

Reliable Power Meters InSite Power Recorder®

Full Disclosure™ Technology in a compact permanent power monitor

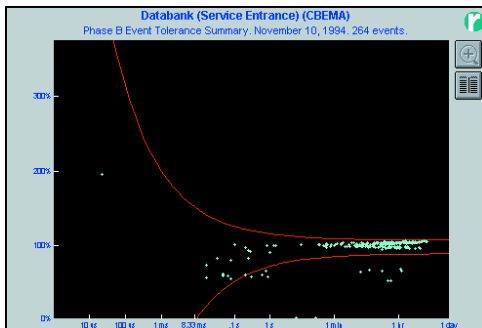
Technical Data

What is Full Disclosure Technology?

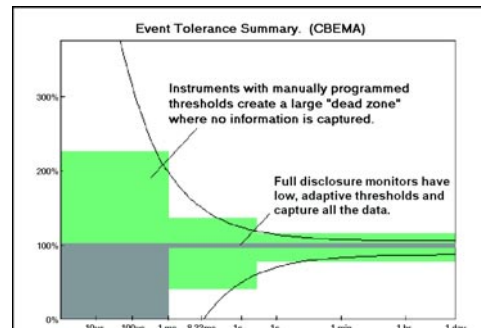
Full Disclosure Technology is built into all Fluke and RPM three-phase power quality instruments. This technology makes the InSite Power Recorder a unique, professional instrument that increases your ability to maintain and troubleshoot your plant's power quality.

Full Disclosure Technology uses patented sampling hardware and algorithms to record everything your loads see.

- The sampling system processes every cycle on all channels, recording min/max values and looking for sags, swells or waveform faults.
- The system can store 6000 events in each of two measurement sessions, for total storage of up to 12,000 events. You can see everything from sub-cycle events to long-term outages with clear detail.
- Records power parameters, rms voltage, rms current, harmonics, flicker **and** monitors for power quality events – on all channels simultaneously without having to reconfigure.
- No need to set thresholds. You won't be disappointed by missed events or a memory full of noise.
- Because there are no thresholds to set, Full Disclosure Technology system records any changes in measurements, even the ones that are **almost** out of tolerance.



Full Disclosure Technology lets you plot events on any power tolerance curve. CBEMA, ITIC, and ANSI curves are included, or create your own.

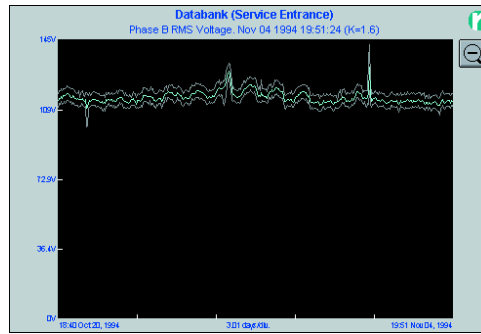


Full Disclosure Technology captures thousands of voltage events and related current information, without having to set thresholds.

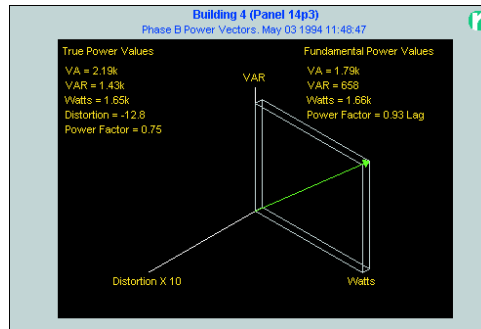
InSite Power Recorder® puts full disclosure in a compact package, designed to be installed at critical locations throughout a facility. Use this recorder to monitor incoming and internal power at data centers, manufacturing plants, or commercial buildings. Everything you want to know is measured and analyzed on all channels using Full Disclosure™ technology. When used with Scenario™ software, the InSite Power Recorder enables you to take corrective action and avoid costly disruptions.

Includes easily accessible terminal strips for voltage and current connections.

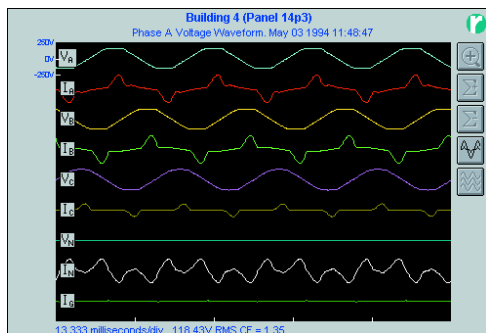
- 4 voltage channels - three phases plus neutral-to-ground.
- 5 current channels allow you to monitor neutral and ground current in addition to phases
- Rugged, die cast metal enclosure, designed to handle a lifetime of use
- Ethernet interface makes downloads fast and easy
- Capture up to 6,000 voltage events with simultaneous current, in two monitoring sessions
- Measure and record Volts, Amps, frequency, Watts, VA's, VAR's, power factor, demand and harmonics using 128 samples per cycle - on every cycle
- Supports single-phase, wye, delta, split phase, high-leg delta, open-leg delta, and other common power systems.
- Model 901 includes built-in current transformers for direct, in-line connection to CT metering circuits found in substations and switchgear.



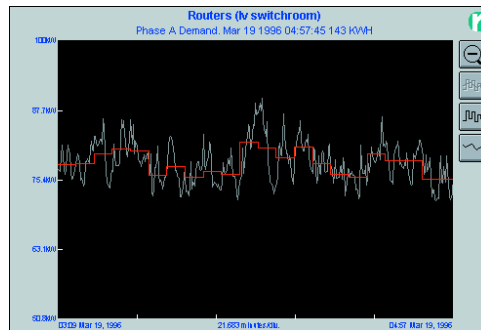
Trend windows give you an overview of power parameters – fast. Measurements are processed for every cycle. Min, max and average values are plotted so you can quickly see the worst-case.



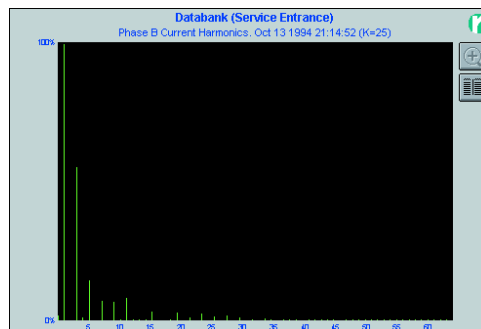
Real-time meters and vectors for Watts, VA, VAR, pf and dPf.



Real-time waveform displays show up to 9 channels (4 voltage, 5 current) including ground and neutral current.



Track demand using averaging intervals from 5 minutes to 1 hour.



Display harmonics up to the 63rd as a spectrum or table.

Basic Functions	<ul style="list-style-type: none"> • Logging RMS voltage and RMS current on all channels • Phasor diagrams • Frequency trends • Real-time oscilloscope display of voltage and current on all channels
1652 Power Consumption (included)	<ul style="list-style-type: none"> • Watts and demand trends • KWH, individual phases and total • VA and VAR trends • Power Factor trends, true and displacement • Oscilloscope display of power meters for each phase
1653 Harmonics and Flicker (included)	<ul style="list-style-type: none"> • Voltage and current THD trends • Voltage and current imbalance • Harmonic spectrum, phase, magnitude to 63rd harmonic • Tracking of individual harmonics • Flicker to IEC 868
1651 Power Quality (included)	<ul style="list-style-type: none"> • Voltage waveshape faults as short as 130 µs duration, 1000 V peak • Voltage sags/swells • Simultaneous current corresponding to correlated with voltage events • Power tolerance curves
1662 Multi-Session (included)	<ul style="list-style-type: none"> • Allows a recorder to store up to 2 measurement sessions • Each session can consist of up to 6000 events, increasing the event storage to 12,000
1663 TCP/IP Option	<ul style="list-style-type: none"> • Enables Ethernet-equipped instruments to communicate via Internet

Software completes the system

There are two software packages available for the InSite Power Recorder. Both packages provide seamless communication, with graphical display of power system parameters and the ability to manage power survey data.

Power analyzer system software

- Offers optional Report Writer Software
 - Offers Alarming and Polling Option
- (Refer to accessories chart on next page)

Scenario software

- Includes facilities for comparing trends from multiple databases
- Calculates a Power Quality Index - a single figure of merit that characterizes the overall performance of a power system. The Power Quality Index allows you to trend system performance over time and determine whether a system is improving or degrading.

Specifications

Voltage inputs

Number of channels: 4
 Range: 100 mV to 600 V rms, 1000 V peak
 Accuracy: ± (1.0 % of reading + 0.5 V rms) at 50/60 Hz
 Resolution: 90 mV
 Input impedance: 2 MΩ, 30 pF
 Frequency range: 50/60 Hz ± 5 Hz

Current inputs, Model 901

Input type: For use with user-supplied, industry-standard 5 A current transformers
 Number of channels: 5
 Range: 500 mA to 5 A rms nominal, 20 A rms maximum
 Accuracy: ± (1.0 % of reading + 0.02 A V rms + external CT uncertainty) at 50/60 Hz
 Insertion impedance: 0.003 Ω at 50/60 Hz
 Input isolation: 600 V rms with respect to ground

Sampling

Voltage and current sampling: 128 samples per cycle phase-locked to 50 / 60 Hz
 Voltage and current sampling rate: 6.4 / 7.7 kS/s depending upon line frequency
 Voltage and current rms measurements: Processed for every full cycle
 Power Measurements: W, VA, VAR, PF, dPF processed for very full cycle

Event recording

Events captured: Records V rms sags, swells and waveshape faults, with simultaneous current.
 Event memory: 6,000 simultaneous voltage and current events
 Sampling rate: 6.4 kS/s at 50 Hz, 7.7 kS/s at 60 Hz
 Minimum waveshape fault: 130 µs
 Transient voltage range: 200 - 1000 V peak
 Transient voltage accuracy: ± (5 % +36 V)

Communication

RJ 45 Ethernet port for connection to 10-base T (UTP), TCP/IP support available as an option

Electrical

Operating voltages: 90 - 264 V AC, 47 - 63 Hz
 Power consumption: 25 VA maximum
 Battery: Built in auto-charging NiMH battery. UPS with 5 minutes back-up.

Mechanical

Size: 10.25 in x 8.7 in x 3.4 in (26 cm x 22 cm x 8.7 cm)
 Weight: 7.5 pounds (3.4 kg)
 Operating temperature: 0 ° - 50 °C (32 ° - 122 °F), 90 % RH non-condensing
 Storage temperature: -20 °C to 60 °C
 Maximum altitude: 2000 meters

Standards

UL3111
 IEC 868

Accessories

5000/RPM	Power Analysis Software with User Manual
5100/RPM	Professional Report Writer Software (requires 5000/RPM)
5400/RPM	Scenario Analysis Software
5500/RPM	Master Polling And Annunciation Software (requires 5000/RPM)
5502/RPM	Sub-Polling And Annunciation Software (requires 5000/RPM and 5500/RPM Master Polling Software)

Warranty

1 year

Fluke. *Keeping your world up and running.*

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