



# BDS-Pro Battery Monitoring System

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



Main Processing Unit (MPU)

## Product Description

The **BDS-Pro Battery Monitoring System** is designed to measure the aging status of critical backup batteries by measuring and recording: system voltage, load current, unit voltage, internal resistance, and temperature. The BDS-Pro is intended for use on vented lead acid (VLA), valve regulated lead acid (VLRA), and nickel-cadmium (NiCad) 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 Features

- 24/7/365 Battery Monitoring
- Comprehensive Battery Management Software
- Installation while systems are online
- Meets NERC and IEEE 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

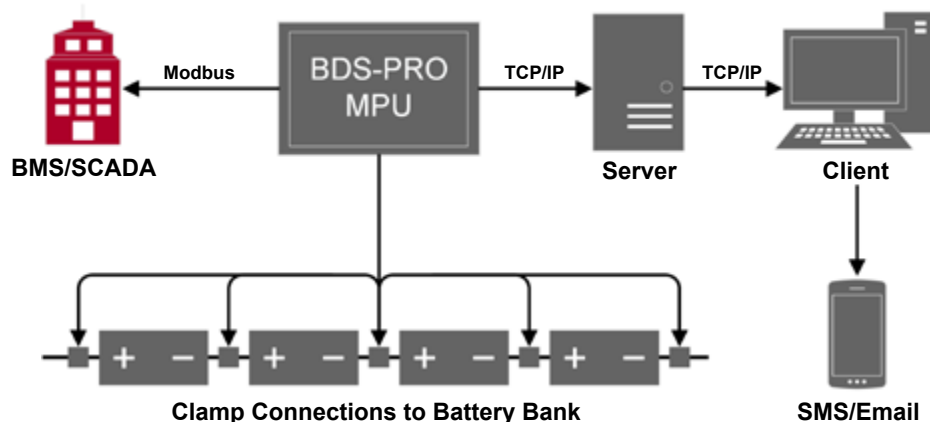
Physical connection to battery system. Installs to battery inter-cell cables or busbars.

### 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 System Voltage: 0 – 900 VDC Load Current: $\pm 999.9$ A Unit Voltage: 1.2, 2, 4, 6, 8, or 12 Volts (24 units max)
<b>Accuracy / Resolution:</b>	System Voltage: $\pm 0.5\%$ / 0.1 V Load Current: $\pm 1\%$ / 0.1 A Unit Voltage: $\pm 0.5\%$ / 0.01 V Internal Resistance: $\pm 2\%$ / 0.001 m $\Omega$ Unit Temperature: $\pm 2\%$ / 0.5 $^{\circ}$ C
<b>Test Speed / Test Load:</b>	4 seconds per cell / less than 2 amps AC per cell
<b>Measuring Interval:</b>	Adjustable from 10 min to once daily (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 $^{\circ}$ C (32 – 150 $^{\circ}$ F) RH: Under 80%
<b>Power Requirements:</b>	Input: 36 – 150 VDC / 100 – 240 VAC
<b>Dimensions:</b>	195 x 270 x 55 mm (7.7 x 10.6 x 2.2 in.)

## Applications

- Telecom
- 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

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