



UP25-H

25 mm Ø, 3 mW - 350 W



KEY FEATURES

1. **MODULAR CONCEPT**
Increase the power capability of your detector:
4 different cooling modules
2. **HIGH PERFORMANCE**
Fast Rise Time (1.3 sec)
High Damage Threshold (45 kW/cm²)
3. **ENERGY MODE**
Measure single shot energy up to 40 J
4. **SMART INTERFACE**
Containing all the calibration data
5. **integra OPTIONS**
 - Standard: USB Output (-INT)
 - In Option: RS-232 Output (-IDR)

AVAILABLE MODELS



UP25N-40S-H9
(40W-Standalone)



UP25N-100H-H9
(100W-Heatsink)



UP25N-250F-H12
(250W-Fan-Cooled)



UP25M-350W-H12
(350W-Water-Cooled)

ACCESSORIES



Stand with Steel Post
(Model Number: 200234)



Extension Cables
(4, 15, 20 or 25 m)



Fiber Adaptors and Connectors
(FC, SC or SMA)



12V Power Supply
(Model Number: 200130)



Pelican Carrying Case

SEE ALSO

HOW IT WORKS	14
CALIBRATION	6
TECHNICAL DRAWINGS	96
ABSORPTION CURVES	100
OEM DETECTORS	148
COMPATIBLE MONITORS	
MAESTRO	20
TUNER	24
UNO	26
S-LINK	28
P-LINK	30
M-LINK	32
LIST OF ALL ACCESSORIES	198
APPLICATION NOTE	
MEASURING LASER POWER WITH A THERMOPILE DETECTOR: THE BASICS!	202175

MONITORS

ENERGY DETECTORS

POWER DETECTORS

HIGH POWER SOLUTIONS

PHOTO DETECTORS

THZ DETECTORS

OEM DETECTORS

SPECIAL PRODUCTS

BEAM DIAGNOSTICS

UP25-H



*Also traceable to NRC-CNRC

SPECIFICATIONS

	UP25N-40S-H9	UP25N-100H-H9	UP25N-250F-H12	UP25M-350W-H12
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	40 W / 80 W	100 W / 200 W	250 W / 300 W	350 W ^f / 350 W ^f
EFFECTIVE APERTURE	25 mm Ø	25 mm Ø	25 mm Ø	25 mm Ø
COOLING METHOD	Convection	Heatsink	Fan-Cooled	Water-Cooled
MEASUREMENT CAPABILITY				
Spectral Range [*]	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm
Noise Equivalent Power ^a	3 mW	3 mW	10 mW	10 mW
Rise Time (nominal) ^b	1.3 sec	1.3 sec	1.3 sec	1.3 sec
Sensitivity (typ into 100 kΩ load) ^c	0.23 mV/W	0.23 mV/W	0.1 mV/W	0.1 mV/W
Calibration Uncertainty ^d	±2.5 %	±2.5 %	±2.5 %	±2.5 %
Repeatability	±0.5 %	±0.5 %	±0.5 %	±0.5 %
Energy Mode				
Sensitivity	0.14 mV/J	0.14 mV/J	0.05 mV/J	0.05 mV/J
Maximum Measurable Energy ^e	40 J	40 J	40 J	40 J
Noise Equivalent Energy ^a	0.2 J	0.2 J	0.2 J	0.2 J
Minimum Repetition Period	4.6 sec	4.6 sec	11.5 sec	11.5 sec
Maximum Pulse Width	123 ms	123 ms	390 ms	390 ms
Accuracy with energy calibration option	±5 %	±5 %	±5 %	±5 %
DAMAGE THRESHOLDS				
Maximum Average Power Density				
1064 nm, 10 W, CW	45 kW/cm ²	45 kW/cm ²	45 kW/cm ²	45 kW/cm ²
10.6 µm, 10 W, CW	14 kW/cm ²	14 kW/cm ²	14 kW/cm ²	14 kW/cm ²
Pulsed Laser Damage Thresholds		Max Energy Density	Peak Power Density	
1064 nm, 360 µs, 5 Hz	9 J/cm ²		25 kW/cm ²	
1064 nm, 7 ns, 10 Hz	1 J/cm ²		143 MW/cm ²	
532 nm, 7 ns, 10 Hz	0.6 J/cm ²		86 MW/cm ²	
266 nm, 7 ns, 10 Hz	0.3 J/cm ²		43 MW/cm ²	
PHYSICAL CHARACTERISTICS				
Effective Aperture	25 mm Ø	25 mm Ø	25 mm Ø	25 mm Ø
Absorber (High Damage Threshold)	H9	H9	H12	H12
Dimensions	89H x 89W x 32D mm	89H x 89W x 106D mm	89H x 89W x 116D mm	89H x 89W x 40D mm
Weight (head only)	0.68 kg	0.99 kg	1.44 kg	0.87 kg
ORDERING INFORMATION				
Product Name	UP25N-40S-H9-D0	UP25N-100H-H9-BLU	UP25N-250F-H12-D0	UP25M-350W-H12-D0
Product Number (without stand)	200195	200199	201151	201893
Add Extension for INTEGRA (USB)	-INT / 203057	-INT / 203053	-INT / 203055	-INT / 203051
Add Extension for INTEGRA (RS-232)	-IDR	-IDR	-IDR	-IDR
Add Extension for BLU	-BLU / 203673	-BLU / 203667	-BLU / 203670	-BLU / 203664

Specifications are subject to change without notice // Compatible stand: P/N 200234

^{*} For the calibrated spectral range, see the user manual.

- a. Nominal value, actual value depends on electrical noise in the measurement system.
 b. With anticipation
 c. Maximum output voltage = sensitivity x maximum power.
 d. Including linearity with power.

- e. For 360 µs pulses. Higher pulse energy possible when customized for long pulses (ms), less for short pulses (ns).
 f. 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.