

## HP280A-30KW-HD-MET-D0

High power detector for laser power measurement up to 30 000 W.



### PRODUCT FAMILY KEY FEATURES

#### HIGH POWER HANDLING

Handles up to 30 kW of continuous power with our standard models. Custom models are available for higher powers ([See SUPER HP](#)).

#### STABLE READING

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

#### LARGE APERTURE

Our standard HP models (4KW, 12KW, 15KW and 30KW) have a very large effective aperture of up to 280 mm to accommodate even the largest laser beams. Larger apertures with various shapes are available upon request ([See SUPER HP](#)).

#### 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.

#### AWARD-WINNING TECHNOLOGY

The HP-BLU series wireless detectors for high-power lasers were recognized among the best by an esteemed and experienced panel of judges from the optics and photonics community at the [2020 Laser Focus World Innovators Awards](#).



#### COMPATIBLE STAND

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

## SPECIFICATIONS

### MEASUREMENT CAPABILITIES

Maximum average power (continuous)	30000 W
Minimum average power <sup>1</sup>	1000 W
Noise equivalent power <sup>2</sup>	30 W
Spectral range <sup>3</sup>	0.193 - 20 μm
Typical rise time	25 s
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 flow <sup>1</sup>	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 <sup>1</sup>	6.5 kW/cm <sup>2</sup>
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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 <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 width	280 mm
Aperture height	280 mm
Absorber	HD
Dimensions	314H x 324W x 89D mm
Weight	16 kg

#### ORDERING INFORMATION

HP280A-30KW-HD-MET-D0	202983M
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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)