

BTM4000

Battery Monitoring System

Polytronics' Battery Testing & Monitoring (BTM) systems are designed to continuously monitor your batteries and alarm when parameters are outside of acceptable limits allowing you to perform maintenance on problem batteries before they fail.

Proven, Non-Invasive Technology

With thousands of installations all over the Globe, the BTM4000 system has proven itself as a reliable and effective battery monitoring system. Unlike other systems that apply pulses or momentary loads to the battery, our non invasive technology detects battery problems without contributing to battery deterioration.



Features:

- **Extremely fast scanning**
- **Status and alarm indicators**
- **History and aging reports**
- **Remote Alarm capability**
- **Fiber-optic isolation**
- **Modular design**
- **Float current monitoring ***
- **Intercell measurements ***
- **Handles large installations**

Cost Effective Installation

Modular architecture of BTM4000 battery-monitoring system reduces the total length of wire used, simplifies installation, and allows the system to be expanded with the purchase of minimal hardware.

Accurate float Current Measurements

The system can measure string float current in the mA range and incorporates ground fault detection. Float current is quickly becoming the standard measurement used to determine when battery maintenance is required.

Immediate Notification

An intelligent communication algorithm allows system status and alarm notification within a few seconds of the event. Users can configure alarms to be generated locally or remotely.

Safety

Fiber-optic cables link the concentrators so that no wires at battery potential leave the battery room or battery cabinet. The fiber-optic cable provides high speed, reliable data-transmission, and total electrical isolation.



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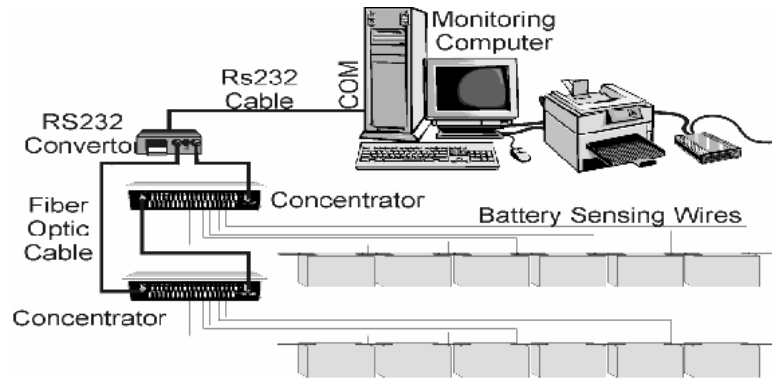
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Data Storage & Access

Each BTM4000 system ships with a BTMInfo¹ controller. The Controller stores the data locally and initiates the local and remote alarms. The controller can be shipped with an internal modem or Ethernet connection allowing you to retrieve the data and alarm logs remotely.

If used in conjunction with a BTM Global central monitoring system the data collected from hundreds of sites can be made available over the internet, allowing a top down view of all your battery installations.



Specifications

No. of Cells Measured	Virtually unlimited (Polls over 2000 data points in 7 Sec.) ²	Power	From measured battery (configurable) Consumption of < 50mA ³
Input Range/Accuracy		Alarms	High/Low float voltage alarm Low jar/string discharge voltage Open string alarm High temperature alarm Degradation of the jar over limits Predicted reserve time Low Battery Exhausted Over equalized Discharge response Abnormalities High/Low float current Communication Failure Device Failure
Cell voltage	0-15.00 volts / 0.1% of reading		
String Voltage	0-80.00 volts / 0.1% of reading 0-400.0 volts / 0.1% of reading 0-600.0 volts / 0.1% of reading		
Current	0-4000 amps / 0.1% of reading +/- 1 mA		
Temperature	0°C - 80°C (32°F - 176°F / +/- 1 degree		
Alarm Contacts	2 - Configurable as Critical Alarm, Maintenance or Communication		
Communication			
Fiber Optic	Between Concentrators		
RS232	Connected to PC		
Modem	Remote dial in/out (optional)		
TCP/IP (Port 502)	Remote access over Ethernet (optional)		

1) For information on the BTMINFO controller please review the BTM INFO spec sheet.

2) Requires a BTM Global box on site. Standard BTM Info controller can manage 6 strings of up to 1000 Jars.

3) Polytronics float current transducer required. Ship standard with most configurations.