PRESENTATION

OVERVIEW OF THE DIFFERENT MODELS

The Gentec-EO monitors come is various sizes and types to cover all applications. We have monitors with or without display (PC-based) and for power or energy readings, or both. We also offer the fastest digital needle display on the market.

See page 18

MAESTRO

Gentec Electro-Optics is proud to present the new MAESTRO Power & Energy Meter, with extra-large 5.6in color LCD display and fully touch screen controls. With a completely revised user interface and faster electronics, it will do more, in less time, and with less effort than any other meter on the market!

TOUCH SCREEN **COLOR LCD** **MULTIPLE LANGUAGES ***

* Every language may not be available yet

See page 22

TUNER

This Power Meter presents both a large LCD display and an ultrafast needle, up to 10X faster than anything else on the market. It comes with more features than the competition, like min and max holds for both displays, comet tail needle and bargraph function. The TUNER comes in Gentec-EO's ergonomic design, with a large LCD display and easy to use direct access keys.

ULTRA-FAST TUNING NEEDLE

See page 24

UNO

The UNO is a simple Power Meter, with larghe contrast fields and direct access buttons. Its extremely low power consumption allows it to work on standard alkaline batteries, making it the monitor of choice for service technicians working in the field. With the lowest price for a display meter, the UNO is the perfect choice when looking for a reliable, entry-level power meter.

ECONOMICAL POWER METER

See pages 26 and 28

S-LINK-2 & P-LINK

The S-LINK-2 and P-LINK are PC-Based Power or Energy monitors that both come with unique software applications. The S-LINK-2 has 2 channels and measures energy detectors at a fast rate; up to 10 kHz per channel. It comes with a USB interface, Ethernet being available in option. The P-LINK is a small power meter, available with either a USB or RS-232 interface.

PC-BASED POWER OR ENERGY METERS

COMPARISON TABLE

See page 30

M-LINK

New in 2012, the M-LINK is a Universal Power & Energy Meter with PC-Interface through a USB connection. This meter measures ALL the detectors in our product range, including the pyroelectrics, thermopiles and photo detectors (in both power or energy mode). Also, it features a unique digital method of suppressing the noise that allows readings at very low energy levels (down in the picojoules!).

PC-BASED UNIVERSAL POWER & ENERGY METER






	MAESTRO	TUNER	UNO	S-LINK-2	P-LINK	M-LINK	MACH 5/6
Detector Compatibility							
Power (Thermopiles)	✓	✓	✓	✓	✓	✓	
Power (Pyroelectrics -B)	✓			✓		✓	
Power (Photo Detector)	✓	✓	✓		✓	✓	
Power (Photo Detector -B)	✓			✓		✓	
Energy (Pyroelectrics)	✓			✓		✓	
Energy (Pyroelectrics -B)	✓			✓		✓	
Energy (Thermopiles)	✓			✓	✓	✓	
Energy (Photo Detector -B)	✓			✓		✓	
Energy (Ultrafast Pyros)							✓
Display	5.6in LCD Touch Screen 18bit Color	3.8in LCD With Tuning Needle	3.8in 32 mm Digits High Contrast	None	None	None	None
PC Interface	✓			✓	✓	✓	✓
Outputs							
USB	✓			✓	Standard	✓	✓
USB Key Port	✓						
RS-232	✓			Optional	Optional		
Analog Output	✓	✓			✓	✓	✓
Ethernet	✓			Optional			
External Trigger	✓			✓		✓	✓
Full Statistical Functions	✓			✓	✓	✓	
Max Repetition Rate	2 kHz (10 kHz sampling)			10 kHz/Channel		1 kHz	200 kHz
Number of Channels	1	1	1	2	1	1	1
Product Page	18	22	24	26	28	30	130

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MAESTRO

Touch Screen, Single Channel, Power & Energy Monitor

* Every language may not be available yet

CONNECTIVITY

KEY FEATURES

1. Reads ALL Heads:
   - Power: Thermopiles, Photo Detectors and Pyroelectrics
   - Energy: Thermopiles (in single shot mode) , Photo Detectors and Pyroelectrics

2. **Large TOUCH SCREEN Color LCD Display**
   - 5.6in Diagonal
   - 640 x 480 Resolution
   - 18bit Color
   - FULLY Touch Screen Controls

3. **Unique Ergonomic Design**
   Great for both handheld and tabletop use, with improved rubber bands and quick stand for better stability

4. **Intuitive User Interface**
   Easy to navigate interface, with many display features:
   - Single or Dual Graph Display
   - Instant access to the main functions
   - Function Search tool
   - Interface available in multiple languages

5. **USB Key Access**
   Store data directly on a USB key

6. **Real-Time Statistical Functions**
   Max, Min, Average, Standard Deviation, RMS and PTP Stability, Pulse # and Repetition Rate

7. **Available Outputs**
   USB Key, Analog Output, RS-232, PC-USB, Ethernet

ACCESSORIES

Additional 9V Power Supply
(Model Number: 200960)

Battery Pack
(Model Number: 201013)

USB, RS-232, External Trigger & Analog Out Cables

Protective Pouch
(Model Number: 200128)

Pelican Carrying Case

SEE ALSO

WATCH THE INTRODUCTION VIDEO AVAILABLE ON OUR WEBSITE AT www.gentec-eo.com

MAESTRO

SPECIFICATIONS

*Also traceable to NRC-CNRC

MODEL	MAESTRO
DETECTOR TYPES	ALL MODELS: Thermopiles, Pyroelectrics, Photo Detectors
DISPLAY	Touch Screen 5.6in Color LCD

POWER METER SPECIFICATIONS	
Power Range	
Thermopile	1 µW to 30 kW
Photo Detector	4 pW to 3 W
Monitor Accuracy	0.25 % ± 5 µV best scale
Statistics	Current Value, Max, Min, Average, Standard Deviation, RMS & PTP Stability, Time
ENERGY METER SPECIFICATIONS	
Energy Range	30 fJ to 30 kJ
Monitor Accuracy	±1 % best scale
Software Trigger Level	0.1 to 99.9 %, 0.1 % resolution, default 2 %
Repetition Rate	2 000 Hz / 10 000 Hz in sampling
Real Time Data Transfer (To USB key)	2 000 Hz
Statistics	Current Value, Max, Min, Average, Std Dev., RMS & PTP Stability, Pulse #, Rep. Rate and Avg Power
DETECTOR COMPATIBILITY	
Thermopile	Average Power & Single Shot Energy
Photo Detector	Average Power & Pulse Energy
Pyroelectric	Pulse Energy & Average Power
GENERAL SPECIFICATIONS	
Interface Languages	English, German, French (Chinese and Japanese to come)
Digital Display Size	112.9 x 84.7 mm LCD - 640 x 480 pixels
Data Display	Real Time, Scope, Statistics, Digital Tuning Needle and Averaging
Analog Output	0-1 Volt, Full Scale, ±0.5 %
Rising Edge External Trigger	TTL Compatible, 2-25 V @ 0.4 mA
Serial Commands Via	USB (standard), Ethernet or RS-232 (cable in option)
Internet Upgrades Via	USB key
Data Storage Via	USB key
Dimensions	210W x 122H x 45D mm
Weight (With Batteries)	0.67 kg
Battery Type	4 x Rechargeable 1.2 V Ni-MH AA
Battery Life	6.5 hours
External Power Supply	100/240 VAC 50-60 Hz to 9 VDC 1.66 A
ORDERING INFORMATION	
Full Product Name	MAESTRO
Product Number	201235

Specifications are subject to change without notice

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MAESTRO

HOME

- **Set Device**: Set the device's Language, the Number of Digits to be displayed, choose your Serial Commands and Ethernet Configuration and Save your Settings.
- **Set Measure**: Use this menu to change the Wavelength, the Range, the Measuring Mode, the Trigger Level or add Correction Factors.
- **Display**: Set the device in Dual or Full Screen display mode and choose the display(s) you want.
- **Acquisition**: Set all your acquisition parameters (time, sample rate, etc.).
- **About**: View the main parameters and update your MAESTRO

SET DEVICE

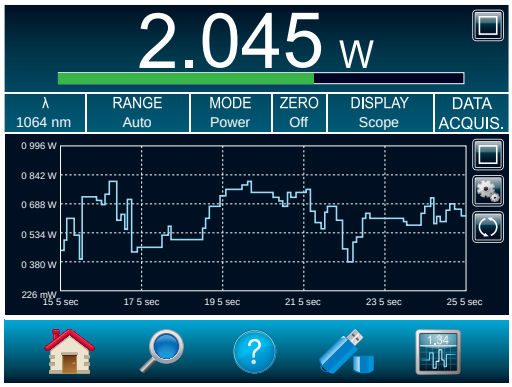
Use the elements in this menu to set the parameters related to your MAESTRO:

- **Number of Digits**: Use this menu to set the precision of the measurement.
- **Serial Commands**: Set compatibility with SOLO2 and use the RS-232 output.
- **Save & Load Settings**: Save the current settings or load the saved settings after reboot.
- **Ethernet**: Configure the Ethernet communication protocol.
- **Language**:s Select the display language (English, German or French).

SET MEASURE

Use the elements in this menu to set everything related to your measurements:

- **Wavelength**: Select one of the standard wavelengths offered, enter a custom value and create your own list of standard wavelengths.
- **Range**: Set the measuring range to autoscale or a fixed scale.
- **Measure Mode**: Use this menu to decide what type of measurements will be displayed: average power, single shot energy, pulse-to-pulse energy, etc.
- **Corrections**: Enter multipliers and offsets.
- **Trigger Level**: Set the trigger level in 0.1% steps, from 0.1% and 99.9%.



DUAL SCREEN DISPLAY (SHOWN WITH SCOPE DISPLAY)

With the Dual Screen mode, the MAESTRO really takes full advantage of its extra-large screen! Any display mode can be used in both single or dual display mode. In dual display mode, the Real Time display takes the upper portion of the screen, while any of the other displays (Scope, Needle, Averaging or Statistics) is set on the lower portion. The display in the lower portion can be easily changed using the parameters bar with drop-down menus in the center of the screen. You can also expand one of the displays to have it in Full Screen mode using the maximize button. Just as easily, you can go back to Dual Screen display by using the minimize button.

MAESTRO

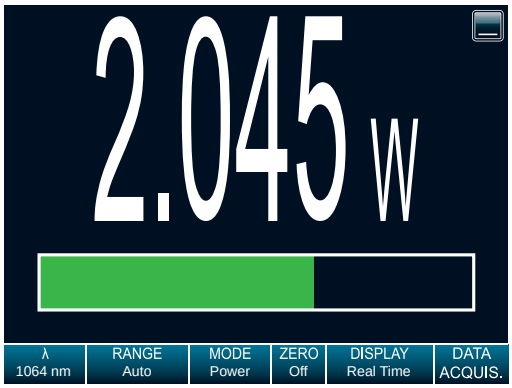
CE NIST* Traceable WEEE RoHS COMPLIANT

*Also traceable to NRC-CNRC

REAL TIME DISPLAY

This display shows the measured value in real time, with a corresponding bar graph below. The large size of the digits and high contrast of the graphics allow to see the measurement from a good distance. This mode is also always present in dual screen mode, in the upper portion of the screen.

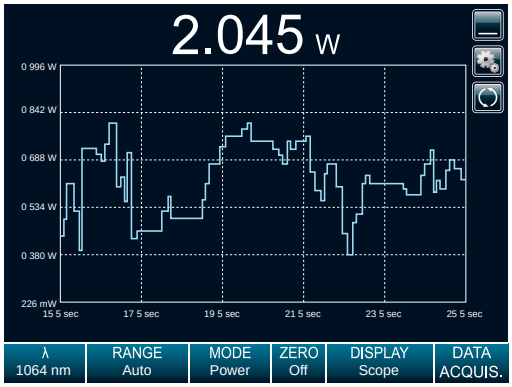
- Very Large Digits
- Bargraph



SCOPE DISPLAY

With its line filling from the right of the screen, in a first-in/first-out manner, this display mode is a good approximation of an actual oscilloscope reading. Settings include time (x-axis) and range (y-axis). Basic statistics (can also be displayed directly on the screen.

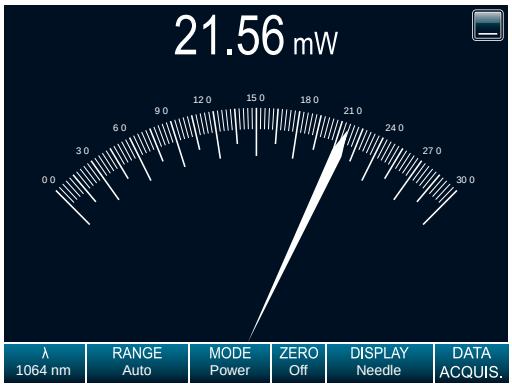
- Oscilloscope-type graph
- Display basic statistics (min, max and average)
- Fully customizable x and y axis



NEEDLE DISPLAY

Exactly like an analog needle, only faster! This mode is particularly useful when tuning a laser. The Real Time value is also displayed at the top of the screen.

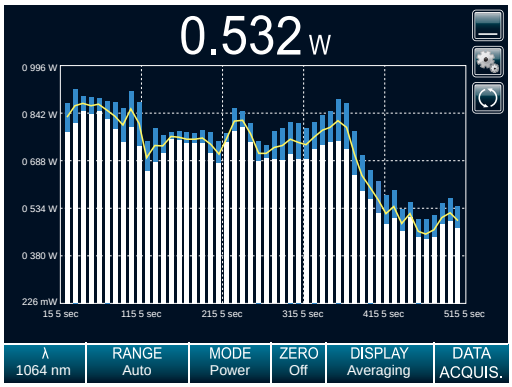
- Ultra-fast readings
- Great for tuning
- Real Time value at the top of the screen



AVERAGING DISPLAY

This very unique mode is perfect to show the trend of a laser over time. Set the number of points per batch and let the MAESTRO identify the minimum and maximum values of every batch. A yellow curve then follows the average of each batch, displayed as bars on the screen. The wider the difference between the white and blue portions of a bar (corresponding to the min and max values), the more unstable your laser is.

- Calculates the min, max and average values of batches of measurements
- Perfect to check laser stability over time



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TUNER

Single Channel, Power Monitor with Tuning Needle

KEY FEATURES

1 Ultra-Fast Needle
Less than 1 second response time

2 Reads ALL Power Detectors
Thermopiles and photo detectors of the PH100 and PH20 Series

3 Large LCD Display
- 77 x 58 mm
- 17.5 mm digits
- Backlight (with AC adaptor)

4 3 Display Functions for the Needle
- Normal
- Tail Mode (indicates speed)
- Bargraph

Also HIGH and LOW values hold

5 Single-Button Navigation
Direct access and long press access to the main functions

6 Low Consumption
Lasts 300 hours with 4 AA alkaline batteries

DISPLAY MODES

TAIL

BARGRAPH

HIGH/LOW

- TAIL: Follows the speed of the power change. The comet tail is longer for faster reading changes and shorter for slower reading changes.
- BARGRAPH: Fills the needle display up to the real time value (best mode when viewing from a distance).
- HIGH/LOW: When activated, indicates the highest and lowest powers since activation. The high and low needles blink to help distinguish them from the real time value.

ACCESSORIES


Additional 9V Power Supply
(Model Number: 200960)

Wall Support
(Model Number: 201241)

Protective Pouch
(Model Number: 200128)


Pelican Carrying Case

SEE ALSO

TUNER

SPECIFICATIONS

*Also traceable to NRC-CNRC

MODEL	TUNER
DETECTOR TYPES	Thermopiles, Photo Detectors (PH100 and PH20 Series)
DISPLAY	LCD with Tuning Needle and Backlight

POWER METER SPECIFICATIONS	
Power Range	10 pW to 10 kW
Digital Resolution	
PH Series	10 pW
XLP Series	1 µW
UP Series	1 mW
HP Series	100 mW (HP60A), 1 W (HP100A)
Monitor Accuracy	±1 %, full scale
Statistics	Min, Max
DETECTOR COMPATIBILITY	
Thermopiles	Average Power (W, dBm)
Photo Detectors (PH Series)	Average Power (W, dBm)
GENERAL SPECIFICATIONS	
Digital Display Size	77 x 58 mm LCD
Needle Display	Ultrafast Tuning Needle
Needle Accuracy	0.9 %
Refresh Rate	4 Hz
Analog Output	0-1 Volt, Full Scale, ±1 %
Dimensions (Without Stand)	210W x 122H x 44D mm
Weight (With Batteries)	0.47 kg
Battery Type	4 x AA Alkaline
Battery Life (Estimated)	300 hours with detector
External Power Supply	100/240 VAC 50-60 Hz to 9 VDC 1.66 A
ORDERING INFORMATION	
Full Product Name	TUNER
Product Number	201207

Specifications are subject to change without notice

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UNO

Single Channel, Power Monitor

KEY FEATURES

1. **Reads ALL Power Detectors**
   Thermopiles and photo detectors of the PH Series
2. **Large LCD Display**
   - 76 x 57 mm
   - 32 mm digits
3. **Unique Ergonomic Design**
   Great for both handheld and tabletop use
4. **Accurate**
   24 bit A/D converter for high resolution measurements
5. **Single-Button Navigation**
   Direct access and long press access to all the functions
6. **eXtremely Low Consumption**
   Lasts 670 hours with 4 AA alkaline batteries
7. **Economical**
   Get the best value for your money with this inexpensive and simple to use power monitor

NOW AVAILABLE

W/dBm You can now toggle your display between Watts or dBm units

ACCESSORIES

Optional 9V Power Supply
(Model Number: 200960)

Wall Support
(Model Number: 201241)

Protective Pouch
(Model Number: 200128)

Pelican Carrying Case

SEE ALSO

UNO

SPECIFICATIONS

*Also traceable to NRC-CNRC

MODEL	UNO
DETECTOR TYPES	Thermopiles, Photo Detectors (PH Series)
DISPLAY	LCD

POWER METER SPECIFICATIONS	
Power Range	5 pW to 10 kW
Thermopile	Autoscale
Photo Detector	Autoscale
Monitor Accuracy	±1 %
Statistics	None
DETECTOR COMPATIBILITY	
Thermopiles	Average Power (W, dBm)
Photo Detectors	Average Power (W, dBm)
GENERAL SPECIFICATIONS	
Digital Display Size	76 x 57 mm LCD
Digit Height	32 mm
Digit Type	High Contrast Fields
Data Display	Real Time
Dimensions (Without Stand)	210W x 122H x 44D mm
Weight (With Batteries)	0.47 kg
Battery Type	4 x AA Alkaline
Battery Life (Estimated)	670 hours with detector
External Power Supply (Optional)	100/240 VAC 50-60 Hz to 9 VDC 1.66 A
ORDERING INFORMATION	
Full Product Name	UNO
Product Number	200982

Specifications are subject to change without notice

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S-LINK-2

Dual Channel, PC-Based Power and Energy Monitor

KEY FEATURES

1. **Reads Both Power and Energy**
   Thermopiles and pyroelectrics
2. **PC-Based**
   Connects to your PC with included software
3. **Serial Commands**
   Serial commands are available on all versions to let you take full control
4. **Fastest Data Transfer Rate**
   Get all the points transferred directly into your PC at 10 kHz/Channel
5. **USB or Ethernet**
   Choose your favourite communications port. The USB version is port-powered
6. **External Trigger**
   Every model comes standard with a 2.4 V to 24 V external trigger

AVAILABLE MODELS

S-LINK-2 (USB)

S-LINK-2 (Ethernet)

ACCESSORIES

Additional 9V Power Supply
(Ethernet version only)

USB Cable
(Model Number: 100776)

Protective Pouch
(Model Number: 200128)

Pelican Carrying Case

SEE ALSO

S-LINK-2

SPECIFICATIONS

*Also traceable to NRC-CNRC

MODEL	S-LINK-2
DETECTOR TYPES	Thermopiles, Pyroelectrics
DISPLAY	PC-Based

POWER METER SPECIFICATIONS	
Power Range	1 µW to 10 kW
Monitor Accuracy	±0.75 % for 25 % to full scale
Statistics	Current Value, Max, Min, Average, Std Dev., RMS & PTP Stability, Time
ENERGY METER SPECIFICATIONS	
Energy Range	30 fJ to 20 kJ
Resolution (Digital)	Normal Mode: Current scale/4096
Monitor Accuracy	
<500 Hz (MB), <1200 Hz (MT)	1 %
500 to 1 200 Hz (MB)	2 %
1 200 to 6 000 Hz (MT)	3 %
6 000 to 10 000 Hz (MT)	6 %
Real Time Data Transfer	10 kHz/Channel in normal mode, no missing point
Statistics	Current Value, Max, Min, Average, Std Dev., RMS & PTP Stability, Pulse #, Repetition Rate, Average Power
DETECTOR COMPATIBILITY	
Thermopile	Average Power & Single Shot Energy
Pyroelectric	Pulse Energy
GENERAL SPECIFICATIONS	
Number of Channels	2
Digital Display	Computer Screen
Data Display	Real Time, Ratio, Line Plot, Histogram, Statistics and 3D Histogram
Serial Commands and Data Transfer Via	USB (standard) or Ethernet (option) [a]
Real Time Data Transfer Rate	10 kHz/Channel in normal mode, no missing point (for pyroelectrics only) [b]
Rising Edge External Trigger	3-24 V @ 13 mA, optically isolated
Dimensions	106W x 34H x 147D mm
Weight	0.424 kg
Ext. Power Supply (Ethernet version only)	100/240 VAC 50-60 Hz to 9 VDC 1.66 A

ORDERING INFORMATION		
Full Product Name	S-LINK-2	S-LINK-2 (Ethernet) [a]
Product Number	201030	201170

a. The Ethernet version also includes the USB output.
b. Actual rate may depend on the computer.

Specifications are subject to change without notice

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P-LINK

Single Channel, PC-Based Power Monitor

KEY FEATURES

1. **Reads ALL Power Detectors Types**
   Thermopiles and photo detectors of the PH Series
2. **PC-Based**
   Connects to your PC with included software
3. **Small Size**
   Only 91 mm (L) x 57 mm (W) x 36 (H)
4. **Serial Commands**
   Serial commands are available on both versions to let you take full control
5. **Real-Time Statistical Functions**
   Max, Min, Average, Standard Deviation, RMS and PTP Stability, Pulse # and Repetition Rate
6. **USB or RS-232**
   Choose your favourite communications port. The USB version is port-powered

AVAILABLE MODELS

P-LINK (USB)

P-LINK (RS-232)

ACCESSORIES

Additional 9V Power Supply
(RS-232 version only)

USB & RS-232 Cables

Protective Pouch
(Model Number: 200128)

Pelican Carrying Case

SEE ALSO

P-LINK
SPECIFICATIONS

*Also traceable to NRC-CNRC

MODEL	P-LINK
DETECTOR TYPES	Thermopiles, Photo Detectors
DISPLAY	PC-Based

POWER METER SPECIFICATIONS	
Power Range	
Thermopile	1 µW to 30 kW
Photo Detector	5 pW to 3 W
Monitor Accuracy	±0.5 % full scale
Statistics	Current Value, Max, Min, Average, Std Dev., RMS & PTP Stability, Time, Repetition Rate

DETECTOR COMPATIBILITY	
Thermopile	Average Power & Single Shot Energy
Photo Detector	Average Power (mW, dBm)

GENERAL SPECIFICATIONS	
Digital Display	Computer Screen
Data Display	Real Time, Histogram, Statistics, Digital Tuning Needle
Analog Output	0 - 2 Volt, Adjustable, Full Scale, ±1 %
Serial Commands and Data Transfer Via	USB (standard) or RS-232 (option)
Real Time Data Transfer Rate	10 Hz
Dimensions	57W x 26H x 91D mm
Weight	0.12 kg
External Power Supply (RS-232 version only)	100/240 VAC 50-60 Hz to 12 VDC 200 mA

ORDERING INFORMATION		
Full Product Name	P-LINK (USB)	P-LINK (RS-232)
Product Number	200439	200440

Specifications are subject to change without notice

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M-LINK

Single Channel, PC-Based Universal Power and Energy Monitor

KEY FEATURES

1 The Universal Meter
Reads ALL Heads:
- Power: Thermopiles, Photo Detectors and Pyroelectrics
- Energy: Thermopiles (in single shot mode) , Photo Detectors and Pyroelectrics

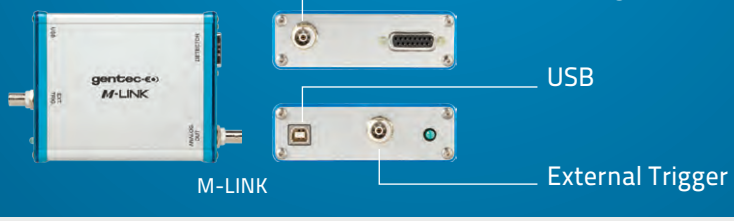
2 Measure fJ Energy Levels
Thanks to a unique digital method for suppressing the noise on the lower ranges

3 External Trigger
Synchronize you M-LINK to your pulsed laser or digital chopper

4 Digital (USB) Output
Connect the M-LINK module directly to your PC

5 Powerful LabView Software
Features include:
- Complete instrument controls: Range, Trigger, Wavelength, etc.
- Live display in J and J/cm² or W and W/cm²
- Full Statistics: Min, Max, Mean, Standard Deviation, RMS Stability , Repetition Rate, etc.
- Graphic Displays: Strip Chart, Histogram, Tuning Needle and more
- Data File Collection and Analysis

CONNECTIVITY



M-LINK

ACCESSORIES

USB Cable
(Model Number: 100776)

Pelican Carrying Case

SEE ALSO

M-LINK

SPECIFICATIONS

Approved or in the process of being approved*

MODEL	M-LINK
DETECTOR TYPES	ALL MODELS: Thermopiles, Pyroelectrics, Photo Detectors
DISPLAY	PC-Based

POWER METER SPECIFICATIONS	
Power Range	4 pW to 30 kW
Resolution (Digital)	Current Scale/3000
Monitor Accuracy	±0.5 % ± 2 digits
Statistics	Current Value, Max, Min, Average, Std Dev., RMS & PTP Stability, Time
ENERGY METER SPECIFICATIONS	
Energy Range	30 fJ to 30 kJ
Resolution (Digital)	Current Scale/3000
Monitor Accuracy	1 % ± 2 digits (<1 kHz)
Software Trigger Level	0.1 to 99.9 %, 0.1 % resolution, default 2 %
Repetition Rate [a]	1 000 Hz
Real Time Data Transfer	1 000 Hz with time stamp, no missing point
Statistics	Current Value, Max, Min, Average, Std Dev., RMS & PTP Stability, Pulse #, Repetition Rate, Average Power
DETECTOR COMPATIBILITY	
Thermopile	Average Power & Single Shot Energy
Pyroelectric	Pulse Energy & Average Power
Photo Detectors	Average Power & Pulse Energy
GENERAL SPECIFICATIONS	
Digital Display	Computer Screen
Data Display	Real Time, Scope, Averaging, Statistics and Digital Tuning Needle
Serial Commands and Data Transfer Via	USB
Real Time Data Transfer Rate	1 000 Hz with time stamp, no missing point (for pyroelectrics only)
Analog Output	0-2 Volts, Full Scale, ± 0.5%
Rising or Falling Edge External Trigger	4.5 to 10 V @ 20 mA, optically isolated
Dimensions	106W x 34H x 147D mm
Weight	0.424 kg
External Power Supply (Ethernet version only)	100/240 VAC 50-60 Hz to 9 VDC 1.66 A
ORDERING INFORMATION	
Full Product Name	M-LINK
Product Number	201850

a. Maximum repetition rate may vary with PC and detector speeds.

Specifications are subject to change without notice

* For details, contact your Gentec-EO representative

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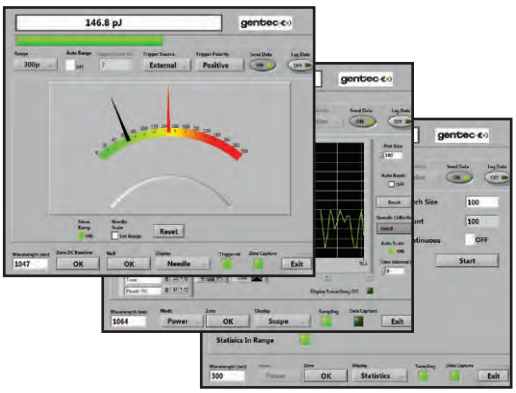
M-LINK

PC-BASED UNIVERSAL POWER/ENERGY MONITOR

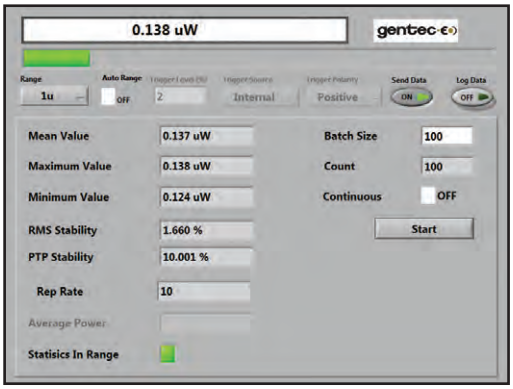
This new PC-Based monitor is compatible with ALL types of detectors - including thermopiles, pyroelectrics and photo detectors - for both power and energy measurements. The device is available as a single channel unit that directly interfaces with a computer using a USB2.0 connection. The LabView software is included and comes with all the necessary features. The M-LINK also presents a unique digital technique of suppressing the noise, thereby extending the measurement range all the way down to the fJ level.



VERSATILE SOFTWARE FOR THE UNIVERSAL M-LINK

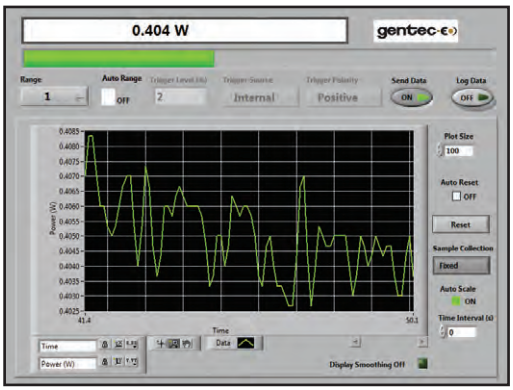
What makes the M-LINK so universal is its compatibility with every detector type and model we make, and our smart software that recognizes the type of detector attached, and configures itself accordingly. Some of the basic software features include:

- Live Digital Reading
- Full Statistics
- Strip Chart
- Histogram
- Analog Tuning
- Data Logging



MEASURE POWER WITH A PHOTO DETECTOR

If you need to measure low power levels, from pW to mW, then we recommend one of our PH or PH-B detectors. In the software screen shown on the left, we have taken a data set working in the "**STATS**" display mode. We have set the batch size to 100 data points in the manual reset mode. You can see the live power (138 nW) and full complement of statistics: mean, max, min, RMS and PTP stability. In the bottom left hand corner you will note that a wavelength of 300 nm is displayed. This is where you will enter the wavelength of your laser and engage the wavelength correction factor.



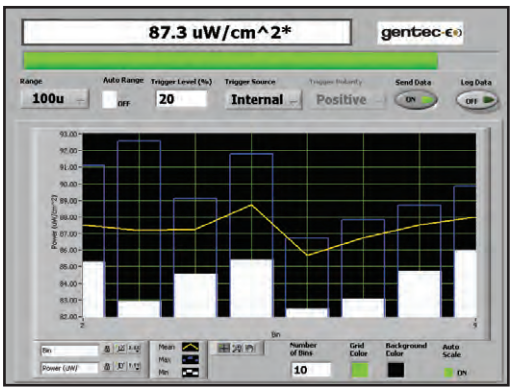
MEASURE POWER WITH A THERMOPILE DETECTOR

You can select any of our Thermal Detectors to measure your laser power from a few µW up to 30 kW. We used one of our most sensitive thermopile detectors, model XLP12-3S-H2, to generate the software screen shown on the left. We have selected the "**SCOPE**" mode, where you can view the live power reading (0.404 W), a bar graph and a strip chart while monitoring the power. This high level screen also provides access to range, trigger, auto scale, and many other monitor functions.

M-LINK

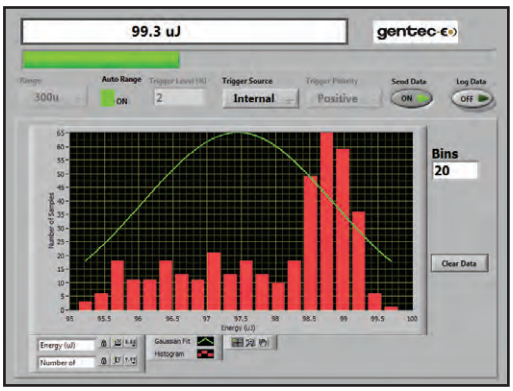
MEASURE POWER WITH A PYROELECTRIC DETECTOR

Need to measure the Radiant Flux (Watts) or Irradiance (W/cm²) of a broadband source like the sun, a lamp, a temperature controlled black body and/or a mid or far-IR laser? Our broadband pyroelectric detectors of the UM-B Series would be a great choice. To make the measurement that is displayed at the right, we set up our UM9B-BL detector with M-LINK, an SDC-5000 Chopper running 10 Hz and our 725 °C Black Body Source. The M-LINK recognizes the UM9B-BL detector, sets the wavelength to 633 nm where it is calibrated and prepares it to measure the voltage square wave it generates. We have engaged the area correction as the 9 mm detector is over filled with radiation. We are therefore measuring Irradiance in W/cm².



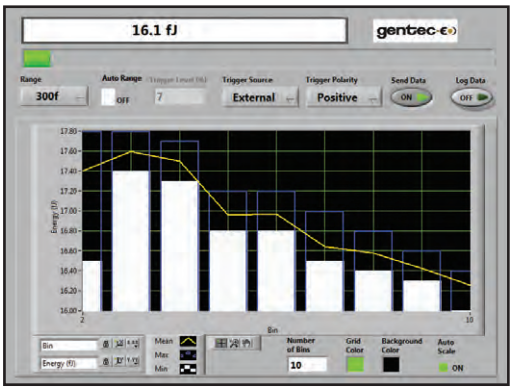
MEASURE ENERGY WITH A PYROELECTRIC DETECTOR

You can select one of our many large area Pyroelectric Detectors of the QE Series for energy measurements ranging from 50 nJ to 250 J and from DUV to Far IR. To demonstrate this capability, we have selected our QE8SP-B-BL and the M-LINK. We are looking at the "**HISTOGRAM**" screen, where you can continue to view the live measurement and a histogram that shows the energy distribution of your data set, along with a best-fit Gaussian curve. Note that you still have access to the instrument controls, like range, trigger, wavelength, etc.



MEASURE AT THE fJ LEVEL WITH A PE-B DETECTOR

For measurements in the fJ to µJ range, and from UV to Near-IR we suggest our PE3B-Si detector. It represents the state-of-the-art in low-end energy detector technology. Take advantage of our proprietary pulse averaging, noise reduction techniques available with M-LINK. In the example shown at the right, we have captured a data set while running in the "**AVERAGING**" mode. The bars represent minimum (white) and maximum (blue) energy values. The strip chart is based on the average energy value. You get to select the number of "BINS" represented here. "Pulse Averaging" is available in the Statistics screen.



MEASURE A HIGH ENERGY PULSE WITH A UP DETECTOR

If you are trying to measure a relatively high energy (Joules) single pulse (up to 300 msec long), you will select one of our Thermopile Power detectors (like the UP50N-W9), have it calibrated in single shot mode and use the M-LINK to make the measurement. In the screen at the right, we have captured a long pulse that had a duration of a few hundred milliseconds and are displaying the energy in the "**SCOPE**" screen. Using a variety of our thermopile detectors, you can measure from 12 µJ to 500 J in a single pulse.