

# BDS-Pro Battery Monitoring System

**Common Applications:** Power Utilities & Distribution, UPS Systems, Telecom/Communications



Main Processing Unit (MPU)

## Product Description

The **BDS-Pro Battery Monitoring System** is designed to measure the aging status of up to 24 cells/units by measuring and recording: string voltage, string current, cell/unit voltage, internal resistance, and temperature. The BDS-Pro is intended for use on vented lead acid, valve regulated lead acid, and nickel-cadmium battery systems. The included **Centroid 2 Battery Management Software** records measured data for comprehensive trending analysis. The BDS-Pro Battery Monitoring Solution is an accurate, user-friendly and economic solution for monitoring systems using up to 24 cells/units.

Reduce maintenance costs, improve up-time and manage your battery assets effectively by using the BDS-Pro battery monitoring solution for your system. Protect yourself from battery failure - one of the leading causes of facility downtime with battery monitoring.



Installation to 48V Switchyard Battery

## Product Advantages

- 24/7/365 Battery Monitoring.
- Comprehensive Battery Management Software.
- Installation while systems are online.
- Meets IEEE and NERC standard recommendations for battery monitoring.
- Patented ripple-removing algorithm to filter out noise from measurements.
- Injects minimal current for measurement.
- Simple to install with custom, pre-assembled installation materials.
- Can be powered by AC or DC.



Centroid 2 Battery Management Software

## Battery Management Software

- Displays and records string voltage, string current, cell/unit voltage, internal resistance, temperature.
- Trending analysis of measured parameters on a string and cell/unit level with colored, easy to read graphs.
- PDF and Excel reporting.
- Detailed log of alarm outbreak history
- Email and SMS alerts
- Automatically record, save, & playback discharge & recharge events.

## BDS-Pro System Composition

Typical BDS-Pro systems are configured with the following main components:

### MPU (Main Processing Unit)

A single MPU per system processes all measurement data and handles communication.

### Connection Clamps

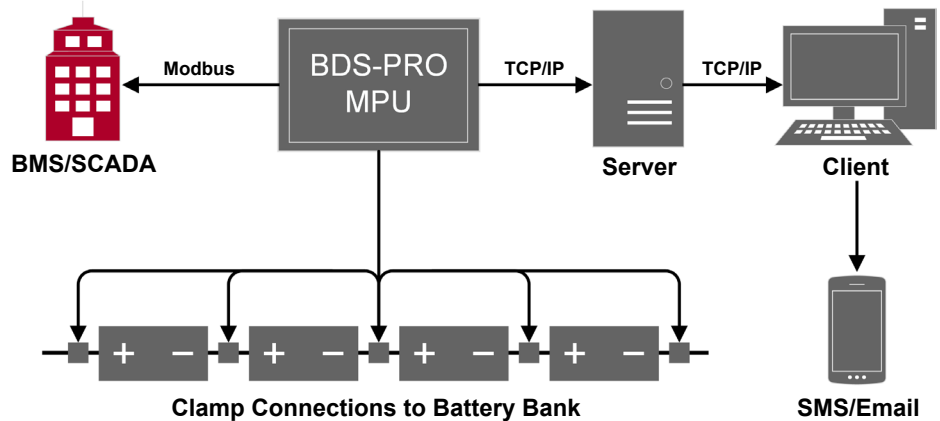
Physical connection to battery system. Installs to battery inter-cell cables or busbars.

### Server PC

Main computer which interfaces with the MPU. Runs Centroid Snet Server application.

### Client PC

Additional computers on the network which communicate with the Server PC. Runs Centroid Viewer application.



## Technical Specifications

<b>Measurement Range:</b>	Battery Capacity: 5 – 6,000 Ah Nominal Cell/Unit Voltage: 1.2V, 2V, 4V, 6V, 8V, 12V String Voltage: 0 – 150 VDC String Current: $\pm 999.9$ A
<b>Accuracy:</b>	String Voltage/Current: $\pm 0.5\%$ / $\pm 1\%$ Cell/Unit Temperature: $\pm 2\%$ Cell/Unit Internal Resistance: $\pm 2\%$ Cell/Unit Voltage: $\pm 1\%$
<b>Resolution:</b>	DC Voltage/Current: 0.1 V / 0.1 A Cell Voltage: 0.01 V Internal Resistance: 0.001 $\Omega$ Temperature: 0.1°
<b>Test Speed / Test Load:</b>	4 seconds per cell at less than 2 A per cell
<b>Measuring Interval:</b>	Adjustable from 10 min to 24 hours (cell/unit readings)
<b>Data Transfer:</b>	TCP/IP to proprietary software, Modbus
<b>Internal Storage:</b>	Approximately 2 weeks backup
<b>Operating Environment:</b>	Temperature: 0 – 65°C (32 – 150°F), RH: Under 80%
<b>Power Requirements:</b>	Input: 36 – 150 VDC / 110 – 220 VAC Consumption: 20 W
<b>Dimensions:</b>	MPU: 195 x 270 x 55 mm (7.7 x 10.6 x 2.2 in)

## Applications

- Telecom/Communications
- Power Utilities and Distribution
- Transportation Operations
- Oil, Gas & Fuel
- Generators
- UPS Systems

## System Includes

- BDS-Pro hardware
- Centroid 2 battery management software
- All installation materials
- Fitted CT clamp
- USB drive with software and support literature
- **Optional:** Spare parts kit

## Ordering Information

No.	Model #	Description
1	BDS-Pro	Battery Monitoring Solutions: Up to 24 Cells/Units