



Telzas monitoring systems detect threats in a distributed technical infrastructure containing hundreds of sites and thousands of objects, devices, events and measured values.

PURPOSE

SNOB-2 is a multi-channel automatic online battery testing and monitoring system, which is the latest generation of monitoring systems.

It was based on the study of characteristics in the battery industry and new technologies of industrial, electronic monitoring devices.

Data for analysis and reports can be collected by a dedicated application (BM3000 Battery Management Software) or through the WinCN 2 system.

Supported batteries

- Cells voltages: 2V, 6V, 12Vm
- System nominal voltage: 48 V, 110 V, 220 V, 400V
- Capacity up to 3000 Ah
- Measurement of voltage, current, temperature, resistance
- The maximum configuration of one controller is: 254 battery cells / 6 battery strings per system.

Additionally:

- MODBUS TCP/IP port Ethernet
- MODBUS RTU port RS232/RS485

APPLICATION

Support, control and alarm systems for uninterruptible power supply in industries such as:

- Medical
- Telecommunications
- Railroad
- Aviation
- Banking

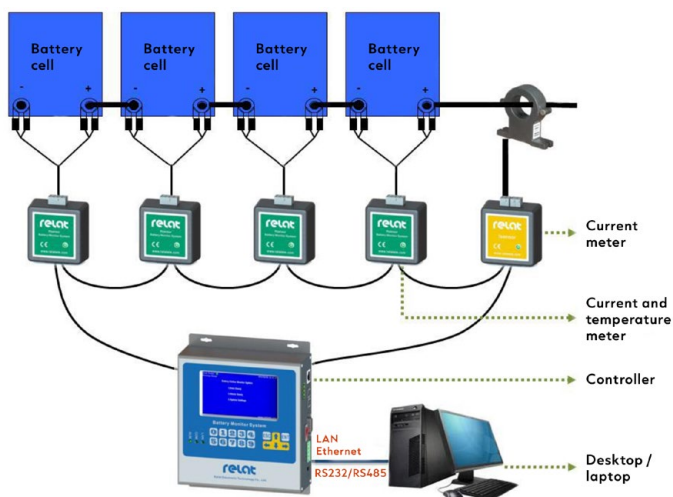
KEY FEATURES

- ✓ Reveals battery performance characteristics and aging trends
- ✓ Much lower discharge current, no battery damage
- ✓ Optical isolation technology and multi-level safety protection
- ✓ Real-time monitoring of individual block resistance, voltage, temperature and current
- ✓ Automatic inspection, maintenance-free, fast, reliable
- ✓ Internal resistance can be reported daily or even hourly, as needed
- ✓ Customized event management and alarm criteria
- ✓ Detailed historical data recording for technical analysis of the actual condition
- ✓ Ethernet management supports expansion and centralized monitoring
- ✓ Optional wireless alarms, use of cell phones and other mobile devices for maintenance
- ✓ MODBUS TCP/IP and Modbus/RTU protocols for communication
- ✓ System has been properly tested and CE certified
- ✓ Complies with the recommendations of the IEEE1188 standard



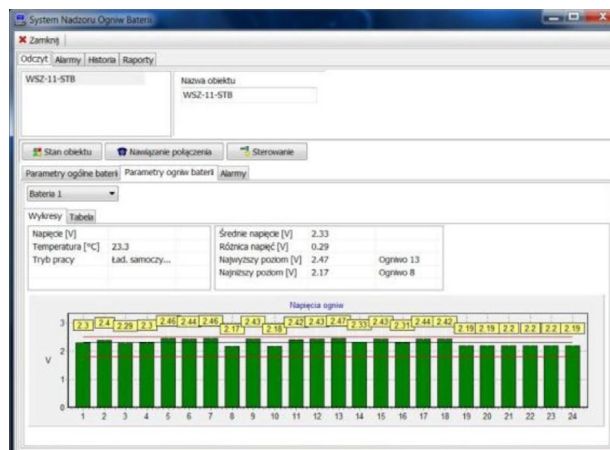
DESIGN

SNOB-2 is a supervision system using a distributed modular design that is easy to install and operate. The battery monitoring system consists of a control module (controller), a current meter and a battery sensor that can measure voltage and temperature.



SNOB-2 in WinCN 2

The WinCN 2 supervision center includes a module for the Battery Cell Supervision System. Using the application, it is possible to remotely control the voltage levels of individual cells, their possible alarm states as well as perform configuration of settings in the controller.



Main components:

- **Controller** - the system requires a single controller
 - designed to receive transmitted signals from voltage and temperature meter and current meter
 - continuously monitors, analyzes and stores battery measurements
 - equipped with a 4.3" LCD color display for access to all battery measurements and most settings
 - provides RS-232 and Ethernet communication for remote monitoring
- **Voltage and temperature meter** - Each cell requires a separate voltage and temperature meter
 - Cell sensor, can measure the voltage, temperature and internal resistance of the cell.
 - The data will be sent to the control module for analysis and storage
- **Current meter** - Each separated electrical circuit (string) requires one current meter
 - The current meter can be connected to a current transformer to measure the separated electrical circuit (string)
 - The data will be sent to the control module for analysis and storage
- **Current transformer** - Each separated electrical circuit (string) requires one current transformer

SNOB-2 in BM3000 Battery Management

- BM3000 Battery Monitoring System allows all battery system to be monitored 7x24 hours via a remote computer.
- Report generation and trending analysis and detailed alarms can be viewed on a single or multiple PC's on the same network
- Allows to remote viewing and data management of all battery monitoring systems
- Bar or Curve Graph display for all battery
- Generate Discharge and Charge report

