

UP55M-500W-H12-D0

Thermal detector for laser power measurement up to 500 W.



PRODUCT FAMILY KEY FEATURES

MODULAR CONCEPT

Increase the power capability of your detector: 4 different cooling modules

HIGH PERFORMANCE

- Fast Rise Time (2 sec)
- High Damage Threshold (45 kW/cm²)

COMPACT DESIGN

Only 32 mm thick (40S model)

ENERGY MODE

Measure single shot energy up to 200 ${\tt J}$

SMART INTERFACE

Containing all the calibration data

COMPATIBLE STAND

STAND-S-443

SPECIFICATIONS

MEASUREMENT CAPABILITIES

Maximum average power (continuous) ¹	500 W
Maximum average power (1 minute) ²	500 W
Noise equivalent power ³	15 mW
Spectral range ⁴	0.193 - 20 μm
Typical rise time ⁵	2 s
Power calibration uncertainty ⁶	±2.5 %
Repeatability	±0.5 %

- 1. Minimum cooling flow 1.5 liters/min, water temperature \leq 22°C, 1/8 NPT compression fittings for 1/4 inch semi-rigid tube. Contact Gentec-EO for clean deionized water cooling module option.
- 2. Minimum cooling flow 1.5 liters/min, water temperature < 22°C, 1/8 NPT compression fittings for 1/4 inch semi-rigid tube. Contact Gentec-EO for clean deionized water cooling module option.
- 3. Nominal value, actual value depends on electrical noise in the measurement system.
- 4. For the calibrated spectral range, see the user manual.
- 5. With anticipation.
- 6. Including linearity with power.

MEASUREMENT CAPABILITIES (ENERGY MODE)

MEASONEMENT CALABIETTES (ENERGY MODE)	
Maximum measurable energy ¹	200 J
Noise equivalent energy ²	0.25 J
Minimum repetition period	12 s
Maximum pulse width	430 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	45 kW/cm ²

1 J/cm² Maximum energy density²

- 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	Water
Aperture diameter	55 mm
Absorber	H12
Dimensions	89H x 89W x 43D mm
Weight	0.81 kg
ORDERING INFORMATION	
UP55M-500W-H12-D0	201882
UP55M-500W-H12-INT-D0	203069
UP55M-500W-H12-IDR-D0	203377
IIP55M-500W-H12-RLII-D0	203691

Specifications are subject to change without notice. Refer to the user manual for complete specifications.

INTERESTED IN THIS PRODUCT?



Find your local sales representative at gentec-eo.com/contact-us