LASER POWER **MEASUREMENT**

OPHIR GROUP SENSORS, JUNO, STARLAB

Laser power or energy measurement is necessary procedure in the laser source production, service, repairing and function control both in laboratory and industrial application. One of three available sensors is connected by cable with compact Juno USB interface installed in a computer. Virtual power/energy meter is displayed on monitor and is controlled by software StarLab.

ACQUIRED INFORMATION

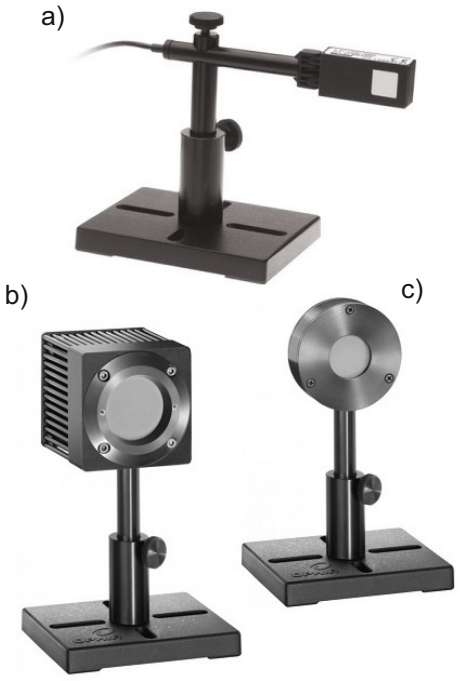
- Actual laser power or energy value
- Time development record
- Computation of average values, statistics, histograms and more
- Save and export of data files

SAMPLE TYPES

- Wavelength depends on sensor type
- CW and pulsed lasers
- Maximal diameter and power/energy density are dependent on sensor type

MODES, CONDITIONS AND PRECISION

- Thermal sensor L50 (150)A-PF-35: 190 nm – 20 µm, power range 100 mW – 150 W, energy range 50 mJ – 300 J, maximal energy density 1.5 J/cm² for pulse < 100 ns
- Photo diode head PD300-3W: 350 nm – 1 100 nm, CW power 5 nW – 100 mW , limit 10 W/cm² (without filter), 200 µW – 3 W, limit 100 W/cm² (with filter, 100x attenuation)
- Pyroelectric head and diffuser PE25BF-C: 190 nm – 3 µm, 10.6 µm, pulse energy range 60 µJ – 10 J, frequency limit 250 Hz for 1 ms pulse, limit 10 J/cm² (2 ms) and 20 W/cm²



a) Photo diode head PD300-3W; b) Thermal sensor L50; c) Pyroelectric head and diffuser PE25BF-C.

Time development of the laser power measurement.

DETAILED INFORMATION ON REQUEST

REGIONAL CENTRE OF ADVANCED TECHNOLOGIES AND MATERIALS

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