

UP55N-100H-VR-DO

Thermal detector for laser power measurement up to 100 W.



KEY FEATURES

MODULAR CONCEPT

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

HIGH PEAK POWER VOLUME ABSORBER

- Perfect for high density beams
- Average power density of 700 W/cm² prevents degradation caused by repetitive pulses

LARGE APERTURE

55 mm aperture to accommodate the largest beams

HIGH AVERAGE POWER

Up to 200 W of continuous power with the watercooled unit

ENERGY MODE

Measure single shot energy up to 500 J

SMART INTERFACE

Containing all the calibration data

COMPATIBLE STAND

[STAND-S-443](#)

SPECIFICATIONS

MEASUREMENT CAPABILITIES

Maximum average power (continuous)	100 W
Maximum average power (1 minute)	100 W
Noise equivalent power ¹	15 mW
Spectral range ²	0.3 - 2.5 μm
Typical rise time ³	4 sec
Typical power sensitivity ⁴	0.04 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. This spectral range refers to the calibration traceability.

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	0.01 mV/J
Maximum measurable energy ¹	500 J
Noise equivalent energy ²	0.25 J
Minimum repetition period	11.1 s
Maximum pulse width	433 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	700 W/cm ²
Maximum energy density ²	6 J/cm ²

1. At 1064 nm, 10 W CW.
2. At 1064 nm, 7 ns, 10 Hz.

PHYSICAL CHARACTERISTICS

Aperture diameter	55 mm
Absorber	VR
Dimensions	89H x 89W x 106D mm
Weight	0.93 kg

ORDERING INFORMATION

UP55N-100H-VR-D0	201935
UP55N-100H-VR-IDR-D0	203381
UP55N-100H-VR-BLU-D0	203697
UP55N-100H-VR-INT-D0	202645

INTERESTED IN THIS PRODUCT?

GET A QUOTE

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