DH_PBSE_TE Cooled Photodiode (1-5µm) Brochure

Overview

The DH_PBSE_TE cooled lead selenide photodiode offers wide spectral responsivity to 5µm and the convenience of thermo-electric cooling. Housing a 3x3mm active area lead selenide photodiode, the DH_PBSE_TE is operated in the photoconductive mode with the 215 high voltage supply whilst temperature control is ensured by the CPS1M.

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.

Core benefits	Features
✓ Covers the range of InSb with convenience of thermo-electric cooling ✓ Spectral coverage 1-5µm	◆ Houses lead sulphide photodiode ◆ 3x3mm 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

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DH_PBSE_TE Cooled Photodiode (1-5μm) Specifications

Electro-optical

Material	Lead Selenide
Active area	3x3 mm
Spectral response range	1-5μm
Operating mode	Photoconductive
Shunt resistance (typ.)	0.5-3MΩ
Peak wavelength (typ.)	2600nm
Peak responsivity (typ.)	2 x 104 V.W-1
NEP	<1.3 x 10-13 W.H-1/2
Maximum cooler current	1.25A
Recommended chopping frequency	175/ 225 Hz
Operating temperature	-10°C
Max. operating temperature	-20 to +60°C

Mechanical

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

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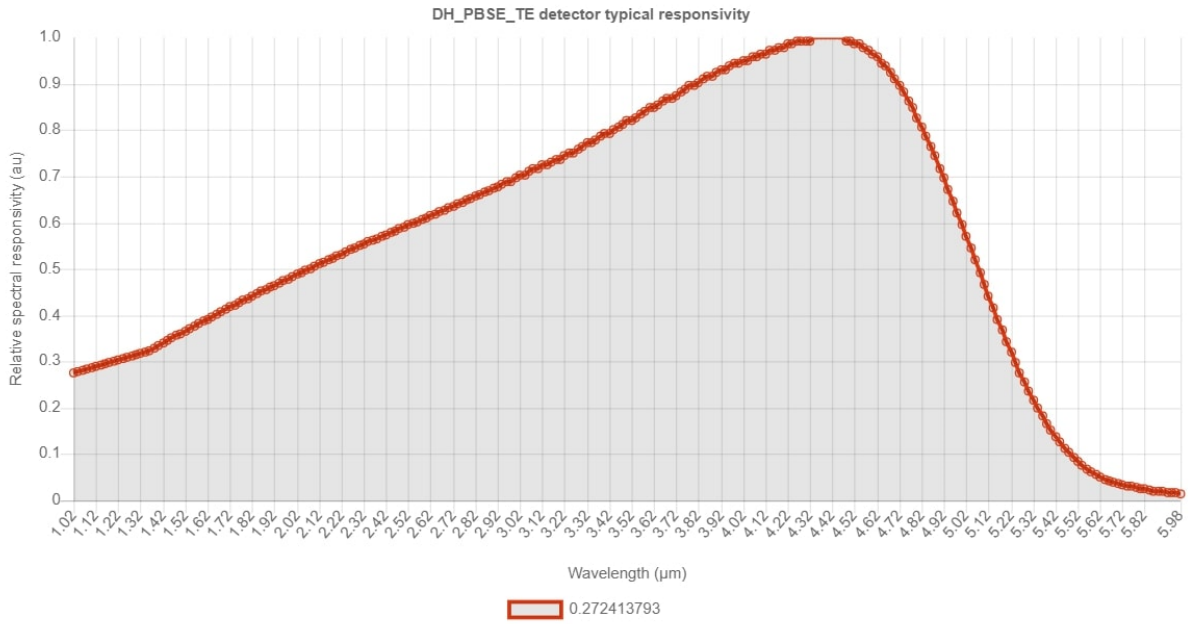
Configuration Options

DH_PBSE_TE	Thermo-electrically cooled lead selenide photodiode
DH_PBSE_TE_QC	Thermo-electrically cooled lead selenide photodiode, quick change interface

Wavelength vs Relative Spectral Responsivity



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