

DH_IGA Photodiode (800-1700nm) Brochure



Overview

The DH_IGA indium gallium arsenide photodiode offers optimal performance up to 1700nm. Housing a 3mm diameter active area InGaAs photodiode (800-1700nm), the DH_IGA is operated in the photovoltaic mode. The photocurrent generated by this detector is best measured using the 487 picoammeter or the 477-pre-amplifier followed by the 496 lock-in amplifier.

The mounting flange supplied with the DH_IGA is compatible with the entire range of Bentham monochromators and accessories. A quick-change variant is also available. Other options include thermoelectric cooling for ultimate stability (yet reduced spectral range), and a lensed solution to maximise coupling from monochromator.

Core benefits

- ✓ Detector of choice in the near-infrared
- ✓ Spectral coverage 800-1700nm
- ✓ Excellent linearity and ultra-low noise
- ✓ High responsivity

Features

- ◆ Housed InGaAs photodiode
- ◆ Operated in either the DC or AC regimes
- ◆ Compatible with Bentham's entire range of monochromators and accessories
- ◆ Suitable for free standing applications
- ◆ Recommended for use with 400 series detection electronics
- ◆ Range of options

DH IGA 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.)	5MΩ
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)

Wavelength vs Responsivity

