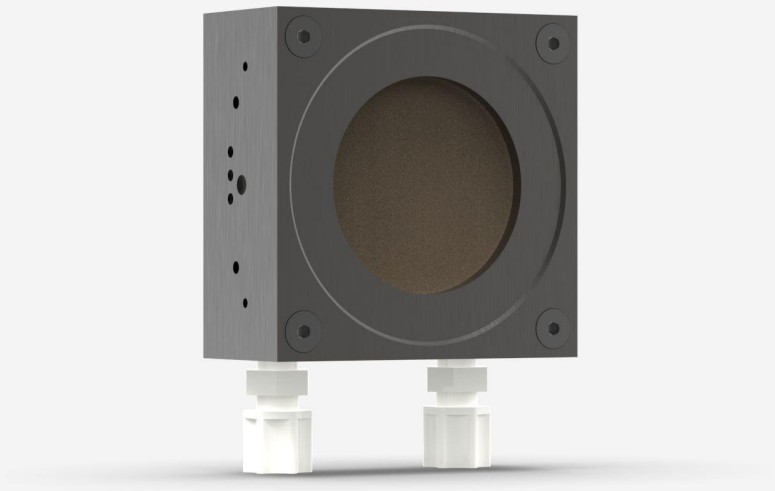
UP55M-500W-H12-D0

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/cm^2)

COMPACT DESIGN

Only 32 mm thick (40S model)

ENERGY MODE

Measure single shot energy up to 200 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 ≤ 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)

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/cm²
Maximum energy density[2]	1 J/cm²

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
UP55M-500W-H12-BLU-D0	203691

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