



HP100A-50KW-GD

High power detector for laser power measurement up to 50 000 W.



PRODUCT FAMILY KEY FEATURES

CUSTOM-BUILT

Contact us with your requirements for a version tailored to your needs

THE HIGHEST POWER HANDLING

Custom models handle up to 120 000 W of continuous power. Higher powers are available upon request.

STABLE READING

Less sensitive to variations in water cooling temperature than any other high-power water-cooled meter on the market.

INFINITE CUSTOMIZATION CAPABILITIES

- Choose your size
- Choose your maximum power
- We will customize one just for you!

COMPACT AND LIGHT WEIGHT

Lighter and more compact than any other high-power detector on the market, thanks to our unique design.

AVAILABLE WITH YAG AND CO₂ CALIBRATION

All HP models can be calibrated at YAG and CO₂ wavelengths with a calibration uncertainty of +/- 5%.

DIRECT USB CONNECTION TO A PC

Each head comes with both a DB-15 connector (for use with a Gentec-EO monitor) and a USB2.0 output for direct connection to a PC. Other connectors are available upon request.



SPECIFICATIONS

MEASUREMENT CAPABILITIES

Maximum average power (continuous)	50000 W
Minimum average power ¹	1000 W
Noise equivalent power ²	200 W
Spectral range	0.8 - 12 μm
Typical rise time	80 sec
Power calibration uncertainty	±5 %
Back reflections	~ 2.5 %
Linearity with power	±2 %
Linearity vs beam diameter	±2 %
Linearity vs beam position	±1.5 %
Calibrated spectral range	1030 - 1080 nm

1. For lower powers, call your Gentec-EO representative.
2. Nominal value. Actual value depends on electrical noise in the measurement system.

WATER REQUIREMENTS

Required cooling flow ¹	(18 - 25) LPM < ±1 LPM/min
Temperature range	15 – 25 °C
Rate of temperature change	< ±1°C/min
Maximum water pressure	551 kPa (80 psi)



1. Contact Gentec-EO for clean deionized water cooling module option.

DAMAGE THRESHOLDS

Maximum average power density ¹	25 kW/cm ²
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1. At 1.03-1.08 μm , 10 kW CW. Refer to user manual for damage threshold at other powers.

CONTROLLER AND GUI SPECIFICATIONS

Data display	Real time, scope, needle, averaging, histogram and statistics
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Analog output ¹	0-2 Volts
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Serial commands via	USB
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External power supply ²	Through USB or Gentec-EO displays & PC interfaces
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Display type	None
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1. 12 V maximum output signal available upon request.

2. A USB power adaptor will be necessary if the HP is used with a DB-15 extension cable.

PHYSICAL CHARACTERISTICS

Cooling	Water
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Aperture diameter	100 mm
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Absorber	GD
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Dimensions	305H x 324W x 197D mm
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Weight	60 kg
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ORDERING INFORMATION

HP100A-50KW-GD

Specifications are subject to change without notice. Refer to the user manual for complete specifications.

INTERESTED IN THIS PRODUCT?

GET A QUOTE

Find your local sales representative at gentec-eo.com/contact-us