

XLP12

12 mm Ø, 0.5 µW - 3 W, low power thermopile



KEY FEATURES

- **LOW POWER THERMOPILE**
Noise level of a photodetector with the large bandwidth and high power capacity of a thermal device
- **MINIMAL THERMAL DRIFT**
Only 6 µW/°C (with the IR filter)
- **HIGH SENSITIVITY**
- **SPECIAL MODEL FOR ULTRASHORT PULSES**
VP (volume absorber) version is perfect for low power lasers with ultrashort pulses (ps and fs)
- **IR FILTER (XLPF12 MODEL)**
Removes unwanted IR interference
- **ISOLATION TUBE**
Eliminates power fluctuations created by air turbulence

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)

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)



IR filter
(Mounted)



Fiber adaptors & connectors
(FC, ST and SMA)



Pelican carrying case






Extra isolation tube

XLP12

Specifications

CE NIST*
Traceable
*Also traceable to NRC-CNRC



	XLP12-3S-H2-D0	XLP12-3S-H2-D0	XLP12-3S-VP-D0
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	3 W / 3 W Broadband absorber	3 W / 3 W Broadband absorber, with IR filter	3 W / 3 W Volume absorber
EFFECTIVE APERTURE	12 mm ϕ	12 mm ϕ	12 mm ϕ
COOLING METHOD	Convection	Convection	Convection
MEASUREMENT CAPABILITY			
Spectral range	0.19 - 20 μm	0.28 - 2.1 μm	0.248 - 20 μm
Calibrated spectral range ^a	0.248 - 2.1 μm	0.308 - 2.1 μm	0.248 - 2.1 μm
Noise equivalent power ^b	0.5 μW	0.5 μW	0.5 μW
Thermal drift ^c	12 $\mu\text{W}/^\circ\text{C}$	6 $\mu\text{W}/^\circ\text{C}$	12 $\mu\text{W}/^\circ\text{C}$
Rise time (nominal) ^d	2.5 s	2.5 s	3 s
Calibration uncertainty ^e	$\pm 2.5\%$	$\pm 2.5\%$	$\pm 2.5\%$
Repeatability	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 0.5\%$
Energy mode			
Maximum measurable energy ^f	5 J	5 J	---
Noise equivalent energy ^b	12 μJ	12 μJ	---
Minimum repetition period	16 s	16 s	---
Maximum pulse width	300 ms	300 ms	---
Accuracy with energy calibration option	$\pm 5\%$	$\pm 5\%$	---
DAMAGE THRESHOLDS			
Maximum average power density ^g	1 kW/cm ²	1 kW/cm ²	30 W/cm ² at 1064 nm 8 W/cm ² at 532 nm 4 W/cm ² at 355 nm
Maximum energy density			
1064 nm, 360 μs , 5 Hz	5 J/cm ²	5 J/cm ²	---
1064 nm, 7 ns, 10 Hz	1 J/cm ²	1 J/cm ²	4 J/cm ²
532 nm, 7 ns, 10 Hz	0.6 J/cm ²	0.6 J/cm ²	3 J/cm ²
355 nm, 7 ns, 10 Hz	---	---	1 J/cm ²
266 nm, 7 ns, 10 Hz	0.3 J/cm ²	0.3 J/cm ²	---
PHYSICAL CHARACTERISTICS			
Effective aperture	12 mm ϕ	12 mm ϕ	12 mm ϕ
Absorber (high damage threshold)	H2	H2	VP (Volume absorber)
Dimensions	73H x 73W x 20D mm (72D mm with tube)	73H x 73W x 20D mm (80D mm with tube)	73H x 73W x 20D mm (72D mm with tube)
Weight (head only)	0.31 kg	0.32 kg	0.32 kg
ORDERING INFORMATION			
Available output options	DB15, USB, RS-232 or Bluetooth	DB15, USB, RS-232 or Bluetooth	DB15, USB, RS-232 or Bluetooth
Compatible stand	STAND-S-233	STAND-S-233	STAND-S-233
Product page			

- a. Calibrations at 21 to 2.5 μm and 10.6 μm are available on special request.
 b. Nominal value, actual value depends on electrical noise in the measurement system.
 c. With Gentec-EO MAESTRO.
 d. With anticipation.
 e. Including linearity with power.
 f. For 360 μs pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).
 g. At 1064 nm, 1 W CW.

Specifications are subject to change without notice