AVAILABLE WITH integra
See page **36** for details
blu
page **38**

UP55-VR

55 mm Ø, 15 mW - 200 W, Volume Absorber

KEY FEATURES

1. **MODULAR CONCEPT**
   Increase the power capability of your detector: 4 different cooling modules
2. **HIGH PEAK POWER VOLUME ABSORBER**
   - Perfect for high density beams
   - Average power density of 700 W/cm² prevents degradation caused by repetitive pulses
3. **LARGE APERTURE**
   55 mm Ø aperture accomodates the largest beams
4. **HIGH AVERAGE POWER**
   Up to 200 W of continuous power with the water-cooled unit
5. **ENERGY MODE**
   Measure single shot energy up to 500 J
6. **SMART INTERFACE**
   Containing all the calibration data
7. **integra OPTIONS**
   - Standard: USB Output (-INT)
   - In Option: RS-232 Output (-IDR)

AVAILABLE MODELS


UP55N-50S-VR
(50W-Standalone)


UP55N-100H-VR
(100W-Heatsink)


UP55N-150F-VR
(150W-Fan-Cooled)


UP55M-200W-VR
(200W-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)


3-Port Fiber Cylinder with
Adaptors and Plug


12V Power Supply
(Model Number: 200130)


Pelican Carrying Case

SEE ALSO

UP55-VR

*Also traceable to NRC-CNRC

SPECIFICATIONS

	UP55N-50S-VR	UP55N-100H-VR	UP55N-150F-VR	UP55M-200W-VR
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	50 W / 50 W	100 W / 100 W	150 W / 150 W	200 W [g] / 200 W [g]
EFFECTIVE APERTURE	55 mm Ø	55 mm Ø	55 mm Ø	55 mm Ø
COOLING METHOD	Convection	Heatsink	Fan-Cooled	Water-Cooled
MEASUREMENT CAPABILITY				
Spectral Range *[a]	0.3 – 2.5 µm	0.3 – 2.5 µm	0.3 – 2.5 µm	0.3 – 2.5 µm
Noise Equivalent Power [b]	15 mW	15 mW	15 mW	15 mW
Rise Time (nominal) [c]	4 sec	4 sec	4 sec	4 sec
Sensitivity (typ into 100 kΩ load) [d]	0.04 mV/W	0.04 mV/W	0.04 mV/W	0.04 mV/W
Calibration Uncertainty [e]	±2.5 %	±2.5 %	±2.5 %	±2.5 %
Repeatability	±0.5 %	±0.5 %	±0.5 %	±0.5 %
Energy Mode				
Sensitivity	0.010 mV/J	0.010 mV/J	0.010 mV/J	0.010 mV/J
Maximum Measurable Energy [f]	500 J	500 J	500 J	500 J
Noise Equivalent Energy [b]	0.25 J	0.25 J	0.25 J	0.25 J
Minimum Repetition Period	11.1 sec	11.1 sec	11.1 sec	11.1 sec
Maximum Pulse Width	433 ms	433 ms	433 ms	433 ms
Accuracy with energy calibration option	±5 %	±5 %	±5 %	±5 %
DAMAGE THRESHOLDS				
Maximum Average Power Density [h]	700 W/cm²	700 W/cm²	700 W/cm²	700 W/cm²
Pulsed Laser Damage Thresholds	Max Energy Density		Peak Power Density	
1064 nm, 360 µs, 5 Hz	40 J/cm²		111 kW/cm²	
1064 nm, 7 ns, 10 Hz	6 J/cm²		860 MW/cm²	
532 nm, 7 ns, 10 Hz	4 J/cm²		570 MW/cm²	
266 nm, 7 ns, 10 Hz	1 J/cm²		143 MW/cm²	
PHYSICAL CHARACTERISTICS				
Effective Aperture	55 mm Ø	55 mm Ø	55 mm Ø	55 mm Ø
Absorber (Volume Absorber)	VR	VR	VR	VR
Dimensions	89H x 89W x 32D mm	89H x 89W x 106D mm	89H x 89W x 116D mm	89H x 89W x 44D mm
Weight (head only)	0.62 kg	0.93 kg	1.41 kg	0.84 kg
ORDERING INFORMATION				
Product Name	UP55N-50S-VR	UP55N-100H-VR	UP55N-150F-VR	UP55M-200W-VR
Product Number (Including stand)	201296	201934	201856	201292
Add Extension for INTEGRA (USB)	-INT	-INT	-INT	-INT
Product Number (Including stand)	202642	202644		
Add Extension for INTEGRA (RS-232)	-IDR	-IDR	-IDR	-IDR

Specifications are subject to change without notice

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

a. Adjustment multipliers for wavelengths under 300 nm are not traceable.
b. Nominal value, actual value depends on electrical noise in the measurement system.
c. With anticipation.
d. Maximum output voltage = sensitivity x maximum power.
e. Including linearity with power.
f. For 360 µs pulses. Higher pulse energy possible when customized for long pulses (ms), less for short pulses (ns).
g. Minimum cooling flow 1 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.
h. At 1064 nm, 10 W CW.