Quartz. |
| Photocathode | S20 / S25, 200nm to > 850nm (UV to NIR). |
| Output Window | Glass. |
| Phosphor | P46 (Green) - decay < typically 1 μ s. |
| Gain | Typically 100 (dependent upon photocathode selected) |
| Output Diameter | 25mm. (40mm option) |
| Gating | 50ns Minimum (standard unit). 30ns absolute minimum. |
| Resolution | 75 + lp/mm. |

Optics

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|---------------------|-------------------------------|
| Input | F – mount. |
| Internal | Integral f/1.2 lens system. |
| External | Mated f/1.4 lens. |
| Output Image Format | Maximum usable diameter 25mm. |

System

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|--------------------------------|----------------------------------------------------------------------|
| Exposures | All electronics/controls included within unit. |
| Delays | Menu driven LCD control panel / indicators. |
| Burst mode / Multiple Exposure | USB port and graphical user interface s/w. |
| Triggering | Crystal controlled timing accuracy. |
| Outputs | 50ns to > 1ms in 10ns steps (will allow faster gating). |
| System Photon Gain | 50ns > 10ms in 10ns steps. |
| | Up to 100 consecutive programmed delays/exposures per input trigger. |
| | TTL Positive, TTL Negative. |
| | Make / Break (self powered). |
| | Comp. video frame / field synchronization option. |
| | User Programmable TTL shutter monitor. |
| | User Programmable TTL 'strobe' outputs. |
| | Combination of relay optics and intensifier. > 10. |

Environmental

| | |
|----------------------------|-----------------------------------------------------|
| Dimensions (approximate) | 285 x 168 x 230mm - including output lens & handle. |
| Weight (approximate) | 11Kg. |
| Power | 150W (90-264VAC). |
| Temperature | 0°C to 40°C, non-condensing humidity. |
| Construction | Aluminium housing. |
| Mounting | 3/8-20 UNC thread on base. |
| Documentation and Software | Supplied on CD. |
| Packaging | Flight box. |

CE and RoHS (Pb free)

Alternative SUVi models, optimized for specific spectral responses, phosphors, formats or faster shuttering speeds are available upon request.

Invisible Vision reserves the right to modify specifications without notice.

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