

THE ULTRA COMPACT CALORIMETER

RLC60 V2.2

**High laser power measurements
from 200W up to 12 000W
For CO₂, YAG and Diodes Lasers**

LASER METROLOGIE present the last generation of the radiometers for medium and high power measurements on continuous or pulsed YAG, diode and CO₂ lasers : the ultra compact RLC60 V2.2. (Version V1.0 : from 1991 to 2004 / Version V2.2 : since 2005) Using total direct absorption along the horizontal or vertical axis, these true calorimeters can measure the power of a freely propagating beam at the output of a laser or reflecting optics, or of a divergent beam leaving shaping or focusing optics outside the plane. The high performance of this instrument in terms of absorption quality, speed of response, exposure resistance, endurance, ease of use and metrological qualities - reproducibility, precision, linearity and resolution - make it a highly reliable tool for the long-term monitoring of laser power for process development and optimisation. The instrument's high quality of manufacture contributes to its ability to withstand repetitive and intensive use. The electronic system includes an advanced (16 bits, 25 MHz) microcontroller incorporating many functions as standard and offering the user simple and flexible operation, efficiency and high quality measurements. Its highly legible display gives a simultaneous read-out of measured power and cooling flow. An analogue output, programmable in volts per kilowatt, can be used to transmit a setpoint signal based on the measured power to a digital control system. A relay output can be linked to a minimum threshold for flow rate (l/min). A windows software via the RS 232 interface is also available for further processing of the results



THE ULTRA COMPACT HEAD V2.2

Sizes and weight : $\varnothing 110\text{mm} \times \text{H}132\text{mm} \times 2,6\text{kg}$
(For V1.0 version 1991-2004 : $\varnothing 135\text{mm} \times \text{H}160\text{mm} \times 4,2\text{kg}$)
Absorbing part : **absorbing cone**
Aperture : **60mm**
Coating : **special for high power in continuous**
Capacity : **12000W- $\varnothing 40\text{mm}$**
Cooling of the absorber : **under the skin**
Cooling type : **Water cooling system or city water**
Mean flowrate : **6l/min**
Hydraulic connectors : **input and output self-closing**
Position : **with an horizontal or a vertical beam**

THE ASSOCIATED ELECTRONIC

Microcontroller : **16bits /25MHz - Freescale HCS12**
Display : **alphanumeric red LED's with high luminosity**
Box : **aluminium with active ventilation**
Functions in front face : **save and recall for the last measured value**
High resolution analog output : **0-10V / 16 bits**
Relay output : **switch off for minimum flowrate < 4 l/min**
Hardened electronic cable : **5m (up to 100m on request)**
Software interface : **RS232 DB9**
Windows software : **95, 98, NT, 2000, XP, Vista, Windows 7**

LASER METROLOGIE

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