



# 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/cm<sup>2</sup>)
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

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MEASURING LASER POWER WITH A THERMOPILE DETECTOR: THE BASICS!	<a href="#">202175</a>

## UP25-H



\*Also traceable to NRC-CNRC

## SPECIFICATIONS

	UP25N-40S-H9	UP25N-100H-H9	UP25N-250F-H12	UP25M-350W-H12
<b>MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)</b>	40 W / 80 W	100 W / 200 W	250 W / 300 W	350 W <sup>f</sup> / 350 W <sup>f</sup>
<b>EFFECTIVE APERTURE</b>	25 mm Ø	25 mm Ø	25 mm Ø	25 mm Ø
<b>COOLING METHOD</b>	Convection	Heatsink	Fan-Cooled	Water-Cooled
<b>MEASUREMENT CAPABILITY</b>				
Spectral Range *	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm
Noise Equivalent Power <sup>a</sup>	3 mW	3 mW	10 mW	10 mW
Rise Time (nominal) <sup>b</sup>	1.3 sec	1.3 sec	1.3 sec	1.3 sec
Sensitivity (typ into 100 kΩ load) <sup>c</sup>	0.23 mV/W	0.23 mV/W	0.1 mV/W	0.1 mV/W
Calibration Uncertainty <sup>d</sup>	±2.5 %	±2.5 %	±2.5 %	±2.5 %
Repeatability	±0.5 %	±0.5 %	±0.5 %	±0.5 %
<b>Energy Mode</b>				
Sensitivity	0.14 mV/J	0.14 mV/J	0.05 mV/J	0.05 mV/J
Maximum Measurable Energy <sup>e</sup>	40 J	40 J	40 J	40 J
Noise Equivalent Energy <sup>a</sup>	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 %
<b>DAMAGE THRESHOLDS</b>				
<b>Maximum Average Power Density</b>				
1064 nm, 10 W, CW	45 kW/cm <sup>2</sup>	45 kW/cm <sup>2</sup>	45 kW/cm <sup>2</sup>	45 kW/cm <sup>2</sup>
10.6 µm, 10 W, CW	14 kW/cm <sup>2</sup>	14 kW/cm <sup>2</sup>	14 kW/cm <sup>2</sup>	14 kW/cm <sup>2</sup>
<b>Maximum Energy Density</b>				
1064 nm, 360 µs, 5 Hz	9 J/cm <sup>2</sup>	9 J/cm <sup>2</sup>	9 J/cm <sup>2</sup>	9 J/cm <sup>2</sup>
1064 nm, 7 ns, 10 Hz	1 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>
532 nm, 7 ns, 10 Hz	0.6 J/cm <sup>2</sup>	0.6 J/cm <sup>2</sup>	0.6 J/cm <sup>2</sup>	0.6 J/cm <sup>2</sup>
266 nm, 7 ns, 10 Hz	0.3 J/cm <sup>2</sup>	0.3 J/cm <sup>2</sup>	0.3 J/cm <sup>2</sup>	0.3 J/cm <sup>2</sup>
<b>PHYSICAL CHARACTERISTICS</b>				
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
<b>ORDERING INFORMATION</b>				
Product Name	UP25N-40S-H9-D0	UP25N-100H-H9-D0	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 / 203365	-IDR / 203361	-IDR / 203363	-IDR / 203359
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 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.