

## DH\_Si Silicon Photodiode (200-1100nm) Brochure



### Overview

The DH\_Si UV-enhanced silicon photodiode offers excellent linearity and low noise over the UV-vis-NIR spectral range. Housing a 10x10mm active area silicon photodiode (200-1100nm), the DH\_Si 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\_Si is compatible with the entire range of Bentham monochromators and accessories. A quick-change variant is also available.

### Core benefits

- ✓ An economical solution for measurements where a photomultiplier might otherwise be considered
- ✓ Spectral coverage 200-1100nm
- ✓ Excellent linearity and ultra-low noise
- ✓ Enhanced UV sensitivity

### Features

- ◆ Housed UV-enhanced silicon 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

## DH\_Si Silicon Specifications

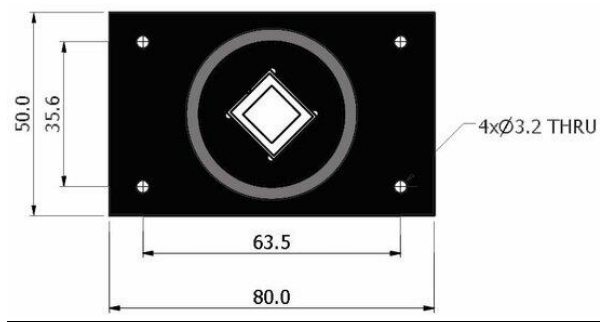
### Electro-Optical

Material	Silicon
Active area	10 x 10mm
Window material	Quartz
Spectral response range	200-1100nm
Operating mode	Photovoltaic
Dark current (typ.)	<1pA
Shunt Resistance (typ.)	0.2GΩ
Peak wavelength (typ.)	960nm
Peak responsivity (typ.)	0.52 A.W-1
NEP	1.8 x 10 <sup>-14</sup> W.Hz <sup>-1/2</sup>
Temperature dependence of responsivity	Up to 1%/ °C ( $\lambda > 950\text{nm}$ )
Max. photocurrent	2mA
Max. operating Temperature	-20 to +60°C

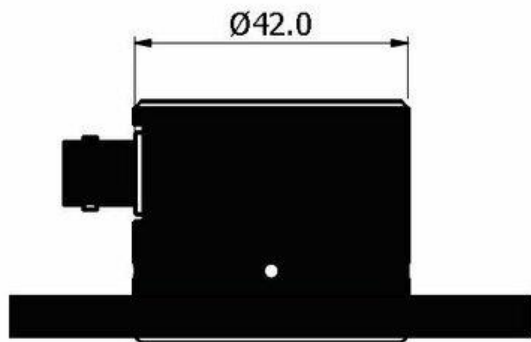
### Mechanical

Connector	BNC
Compatibility	4 x M3 clearance holes (Bentham slit pattern)
Dimensions	80L x 50W x 42H (mm)

## Dimensions



DH\_Si silicon photodiode - Top profile



DH\_Si silicon photodiode - side profile

## Wavelength vs Responsivity

