

Custom Detection Options



Custom Image Intensifiers

Photonis' continual innovation in low light intensified detection allows you to custom-design the image intensifier you need.

From exclusive Hi-QE photocathodes, to a wide range of camera solutions, Photonis provides the widest range of custom options in the market. Whether you need a specific wavelength, coating phospor screen, gating or power supply, Photonis has the capability and experience to manufacture single tubes or complete production quantities.



Wide Range of Custom Options

Photonis can customize nearly every component of Image Intensifiers to be sure you get the exact detector to meet your requirement. Our engineering staff will be happy to assist you in selecting the best combination to achieve your detection needs.

> Coating None NESA MgF2

Input Window Ouartz Glass Fiber Optic MgF2



Photocathode Solar Blind S20 (UV)

Broadband Hot S20 Hi-OF UV Hi-OE Green Hi-QE Red



Active Ø (mm)

35%

18



2x50·1

Gating Sublaver None Slow

Standard fixed gain Extended Gain Control (EGAC) Autogating Autogating EGAC + ext sync EGAC with gate unit

Output Window Straight fiber optics Twisted fiber optics

Photocathodes

The spectral sensitivity characteristic is the curve showing how cathode radiant sensitivity varies with wavelength. The spectral response is determined at the longer wavelength (photo emission threshold) by the photocathode type and thickness and at the shorter wavelengths by the input window transmission.

Hi-QE UV 30% Hi-QE Blue Hi-QE Greer 25% Hi-OE Red ₹ 20% SolarBlind **ö** 15% S20UV 10% -HotS20 5% Broadband S25 0% 900 200 300 400 500 600 700 800 Wavelength [nm]

Available Options

- Coupling coatings such as NESA/ITO conductive coating for CCD coupling
- No MCP (Proximity Focused Diode as a booster tube or wavelength shifter)
- ICCD and ICMOS (straight or tapered, fiber optic bonded Intensified CCD/CMOS)
- Nocturn Low Light CMOS Camera
- Electronic shutter, gating in combination with gating units
- Power Supply for Autogating (Day/Night)
- Cricket Lens Coupled Interface

MCPs, Phosphor and Gating

MCPs can be supplied with a wide range of gating options and different phosphor screens. When choosing a phosphor, the decay time is the main determination.

P22 slow decay 10ms P43 slow decay 1ms P24 medium decay 100μs P46 fast decay 1µs P47 fast decay 0.3µs

S25 photocathode + P22 phosphor	Gain Values
0 MPC (Proximity Focused Diodes)	30-100
1 MCP	3,000-15,000
2 MCP	200,000- 500,000
2 MCP (2 MCP, one with increased thickness)	>1,000,000

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