

1.5-5 μ m PbSe Large Area Power Detectors

The 1.5-5 μ m PbSe Large Area Power Detector can be used to measure power from 1.5 μ m to 5.0 μ m, has a selectable gain of either 2X or 100X, and an active area of 5mm x 5mm making alignment easy. Based on a photoconductor, this detector responds more quickly and reaches a stable state more quickly than a thermopile detector.



Applications:

- Power detection of QCLs
- Power detection of DFBs

Features:

- 2x and 100x gain select
- PbSe photoconductor responds more quickly and reaches a stable state more quickly than a thermopile detector

Specifications^{a,b,c}:

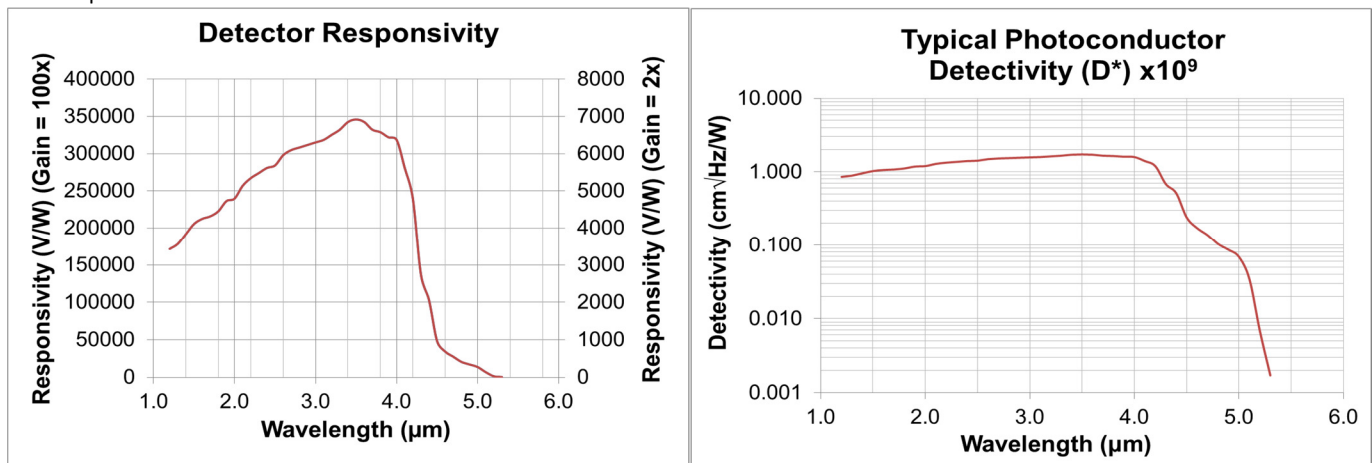
Part No. (Model)	120-10127-0001 (ET-6000) ^d	
Detector Type	Photoconductor	
Gain	2x	100x
Rise Time/Fall Time (μ s)	32/32	25/25
Responsivity (High Impedance)	$>3.2 \times 10^5$ V/W at 3.5 μ m	$>3.2 \times 10^5$ V/W at 3.5 μ m
Responsivity (50 Ω Impedance)	$>1.6 \times 10^5$ V/W at 3.5 μ m	$>1.6 \times 10^5$ V/W at 3.5 μ m
Power Supply (VDC)	24	24
Bandwidth	0.02kHz-15kHz	0.02kHz-10kHz
Active Area (mm x mm)	5 x 5	5 x 5
Detectivity (λ_p , 1000, 1)	$>1.5 \times 10^9$ cm \cdot vHz/W	$>1.5 \times 10^9$ cm \cdot vHz/W
Maximum Output (V)	± 11	± 11
Maximum Input Power	0.6mW/mm ²	0.6mW/mm ²
Operating Temperature ($^{\circ}$ C)	10-40	10-40
Acceptance Angle (1/2 angle)	20 $^{\circ}$	20 $^{\circ}$
Noise Equivalent Power (pW/ \sqrt Hz)	400 at 2000nm	450 at 2000nm
Mounting (Tapped Holes)	8-32 or M4	8-32 or M4
Output Connector	BNC	BNC

^a Product specifications and pricing subject to change without notice.

^b All specifications apply for a 1,000Hz chopping frequency.

^c An optical chopper and lock-in amplifier are recommended for proper operation.

^d RoHS compliant.



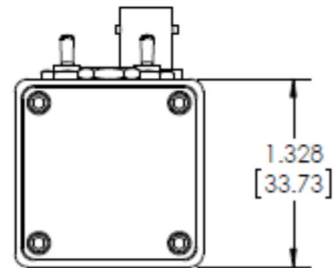
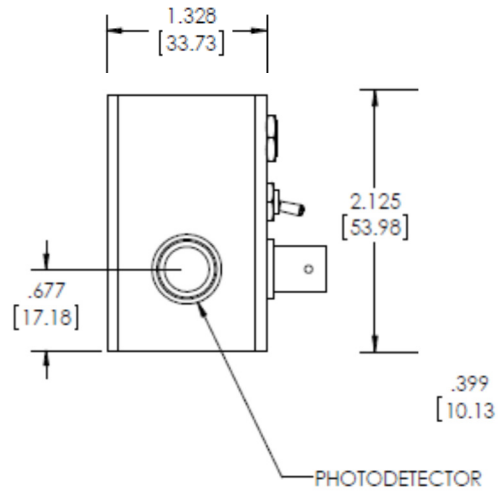
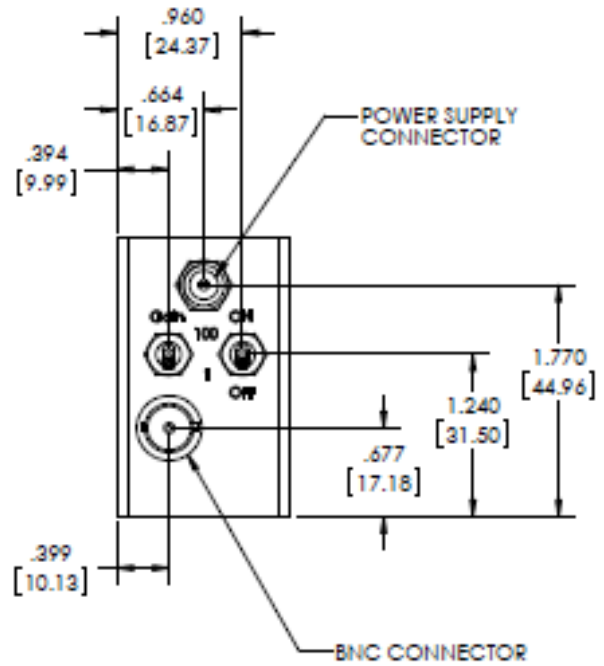
Electro-Optics Technology, Inc.

5835 Shugart Lane Traverse City, MI 49684

(231)935-4044 • (800)697-6782 • Fax: (231)935-4046 • sales@eotech.com • www.eotech.com

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ET-6000 Dimensions^a:



^a All dimensions in inches