

SOLO

Gentec Electro-Optics SOLO is the newest, most advanced, microprocessor-based power and energy meter in the Gentec-EO arsenal. It is the ideal choice for applications that only need to read one detector at a time. We have added more capability and at the same time made our friendly interface even more user friendly. The SOLO gives you complete statistics and allows you to save data internally and to your PC.

Windows CE™

SOLO's menu-driven Windows CE™ based interface is easy and intuitive enough to master in minutes. You can also download the operating software for the SOLO from our website. Our newest features, latest improvements, and even custom modifications just for you, are available at the click of a button.

Power and Energy

The SOLO PE gives you the flexibility to read both power and energy detectors as simply as plugging in a new head. The SOLO lets you display power from a photodiode detector in dBm or watts. The SOLO will recognize the detector and automatically download all the calibration information it needs from the detector's EEPROM.

OEM Version

SOLO X is our PC-based version of the SOLO PE, without keyboard or display. It is ideal for networked OEM installations. It is great where you have a high degree of automation or need to keep people away from the process.

Large Display

Your eyes will appreciate the easy to view high resolution 58x38 mm graphic LCD display of the SOLO PE. Your computer screen is the display for the SOLO X.

Ergonomic Design

Compact, sturdy, and easy to handle, the SOLO can go anywhere! You will appreciate its ergonomic shape and adjustable stand. The stand protects the SOLO when you travel and it is adjustable so you can avoid the glare from overhead lights.



SOLO

MONITOR
Laser Power / Energy Meter

- Single Channel
- Microsoft Windows CE™
- User-Friendly
- Large Display
- Full Statistical Functions
- Power/Energy/Photo Detectors
- USB / RS-232

Powered by
Microsoft®
Windows®CE



MONITOR

Automatic Head Recognition

The SOLO works with all Gentec-EO detectors. It automatically recognizes every detector head, ensuring accurate auto-calibration. More importantly, it can take advantage of our *Personal wavelength correction™*. It reads the memory in the Smart Interface connector to provide a wavelength correction that is based on spectral data measured from that specific detector. Your measurements across the band have never been this precise or easy.

Fast Response

The SOLO can handle data from energy detectors up to 1 kHz. It also features an anticipation circuit for fast power detector response.

Quality Thresholds

We even provide threshold lines you can overlay on your line plot so you can easily tell when the measurement is within or outside of tolerance. This is excellent for quality control and pass/fail monitoring applications.

Correction Factors

If you use a sampling device such as the Gentec-EO Holographic Beam Sampler (HBS) or need to account for other optics in your system you can easily program correction factors to obtain a true value reading. The SOLO allows you to enter two multipliers and 2 offsets for maximum measurement flexibility.

Saves Data and Settings

The SOLO can store data in flash memory and transfer it to a PC. The SOLO can also remember and recall your settings. Look at the Status screen to review all of your settings at any time.

Flexible Power

Use the battery in the field. Recharge and take data at the same time with the external power supply. In addition, operate the SOLO without battery or power supply when plugged into a USB port! This is great for changing batteries without interrupting your measurements.

Flexible Statistics

You can set the SOLO to calculate the statistics for a single sample and stop, or to repeat continuously. Take data for a few seconds or a few weeks. You have the flexibility to handle any application from analyzing a single short pulse with high resolution to sampling performance over a period of months.



SOLO
ADJUSTABLE
STAND



PROTECTIVE
COVER



OPTIONAL
PROTECTIVE
POUCH



SOLO X



OPTIONAL WALL BRACKET



INCLUDED
USB CABLE

OPTIONAL
RS-232 CABLE



BATTERY PACK

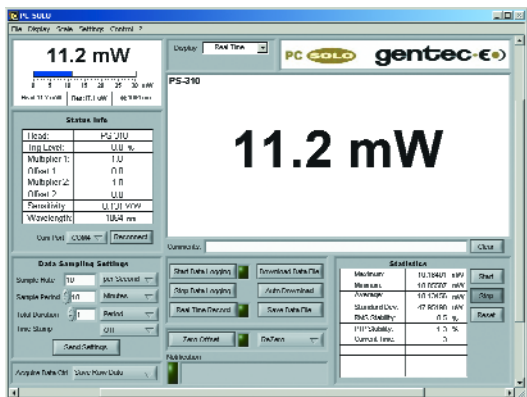
MONITOR

Data Acquisition

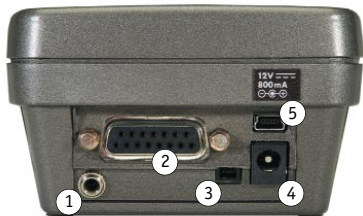
Data acquisition and remote control are possible via serial RS-232 and USB ports for the SOLO PE, and via USB port for the SOLO X. You can use an adapter to plug the SOLO into your GPIB system and have the same functionality. You can save your settings so the SOLO PE will be ready to go as soon as you power it up. You can turn on the time stamp to ease your analysis or leave it off to maximize your storage. Data is easily plotted on widely available spreadsheets and plotting programs.

Remote Control

PC-SOLO, a user-friendly communication software package, lets you control the SOLO PE and X from your PC. It is particularly useful for data acquisition since the storage capacity is determined by your PC's hard disk. It is the only interface for the SOLO X. Upgrades for PC-SOLO are available on our website. You'll find our LabVIEW drivers there as well. Use them as is, or customize them for your specific needs.

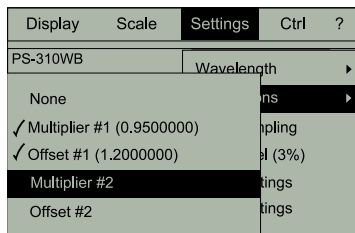


PC-SOLO Software

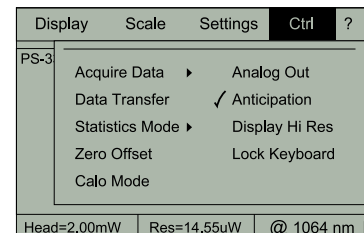


- 1 0 to 1 volt analog output
- 2 Detector
- 3 RS-232 connector
- 4 External power supply input
- 5 Mini USB connector

CONVENIENT WINDOWS CE™ MENUS

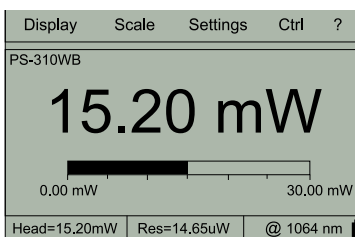


SOLO's menu-driven Windows CE™ based interface is easy and intuitive enough to master in minutes.



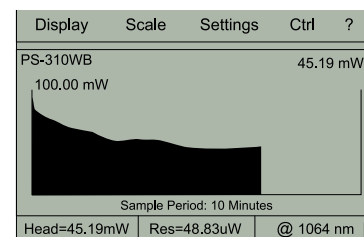
A multitude of easy window based controls for every application.

REAL TIME DISPLAY



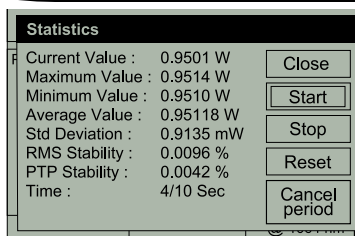
High or Low Resolution. Select the high resolution mode for the most significant digits available or the standard resolution to filter out unimportant fluctuations in the measurement.

HISTOGRAM DISPLAY



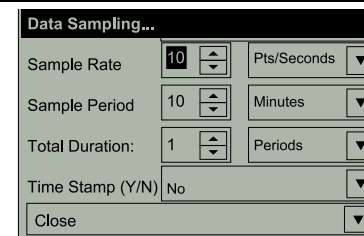
Easily switch between Real time, Line plot, Histogram, Digital needle and Statistics displays.

STATISTICS DISPLAY



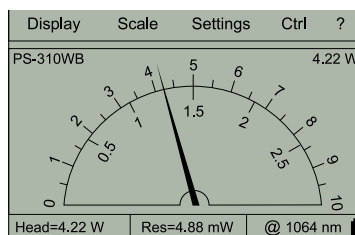
The SOLO can display a complete statistical analysis of power or energy measurements.

DATA SAMPLING SETUP



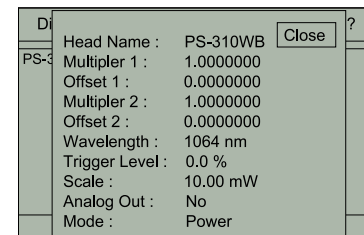
You have complete control over the data sampling. Use the defaults or select your own sample rate, sample period, and the time period or number of points to do the statistics.

TUNING DISPLAY



The SOLO also provides a fast, high resolution digital needle suitable for tuning and aligning. Refresh rate: 15Hz.

STATUS SCREEN



Look at the Status screen to review all of your settings at any time.

SOLO SPECIFICATIONS

	SOLO PE	SOLO X
POWER METER SPECIFICATIONS		
Power Range (thermal head)	100 μ W to 10 kW	✓
Power Range (photo detector head)	1 pW to 3 W	✓
Resolution (digital)	15 μ W on the 30 mW scale	✓
Monitor Accuracy	\pm 1.0% ^a	✓
Thermopile Response Time (accelerated)	1 sec	✓
Statistics	Current value, Max, Min, Average, Std Dev., RMS stability, PTP stability, Time	✓
ENERGY METER SPECIFICATIONS		
Energy Range	8 μ J to 20 kJ	✓
Resolution (digital)	50 nJ	✓
Monitor Accuracy	1.0% ^a	✓
Software Trigger Level	0.1 to 99.9%, 0.1% resolution, default 2% ^a	✓
Repetition Rate	1000 Hz	✓
Statistics	Current value, Max, Min, Average, Std Dev., RMS stability, PTP stability, Pulse #, Repetition Rate, Avg Power	✓
DETECTOR COMPATIBILITY		
Thermopile (power detector)	Average Power Single Shot Energy	✓ ✓
Pyroelectric (energy detector)	Pulse Energy including single shot	✓
Photo Detector	Average Power (mW, dBm)	✓
GENERAL SPECIFICATIONS		
Digital Display	58 x 38 mm LCD, 160 x 240 pixels	PC screen
Data Storage	up to 225 000 points ^b	✓
Data Displays	Real time, Line plot, Histogram, Statistics, Tuning display	✓
High Resolution mode	More Significant Digits	✓
User input correction factors	2 Multipliers and 2 Offsets (7 digits)	✓
Analog Output	0-1 volt, full scale, \pm 1%	✓
Internet upgrades	USB and RS-232 ^c (up to 115.2 kbps)	USB
PC SOLO	✓	✓
PC Serial Commands	USB and RS-232 ^c	USB
LabVIEW Drivers	✓	✓
Dimensions (without stand)	230 (L) x 95 max (W) x 55 max (H) mm	231 x 102 x 35 mm
Weight	0.58 kg (with stand)	0.44 kg
Battery pack	4 rechargeable 1.2 V Ni-MH AA (6 hours to full charge)	---
External Power Supply	220/240 VAC, 50 Hz to 12 VDC, 1A; 100/120 VAC, 60 Hz to 12 VDC, 800 mA; or USB	--- --- USB

Order number	Description	Order number	Description
100-200076	SOLO PE + Battery + Power Supply + USB Cable	100-200128	Optional SOLO Protective Pouch
100-200293	SOLO X + USB Cable	100-100283	Optional SOLO Wall Bracket
100-200106	Optional SOLO RS-232 Cable	100-200083	Spare SOLO Battery Pack

a. For Rep. Rate < 500 Hz.

b. Maximum when not using advanced features that require memory.

c. USB Cable is included with the SOLO, RS 232 cable must be purchased separately.

Specifications subject to change without notice.

