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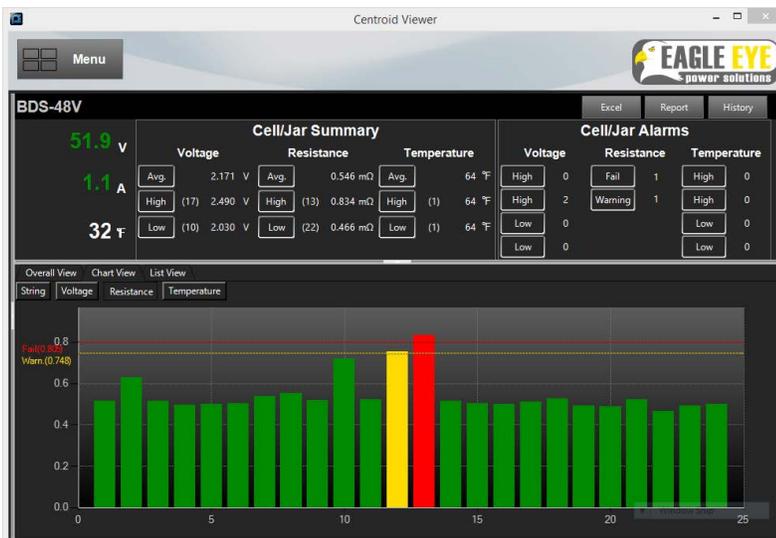
Reduce maintenance costs, improve up-time and manage your battery assets effectively by using the BDS-Pro battery monitoring solution for your system. Protect yourself from battery failure - one of the leading causes of facility downtime with battery monitoring.

Product Features

- 24/7/365 Battery Monitoring
- Comprehensive Battery Management Software
- Installation while systems are online
- 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

Installation to 48V Switchyard Battery

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.
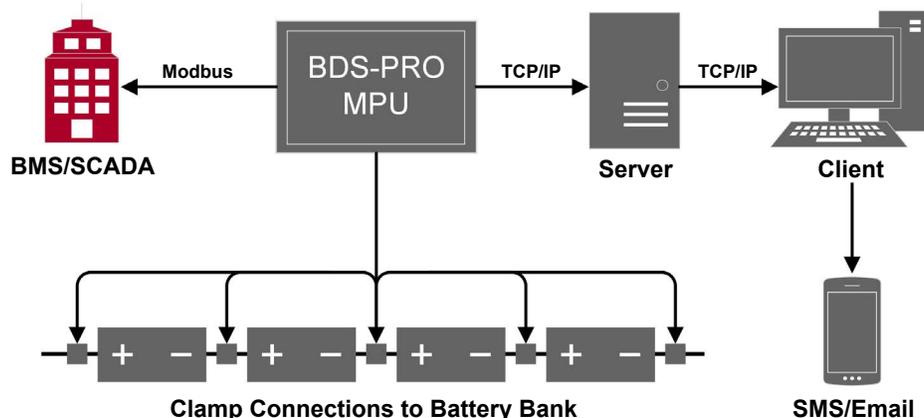
Connection Clamps

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.

BMS/SCADA ← Modbus ← BDS-PRO MPU → TCP/IP → Server → TCP/IP → Client → SMS/Email

Clamp Connections to Battery Bank

Technical Specifications	
Measurement Range:	Battery Capacity: 5 – 6,000 Ah System Voltage: 0 – 900 VDC Load Current: ±999.9 A Unit Voltage: 1.2, 2, 4, 6, 8, or 12 Volts (24 units max)
Accuracy / Resolution:	System Voltage: ±0.5% / 0.1 V Load Current: ±1% / 0.1 A Unit Voltage: ±0.5% / 0.01 V Internal Resistance: ±2% / 0.001 mΩ Unit Temperature: ±2% / 0.5°C
Test Speed / Test Load:	4 seconds per cell / less than 2 amps AC per cell
Measuring Interval:	Adjustable from 10 min to once daily (cell/unit readings)
Data Transfer:	TCP/IP to proprietary software, Modbus
Internal Storage:	Approximately 2 weeks backup
Operating Environment:	Temperature: 0 – 65 °C (32 – 150 °F) RH: Under 80%
Power Requirements:	Input: 36 – 150 VDC / 100 – 240 VAC
Dimensions:	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