



## 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 CO<sub>2</sub> CALIBRATION

All HP models can be calibrated at YAG and CO<sub>2</sub> 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 <sup>1</sup>	1000 W
Noise equivalent power <sup>2</sup>	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 <sup>1</sup>	(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 <sup>1</sup>	25 kW/cm²
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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
Analog output <sup>1</sup>	0-2 Volts
Serial commands via	USB
External power supply <sup>2</sup>	Through USB or Gentec-EO displays & PC interfaces
Display type	None

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

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](http://gentec-eo.com/contact-us)