Rest Assured

CELLGUARD *TRACE*

24 Volt or 48 Volt Battery String Monitor

The ***CELLGUARD™ TRACE*** (UBM-1048) system provides effective string battery monitoring for 24 V or 48 V battery applications.

It is designed to monitor stationary batteries in a variety of applications, including:

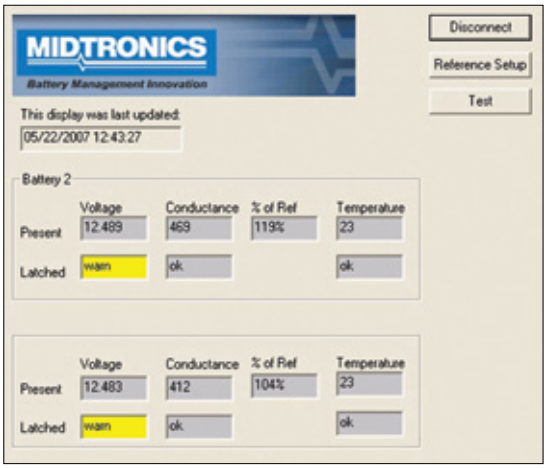
- Telecommunications
  - Wireline (OSP)
  - Wireless
- Fire and security alarm systems
- Broadband
- Switching and control systems

Using easy-to-install kelvin connections, the ***CELLGUARD* Trace** measures individual 12-volt jar conductance, voltage and temperature every 24 hours and warns or alarms when any measured parameter crosses a preset threshold.

This approach provides for early warning of battery degradation, enabling individual jars to be removed from the string prior to full string degradation or system failure.

Features:

- Continuous monitoring of batteries for improved system reliability and cost effective maintenance
- Identifies infant mortality of batteries that can go undetected until the first maintenance check
- Utilizes field proven Conductance Technology for reliable battery analysis
- Simplified installation procedure and economical design allow for system-wide deployment



Sample display

MIDTRONICS | Stationary Power

CELLGUARD TRACE

24 Volt or 48 Volt Battery String Monitor

Specifications

Battery Interface

Battery Voltage

***CELLGUARD* Trace interfaces to individual batteries (part of a string) having the following nominal voltages:**

- Two 12-volt batteries (24 Vdc string, + or - Ground) (Part #UBM-1024)
- Four 12-volt batteries (48 Vdc string, + or - Ground) (Part #:UBM-1048

Battery Terminal Connections

***CELLGUARD* Trace** battery cabling connects to the battery via ring terminals. Each post will require 1 connection, for a total of 2 connections per battery.

Fused Battery Cabling

***CELLGUARD* Trace** battery cabling contains in-line fuses of sufficient current rating to support normal system operation and capable of blowing upon the occurrence of an adverse situation such as due to a short or other high current draw.

Battery Temperature Monitor Connections

***CELLGUARD* Trace** temperature cabling is a 2-wire interface per battery. The cable connects to the negative post of the battery via one ring terminal.

CELLGUARD Trace Functional Specifications

System Measurements

***CELLGUARD* Trace** measures the following:

- Battery conductance
- Battery DC voltage
- Battery temperature

Alarm Thresholds

	Minor	Major
Conductance	70% of the Reference Value	60% of the Reference Value
Voltage Low	11.400 Vdc	10.500 Vdc
Voltage High	15.000 Vdc	16.000 Vdc
Temperature Low	-4°C (24.8°F)	-20°C (-4°F)
	50°C (122°F)	60°C (140°F)

Baseline conductance reference values will be determined for each battery model. ***CELLGUARD* Trace** provides a temperature compensated percent of reference between 0-35 degrees Celsius (32-95 degrees Fahrenheit). The percentage of reference is compensated 0.7% per degree Celsius away from 25°C. Below 25°C the percent of reference increase and above 25°C the percent of reference decreases.

CELLGUARD TRACE

Performance Specifications

Battery Conductance Range—
100 s < Siemens < 4,000 s for 12-volt batteries

Battery Voltage Range—
10.500 V < V < 15.000 V (12-volt battery)
Note: ***Cellguard* Trace** is capable of reading above this range.

Battery Temperature Measurement Range—
-20°C (-4°F) < T < 70°C (158°F)

String Voltage—
21 V < V < 31 V for 24-volt operation
42 V < V < 62 V for 48-volt operation

Monitor System Level Requirements

Module Power Source—
***CELLGUARD* Trace** is powered by the batteries under test.

Module Dimensions—
9 ½ in x 3 in x 1 ¼ in

Module Environment Requirements—
***CELLGUARD* Trace** operates over the environment ranges of:

- Operating Temperature: -20˚C (-4˚F) to 70˚C (158˚F)
- Operating Humidity: 0-95% non-condensing

MIDTRONICS | Stationary Power

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