

Power up...

BattMon

BATTERY MONITORING SYSTEM



Real-time Proactive Battery Management



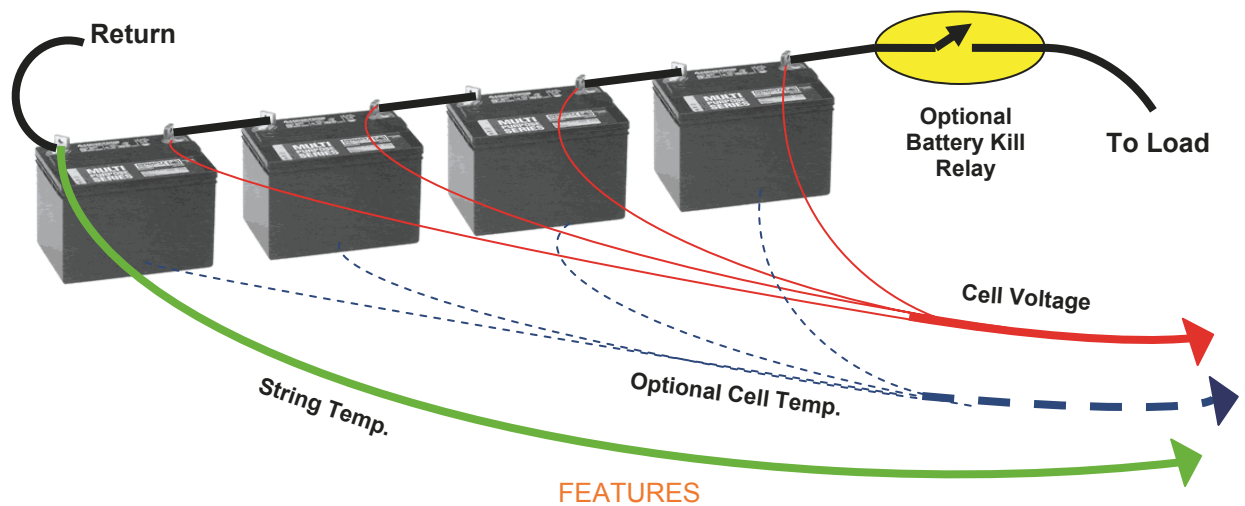
- Employee Safety
- Service Reliability
- Informed Dispatch Decisions
- Lower Maintenance Cost
- Extend Useful Battery Life

Active Battery Monitoring

REAL-TIME PROACTIVE BATTERY MANAGEMENT

Minimize battery plant related service outages and protect your capital investment with Active Battery Monitoring (ABM) now integrated into WebMon®. Unlike mid-point battery monitoring, Dantel's ABM can detect anomalous conditions at the cell/unit level and not only send threat alerts but automatically respond to unsafe conditions such as thermal runaway by neutralizing the offending source.

Dantel, a trusted name in network management solutions, has developed the ABM algorithm into its WebMon product line to help network carriers prolong the life of their battery plant and also to comply with Katrina Order (FCC Ruling 47 CFR part 12) by monitoring, detecting and preventing battery plant failures.



FEATURES

Early Warning of Common Battery Ailments:

- Excessive Heat Build-up
- Electrolyte Dryout
- Plate Sulfation
- Plate Whisker Shorts
- Plate Separation
- Specific Gravity Changes
- Lethal and Explosive Gas Build-Up

Intelligent alerts and controls based on:

- Inter-cell/string Variables Differentiation
- Internal Battery Temperature Comparisons
- Ambient Temperature
- Lethal and Explosive Gas Detection

Auto algorithms based on:

- Inter-Cell/String Voltage Delta
- Preset Temperature Cutoff Activation
- Power/Current Determination

Sensors Included:

- Ambient Temp/ Humidity Sensor
- Battery String Temperature Sensor

Sensor Options:

- Sensor Inputs: 8 to 136
- Inter-cell/string voltage Inputs: 8 to 144
- Battery Casing Temperature Sensor
- Hydrogen Sulfide Sensor
- Hydrogen Sensor

Network Interface:

- Ethernet, Wireless, Wireline, Fiber
- Local Craft Access

Input Power Options:

- 48 VDC
- 24 VDC
- 12 VDC
- 110/220 VAC

Extended Operating Temperature:

- -40 to 85 deg. C

NRTL Certification:

- FCC, NEBS, CE
- (Outside Plant) GR2834, GR2836

Mounting Options:

- Wall mount (9"x 6"x 1.75")
- Rack mount 1RU (1.75"x 19")

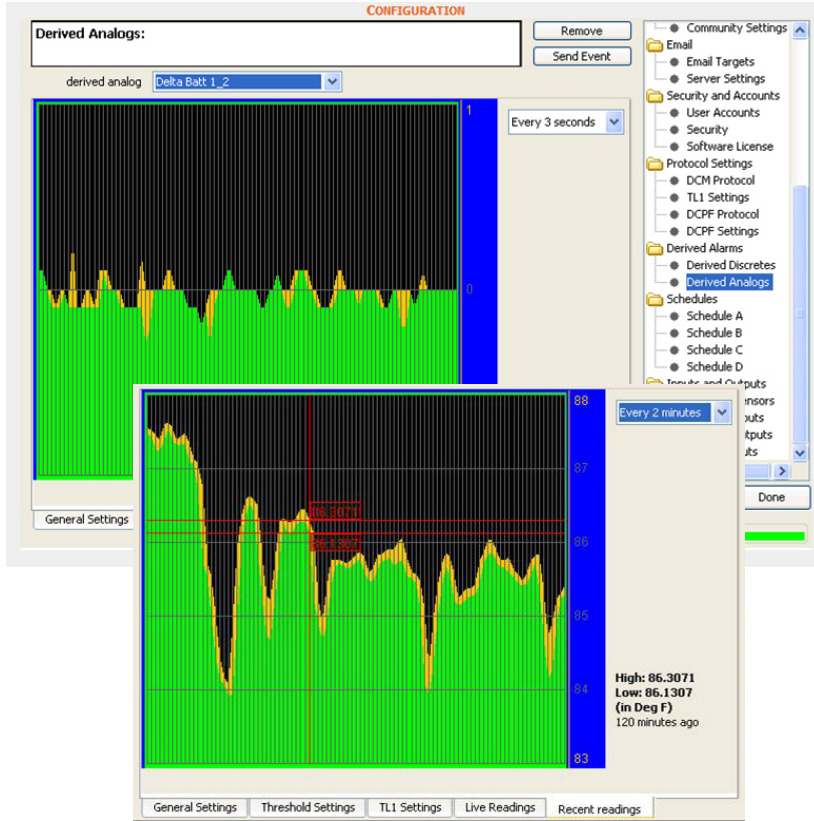
Output Control Option:

- Auto cutoff relays (NO/NC): 2 to 60

Integrated IP Camera Support

DYNAMIC SENSING TECHNIQUES AND REAL-TIME ANALYSIS.

Histogram Trending Tool records 0.1 volt deviation between samples



Browser view of battery internal temperature vs. ambient temperature viewed at 2 minute intervals

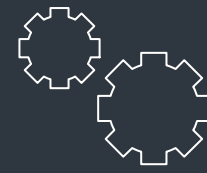
BATTERY HEALTH

WebMon monitors string temperature and voltage, environmental temperature, humidity, and optionally, cell temperature, voltage, and explosive gas. First alerts are communicated over wire-line, wireless or fiber at the first sign of cell parameter imbalance.

The WebMon real-time engine continuously performs measurements and analysis of key battery parameters resulting in early prediction of battery failure. A control relay automatically protects against thermal runaway and catastrophic battery failure.

Example: Typical 48 VDC string composed of four -12Volt Batteries.

Voltage taps and temperature sensors monitor each 12 volt cell against standard threshold values and historical performance data. In addition, each set of cell parameters is continuously compared to other cells for minute voltage and temperature changes within the string. A "Derived Alarm" is declared by WebMon when a user-defined voltage and temperature difference or "delta" is detected within an individual cell or between any of the four cells within the string.



DESIGN

The modular WebMon design provides the flexibility, intelligence and capacity to keep up with the constantly changing power infrastructure required in today's communications networks. WebMon's user interface includes a real-time graphical web based display of remote power equipment parameters and a digital display of other environmental data and power control settings.



REMOTE FEATURES

The WebMon product line offers a wide range of features and capabilities for remote monitoring, access and surveillance applications. Key features include wireless and dial-up communications as well as GPS, terminal server and controls.



RELIABILITY

The reliability of power plants, serving new and aging communication networks, has become a point of intense focus for system operators. Dantel has developed an innovative method for proactively anticipating power system failures well before they may adversely affect revenue-generating service.

Preventing Catastrophic Power Failures with WebMon® BattMon Power Monitoring

"The vulnerability of remote power equipment has recently been demonstrated by a series of catastrophic failures. This equipment, utilized throughout the networks of major wireline, wireless, and cable carriers, is aging and malfunctioning, and in some cases, with explosive results," said Al Hutcheson, president and CEO of Dantel. "These failures have resulted in millions of dollars of damage, service interruptions and corrective actions, which could have been prevented."

About Dantel, Inc.

Since 1971, Dantel products have been widely deployed by telecommunication, cable, wireless, power, government and industry organizations to support monitoring and management of critical systems and infrastructure. We develop, design, manufacture and support hardware and software systems which have been proven to deliver reliable intelligence and control solutions for domestic and international clients. Dantel is a Microsoft Certified Partner, with products certified to exceed established industry standards. Our surveillance solutions help users maintain client services, protect employees, address dangerous situations and make informed decisions crucial to sustaining their business operations. At Dantel, we're always looking for trouble.

For more information visit us at www.dantel.com



HIGHLIGHTS

- SERVICE RELIABILITY
- SAFETY
- COST REDUCTION
- GRAPHIC TRENDING ANALYSIS
- TERMINAL SERVER CONNECTIVITY
- BATTERY TEMP SURVEILLANCE
- CELL VOLTAGE BALANCE & ALERTS
- REMOTE MANAGEMENT
- SENSOR OPTIONS
- EXPANDABLE SENSOR HUB
- REAL-TIME ALERTS
- DERIVED ON-SITE CONTROLS

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