

## DH\_IGA-EX\_TE Photodiode (900-1900/2550nm)



### **Overview**

The DH\_IGA-EX\_TE indium gallium arsenide photodiode extends the high responsivity and excellent performance of the DH\_IGA InGaAs further into the infrared to 2500nm. Housing a 3mm diameter active area extended InGaAs photodiode (900-1900/2500nm), the DH\_IGA is operated in the photovoltaic mode.

Using an optically chopped input, the signal generated by this detector is best measured in using the 477 trans-impedance pre-amplifiers followed by the 496 DSP lock-in amplifier. The mounting flange supplied with the DH\_IGA-EX\_TE is compatible with the entire range of Bentham monochromators and accessories. A quick-change variant is also available. Options include extended variants and a lens solution to maximise coupling from monochromator.

### **Core benefits**

- ✓ Takes the excellent performance of InGaAs to longer wavelengths
- ✓ Spectral coverage 900-1900/2500nm
- ✓ High responsivity
- ✓ Excellent linearity

#### Features

- Housed extended InGaAs photodiode
- 3mm diameter active area
- Operated in AC mode
- Compatible with Bentham's entire range of monochromators and accessories
- Suitable for free standing applications
- Recommended for use with 400 series detection electronics



# **DH IGA-EX TE Specifications**

## **Electro-optical**

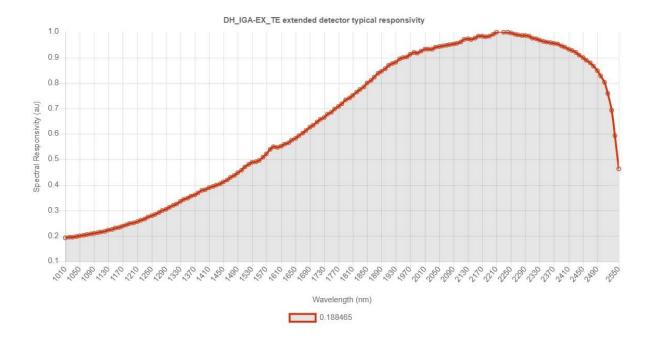
Material	Indium Gallium Arsenide
Active area	3mm diameter
Spectral response range	800-1700nm (800-1650nm for DH_IGA_3_TE)
Operating mode	Photovoltaic
Dark current (typ.)	<1pA
Shunt resistance (typ.)	5ΜΩ
Peak wavelength (typ.)	1.57µm
Peak responsivity (typ.)	1.07 A.W-1
NEP	7 x 10-14 W.Hz-1/2
Max. photocurrent	2mA
Max. operating temperature	-20 to +60°C

## Mechanical

Connector	BNC
Compatibility	4 x M3 clearance holes (Bentham slit pattern)
Dimensions	



## Wavelength vs Spectral Responsivity



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