

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

	Voltage	Conductance	% of Ref	Temperature
Present	12.489	469	119%	23
Latched	warn	ok		ok

	Voltage	Conductance	% of Ref	Temperature
Present	12.483	412	104%	23
Latched	warn	ok		ok

Sample display

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)
- Four 12-volt batteries (48 Vdc string, + or - Ground)

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 1/2 in x 3 in x 1 1/4 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

Corporate Headquarters

Willowbrook, IL USA

USA Toll Free: 1.800.776.1995

Phone: 1.630.323.2800

Fax: 1.630.323.2844

E-Mail: net2@midtronics.com

Canadian Inquiries

Toll Free: 1.866.592.8053

Fax: 1.630.323.7752

E-Mail: canada@midtronics.com

Midtronics b.v.

European Headquarters

Serving Europe, Africa, the Middle East, and The Netherlands

Phone: +31 306 868 150

Fax: +31 306 868 158

E-Mail: info-europe@midtronics.com

European Sales Locations

IJsselstein, The Netherlands

Paris, France

Dusseldorf, Germany

Midtronics China Office

China Operations

Shenzhen, China

Phone: +86 755 8202 2037

Fax: +86 755 8202 2039

E-Mail: chinainfo@midtronics.com

Asia/Pacific (excluding China)

Contact Corporate Headquarters at

+1.630.323.2800 or

E-Mail: asiapacinfo@midtronics.com