AVAILABLE WITH integra

See page **36** for details

blu

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UP19-W

19 mm Ø, 1 mW - 85 W, 100 kW/cm²

KEY FEATURES

1. **MODULAR CONCEPT**
   Increase the power capability of your detector: 5 different cooling modules
2. **VERY HIGH DAMAGE THRESHOLD**
   100 kW/cm² in average power density
3. **COMPACT DESIGN**
   Only 21 mm thick (15S model)
4. **ENERGY MODE**
   Measure single shot energy up to 200 J
5. **SMART INTERFACE**
   Containing all the calibration data
6. integra **OPTIONS**
   - Standard: USB Output (-INT)
   - In Option: RS-232 Output (-IDR)

AVAILABLE MODELS

UP19K-15S-W5
(15W-Standalone)

UP19K-30H-W5
(30W-Heatsink)

UP19K-50L-W5
(50W-Large Heatsink)

UP19K-50F-W5
(50W-Fan-Cooled)

UP19K-50W-W5
(50W-Water-Cooled)

ACCESSORIES

Stand with Steel Post
(Model Number: 200160)

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

12V Power Supply
(Model Number: 200130)

Pelican Carrying Case

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UP19-W

CE NIST* Traceable WEEE/RoHS COMPLIANT

*Also traceable to NRC-CNRC

SPECIFICATIONS

	UP19K-15S-W5	UP19K-30H-W5	UP19K-50L-W5	UP19K-50F-W5	UP19K-50W-W5
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	15 W / 30 W	30 W / 60 W	50 W / 85 W	50 W / 85 W	50 W [f] / 85 W [f]
EFFECTIVE APERTURE	19 mm Ø	19 mm Ø	19 mm Ø	19 mm Ø	19 mm Ø
COOLING METHOD	Convection	Heatsink	Large Heatsink	Fan-Cooled	Water-Cooled
MEASUREMENT CAPABILITY					
Spectral Range *	0.19 – 10.0 µm	0.19 – 10.0 µm	0.19 – 10.0 µm	0.19 – 10.0 µm	0.19 – 10.0 µm
Noise Equivalent Power [a]	1 mW	1 mW	1 mW	1 mW	1 mW
Rise Time (nominal) [b]	1.4 sec	1.4 sec	1.4 sec	1.4 sec	1.4 sec
Sensitivity (typ into 100 kΩ load) [c]	0.65 mV/W	0.65 mV/W	0.65 mV/W	0.65 mV/W	0.65 mV/W
Calibration Uncertainty [d]	±2.5 %	±2.5 %	±2.5 %	±2.5 %	±2.5 %
Repeatability	±0.5 %	±0.5 %	±0.5 %	±0.5 %	±0.5 %
Energy Mode					
Sensitivity	0.33 mV/J	0.33 mV/J	0.33 mV/J	0.33 mV/J	0.33 mV/J
Maximum Measurable Energy [e]	200 J	200 J	200 J	200 J	200 J
Noise Equivalent Energy [a]	0.02 J	0.02 J	0.02 J	0.02 J	0.02 J
Minimum Repetition Period	5 sec	5 sec	5 sec	5 sec	5 sec
Maximum Pulse Width	133 ms	133 ms	133 ms	133 ms	133 ms
Accuracy with energy calibration option	±5 %	±5 %	±5 %	±5 %	±5 %
DAMAGE THRESHOLDS					
Maximum Average Power Density [g]	100 kW/cm²	100 kW/cm²	100 kW/cm²	100 kW/cm²	100 kW/cm²
Pulsed Laser Damage Thresholds	Max Energy Density			Peak Power Density	
1064 nm, 150 µs, 10 Hz	100 J/cm²			667 kW/cm²	
1064 nm, 7 ns, 10 Hz	1.1 J/cm²			157 MW/cm²	
532 nm, 7 ns, 10 Hz	1.1 J/cm²			157 MW/cm²	
248 nm, 26 ns, 10 Hz	0.7 J/cm²			27 MW/cm²	
PHYSICAL CHARACTERISTICS					
Effective Aperture	19 mm Ø	19 mm Ø	19 mm Ø	19 mm Ø	19 mm Ø
Absorber (High Damage Threshold)	W5	W5	W5	W5	W5
Dimensions	50H x 50W x 20.6D mm	50H x 50W x 56.3D mm	76.2H x 76.2W x 74.7D mm	54.2H x 54.2W x 55.6D mm	50H x 50W x 33D mm
Weight (head only)	0.16 kg	0.21 kg	0.48 kg	0.25 kg	0.24 kg
ORDERING INFORMATION					
Product Name	UP19K-15S-W5-D0	UP19K-30H-W5-D0	UP19K-50L-W5-D0	UP19K-50F-W5-D0	UP19K-50W-W5-D0
Product Number (without stand)	200282	200284	200331	200334	200337
Add Extension for INTEGRA (USB)	-INT	-INT	-INT	-INT	-INT
Product Number (without stand)	202633	202635	202637	203047	203049
Add Extension for INTEGRA (RS-232)	-IDR	-IDR	-IDR	-IDR	-IDR
Add Extension for BLU	-BLU	-BLU		-BLU	-BLU
Product Number (without stand)	203640	203649		203658	203661

Specifications are subject to change without notice // Compatible stand: P/N 200160

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

a. Nominal value, actual value depends on electrical noise in the measurement system.
b. With anticipation.
c. Maximum output voltage = sensitivity x maximum power.
d. Including linearity with power.
e. For 150 µs pulses. Higher pulse energy possible when customized for long pulses (ms), less for short pulses (ns).
f. 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.
g. At 1064 nm, 10 W CW.

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