

gRAY

Mounted Laser Power Detector

FEATURES

- Absolute power sensing of laser beams up to 100 W
- Highly sensitive thermopile sensor
- Sensitive to all wavelengths from UV to MIR
- 400 ms rise time
- Compact and robust design for system integration
- Optional: Amplification circuit board for electrical integration & detector calibration



gRAY C50-MC

Product Name	gRAY C50-MC
Article Number	A-072143
Detector Type	Thermopile
Spectral Range [μm]	0.19 – 15
Outer Dimensions Mounting Plate (diameter / height) [mm]	55 / 7
Aperture [mm]	26
Max. Power [W]	50 (100 with active cooling)
Power Resolution ^a [mW]	1.8
Min. Detectable Power [mW]	18
Max. Average Power Density [kW/cm^2]	1.5
Max. Energy Density ^b [J/cm^2]	0.125 (@ 1064 nm, 10 ns) 0.173 (@ 266 nm, 4.8 ns)
Min. Sensitivity (Z) [mV/W]	0.8 (adjustable with amplification circuit)
Temperature Dependence of Z [%/°C]	0.175
Rise Time (0-95%) [ms]	400
Linearity with Power [$\pm\%$]	0.2
Operating Temperature Range Min/Max [°C]	-40 / 85
Cooling Method	Conduction, convection (with additional heat sink)
Electrical Connection	Solder pads
Fixture	2x M4 screws

^a Experimentally evaluated values under optimal steady state conditions. Limited by noise of measurement device.

^b Carried out by certified LIDT laboratory.