Voltage Performance Monitor

- *Logs only those voltage events that affect equipment performance*
  - *No need to review unimportant voltage events**
- *Simple setup*
  - *Select standard, choose nominal voltage, set time/date*
- *Captures sags, swells, impulses and harmonics*
  - *Displays time and severity of events*
- *Easy, on-screen review of events*
  - *No PC, software or cable required!*

* Refer to ITIC standard on back page.

Features:

- *Plugs directly into outlet*
  - *Includes adapters for US, UK, China/Australia and Europe*
- *Works on 100–240 volt single phase circuits*

Professional and accurate voltage analysis made easy

Through easy-to-navigate setup, select from a menu of pre-set standards, plug it into the outlet and watch the unit capture and log voltage events. All the information you need is at your fingertips presented on a super-bright OLED display. Using the Voltage Performance Monitor (VPM) is the easiest way to know the reliability of your voltage.

Features

- Real-time TRMS voltage, frequency and harmonics monitoring
- Logs voltage, sags, swells and impulses
- Measures %THD and logs periods over 3% (line to neutral)
- Selectable thresholds based on the most accepted international standards, defaults to ITIC*
- Custom programmable event thresholds
- Invertible display, when it is necessary to plug in upside down
- Saves up to 512 events
- CAT III 300V

Applications

Monitor voltage near sensitive equipment

- Installation and Service Technicians
  – Monitor voltage at point of equipment connection
- Electricians
  – Eliminate guesswork on service calls
- Building Maintenance Technicians
  – Identify voltage caused equipment failures
- Equipment Manufacturers
  – Eliminate unnecessary warranty costs
- Hospital/IT Maintenance Engineers
  – Monitor voltage quality to critical equipment

Voltage Performance Monitor

See voltage through the eyes of your equipment

Poor voltage quality is expensive.

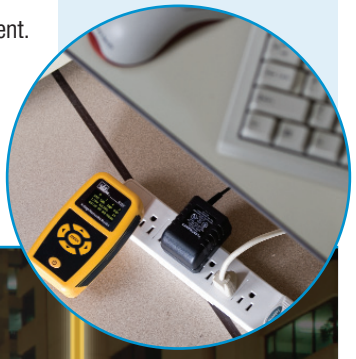
When a voltage problem is suspected, the first approach has been to place an analyzer on the main service. This approach misses problems at the branch level. The VPM works where symptoms occur — at the point where equipment is connected. Poor voltage quality increases facility expenses, warranty costs and downtime plus shortens the life of equipment. The IDEAL VPM identifies voltage conditions that can damage equipment or cause equipment failure.

Equipment is designed to handle varying voltage within a specified range. Voltage events become a concern when they exceed designed tolerances. VPM only captures events that go beyond internationally recognized tolerances, specifically those that are likely to cause equipment problems. Now you have the ability to determine if a failure is related to a voltage event that originated from a utility or other nearby source. You can also determine if voltage is stable enough to add sensitive equipment.

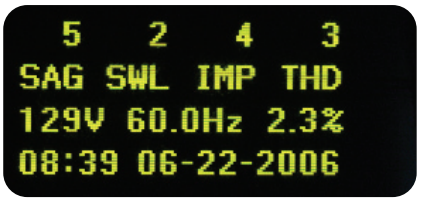
Additionally, you can easily and quickly determine the need for power conditioning equipment such as a UPS installation or a surge protective device as well as verify the protection provided by such equipment.

Equipment affected by poor voltage quality

- Electronic lighting ballasts
- Computers
- Copiers
- Laser printers
- Adjustable speed drives
- Industrial PLCs
- Medical equipment
- Gaming and vending machines
- Many microprocessor-controlled devices

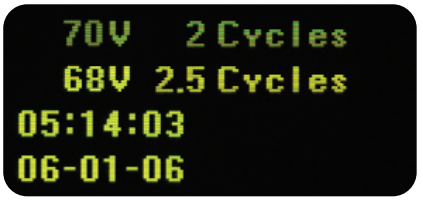


Voltage Performance Monitor Display Screens

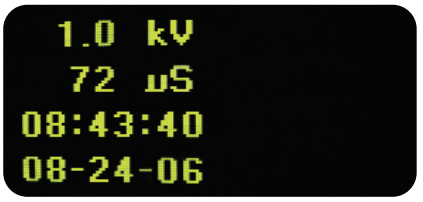


Monitor Screen: Real-time information on voltage, voltage events and harmonics.

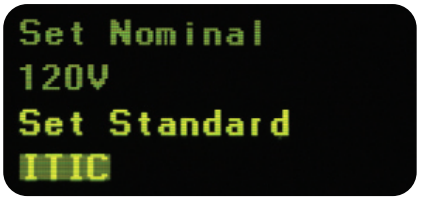
Log Screen: Review events by category or chronological order.



Event Detail: Provides a time stamp with event magnitude and duration.



Impulse Detail: Fast response catches positive and negative impulses up to 4kV.



Set Standard: Select from more than a dozen threshold options based on existing standards or customize your own (defaults to ITIC).

Voltage Performance Monitor

The 61-830 Voltage Performance Monitor includes four international plug adapters, carrying case and quick reference guide.

Specifications	
Operating Range:	15–265V
Memory:	512 events
Sampling Method:	Continuous (128 samples per cycle)
Voltage Accuracy:	1%
Impulse Detection:	6µ, 4kV
THD:	FFT calculation

Accessories and Replacement Parts	Cat No.
Replacement adapters (set of 4)	PA-830
Replacement carrying case	61-179
Alligator clip adapters	61-184
1' US extension cord	61-177

Innovation with a Purpose.

Voltage Events

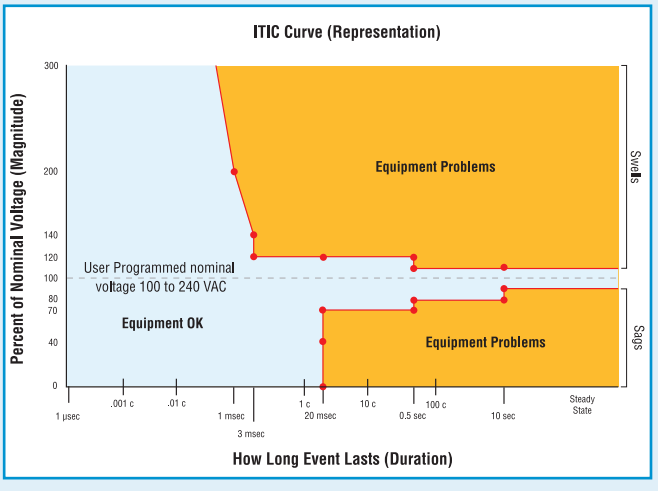
Voltage events are defined in terms of magnitude and duration. Magnitude is the deviation from nominal voltage (in percent) of the event and duration is the length of the event. The most important events for equipment performance are sags, swells, impulses and total harmonic distortion. The VPM uses pre-set thresholds to log events that affect equipment and ignore those that don't.

Harmonics

Harmonics are the components of voltage distortion. Distortion of the voltage sine wave is measured as total harmonic distortion. A small amount of distortion will not affect equipment performance. Higher levels of distortion will cause many equipment problems. On branch circuits, levels of harmonics greater than 5%–8% associated with equipment problems need further investigation.

Standards and Event Thresholds

The most accepted worldwide standards are pre-loaded on the IDEAL VPM. You can select the appropriate standard for your application or location. A custom option even allows you to set your own thresholds. The optimum standard to use depends on whether you are only concerned with major events and interruptions or you have equipment and processes that are more sensitive to voltage fluctuation. The default thresholds are based on the Information Technology Industrial Council (ITIC) standard. The ITIC standard is designed to capture events on single phase branch circuits supplying power to computers, copiers, gaming machines and other sensitive electronic equipment. Other integrated standards include ANSI, IEEE1159, CBEMA, SEMI, IEC-61000-2-4, IEC-61000-4-11, EN50160, EN5082-1, MIL STD 704E Aircraft, MIL STD 1399 Shipboard, ZA South Africa, JN Japan.



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P-2732

Rev. 1/07
Printed in U.S.A.