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

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LASER COMPONENTS®

XLP12
Specifications

CE NIST* Traceable

*Also traceable to NRC-CNRC



	XLP12-3S-H2-D0	XLPF12-3S-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 Ø	12 mm Ø	12 mm Ø
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 µW/°C	6 µW/°C	12 µW/°C
Rise time (nominal) [d]	2.5 s	2.5 s	3 s
Calibration uncertainty [e]	± 2.5%	± 2.5%	± 2.5%
Repeatability	±0.5%	±0.5%	±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	± 5%	± 5%	---
DAMAGE THRESHOLDS			
Maximum average power density [g]	1 kW/cm²	1 kW/cm²	30 W/cm² at 1064 nm 8 W/cm² at 532 nm 4 W/cm² at 355 nm
Maximum energy density			
1064 nm, 360 µs, 5 Hz	5 J/cm²	5 J/cm²	---
1064 nm, 7 ns, 10 Hz	1 J/cm²	1 J/cm²	4 J/cm²
532 nm, 7 ns, 10 Hz	0.6 J/cm²	0.6 J/cm²	3 J/cm²
355 nm, 7 ns, 10 Hz	---	---	1 J/cm²
266 nm, 7 ns, 10 Hz	0.3 J/cm²	0.3 J/cm²	---
PHYSICAL CHARACTERISTICS			
Effective aperture	12 mm Ø	12 mm Ø	12 mm Ø
Absorber (high damage threshold)	H2	H2	VP (Volume absorber)
Dimensions	73H x 73W x 20D mm (72D mm with tube)	73H x 73W x 28D 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 2.1 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

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