

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

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|-------------------------------------|----------------|
| 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

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|------------------------------------|----------------------------|
| 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

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| 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

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| 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

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| 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