

## UP19-W


19 mm Ø, 1 mW - 85 W, 100 kW/cm<sup>2</sup>



### KEY FEATURES

- > **MODULAR CONCEPT**  
Increase the power capability of your detector:  
4 different cooling modules
- > **VERY HIGH DAMAGE THRESHOLD**  
100 kW/cm<sup>2</sup> in average power density
- > **COMPACT DESIGN**  
Only 21 mm thick (15S 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 ALTITUDE



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)



12V power supply







Pelican carrying case

# UP19-W

## Specifications

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



	UP19K-15S-W5-D0	UP19K-30H-W5-D0	UP19K-50L-W5-D0	UP19K-50F-W5-D0
<b>MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)</b>	15 W / 30 W	30 W / 60 W	50 W / 85 W	50 W / 85 W
<b>EFFECTIVE APERTURE</b>	19 mm $\phi$	19 mm $\phi$	19 mm $\phi$	19 mm $\phi$
<b>COOLING METHOD</b>	Convection	Heatsink	Large heatsink	Fan-cooled
<b>MEASUREMENT CAPABILITY</b>				
<b>Spectral range</b>	0.19 - 10.0 $\mu\text{m}$	0.19 - 10.0 $\mu\text{m}$	0.19 - 10.0 $\mu\text{m}$	0.19 - 10.0 $\mu\text{m}$
<b>Calibrated spectral range <sup>a</sup></b>	0.248 - 2.1 $\mu\text{m}$	0.248 - 2.1 $\mu\text{m}$	0.248 - 2.1 $\mu\text{m}$	0.248 - 2.1 $\mu\text{m}$
<b>Noise equivalent power <sup>b</sup></b>	1 mW	1 mW	1 mW	1 mW
<b>Rise time (nominal) <sup>c</sup></b>	1.4 s	1.4 s	1.4 s	1.4 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>	0.02 J	0.02 J	0.02 J	0.02 J
<b>Minimum repetition period</b>	5 s	5 s	5 s	5 s
<b>Maximum pulse width</b>	133 ms	133 ms	133 ms	133 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 <sup>f</sup></b>	100 kW/cm <sup>2</sup>	100 kW/cm <sup>2</sup>	100 kW/cm <sup>2</sup>	100 kW/cm <sup>2</sup>
<b>Maximum energy density</b>				
<b>1064 nm, 150 <math>\mu\text{s}</math>, 10 Hz</b>	100 J/cm <sup>2</sup>	100 J/cm <sup>2</sup>	100 J/cm <sup>2</sup>	100 J/cm <sup>2</sup>
<b>1064 nm, 7 ns, 10 Hz</b>	1.1 J/cm <sup>2</sup>	1.1 J/cm <sup>2</sup>	1.1 J/cm <sup>2</sup>	1.1 J/cm <sup>2</sup>
<b>532 nm, 7 ns, 10 Hz</b>	1.1 J/cm <sup>2</sup>	1.1 J/cm <sup>2</sup>	1.1 J/cm <sup>2</sup>	1.1 J/cm <sup>2</sup>
<b>248 nm, 26 ns, 10 Hz</b>	0.7 J/cm <sup>2</sup>	0.7 J/cm <sup>2</sup>	0.7 J/cm <sup>2</sup>	0.7 J/cm <sup>2</sup>
<b>PHYSICAL CHARACTERISTICS</b>				
<b>Effective aperture</b>	19 mm $\phi$	19 mm $\phi$	19 mm $\phi$	19 mm $\phi$
<b>Absorber (high damage threshold)</b>	W5	W5	W5	W5
<b>Dimensions</b>	50H x 50W x 20.6D mm	50H x 50W x 56.3D mm	76.2H x 76.2W x 74.7D mm	50H x 50W x 63D mm
<b>Weight (head only)</b>	0.16 kg	0.21 kg	0.48 kg	0.25 kg
<b>ORDERING INFORMATION</b>				
<b>Available output options</b>	DB15, USB, RS-232 or Bluetooth	DB15, USB, RS-232 or Bluetooth	DB15, USB or RS-232	DB15, USB, RS-232 or Bluetooth
<b>Compatible stand</b>	STAND-S-233	STAND-S-233	STAND-S-233	STAND-S-233
<b>Product page</b>				

- a. Calibration at 2.1 to 2.5  $\mu\text{m}$  is 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 150  $\mu\text{s}$  pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).  
 f. At 1064 nm, 10 W CW.

Specifications are subject to change without notice