



UP19-VR

18 mm Ø, 2 mW - 35 W, Volume Absorber



KEY FEATURES

- 1. **MODULAR CONCEPT**
Increase the power capability of your detector: 2 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. **COMPACT DESIGN**
Only 21 mm thick (15S model)
- 4. **ENERGY MODE**
Measure single shot energy up to 40 J
- 5. **SMART INTERFACE**
Containing all the calibration data

AVAILABLE MODELS



UP19K-15S-VR
(15W-Standalone)



UP19K-30H-VR
(30W-Heatsink)

ACCESSORIES



Stand with Steel Post
(Model Number: 200160)



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



Pelican Carrying Case

SEE ALSO


HOW IT WORKS	14
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COMPATIBLE MONITORS	
MAESTRO	2
TUNER	24
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APPLICATION NOTE
MEASURING LASER POWER WITH A
THERMOPILE DETECTOR: THE BASICS! [202175](#)

UP19-VR

CE NIST* Traceable
*Also traceable to NRC-CNRC

SPECIFICATIONS

	UP19K-15S-VR	UP19K-30H-VR
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	15 W / 20 W	30 W / 35 W
EFFECTIVE APERTURE	18 mm Ø	18 mm Ø
COOLING METHOD	Convection	Heatsink
MEASUREMENT CAPABILITY		
Spectral Range *a	0.3 – 2.5 µm	0.3 – 2.5 µm
Noise Equivalent Power ^b	2 mW	2 mW
Rise Time (nominal) ^c	2.5 sec	2.5 sec
Sensitivity (typ into 100 kΩ load) ^d	0.34 mV/W	0.34 mV/W
Calibration Uncertainty ^e	±2.5 %	±2.5 %
Repeatability	±0.5 %	±0.5 %
Energy Mode		
Sensitivity	0.1 mV/J	0.1 mV/J
Maximum Measurable Energy ^f	40 J	40 J
Noise Equivalent Energy ^b	0.02 J	0.02 J
Minimum Repetition Period	4.5 sec	4.5 sec
Maximum Pulse Width	90 ms	90 ms
Accuracy with energy calibration option	±5 %	±5 %
DAMAGE THRESHOLDS		
Maximum Average Power Density ^g	700 W/cm ²	700 W/cm ²
Pulsed Laser Damage Thresholds	Max Energy Density	Peak Power Density
1064 nm, 360 µs, 10 Hz	40 J/cm ²	111 kW/cm ²
1064 nm, 7 ns, 10 Hz	6 J/cm ²	860 MW/cm ²
532 nm, 7 ns, 10 Hz	4 J/cm ²	570 MW/cm ²
266 nm, 7 ns, 10 Hz	1 J/cm ²	143 MW/cm ²
PHYSICAL CHARACTERISTICS		
Effective Aperture	18 mm Ø	18 mm Ø
Absorber (Volume Absorber)	VR	VR
Dimensions	50H x 50W x 20.6D mm	50H x 50W x 56.3D mm
Weight (head only)	0.16 kg	0.21 kg
ORDERING INFORMATION		
Product Name	UP19K-15S-VR	UP19K-30H-VR
Product Number (Including stand)	201149	201150
 Add Extension for INTEGRA	-INT	-INT
Product Number (Including stand)	202638	202640

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 Gentec-EO MAESTRO, UNO, P-LINK, TUNER and S-LINK monitors.

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. At 1064 nm, 10 W CW.