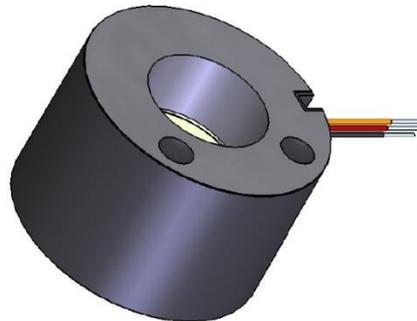


18 mm Image Intensifier GIDS-1863Q

Structure & Features

18 mm high sensitivity double proximity focused image intensifier with green optimized S20 photocathode on fiber-optic input window, incorporating high resolution single MCP and P22 screen on straight fiber-optic output window. This image intensifier is foreseen to be coupled on the input side with an X-ray converter screen like P43, P46, P47 or CsI on a fiber-optic plate. The screens with P43, P46 and P47 could be supplied by GIDS-GmbH also see datasheet [Phosphor Screens & Scintillators.pdf](#). If you prefer to couple a CsI screen we propose to use the Hamamatsu J6679 or J6679-01. If you prefer to have a high resolution X-Ray system we propose to use a GIDS-GmbH P43 screen with 20 μ m thickness. This is the best system with highest resolution you are able to achieve with this image intensifier.



APPLICATIONS

- X-Ray cameras for dental applications
- X-Ray cameras for PCB inspection
- Spectroscopy cameras
- MCP detector cameras
- Low light level cameras for biological luminescence phenomena
- Intensified CCD detectors
- X-ray and electron diffraction cameras

FEATURES

- High sensitivity 50 mA/W @ 520 nm
- High resolution min. 51 lp/mm
- High image quality
- Coupling of X-Ray screens on fiber optic plates or fiber optic tapers possible on input side
- Coupling of fiber optic tapers possible on output side
- Full ICCD Versions available with coupled taper and 1/2" and 2/3" CCD Sony sensor
- Coupling with area sensors (CCD, CMOS, APS and others) possible on request

Performance values	units	min.	max.
Luminous Sensitivity @ 2856°K	µA/lm	Not specified	
Radiant Sensitivity @ 520 nm	mA/W	50	
Radiant Sensitivity @ 560 nm	mA/W	47	
SNR Ratio (signal to noise)		18	
Luminous Gain @ 560 nm	ph/ph	5000	7.000
Supply Current	mA		24
Output Uniformity @2856°K			3:1
Limiting Resolution (Intensifier)	lp/mm	51	
MTF @ 2,5 lp/mm (Intensifier)	%	86	
MTF @ 7,5 lp/mm (Intensifier)	%	65	
MTF @ 15 lp/mm (Intensifier)	%	42	
MTF @ 25 lp/mm (Intensifier)	%	22	
Photocathode diameter	mm	17,5	
MTTF	hours	10.000	

Custom specific requirements

If you would like to order this image intensifier with a specific screen plate or screen on fiber-optic taper please specify. If you would like to order the image intensifier with a fiber-optic taper and CCD coupling on the output side please specify this in your request. You may supply the sensor or we deliver the specific sensor. If you supply the sensor we propose that you send one with removable protection window. This is often an option when you purchase a CCD camera.

We need to know

Requested fiber optic type (FOP, FOT, FOW)
Reduction ratio 1:1 down to 6:1 of the screen plate or taper is possible (Large end diameter up to 105 mm). Please specify your preferred converter type (P43 or others) or specify your application so that we are able to propose the optimum one for your needs..
If you would like to get a full ICCD please specify the Sensor Type (if possible supply the datasheet). Please specify also the Coupling field needed (max. FOW, active diameter to sensor etc.). Is the sensor cooled down? Which Cooling system? Operation temperature?

Coupling Risk

The fiber optic coupling bears a risk to damage the sensor in the coupling process. We shall be liable for damage only in case of gross negligence.

Precaution

Dust, particles and mechanical impact may damage the surface and reduce the performance of the fiber-optic. Don't touch the glass with bare hands. Use powder free latex or vinyl gloves for handling. Use a cotton swap (Q-tip) with some isopropanol or ethanol to clean the glass.

Options

- Full system delivery possible including the camera (on request)
- Scintillator on input side possible according to your requirements
- Intensified camera setup on request
- Mechanical engineering workmanship on request

Send an e-mail with your contact data and additional specific details (**we need to know**) to info@gids-gmbh.com or call +49 (0)621-820394-34 or send a fax to +49 (0)621-820394-33.