

## 61STD DataNode®

### Power Quality, Demand & Energy Monitoring



*61STD DataNode shown with available rack mount with 1/4 VGA color touch display (above) and available mounting (below)*



#### THE INTELLIGENT INSTRUMENT

The Encore Series System, our state of the art power monitoring system, combines more than 50 years of power monitoring experience with the power of the Internet. By using any web browser, Encore Series provides an advanced, yet easy to use monitoring system that meets the needs of virtually any application, large or small.

The Encore® Series 61STD DataNode is a Power Quality, Demand and Energy monitoring instrument with a configurable design that allows users to specify the right instrument configuration for their specific application. Combined with the multi-user, web interface of Encore Series Software and available local 1/4 VGA color touch screen display, the Encore Series 61STD is the right product for any application

#### 61STD DATANODE

The Encore Series 61STD DataNode is a modular and configurable instrument that greatly improves upon the traditional 8-channel (4 voltage/4 current) instrument format. You can have your choice of (4 channel) voltage, (4 channel) current and (8 channel) digital input modules. Each voltage and current module is available with either screw terminals for permanent connections, or safety connectors for temporary connections with clip leads and clamp-on or FLEX CT's. Save money, prevent integration aggravation and gain physical space by combining up to four modules in one instrument for applications that previously required two or more instruments. Popular combinations are:

- 8 channel traditional power and PQ monitoring: 1 Voltage & 1 Current module
- 16 channel equipment performance (I/O) monitoring: 2 Voltage & 2 Current modules
- 16 channel substation feeder monitoring: 1 Voltage & 3 current modules

The 61STD DataNode enables you to combine modules in software to build your own instrument with up to four virtual analyzers. Virtual analyzers are either individual modules working as independent analyzers or combinations of modules, such as when combining voltage & current modules to create a power quality, demand & energy analyzer.

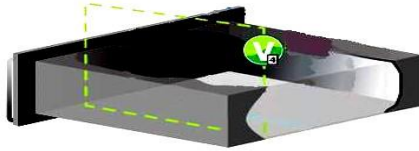
#### COMPLIANCE

Encore Series is perfect for ongoing monitoring to determine compliance with world-wide standards, such as EN50160, NVE and your own specialized compliance requirements. Encore Series voltage modules are certified by an independent laboratory for Class A compliance with IEC61000-4-30:2008. You can be confident that Encore Series measurements are both accurate and repeatable, and that they meet the most stringent requirements of any country.

#### 61000 FAMILY OF DataNodes's

Available in standard and switchgear mounting enclosures, the 61000 family of DataNode's can be used in a wide variety of applications. Choose the appropriate mainframe, and then add the modules that meet your application. The standard enclosure (61STD) is a stand-alone instrument with an available rack mount (with or without 1/4 VGA touch display), wall mounting brackets and weather resistant enclosure to withstand the most severe operating environments. The switchgear version is available with a 1/4 VGA color touch display (61SGD) or without a 1/4 VGA color touch display (61SG). It's perfect for mounting in switchgear doors or other enclosures.

## Voltage Compliance



4 Ch. Voltage  
Module

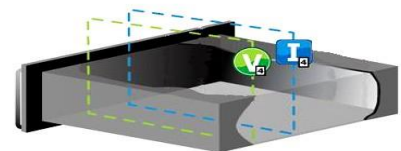


4 Ch. Current  
Module

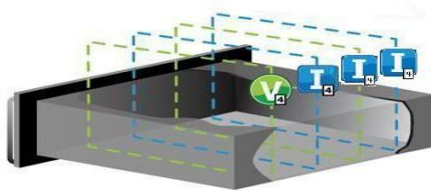


8 Ch. Digital Input  
Module

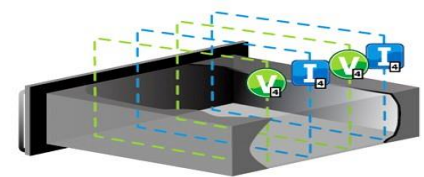
## Standard Power Quality



## Substation Feeder



## UPS Performance



*The modular design of the 61STD DataNode enables you to build the right instrument for your application*

## 61STD DATANODE<sup>®</sup> SPECIFICATIONS

### MODULES – CHOOSE UP TO FOUR

#### VOLTAGE

- Channels: (4), differential inputs, AC/DC
- Sampling: 512 samples/cycle, 16 bit A/D, synchronous sampling
- Range: 1-600 Vrms, +/- 1000VPK
- Full Scale Accuracy: 0-600V, 0.1% reading +/- 0.05% full scale, 7KHz bandwidth for low/medium frequency transients. 100-300V AC, 0.1% reading for IEC 61000-4-30:2008 Class A
- Frequency: 16/20Hz, 50Hz, 60Hz
- Input impedance: 10MΩ to ground
- Choice of connections: Screw terminals (61MVS), safety connectors (61MVB), D connector (61MZP) for use with (optional) remote voltage pod with screw terminals.

#### CURRENT

- Channels: (4), differential inputs, AC/DC
- Sampling 512 samples/cycle, 16 bit A/D
- Range: Module dependent. 1.5Vrms FS, 5A or 1A.
- Accuracy: 0.1% reading +/- 0.05% full scale, 3KHz bandwidth for low/medium frequency transients. Does not include CT.
- Choice of connections: Screw terminals (61MAS5, 1), TR connectors (61MAC) for clamp-on/FLEX CT's, D connector (61MZP) for use with (optional) remote 5A or 1A current pod.

#### DIGITAL INPUT

- 61MDIN: Range: 0 – 135VAC/DC,
- 1KHZ sampling, Edge or level triggered,
- Logic programmed by user (active high or active low)
- Time stamped to the millisecond
- Screw terminals

#### MEMORY

- 1GB internal flash

#### MONITORING COMPLIANCE

- IEC61000-4-30:2008 Class A, IEC61000-4-7, IEC61000-4-15
- EN50160, NVE, IEEE1159, IEEE1453, IEEE519, IEEE1459

#### COMMUNICATIONS

- Standard: RJ45 TCP/IP Ethernet, RS232/RS485
- Optional: 3G/4G, GSM/GPRS modem, analog modem
- Protocols: XML, Modbus TCP/RTU
- Time synchronization: NTP, optional internal GPS
- IEC 61850

#### INSTRUMENT POWER

- Standard: 12VDC input with 90 to 250V AC 50/60Hz adapter
- Optional: 90 to 250V AC/DC, 50/60Hz
- 15 minute internal UPS (specified with display & 4 modules)

#### AVAILABLE ENCLOSURES & MOUNTING

- 61STD Enclosure: 4" x 11" x 8" (10.2cm x 28cm x 20.3cm), Weight: 4.2 pounds (1.9 kg)
- 61RMTS: Rack mount without display
- 61RMTD: Rack mount with ¼ VGA color touch display, 12 languages
- 61WENCL: Weather resistant enclosure,
- 61BRKTS: Wall mount brackets

#### ENVIRONMENTAL

- Operating temperature: -10 to 60°C
- Humidity: 10 to 95%, non-condensing. Indoor use only

#### SAFETY AND COMPLIANCE

- UL, CE, ISO 9001:2008