

# Magnetic Focus Image Intensifiers



*Magnetic Focus Image Intensifier*

## FEATURES

- Limiting Resolution to 90 lp/mm
- Excellent MTF characteristic
- Excellent image quality
- High counting efficiency
- Very high linear dynamic range
- Very fast gating

## APPLICATIONS

- Pre-amplification & shutter for high resolution cameras
- Fast electronic shutter for high dynamic range camera
- Fast electronic shutter for high speed video cameras
- Flash photography

## DESCRIPTION

Photek have developed high resolution magnetic focus intensifiers which will operate in a proprietary focus coil currently available in 25, 40 and 75 mm cathode/screen useable diameter options. 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 minimize the use of magnetic materials, which can cause image rotation and geometrical distortion. The tubes can be build with all standard Photek photocathodes and phosphors. With higher efficiency phosphors such as P43, the light gain from a single photoelectron is sufficient to overcome the readout noise of direct coupled 12 bit camera and allows a corresponding 12 bit linear dynamic range.

## TYPICAL PERFORMANCE CHARACTERISTICS

Parameter	MAG025	MAG040
Diameter	55 mm	80 mm
Length	91 mm	88 mm
Input Window	Fused Silica, MgF & Fiber Optic	
Photocathode	Solar Blind, Bialkali & S20	
Output Window	Fiber Optic or Glass	
Phosphor	P11, P20, P22, P45, F5, P46 & P47	
Photon Gain	Typical 600 photons/photoelectron depending on phosphor & voltage	
Resolution	75 lp/mm	
MTF	38% at 40 lp/mm	
Gating Speed	Better than 2 ns with mesh	

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