

# UP55-H


55 mm Ø, 5 mW - 500 W



## KEY FEATURES

- > **MODULAR CONCEPT**  
Increase the power capability of your detector:  
4 different cooling modules
- > **HIGH PERFORMANCE**  
Fast rise time (2 s)  
High damage threshold (45 kW/cm<sup>2</sup>)
- > **COMPACT DESIGN**  
Only 32 mm thick (40S model)
- > **ENERGY MODE**  
Measure single shot energy up to 200 J

## OUTPUT OPTIONS

- > **SMART DB15 CONNECTOR**  
Contains all the calibration data
- > **integra ALL-IN-ONE-METER**  
Connects directly to a PC  
Two models available:
  - USB output (-INT)
  - RS-232 output (-IDR)
- > **BLU WIRELESS METER**   
Connects via Bluetooth® to a smartphone, tablet or PC

## COMPATIBLE DISPLAYS & PC INTERFACES

MIRO ALTIUDE



MAESTRO



TUNER



UNO



U-LINK and P-LINK



S-LINK and M-LINK

## ACCESSORIES



Stand with steel post



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



Fiber adaptors and connectors  
(FC, SC or SMA)



3-Port fiber cylinder with  
adaptors and plug



12V power supply







Pelican carrying case

# UP55-H

## Specifications

CE NIST\*  
Traceable  
\*Also traceable to NRC-CNRC



	UP55N-40S-H9-D0	UP55N-100H-H9-D0	UP55N-300F-H12-D0	UP55M-500W-H12-D0
<b>MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)</b>	40 W / 80 W	100 W / 200 W	300 W / 300 W	500 W <sup>1</sup> / 500 W <sup>1</sup>
<b>EFFECTIVE APERTURE</b>	55 mm $\phi$	55 mm $\phi$	55 mm $\phi$	55 mm $\phi$
<b>COOLING METHOD</b>	Convection	Heatsink	Fan-cooled	Water-cooled
<b>MEASUREMENT CAPABILITY</b>				
<b>Spectral range</b>	0.19 - 20 $\mu$ m	0.19 - 20 $\mu$ m	0.19 - 20 $\mu$ m	0.19 - 20 $\mu$ m
<b>Calibrated spectral range<sup>a</sup></b>	0.248 - 2.1 $\mu$ m	0.248 - 2.1 $\mu$ m	0.248 - 2.1 $\mu$ m	0.248 - 2.1 $\mu$ m
<b>Noise equivalent power<sup>b</sup></b>	5 mW	5 mW	15 mW	15 mW
<b>Rise time (nominal)<sup>c</sup></b>	2 s	2 s	2 s	2 s
<b>Calibration uncertainty<sup>d</sup></b>	$\pm$ 2.5%	$\pm$ 2.5%	$\pm$ 2.5%	$\pm$ 2.5%
<b>Repeatability</b>	$\pm$ 0.5%	$\pm$ 0.5%	$\pm$ 0.5%	$\pm$ 0.5%
<b>Energy mode</b>				
<b>Maximum measurable energy<sup>e</sup></b>	200 J	200 J	200 J	200 J
<b>Noise equivalent energy<sup>b</sup></b>	0.25 J	0.25 J	0.25 J	0.25 J
<b>Minimum repetition period</b>	11.1 s	11.1 s	12 s	12 s
<b>Maximum pulse width</b>	433 ms	433 ms	430 ms	430 ms
<b>Accuracy with energy calibration option</b>	$\pm$ 5%	$\pm$ 5%	$\pm$ 5%	$\pm$ 5%
<b>DAMAGE THRESHOLDS</b>				
<b>Maximum average power density</b>				
<b>1064 nm, 10 W, CW</b>	45 kW/cm <sup>2</sup>	45 kW/cm <sup>2</sup>	45 kW/cm <sup>2</sup>	45 kW/cm <sup>2</sup>
<b>10.6 <math>\mu</math>m, 10 W, CW</b>	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>				
<b>1064 nm, 360 <math>\mu</math>s, 5 Hz</b>	9 J/cm <sup>2</sup>	9 J/cm <sup>2</sup>	9 J/cm <sup>2</sup>	9 J/cm <sup>2</sup>
<b>1064 nm, 7 ns, 10 Hz</b>	1 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>
<b>532 nm, 7 ns, 10 Hz</b>	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>
<b>266 nm, 7 ns, 10 Hz</b>	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>				
<b>Effective aperture</b>	55 mm $\phi$	55 mm $\phi$	55 mm $\phi$	55 mm $\phi$
<b>Absorber (high damage threshold)</b>	H9	H9	H12	H12
<b>Dimensions</b>	89H x 89W x 32D mm	89H x 89W x 106D mm	89H x 89W x 116D mm	89H x 89W x 40D mm
<b>Weight (head only)</b>	0.62 kg	0.93 kg	1.41 kg	0.81 kg
<b>ORDERING INFORMATION</b>				
<b>Available output options</b>	DB15, USB, RS-232 or Bluetooth	DB15, USB, RS-232 or Bluetooth	DB15, USB, RS-232 or Bluetooth	DB15, USB, RS-232 or Bluetooth
<b>Compatible stand</b>	STAND-S-443	STAND-S-443	STAND-S-443	STAND-S-443
<b>Product page</b>				

- a. Calibrations at 2.1 to 2.5  $\mu$ m and 10.6  $\mu$ m are available on special request.  
 b. Nominal value, actual value depends on electrical noise in the measurement system.  
 c. With anticipation.  
 d. Including linearity with power.  
 e. For 360  $\mu$ s pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).  
 f. Minimum cooling flow 1.5 liters/min, water temperature  $\leq$  22°C, 1/8 NPT compression fittings for 1/4 inch semi-rigid tube. Contact Gentec-EO for clean deionized water cooling module option.

Specifications are subject to change without notice