

UP12E-20H-H5-D0

Thermal detector for laser power measurement up to 20 W.



KEY FEATURES

MODULAR CONCEPT

Increase the power capability of your detector: 3 different cooling modules

HIGH PERFORMANCE

- Fast rise time (0.3 sec)
- High damage threshold (36 kW/cm²)

COMPACT DESIGN

Only 14 mm thick (10S model)

ENERGY MODE

Measure single shot energy up to 5 J

SMART INTERFACE

Containing all the calibration data

COMPATIBLE STAND

[STAND-S-233](#)

SPECIFICATIONS

MEASUREMENT CAPABILITIES

Maximum average power (continuous)	20 W
Maximum average power (1 minute)	40 W
Noise equivalent power ¹	1 mW
Spectral range ²	0.193 - 20 μm
Typical rise time ³	0.3 s
Typical power sensitivity ⁴	0.53 mV/W
Power calibration uncertainty ⁵	±2.5 %
Repeatability	±0.5 %

1. Nominal value, actual value depends on electrical noise in the measurement system.
2. For the calibrated spectral range, see the user manual.
3. With anticipation.
4. Into 100 kΩ load. Maximum output voltage = sensitivity x maximum power.
5. Including linearity with power.

MEASUREMENT CAPABILITIES (ENERGY MODE)

Typical energy sensitivity	0.84 mV/J
Maximum measurable energy ¹	5 J
Noise equivalent energy ²	0.02 J
Minimum repetition period	1.5 s
Maximum pulse width	50 ms
Energy calibration uncertainty ³	±5 %

1. For 360 μs pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).
2. Nominal value, actual value depends on electrical noise in the measurement system.
3. When single-shot energy calibration is purchased

DAMAGE THRESHOLDS

Maximum average power density ¹	36 kW/cm ²
Maximum energy density ²	1 J/cm ²

1. At 1064 nm, 10 W CW. May vary with wavelength and average power.
2. At 1064 nm, 7 ns, 10 Hz. May vary with wavelength and pulse width.

PHYSICAL CHARACTERISTICS	
Cooling	Convection (heatsink)
Aperture diameter	12 mm
Absorber	H5
Dimensions	38H x 38W x 45D mm
Weight	0.15 kg

ORDERING INFORMATION	
UP12E-20H-H5-D0	200385
UP12E-20H-H5-IDR-D0	203323
UP12E-20H-H5-INT-D0	202615

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