

# WIRELESS BATTERY MONITORING



**ORDER CODE:** BMS-1001-TH  
**PRODUCT CATEGORY:** SENSORS

## Intelligent Monitoring for Ultimate Battery Bank Reliability.

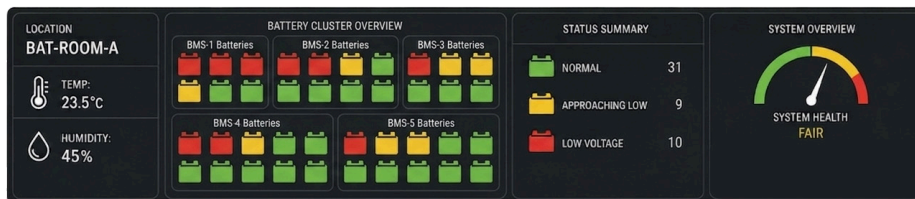
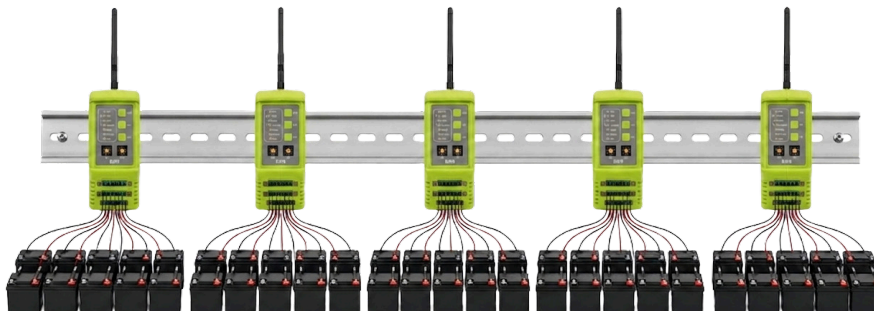
### PRODUCT OVERVIEW

#### General Description

For businesses that depend on mission-critical systems, E4A's Battery Monitoring sensor is crucial for maintaining uninterrupted power. Our advanced solution offers continuous data sampling and real-time reporting, ensuring you have peace of mind with constant oversight of battery health. The system can be installed on various types of batteries, including maintenance-free VRLA, wet cells, lead acid, and NiCad. By providing detailed insights and timely alerts, E4A's monitoring capabilities help prevent even minor battery failures from disrupting your operations, allowing you to take swift action and ensure reliable power protection for your enterprise.



### INTELLIGENT DASHBOARDS



# TECHNICAL SPECIFICATIONS

## Power Supply

Main Power	Self-Powered (powered by battery being monitored)
Supply Voltage (Lead-Acid)	11-36VDC
Supply Current (Lead-Acid)	10.3mA (ON), 6.3mA (OFF) @ 25VDC
Other Power (Optional)	Internal Battery 3.6VDC, 3300mAh Li-ion 5.5mm barrel connector USB Type B (5VDC @ 500mA)
Supply Voltage (DC Input)	7-15VDC (2.5x5.5mm barrel jack)
Supply Current (DC Input)	1.5A @ 12VDC
Over-Voltage Category	1
Current Consumption	<20mA (avg.)

## Operating Specifications

Operating Temperature	-20°C to +60°C (lead-acid powered)
Internal Battery	Battery charging disabled >45°C Battery charging disabled <10°C Battery discharging disabled >60°C
Storage Temperature	-40°C to +85°C (with battery) -40°C to +85°C (without battery)
Operating Humidity	20-85% (operating and storage)
Ingress Protection Rating	IP30
Pollution Degree	2

## Measurement Characteristics

Analog Front End	11-36VDC local lead-acid battery string input Up to 10 series connected cells 0-5VDC measurement range per cell
Resolution	24-bit resolution
Temperature Measurement	40°C to +120°C (±0.5°C accuracy)
Humidity Measurement	0-100% relative humidity (±3.5% accuracy)

## Physical Characteristics

Housing Material	ABS plastic
Physical Dimensions	Height: 120mm / 4.7 inches Width: 50mm / 1.9 inches Depth: 90mm / 3.5 inches
Weight	300g
Mounting	Universal 35mm DIN rail

## Communications

Wireless Module	2.4GHz Bluetooth® 5 transceiver
Communication Range	125m line of sight
Reporting Interval	User programmable in 30s increments

## Security

Encryption	AES 128-bit crypto accelerator ECC and RSA public key accelerator (PKA) SHA2 accelerator (full suite to SHA-512) True Random Number Generator (TRNG)
------------	---

## User Interface

Indicators	Front fascia membrane (red, green, orange LED)
User Interface	2 push buttons (user-programmable) 1 power button 2 rotary encoders
Voltage Battery Interface	2 x 6 terminal block
Current Battery Interface	1 x 4 terminal block
Communication Port	USB 2.0 debugging interface



## PRODUCT CERTIFICATIONS

<b>FCC ID</b>	2AXVKBMS01
<b>Industry Canada</b>	26661-BMS01
<b>Safety Standards</b>	UL Std. No. 61010-1 3rd Edition + Amd. 1: 2018 CAN/CSA-C22.2 No.61010-1-12 Third Edition + Amd. 1:2018 CAN/CSA-C22.2 No. 61010-2-030:18 UL 61010-2-030:2018

SCAN HERE!



## CONTACT US

### Headquarters

250 Herzberg Road  
Kanata, Ontario, Canada K2K 2A1

### Lab Testing Facility

1292 Rosedale Road North  
Smiths Falls, Ontario, Canada K7A 4S6

**Phone:** +1 (613) 595-0303

**E-mail:** sales@electronics4all.ca

**Website:** www.electronics4all.ca

## OUR PARTNERS

