

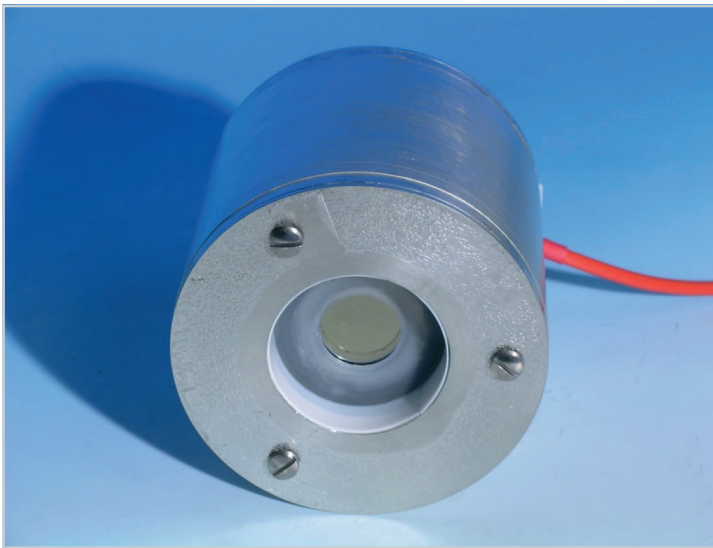


DATASHEET
DETECTORS
Magnetic Focus

PHOTEK
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Magnetic Focus

Image Intensifiers



The Photek Magnetic Focus Image Intensifier is a high resolution device with an image quality that is vastly superior to an MCP based Image Intensifier.

The Magnetic Focus Image Intensifier is available in either 25 mm, 40 mm or 75 mm cathode/screen sizes and can be supplied with a proprietary focus coil, if required.

While the size and weight of these systems may be a serious disadvantage, the resolution, MTF, and image quality is significantly better than MCP based image intensifiers.

Tube body construction is metal/ceramic, designed to minimise the use of magnetic materials, which can cause image rotation and geometrical distortion. The tubes can be built with all standard Photek photocathodes and phosphors. With high efficiency phosphors such as P43, the light gain from a single photoelectron is sufficient to overcome the readout noise of a directly coupled 12 bit camera and allows a corresponding 12 bit linear dynamic range.

Key Attributes

- > 25 mm, 40 mm & 75 mm active diameter
- > Limiting resolution up to 90 lp/mm
- > UV, Solar Blind, Visible and NIR responses
- > Excellent MTF
- > Excellent image quality with minimal blemishes
- > Very high linear dynamic range
- > Fast gating option

Applications

- > Dark field microscopy
- > Fast electronic shutter for high dynamic range cameras
- > Fast electronic shutter for high speed video cameras
- > Flash detection
- > Pre-amplification for high resolution cameras
- > UV to visible converter

Typical Performance Characteristics

Parameter	Mag 025	Mag 040
Diameter	55 mm	80 mm
Length	91 mm	88 mm
Input Window	Fused Silica, MgF, Fibre Optic	
Photocathode	Solar Blind, Bialkali, S20	
Output Window	Fibre Optic or Glass	
Phosphor	P11, P20, P22, P43, F5, P46, P47	
Photon Gain	Typically 600 photons/photoelectron depending on phosphor and voltage	
Resolution	75 lp/mm	
MTF	38% at 40 lp/mm	
Gating Speed	Better than 2 ns with mesh	
GA	7739	7776



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About Photek

Photek is a specialist manufacturer of vacuum based tubes and camera systems for photon detection.

Our product range includes; Camera Systems, Image Intensifiers, Photomultiplier Tubes, Streak Tubes plus a range of associated electronics.

We are experts in large area and ultra-high speed imaging and advanced photon counting camera systems.

Our continuing success is built upon continuous innovation and product development, and by harnessing and applying knowledge to find solutions for all of our customers' applications.

Photek is accredited to ISO 9001 and ISO 14001.



Contact Us

Our team of specialist engineers and scientists are ready to discuss your application requirements in depth.

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