1.5–5µm PbSe Large Area Power Detectors

The 1.5–5µm PbSe Large Area Power Detector can be used to measure power from 1.5µm to 5.0µm, 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

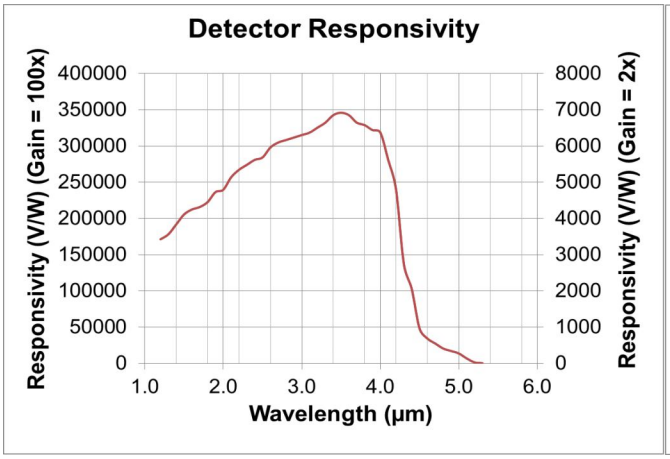
Features:

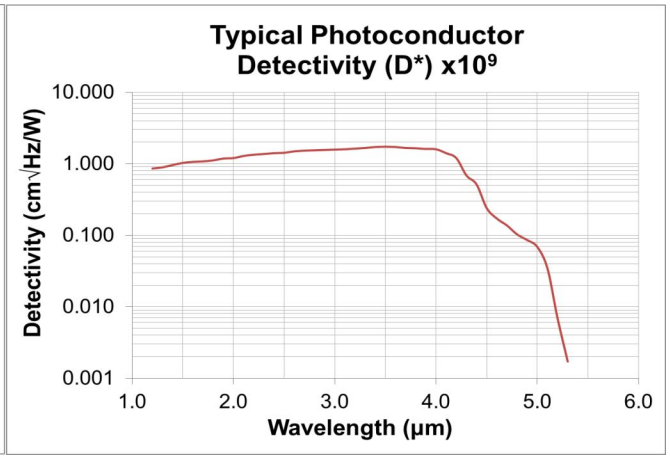
- 2x and 100x gain select
- PbSe photoconductor responds more quickly and reaches a stable state more quickly than a thermopile detector

Specifications[a,b,c]:

Part No. (Model)	120–10127–0001 (ET–6000)	
Detector Type	Photoconductor	
Gain	2x	100x
Rise Time/Fall Time	23µs/23µs	35µs/35µs
Responsivity (High Impedance)	>6400V/W at 3.5µm	>3.2x10^{5}V/W at 3.5µm
Responsivity (50Ω Impedance)	>3200V/W at 3.5µm	>1.6x10^{5}V/W at 3.5µm
Power Supply	24VDC	24VDC
Bandwidth	0.02kHz–15kHz	0.02kHz–10kHz
Active Area	5mm x 5mm	5mm x 5mm
Detectivity (λp, 1000, 1)	>1.5 x 10^{9}cm–√Hz/W	>1.5 x 10^{9}cm–√Hz/W
Maximum Output	±11V	±11V
Maximum Input Power	0.6mW/mm^2	0.6mW/mm^2
Operating Temperature	10–40°C	10–40°C
Acceptance Angle (1/2 angle)	20°	20°
Noise Equivalent Power	400pW/√Hz at 2000nm	450pW/√Hz at 2000nm
Mounting (Tapped Holes)	8–32 or M4	8–32 or M4
Output Connector	BNC	BNC

[a] Product specifications are subject to change.
[b] All specifications apply for a 1,000Hz chopping frequency.
[c] An optical chopper and lock–in amplifier are recommended for proper operation.
Note: All products are RoHS compliant.





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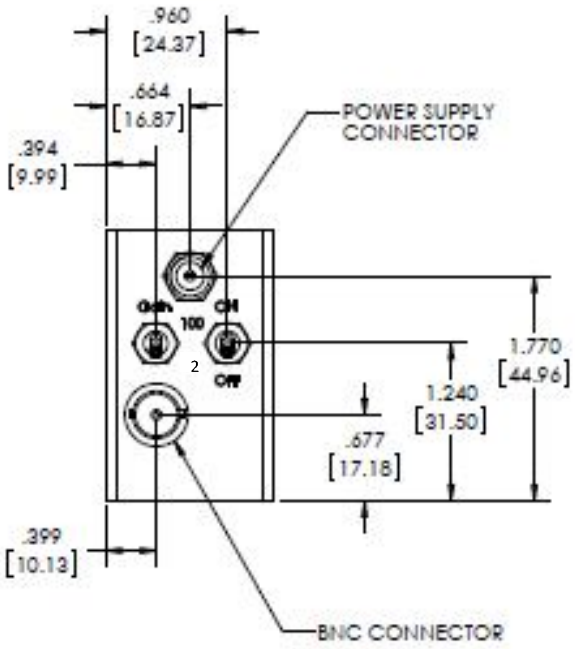

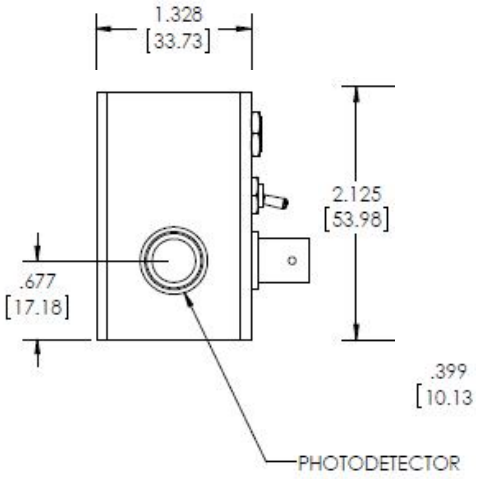

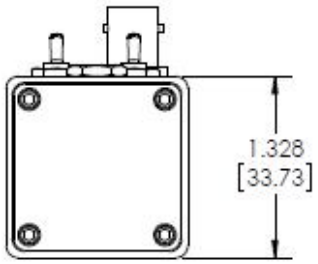

[a] All dimensions in inches