

Nexus 1262/1272

- 0.06% Watt/Hr Revenue Meter
- 20 Year Time of Use
- Loss Compensation
- CT & PT Compensation
- Advanced Power Quality Recording
- EN 50160 Flicker Compliance Monitoring
- Totalizing Registers
- Data Logging & Event Recording
- Programmable Display
- Circuit Diagnostics
- Multiple Communication Paths
- Combination Modem & Ethernet

High Performance Utility Billing Meters

with Communication & Advanced Power Quality

Accu-Measure®
Digital Sensing Technology



INDUSTRIAL CUSTOMERS
UTILITY TIE LINES
POWER GENERATION

Nexus 1272
Performance Meter with
Advanced Power Quality
& Communication

Nexus 1262
Economical Meter with
Advanced Communication

New! Total Web Solutions

WebExplorer WebReacher WebXML
WebAlarm WebMod WebDNP



XML Web Server
E-Mail on Alarms
DNP 3.0 over Ethernet

Featuring —
Modbus & DNP 3.0 Level 2 Plus Protocols
Onboard Ethernet/Web Ready
Dial-Out on Outage or Alarm Alerts!



Designed and
Manufactured
in the **U.S.A**



Electro Industries/GaugeTech
The Leader in Web Accessed Power Monitoring
www.electroind.com
www.mynexusmeter.com

Accu-Measure® Digital Sensing Technology

The Nexus 1262/1272 meters provide one of the most profound analysis of electricity available in a socket meter. The units offer extensive advanced monitoring features to meet the most critical power monitoring requirements. Using advanced DSP technology, the Nexus' measure immediate and stored revenue power data coupled with superior power quality and communication.

Designed specifically to meet the sophisticated standards required by utility companies and de-regulated power providers, the Nexus basic package starts where most other meters end. Standard features in the Nexus units provide the ability to meet advanced metering needs for the future.

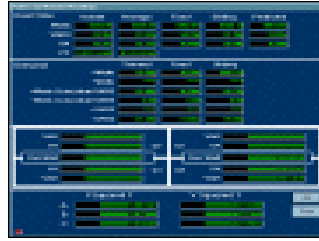
ACCU-MEASURE® DIGITAL SENSING TECHNOLOGY

EIG's patented Accu-Measure® Digital Sensing Technology provides unmatched accuracy.

- **Energy & Power Accuracy to within 0.06%**
- **Autocalibration**
- **Temperature Compensation**

The unit is a full four-quadrant meter and gathers hour data information in every quadrant.

- **kWh Delivered**
- **kWh Received**
- **kVAh in Each Quadrant**
- **kVARh in Each Quadrant**
- **Q Hours**
- **Demand Measurements**



TIME OF USE

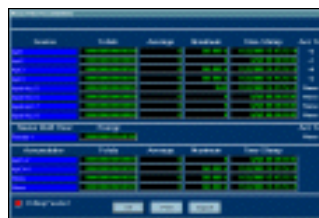
The 1272 offers robust time of use functionality. Standard capabilities include:

- **8 TOU Schedules**
- **Bidirectional Consumption & Demand**
- **4 Seasons/Year**
- **20 Year Calendar**
- **Prior Month & Prior Season Readings for Each Schedule**
- **Present Month & Present Season Readings for Each Schedule**
- **Total to Date Readings for Each Schedule**
- **Programmable Freeze Registers**



LOAD AGGREGATION/ UNIVERSAL METERING

Using standard pulse inputs, the Nexus 1272 can count pulses from external meters and accumulate usage. The pulse inputs can be used to totalize electrical usage and utility values, such as water or gas use data.



- **8 Pulse Inputs**
- **Individual Accumulating Registers**
- **4 Totalizing Registers (Add or Subtract)**
- **Totalize with Nexus kWh Readings**

TRANSFORMER OR LINE LOSS COMPENSATION

Loss Compensation adjusts for both copper and iron losses with a simple user setup.

CT & PT COMPENSATION

The Nexus units compensate for errors in current transformer and potential transfers.

- **Voltage Compensation**
- **Multipoint Current Compensation**
- **Multipoint Phase Angle Compensation**
- **Better than 0.01% Resolution**

FIELD TEST MODE

- **Test all Energy Readings**
- **Enable/Disable in Test Mode**
- **Pre-Settable Accumulators**
- **Freezable Accumulators**

MULTIPLE DEMAND WINDOWS

The Nexus 1272 simultaneously monitors five demand structures.

- **Block Window Demand**
- **Rolling Window Demand**
- **Predictive Demand**
- **Thermal Demand**
- **Cumulative Demand**
- **Interval Length from 1 Second to Many Hours**
- **Up to 255 Subintervals**
- **End of Interval Pulse Output**
- **End of Interval Pulse Input**
- **Cold Load Pickup**

TIME STAMPED MAX. DEMANDS

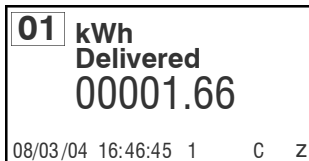
The units gather demand information for all power values. Each value is date/time stamped.

- **kW Demand, Delivered & Received, Max/Min**
- **kVAR Demand, Delivered & Received, Max/Min**
- **kVAR Coincident with kW Demand**
- **kVA Demand, Max/Min**
- **Amps Demand, Max/Min**
- **Voltage, Max/Min**

Display Features

PROGRAMMABLE, GRAPHICAL LCD DISPLAY

The Nexus 1262/72 is equipped with a programmable, graphical back-lit LCD display that is comprised of over 400 screens. This allows you to display the specific required utility screens. The display allows you not only to view energy data, but also to gather circuit diagnostic data such as voltage, current, harmonics and phasor information. Advanced capability makes the meter easy to install and useful in field applications.

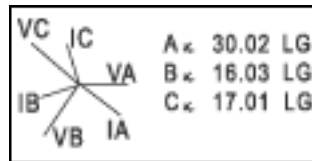
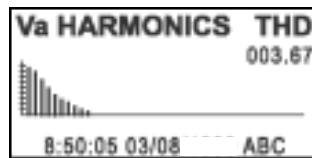
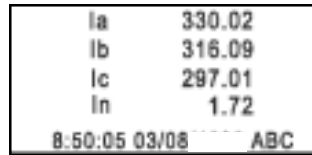
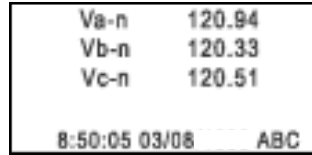


NORMAL MODE

- kWh Delivered & Received
- kVARh Delivered & Received
- kVAh Delivered & Received
- Peak Rolling Window Demands
- Peak Block Window Demands

TIME OF USE MODE

- kWh & kW Demand Delivered & Received Total
- kVARh & kVAR Demand Delivered & Received for Each Register
- kVAh Delivered & Received for Each Register
- kVAh Delivered & Received Total



DIAGNOSTIC MODE

- Voltage (all phases)
- Currents (all phases)
- Phasor Diagram
- Harmonic Spectrums to 63rd Order
- KW, KVA, KVAR and PF
- Frequency
- Demands

LOCKABLE RESET SWITCH

The unit provides a lockable demand reset switch that prevents tampering.

INFRARED TEST PULSE

The meter provides an infrared test pulse that selects to pulse for +Watt-Hour, -Watt-Hour, +VAR-Hour, -VAR-Hour and VA-Hour. This pulse uses a time modulated pulse integration allowing the pulse to be accurate during short duration pulse tests using industry accepted reference standards.

Dial-Out on Alarm (INP2)

DIAL-OUT ON OUTAGE

The INP2 modem has a dial-out circuit with a battery that detects when voltage is lost and dials out to provide outage notification. Additionally, the meter's circuit configures to dial-out when many other circumstances occur. The Nexus 1272 dials to the EIG Dial-In Server which allows users to be paged or e-mailed with notifications of events.

DIAL-OUT FOR OTHER EVENTS

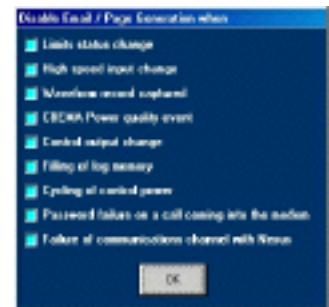
The meter will dial out for the following circumstances:

- Limits/Status Change
- High Speed Input Change
- Waveform Record Capture
- CBEMA Power Quality Event
- Control Output Change
- Filling of Meter Memory
- Cycling of Control Power
- Password Failure on a Call Coming into the Modem
- Meter Communication Failure

DIAL-IN SERVER CAPABILITIES

The EIG Dial-In Server will record all notifications, accept downloads from the meter and allows users to be notified by e-mail and paging automatically. Features of the Dial-In Server include:

- Unlimited Meters
- Scalable Multiserver Architecture
- E-Mail Notification
- Paging Notification
- Audible System Alarm



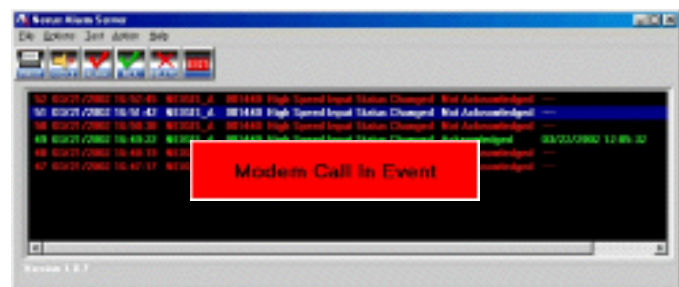
Dial Out on any Event



Dial-Out Logic



Dial-In Settings



Visual Alarm Server

Reliable, Functional & Feature-Rich Metering

Advanced Communications & I/O Capabilities

MULTIPLE COMMUNICATION PORTS USING OPEN PROTOCOLS

Nexus' multiport design allows multiple communication connections simultaneously. Standard Modbus and DNP 3.0 Level 2 protocols are available.

STANDARD COMMUNICATIONS

- Optical Port
- 2 RS-485 Serial Ports
- Modbus RTU/ASCII
- DNP 3.0
- Speeds up to 115k bps

OPTIONAL COMMUNICATIONS

- Dial-Out Modem
- Ethernet 100BaseT

COMBINATION MODEM & WEB SOLUTION

NEW!

New to the Nexus 1262/1272 is the ability to access the meter through the web and through a modem for dial-in communication.

- 56k Modem
- Total Web Solutions
- 10/100BaseT Ethernet
- E-Mail on Alarm
- Does not Support Battery for Outage Reporting

STANDARD I/O

- IRIG-B Time Synchronizing to GPS to 1 msec resolution
- 4 Internal KYZ Pulse Outputs
- 8 KYZ Pulse/Status Inputs

OPTIONAL EXTERNAL I/O

Connect multiple external I/O Modules for enhanced I/O capability.

- Analog Outputs
- Analog Inputs
- Digital Status Inputs
- KYZ Outputs
- Relay/Alarm Outputs

CONTROL CAPABILITIES

- ElectroLogic® Provides User-Definable Control Outputs
- Action and/or Alarm on Abnormal Condition

- Action on Boolean Logic Combinations of Inputs or Electrical Conditions

INDUSTRY LEADING DNP 3.0 LEVEL 2 PLUS

The Nexus 1272 provides the industry's most advanced DNP 3.0 protocol implementations. EIG's Nexus 1272 complies with all DNP Level 1 and Level 2 certification requirements PLUS a host of additional features including:

- Up to 136 Measurements: 64 Binary Inputs, 8 Binary Counters, 64 Analog Inputs mapped to DNP Static points in the customizable DNP Point map
- Up to 16 Relays and 8 Resets can be Controlled through DNP
- Report-By-Exception Processing (DNP Events) Deadbands can be set on a per-point basis
- 250 Events of Combinations of Four Events: Binary Input Change, Frozen Counter, Counter Change, Analog Change
- Freeze Commands: Freeze, Freeze/No-Ack, Freeze with Time, Freeze with Time/No-Ack, scheduled Freeze Command
- Freeze with Time Command: Enables the Nexus meter to have internal time-driven Frozen Counter and Frozen Counter Event data. When the Nexus meter receives the Time and Interval, the data will be created
- Third Party Certification is Available



Total Web Solutions — Advanced Metering Data Integration with the Web

Total Web Solutions is an advanced Ethernet communication architecture allowing you to custom design web pages, display metering data, and host your meter power information web site directly on a Nexus meter. The Nexus meter directly hosts the web data without any need for dedicated server software, ActiveX controls or Java applets. The meter does the data collection, the formatting and the page hosting. Additionally, this solution is very Information Technology Dept. friendly because it uses almost no network traffic and provides all formatted data through an HTTP interface without resident client software.

ADVANCED FEATURES INCLUDE:

- Fully Customizable Web Page Development
- Direct Web Page Hosting with Live Readings
- Multiple Meter Hosting on One Page
- Read Direct from Meters. (No Server Software Needed)
- No ActiveX Controls or Java Downloads
- IT Dept Friendly — Works Through Firewalls
- Low-Cost / High Functionality
- Instant Alarm E-Mails – Direct from the Meter

WEBEXPLORER

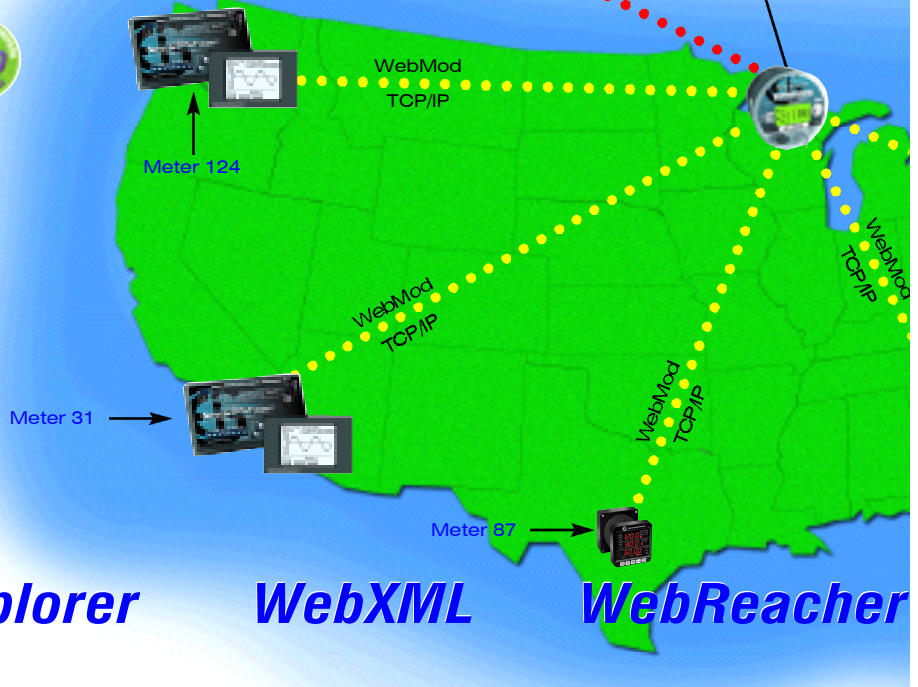
– Directly Host Metering Data

EIG's WebExplorer provides you with direct access to all power data through Internet Explorer without needing to download ActiveX controls or Java applets. Because it is a standard HTML web page to an IT department, it works directly through corporate firewalls.



Internet Explorer

WebXML Provides Totalized Energy Usage



WebExplorer

WebXML

WebReacher

WebExplorer is fully programmable so you can customize your own SCADA quality web pages, graphics and configurations.

EASILY INCORPORATED INTO ANY EXISTING WEB APPLICATION

- Fully Programmable Web Page Generator
- Bring in Direct XML Links Customizing Many Meters onto One Page
- Quick Page Upload Time
- Easily Passes through Firewalls
- No ActiveX Controls or Java Applets Downloaded to Client



WEBXML

Creates Real Time Data in XML Format. WebXML allows the Nexus meter to gather data from the Nexus Host or through other meters and put the data directly into an XML format. This allows you to share data through the web to multiple applications and create custom web pages using Web Explorer. WebXML technology is easy to configure and extremely flexible.

With WebXML, your data is instantly available to a host of software applications including Internet Explorer, Excel, Power Point and Word.

- XML Support
- Automatically Process & Present Data in Readable Format
- Add Scale Factors, Multipliers or Any Other Desired HTML Capability
- Display Data from Host Meter and/or Any Other Meter Using Modbus RTU or TCP/IP (WebReacher)
- Customized Programming for Data Collection
- Easily Viewed by Different Applications
- Modbus Data Concentrator



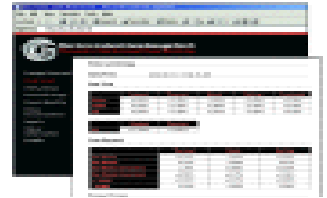
WEBREACHER

With EIG's exclusive WebReacher technology, you can now access remote devices around the world, retrieve data and consolidate it onto one web page or web site without any separate software SCADA package or client-side ActiveX or Java applets.

- No Additional Application Software Costs
- No Server System Required
- No Complex Integration
- No ActiveX or Java Applets on Client
- No Costly Point Charges



- 12 Simultaneous Sockets Of Modbus Over Ethernet Communication
- Multiple Sockets Means Multiple Users or Software Systems Can Reach Meters Simultaneously
- 1 Modbus RTU Internet Gateway with RS485 Connection (Up to 32 Devices)



WEBDNP NEW!

Using this feature, you can gain access to the meter speaking native DNP over Ethernet. This allows the unit to open an exclusive network socket for DNP 3.0. Using this unique technology, all other meter web features are available simultaneously.

WEBALARM

EIG's WebAlarm sends real-time e-mail alerts via the Internet to up to 9 recipients simultaneously for any combination of event notifications. With WebAlarm, you can easily program the type of e-mail format for the alert: either short format for cell phones with text messaging service or long format that will provide detailed alarm conditions for any devices with full e-mail support (computers, PDAs or cell phones).

- Real-Time Alerts
- Simultaneous E-Mails to Multiple Recipients
- Update Users on Virtually any Abnormality
- Uses Standard SMTP - Just Assign an E-Mail Address

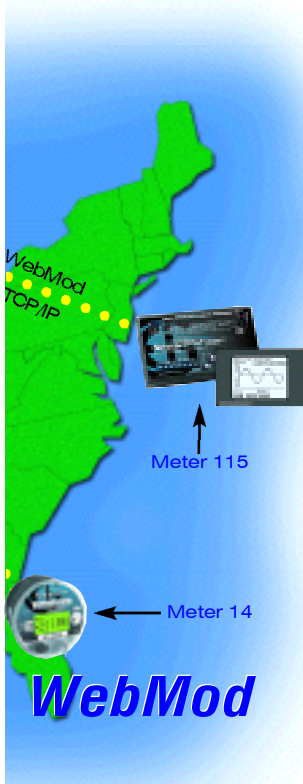


WEBMOD

- Open Architecture 3rd Party Integration

The 10/100BaseT design allows the unit to speak with 12 simultaneous sockets of Modbus TCP. Once the card is placed inside the Nexus, Port 2 becomes a gateway enabling other Modbus based IED equipment to be interfaced to the network LAN, allowing multiple requests to receive data simultaneously.

EIG's WebMod features Modbus TCP open protocol that can be easily integrated with most other software or hardware. The built-in Modbus data concentrator enables you to poll up to 16 devices or 1024 unique polling items from any device that can speak Modbus RTU and/or Modbus TCP protocols.



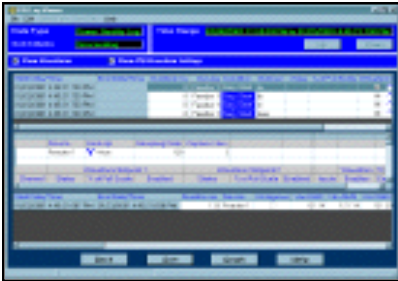
WebDNP

WebAlarm

Nexus 1272 Advanced Power Quality Analysis

The extraordinary speed and accuracy of the Nexus 1272 makes it possible to gather power quality information with unmatched precision. The Nexus 1272 is ideally suited for application on all critical loads. From health care to micro-electronics, the 1272 has what it takes to capture every anomaly. This ensures that when there is a power problem, you have the information required to act. All Power Quality Logs are time stamped to the nearest millisecond to ensure accurate recording. Nexus' Advanced Download Logic collects only new data to minimize download times.

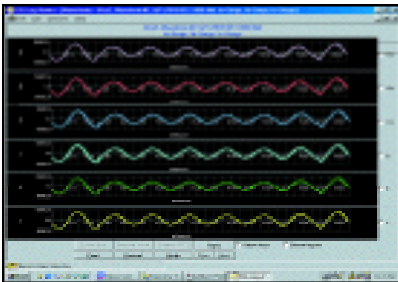
EVENT/OUT OF LIMIT LOG



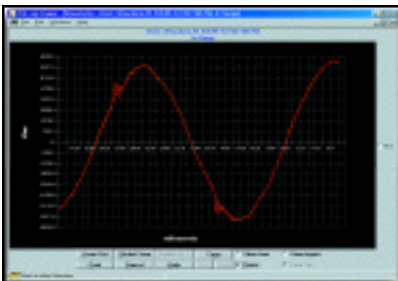
- Records 1024 Events
- Out of Limit Recording
- High-Speed Input Event Recording
- Outage Detection
- Extensive Limit Setting Capabilities with Multiple Limits per Selected Quantity

WAVEFORM LOG

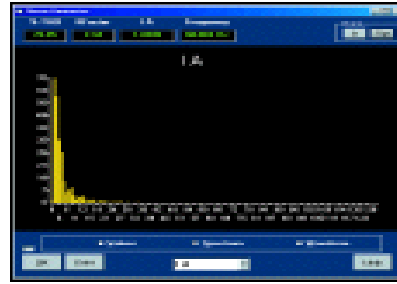
The waveform recording capability of the Nexus is unparalleled by any meter. Waveform records of this quality have historically been reserved only for transmission lines. The power of the Nexus 1272 now makes this quality available to your critical customers.



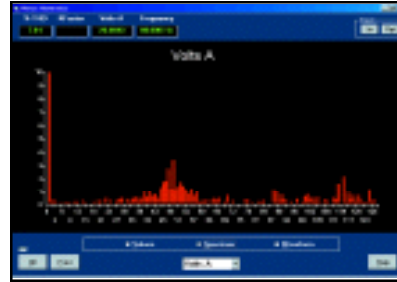
- Extraordinary Resolution through 16 bit A/D Input
- Sample Rates from 16 to 512 Samples per Cycle
- Total Recording Times Over 100 Seconds
- Up to Seven Channels
- Voltage & Current Triggers
- External Event Trigger
- Voltage Surge/Sag Recording
- Current Fault Analysis



HARMONIC DISTORTION ANALYSIS

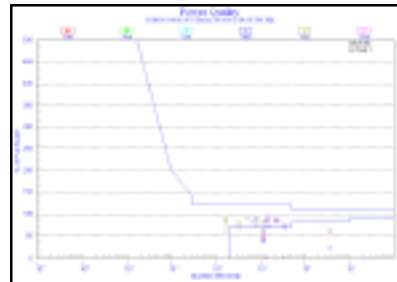


- Log Harmonics into Historical Log for Later Analysis
- Log Harmonics into Historical Log for Later Analysis
- Recorded Waveforms Provide Harmonics to the 25th Order
- View Waveform Records



CBEMA/ITIC Log

The separate CBEMA/ITIC Log captures all voltage transients that fall outside these standards. The onboard log holds 1024 events. The data is downloaded to a separate log in the meter database for easy analysis. See all voltage disturbances on one screen through the Communicator EXT software.



- Sag/Swell Analysis
- Transient Recording



Provides Detailed Power Quality Analysis

EN 50160 Power Quality Compliance Monitoring

EN 50160 FLICKER & COMPLIANCE MONITORING

It is important to maintain a source of high quality power to ensure efficient operations. One

particular source of disturbance that can have very negative effects is Flicker. This consists of low frequency (less than 24 Hz) to intermittent line disturbances on

the power line. Aside from effects on equipment, disturbances of this type can have negative effects on people. One particular example is the flickering of light sources that

can effect humans in different ways depending on the severity.

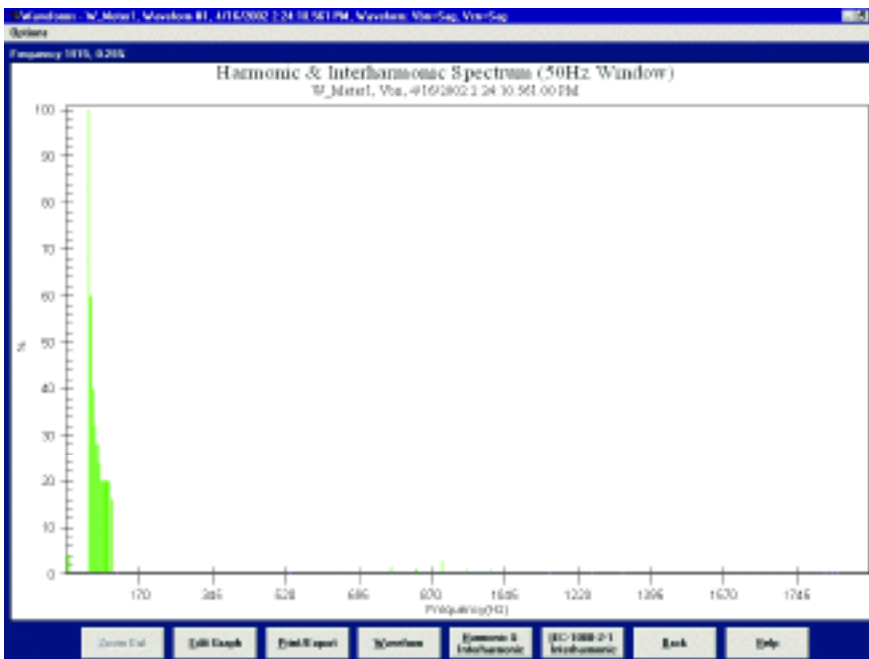
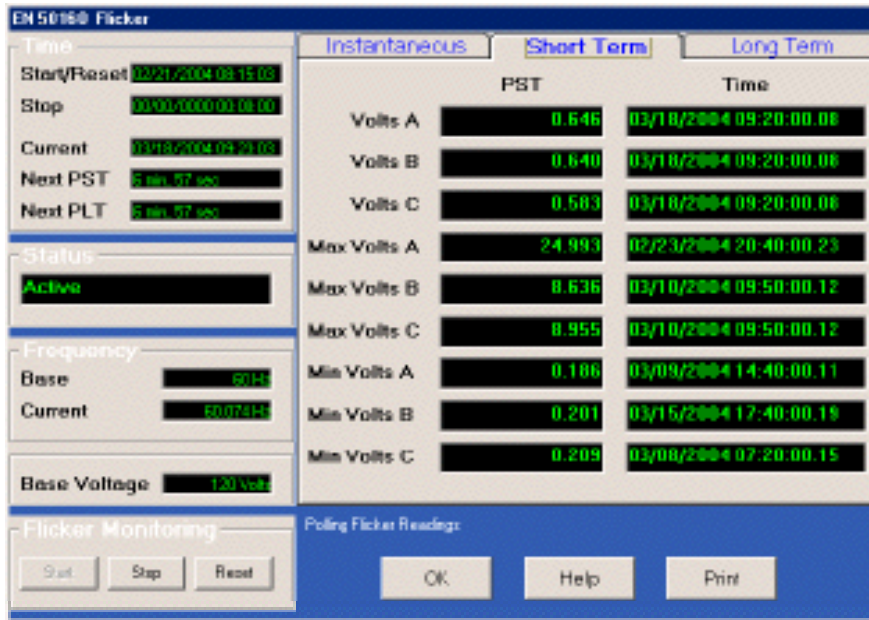
The Nexus 1272 complies fully with the Flicker requirements of EN 50160 and includes:

- **Short Term Readings: PST-10 Min/Logging & Monitoring**
- **Long Term Readings: PLT - 4 Hr/Logging & Monitoring**
- **Log Viewer:—View Graphed Values Pst and Plt for Va, Vb and Vc or displayed values, including Max & Min.**
- **Polling:Pinst, Pst, Pst Max, Pst Min, Plt, Plt Max, Plt Min values**

INTERHARMONIC ANALYSIS

The Nexus 1272 provides users with the ability to view Interharmonics, the discrete frequencies that lie between the harmonics of the power frequency, voltage and current. Frequencies can now be observed which are not an integer multiple of the fundamental and can appear as discrete frequencies or as a wide-band spectrum.

The user can set a starting point anywhere in the waveform, assuming that there will be enough sample points available after the starting point. If there are not enough points in this waveform capture, the software will check the next waveform record(s) stored in the database. If it is contiguous, additional points up to 200ms will be retrieved for analysis.



Cutting-Edge Technology Monitors Your Power Quality

Data & Event Monitoring/Recording

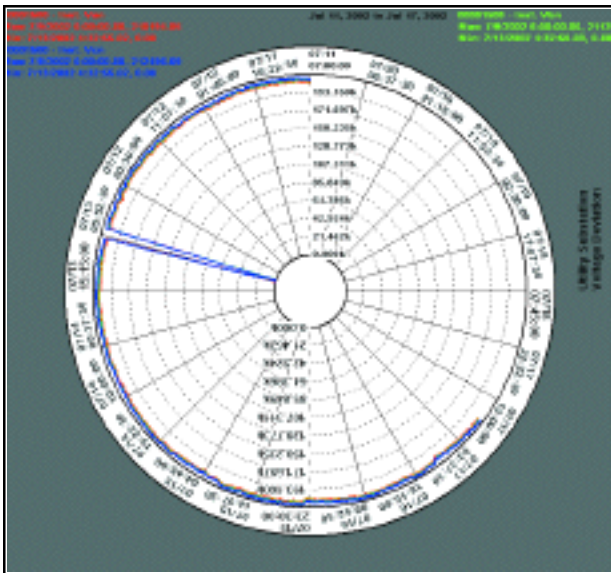
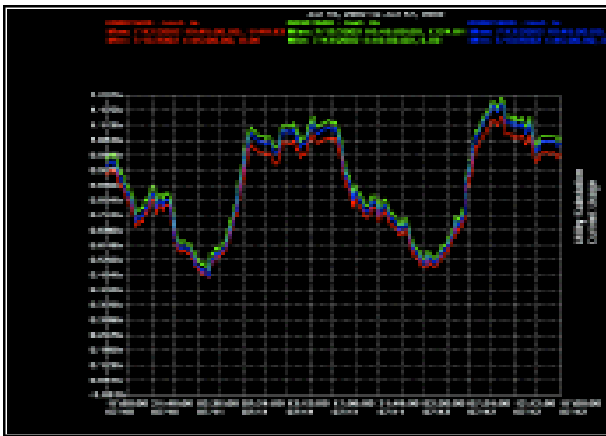
MULTIPLE MEMORY LOGS

These Nexus meters provide many logs to bring back historical, alarm and system event data. These logs can be used for profiling, recording events and logging electrical power parameters over time. Additionally, using the advanced I/O available on the product, you can log process measurements also including temperature, pressure, flow, etc.

TWO HISTORICAL TREND LOGS

These logs allow you to trend virtually any electrical parameter over time. This includes all electrical and I/O parameters.

- Up to 64 values per log
- Programmable trend times
- Provides magnitude and duration of event
- Millisecond resolution
- 2 separately programmable logs
- Separately recorded time base
- Records alarms for electrical and I/O channels



OUT OF LIMITS LOG

This log records all out-of-limit alarms.

SYSTEM EVENTS LOG

The units records system events for security and anti-tampering

- Power up
- Power down
- Password access
- Password modification
- Change of the programmable settings
- Change of a run time
- Change of Clock Time by communication (Modbus or DNP)
- Test Mode usage
- Meter Resets (Logs, Max/Min, Energy)

Event Date/Time	Event Description	Location	Channel Name	Module Name	Output Name
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 1
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 2
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 3
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 4
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 5
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 6
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 7
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 8
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 9
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 10
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 11
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 12
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 13
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 14
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 15
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 16
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 17
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 18
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2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 22
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 23
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2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 32
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 33
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 34
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 35
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 36
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 37
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 38
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 39
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 40
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 41
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 42
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 43
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 44
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 45
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 46
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 47
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 48
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 49
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 50
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 51
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 52
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 53
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 54
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 55
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 56
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 57
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 58
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 59
2014/0004 11:01:00 PM	2014/0004 11:01:00 PM		HighResolution_Curr	F05 In Input	F15 Output 60

INPUT STATUS LOG

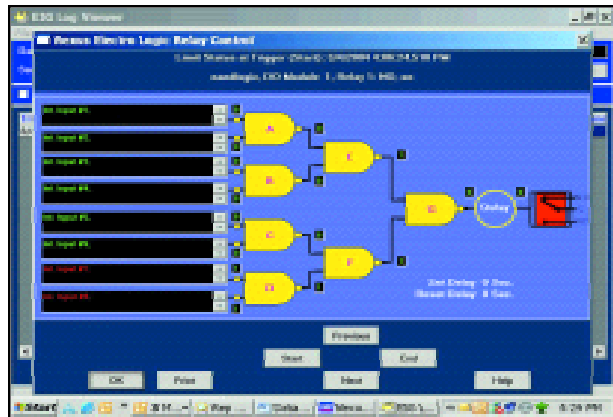
This log records when a digital status change occurred in either the internal or external inputs.

- Status log for external events
- Internally labeled to define events

CONTROL OUTPUT LOG

This log records the logic and state that triggered a control output. The graphical log shows all the steps that led up to the event.

- Displays pre- and post analysis
- Internally labeled to define events
- Advanced I/O analysis



Monitor Critical Loads, Important Users or Substations

System Performance & Reliability Analysis

0.06% Watt-hour Accuracy

The accuracy and precision of the Nexus 1272 coupled with its extraordinary logging capability makes it an ideal tool for system performance and reliability analysis. For the first time, users have the accuracy and precision of a digital fault recorder at the revenue-metering site without the expense. The Nexus' 16-bit accuracy and resolution for waveform records actually exceeds many digital fault recorder products. Combine the Nexus 1272 with EIG's suite of software solutions to further expand the level of understanding during any monitoring situation.

AI REPORTS - PQ ANALYSIS

AiReports provides automated analysis and report writing for abnormal events.

- Uses Artificial Intelligence
- Evaluates All Data from Nexus Monitor
- Rates Events for Severity
- Identifies Probable Causes
- Identifies Possible Impacts
- Recommends Corrective Actions or Solutions
- Prepares & Formats Report of All Power Quality Events

- PQDIF File Format Converter allows Nexus data to be read by standard EPRI Power Quality Viewing Software.

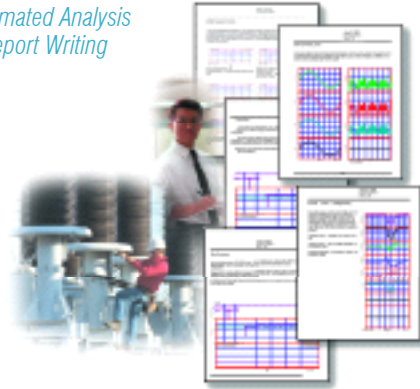
- COMTRADE File Converter converts fault records to standard fault analysis file formats.

COMMUNICATOR EXT FAULT ANALYSIS

- Compares Multiple Fault Records
- Measures Waveform Traces
- Inserts Timing Marks to Analyze Waveform Transients
- Views CBEMA Logs



Automated Analysis & Report Writing



AT THE INTERCHANGE POINT

Nexus gives you the power of a sequence of events recorder on every transmission line or interchange point. Nexus is always watching and has extended memory capability, which can record multiple faults, or even frequency swings during stability problems. Capture all voltages and currents.

Download the data and open the files with Communicator EXT. Compare multiple channels. Measure amplitudes and timing with millisecond resolution. See system reliability events that lasted for several seconds.

TEST PROTECTIVE EQUIPMENT

Need to test protective equipment performance? Simply take the Nexus record and convert to COMTRADE format.

Insert the file directly to protective test equipment to verify relay performance.

AT THE CUSTOMER

When that key customer calls, simply perform a download from the Nexus 1272. In a few minutes, all the data related to any event is on your desktop. A completed report is ready to review internally or e-mail to the customer.

Probable causes are identified and corrective actions recommended.

Need to perform a more detailed evaluation? Simply open the viewer to look at the waveforms to see exactly what happened to voltages and currents throughout the event. Only Nexus provides precise pictures for many seconds.

Supported Meter Forms

Form	Rated Voltage	Hookup
9S	120 to 277V L-N	3E, 4W, Wye
36S	120 to 277V L-N	2½ E, 4W, Wye with Neutral
45S	120 to 480V L-L	2E, 3W, Delta
SWB2	120 to 277V	Programmable (Universal Forms)
9A	120-277V L-N	A Base Form

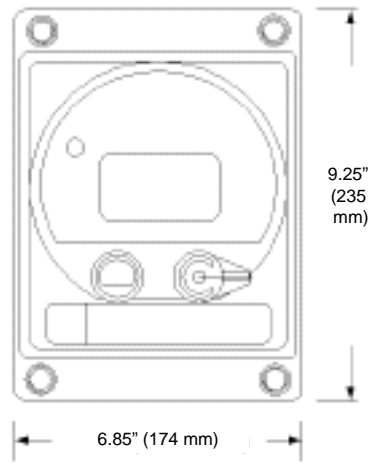
Accuracy

Parameter	Accuracy
Voltage	0.02%
Current	0.05%
Frequency	0.001Hz
kWh	0.06%
kWh@1.0PF	0.06%
kWh@0.5PF	0.10%
kVAR	0.10%
kVA	0.10%
PF	0.10%

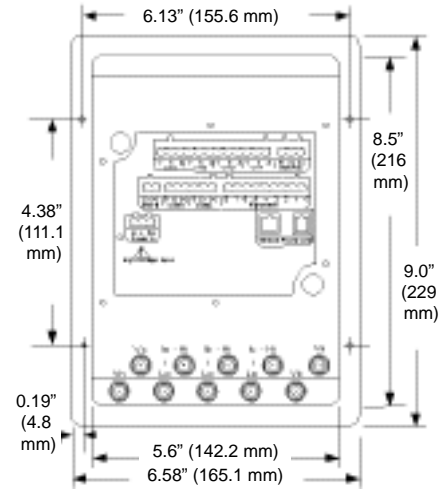
Reliable, Functional & Feature-Rich Capabilities

Dimensions & Mounting

Nexus 1272
Switchboard Case Front View



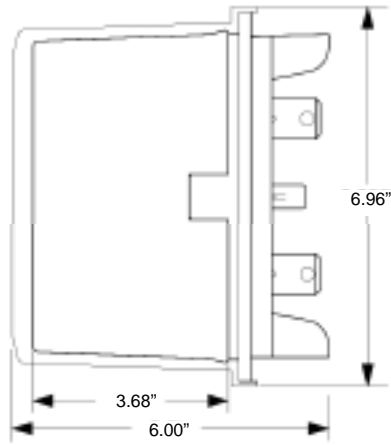
Nexus 1272
Switchboard Case Back View



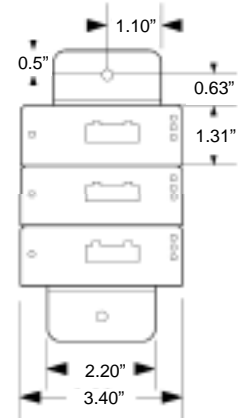
Nexus 1272
Front View



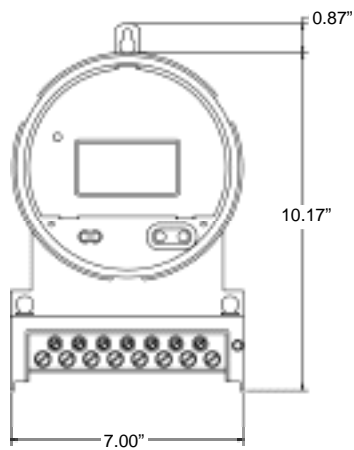
Nexus 1272
Side View



Nexus I/O Modules
Front View



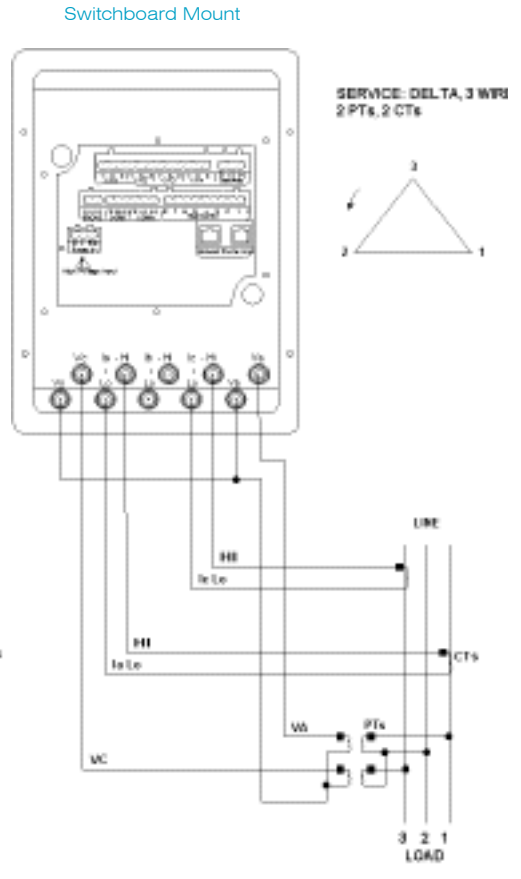
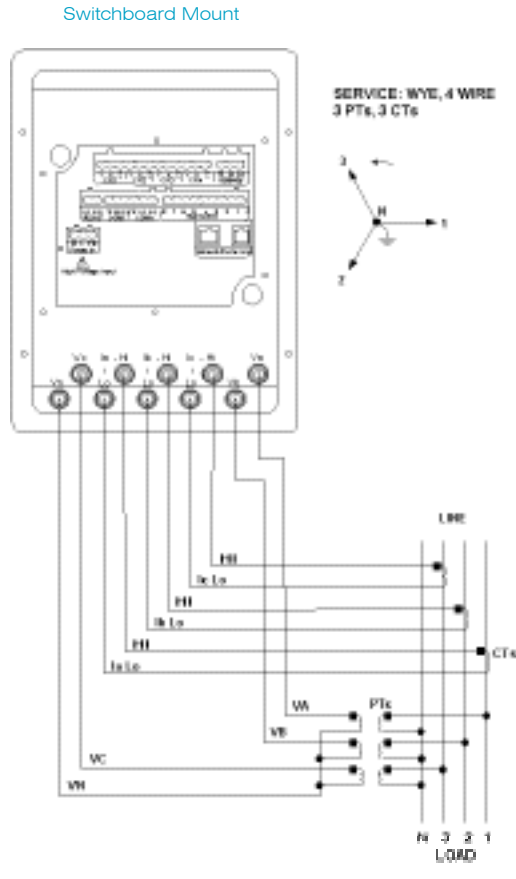
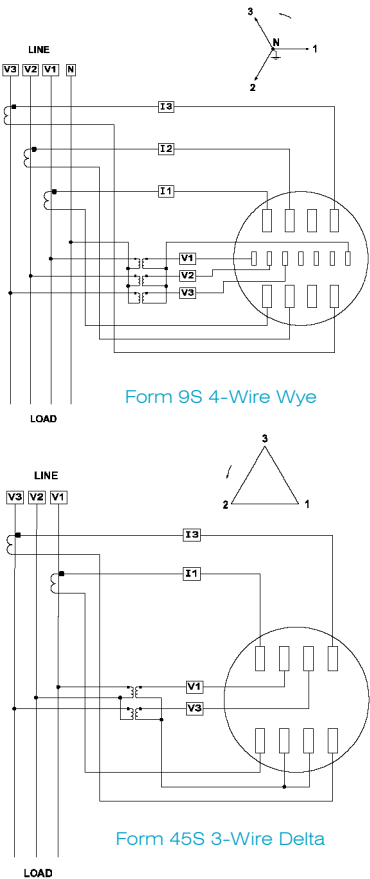
Nexus 1272
A Base Front View



Nexus 1272 A Base
Side View



Wiring Diagrams



Specifications

INPUT CURRENT

- 3 or 4 Current Inputs Depending on Form (IA, IB, IC, and IN)
- CT Rated 0-20 Amps Class 20
- CT Rated 0-2 Amps Class 2
- Transformer Rated
- Continuous 120% of Meter Class
- Overload 500% for 1 Second, Non Recurring

INPUT VOLTAGE

- 0 - 360V Line to Neutral
- 0 - 660V Line to Line

BURDEN (Sense Inputs)

- Voltage Inputs: 0.33VA@576V
- Current Inputs: 0.0125VA@25A

ISOLATION

- All Inputs and Outputs Isolated to 2500 Volts
- Com Ports Isolated From Each Other to 1000 Volts

SENSING

- Accu-Measure® Technology
- 16 bit A/D Inputs
- True RMS
- 8 Channel Sample & Hold

MEMORY

- All Meter Setup Parameters, Measurements & Logs Contained in Nonvolatile RAM

STANDARD COMMUNICATIONS

- LCD Display
- IR Port
- Two RS-485 Serial Ports

- Modbus RTU, Modbus ASCII, DNP 3.0
- Data Speeds of up to 115k bps
- Eight High-Speed Input Channels

OPTIONAL COMMUNICATIONS

- 56K Modem with Dial-Out Capabilities
- Internal 10/100Base T - Total Web Solutions
- Modem/Ethernet Combo Card
- Modbus TCP and DNP LAN/WAN

INTERNAL 8ch DIGITAL INPUTS

- Type: Self Excited, for Dry Contacts Only
- Internal Wetting Voltage: 12V DC Typical

INTERNAL 4ch SOLIDSTATE OUTPUTS (kyz)

- Type: Form A or C
- On Resistance: 23-35
- Peak Voltage: 350V DC
- Continuous Load Current: 120mA
- Peak Load Current: 350mA (10ms)
- Off State Leakage Current @350V DC: 1: μ A
- Opto Isolation: 3750V rms (60Hz, 1 min.)

CLOCK TIMING

- Internal Clock Crystal - Accuracy Better than 1 Minute per Month
- IIRIG-B Input for Synchronizing to External GPS Clock Signal - Accuracy Better than 1 msec per Month

- Line Sync -Accuracy Better than 1 Second per Month

ENVIRONMENTAL

- Operating Temperature: -40°C to +85°C
- Display Temperature: -20°C to +60°C
- Raintight Lexan Cover (Socket)

AUX POWER SUPPLY OPTION

- Standard (OPTIONS) 102 to 550 Volts AC 50/60Hz. Auto-Ranging 3 Phase. 12VA Worst Case Total Burden. Meter Power Provided by any of the 3 Phase Voltage Sources Being Monitored. Blade Powered.

Standard External (OPTIONSE)

- 102 to 275 Volts AC/DC 50/60 Hz. Max Power Consumption: 16 VA@276VAC. Separate Power Cord.

Low Voltage (OPTION LV)

- 69V AC 20% \pm - Low Voltage Supply for 69 Volt L-N Applications

Low Voltage External (OPTIONDE)

- 18 to 60 Volts DC - External Low Voltage Supply for DC Powered Applications

NOTE: Switchboard Meter is always separately powered.

SECURITY

- Hardware Lock Secures Meter Settings
- Two 10-Character Passwords
- One Password Controls Access to Read Meter Digitally

- Separate Password Controls Access to Program Meter

SHIPPING

- Socket: 8 Lbs
- Switchboard: 14 Lbs

Dimensions:

- Socket: 10" x 11" x13"
- Switchboard: 16" x14" x 11"

COMPLIANCE

- Compliance Standards: ANSI/IEE C12.20 ANSI-Certified IEC 60687 — Certified

Approvals:

- Europe: IIEC 60687 — KEMA Certified
- ANSI/IEEE C37.90.1 Surge Withstand
- ANSI C62.41 Surge Immunity ESD
- IEC 1000-4-2 Radiated Immunity
- IEC 1000-4-3 Fast Transient
- IEC 1000-4-4 Surge Immunity
- IEC 1000-4-5 Conducted Immunity
- IEC 1000-4-6 Vibration (Sinusoidal)
- IEC 60068-2-6 Shock Test
- IEC 60068-2-27 Resistance to Heat & Fire
- IEC 695-2-1 Dust & Water
- IEC 529 Cold Test
- IEC 68-2-1 Dry Heat
- IEC 68-2-2 Damp Heat
- IEC 68-2-30

Logging Specifications

Model	Memory	Historical Log 1 ¹	Historical Log 2 ¹	CBEMA / ITIC ²	Out of Limit Log ²	Waveform Log ³	Flicker Log ²	Output Log ²	Input Log ²	System Events ²
1272	Standard	85 Days	133 Days	512	1024	63	1536	256	1024	1024
1272	Advanced	555 Days	133 Days	512	1024	95	5120	256	1024	1024
1262	Standard	69 Days	32 Days	N/A	512	N/A	N/A	512	1024	1024
1262	Advanced	480 Days	133 Days	N/A	512	N/A	N/A	512	1024	1024

- 1 Assumes Logs store 4 scaled energy readings every 15 minutes
 2 Number of Events Recorded (assumes 14 parameters monitored)

- 3 Number of Waveform Records. Each record may be from 8 to 64 cycles in duration depending upon meter setup

Ordering Information

	Model	Memory	Form	Class (Amps)	Frequency	Power ¹ Supply	Optional Commu-cation
Option Numbers:	-	-	-	-	-	-	-
Example:	1272	S	9S	20	60Hz	S	INP100
	1272	S Std	9S	2 Amps	60 Hz	S Std Blade Powered	X No Optional Com
	1262	A Adv	36S	20 Amps	50 Hz	SE Std Ext 102-270V AC/DC	INP2 Modem with Dial-Out
		45S				DE DC Ext 18-60V DC	INP100 Total Web Solutions
		SWB2 (Switchboard)				LV 69V AC Blade Powered	INP102 Modem & Web Combo (No Dial-Out)
		9A (A Base)					

- 1 Switchboard Meter Only Supports SE or DE Options

Accessory Options

OUTPUT MODULES *Option Numbers*

- 1mAON4** 4 Analog Outputs, 0-1mA
- 1mAON8** 8 Analog Outputs, 0-1mA
- 20mAON4** 4 Analog Outputs, 4-20mA
- 20mAON8** 8 Analog Outputs, 4-20mA
- 4RO1** 4 Relay Outputs
- 4PO1** 4 Solid State Pulse Outputs

INPUT MODULES *Option Numbers*

- 8AI1** 8 Analog Inputs, 0±1mA
- 8AI2** 8 Analog Inputs, 0±20mA
- 8AI3** 8 Analog Inputs, 0±5V DC
- 8AI4** 8 Analog Inputs, 0±10V DC
- 8DI1** 8 Digital Status Inputs

POWER *Option Number*

- PSIO** I/O Power Supply (Required with I/O)
- BAT1** External Replaceable Battery for Dial Out on Outage

MOUNTING *Option Number*

- MBIO** I/O Mounting Bracket
**Power Supply and Mounting Bracket
Required with any Accessory I/O Option**

SOFTWARE *Option Numbers*

- NXC3.0.1C** Communicator EXT 3.0 for Windows®
Single-Computer License (One Site)
- NXC3.0.MC** Communicator EXT 3.0 for Windows®
Multiple-Computer License (One Site)
- AIRPT1C** AiReports Power Analysis Software for
Windows® Single-Computer License (One Site)
- AIRPTMC** Multiple-Computer License (One Site)
- NXDS 1.0C** Dial-In Server Single-Computer License (One Site)
- NXDS 1.0MC** Dial-In Server Multi-Computer License (One Site)



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