

HP280A-30KW-HD-IMP-D0

High power detector for laser power measurement up to 30000 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.

COMPATIBLE STAND

[STAND HP280A-30KW-HD](#)

SPECIFICATIONS

MEASUREMENT CAPABILITIES

Maximum average power (continuous)	30000 W
Minimum average power ¹	1000 W
Noise equivalent power ²	30 W
Spectral range ³	0.193 - 20 μm
Typical rise time	25 s
Typical power sensitivity	0.07 mV/W
Power calibration uncertainty	±5 %
Repeatability	±2 %
Back reflections	~ 15 %
Linearity with power	±2 %
Linearity vs beam diameter	±1.0 %
Linearity vs beam position	±1.0 %

1. For lower powers, call your Gentec-EO representative.

2. Nominal value. Actual value depends on electrical noise in the measurement system.

3. For the calibrated spectral range, see the user manual.

WATER REQUIREMENTS

Required cooling flow¹

0-30 kW: (15 - 18) LPM < ±1 LPM/min, 0-10 kW: (12 - 15) LPM < ±1 LPM/min

Temperature range	15 – 25 °C
Rate of temperature change	< ±3°C/min
Maximum water pressure	552 kPa (80 psi)

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

DAMAGE THRESHOLDS

Maximum average power density ¹	6.5 kW/cm ²
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1. At 1064 nm, 1.07-1.08 µm and 10.6 µm, 5 kW CW. Refer to user manual for damage threshold at other powers. May vary with wavelength and average power.

CONTROLLER AND GUI SPECIFICATIONS

Data display	Real time, scope, needle, averaging, histogram and statistics
Analog output ¹	0-2 Volts
Serial commands via	USB
External power supply ²	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 width	280 mm
Aperture height	280 mm
Absorber	HD
Dimensions	314H x 324W x 89D mm
Weight	16 kg

ORDERING INFORMATION

HP280A-30KW-HD-IMP-D0	2029831
HP280A-30KW-HD-IMP-BLU-D0	TBD

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