

UP55N-40S-H9-D0

Thermal detector for laser power measurement up to 40 W.



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 J

SMART INTERFACE

Containing all the calibration data

COMPATIBLE STAND

[STAND-S-443](#)

SPECIFICATIONS

MEASUREMENT CAPABILITIES

Maximum average power (continuous)	40 W
Maximum average power (1 minute)	80 W
Noise equivalent power ¹	5 mW
Spectral range ²	0.193 - 20 μm
Typical rise time ³	2 s
Typical power sensitivity ⁴	0.12 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	0.028 mV/J
Maximum measurable energy ¹	200 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	45 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
Aperture diameter	55 mm
Absorber	H9
Dimensions	89H x 89W x 35D mm
Weight	0.62 kg

ORDERING INFORMATION

UP55N-40S-H9-D0	200215
UP55N-40S-H9-IDR-D0	203387
UP55N-40S-H9-INT-D0	202627
UP55N-40S-H9-BLU-D0	203432

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