

# UP55G



55 mm Ø, 15 mW - 500 W



## Key Features

- 1 **Fan-Cooled**  
High Power without the need for water cooling
- 2 **Portable**  
Perfect for production environments and service technicians
- 3 **High Quality Absorber**  
For the highest power handling in the UP Series
- 4 **Energy Mode**  
Measure single shot energy up to 200 J
- 5 **Smart Interface**  
Containing all the calibration data



UP55G-500F-H12



**NEW**

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## Accessories

### » Fiber Optic Adapters (FC, SMA, SC)

Variety of fiber adapter options to give you the most flexibility in using our power detectors with your fiber coupled lasers.



### » Extension Cables (4, 15, 20 and 25 m)

For some OEM, manufacturing and laboratory applications.




### » Pelican Carrying Case

We offer a robust hard shell polymer carrying case.



## SPECIFICATIONS

<b>Models</b>	UP55G-500F-H12
	
<b>Max Average Power (continuous)</b>	500 W
<b>Max Average Power (1 minute)</b>	500 W

MEASUREMENT CAPABILITY	UP55G-500F-H12
Spectral Range	0.19 – 20 $\mu\text{m}$
Noise Equivalent Power <sup>a</sup>	15 mW
Rise Time (nominal) <sup>b</sup>	2.8 sec
Sensitivity (typ into 100 k $\Omega$ load) <sup>c</sup>	0.06 mV/W
Calibration Uncertainty <sup>d</sup>	$\pm 2.5$ %
Repeatability	$\pm 0.5$ %
Energy Mode	
Sensitivity	0.013 mV/J
Maximum Measurable Energy <sup>e</sup>	200 J
Noise Equivalent Energy <sup>a</sup>	0.25 J
Minimum Repetition Period	14.3 sec
Maximum Pulse Width	433 ms
Accuracy with energy calibration option	$\pm 5$ %

## DAMAGE THRESHOLDS

Maximum Average Power Density		
1064 nm, 10 W, CW		45 kW/cm <sup>2</sup>
1064 nm, 500 W, CW		8 kW/cm <sup>2</sup>
Pulsed Laser Damage Thresholds	Max Energy Density	Peak Power Density
1064 nm, 360 $\mu\text{s}$ , 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>

## PHYSICAL CHARACTERISTICS

Effective Aperture Diameter	55 mm $\emptyset$
Absorber (High Damage Threshold)	H12
Dimensions	120H x 120W x 135D mm
Weight (head only)	2.75 kg

## ORDERING INFORMATION

Full Product Name	UP55G-500F-H12
Product Number (including stand)	201100

a. Nominal value, actual value depends on electrical noise in the measurement system.

b. With Gentec-EO SOLO, UNO, P-LINK and S-LINK-2 monitors.

c. Maximum output voltage = sensitivity x maximum power.

d. Including linearity with power.

e. For 360  $\mu\text{s}$  pulses. Higher pulse energy possible when customized for long pulses (ms), less for short pulses (ns).

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## Leader in Laser Beam Measurement Since 1972

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### Calibration Centers

Quebec City, Canada  
Olching (Munich), Germany