



# UP25-H

25 mm Ø, 3 mW - 350 W



## 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

## 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	88
ABSORPTION CURVES	92
OEM DETECTORS	136
COMPATIBLE MONITORS	
MAESTRO	20
TUNER	24
UNO	26
S-LINK	28
P-LINK	30
M-LINK	32
LIST OF ALL ACCESSORIES	186
APPLICATION NOTE	
MEASURING LASER POWER WITH A THERMOPILE DETECTOR: THE BASICS!	<a href="#">202175</a>

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
<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>Pulsed Laser Damage Thresholds</b>				
	<b>Max Energy Density</b>		<b>Peak Power Density</b>	
1064 nm, 360 µs, 5 Hz	9 J/cm <sup>2</sup>		25 kW/cm <sup>2</sup>	
1064 nm, 7 ns, 10 Hz	1 J/cm <sup>2</sup>		143 MW/cm <sup>2</sup>	
532 nm, 7 ns, 10 Hz	0.6 J/cm <sup>2</sup>		86 MW/cm <sup>2</sup>	
266 nm, 7 ns, 10 Hz	0.3 J/cm <sup>2</sup>		43 MW/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	UP25N-100H-H9	UP25N-250F-H12	UP25M-350W-H12
Product Number (Including stand)	200198	200202	201154	201894
Add Extension for INTEGRA	-INT	-INT	-INT	-INT

Specifications are subject to change without notice

\* For the calibrated spectral range, see the user manual.

- a. Nominal value, actual value depends on electrical noise in the measurement system.  
 b. With Gentec-EO MAESTRO, UNO, P-LINK, TUNER and S-LINK monitors.  
 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.