Laser Power Probes for High Power Lasers: the Cronos Series

- Fully Automatic
- 3 Models for Powers up to 10KW
- 8 sec to Measure and Display
- Large Apertures: up to 60mm
- Recalibration by the User

The laser power probe Cronos is a fully automatic laser power probe that calculates laser power by a microprocessor based measurement of temperature dynamics.

Its patented measurement and acquisition technique self-determines the time needed to carry out a measurement: the data acquisition is triggered and stopped by detecting set heat parameters thresholds.

This technique is totally free from induced errors due to time exposure determination and may allow multiple measurements without the need of absorber forced cooling.

Three models cover full scale laser powers from 1.5W to 10kW.

Their innovative measurement concept cuts the time to measure and display down to about 10 s providing good repeatability (±2% with a co-axial laser beam), excellent accuracy (±4%), high resolution (1W up to 10kW full scale) associated with a wide range of laser power measurements (down to 5% of full scale) on all probe models.

The laser power probe Cronos

features a large multifunction LCD that simultaneously indicates the measured power, its actual accuracy, selected wavelength of measurement (CO2, Nd-YAG, Diodes), max power range and low-battery.

Furthermore a moving bar shows the actual absorber temperature; this informs the operator whether he can still perform one or more measurements before the absorber reaches its maximum allowable temperature.

Additionally the laser power probe status is displayed by a two colour LED, indicating its status: probe is ready (steady green), measurement is in progress (flashing green), measurement is over (steady red) or cooling is needed (flashing red).

The laser power probe Cronos is operated by a single button; beside intentional shut off, it shuts automatically off after 5 minutes of non operation and always stores its last measurement in memory.

Two common AA batteries allows a minimum of 5000 measurements.

The laser power probe Cronos has been ergonomically designed in all its details like the LCD display, which secures an optimum visibility to the operator and the balance of weights, to provide a comfortable and safe operation.

Absorbers feature high damage thresholds and low reflection coatings.

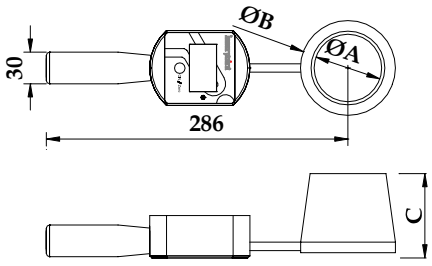
Recalibrations to be made by users.

Cronos has been designed to be price competitive respect to lower performance devices.

Cronos Series Laser Probes:Technical Specifications(*)

Parameter	LP1.5	LP5.0	LP10
Maximum Measurable Power (W)	1500	5000	10000
Minimum Measurable Power @ ±4% Accuracy (W)	150 (1)	500 (1)	1000 (1)
Absolute Minimum Measurable Power (W)	30	100	200
Max Laser Beam Diameter (mm)	40	55	65
Power density damage threshold @ full scale (W/cm^2)	2600	1900	1500
Repeatability	±2%	±5%	±5%
Measurement Accuracy		±4%	
Resolution (W)		1	
Maximum allowable absorber temp. (°C)		150	
Time to measure and display data at full scale power (s)		10	
Time to measure and display data at min. scale power (s)		15	
Power consumption in On status (mW)		26	
Power consumption in Off status (µW)		25	
Power supply (2x AA Batteries) (V)		3	
Continuous operation without battery replacement (h)		200	
Operating temperature range (°C)		10 to 40	
Storage temperature range (°C)		-10 to 60	
Weight (g)	480	950	1300
Length with handle (mm)	300	310	320

(1) Individually compared against aNIST reference. NIST traceability on request.
*(All specifications subject to change without notice)
To maintain performance and specifications, LaserPoint recommends to calibrate the probes once a year.



Model	A	B	C	Active Area
1.5 kW	40	50	35	Flat
5 kW	55	75	65	Conic
10 kW	64	90	75	Conic