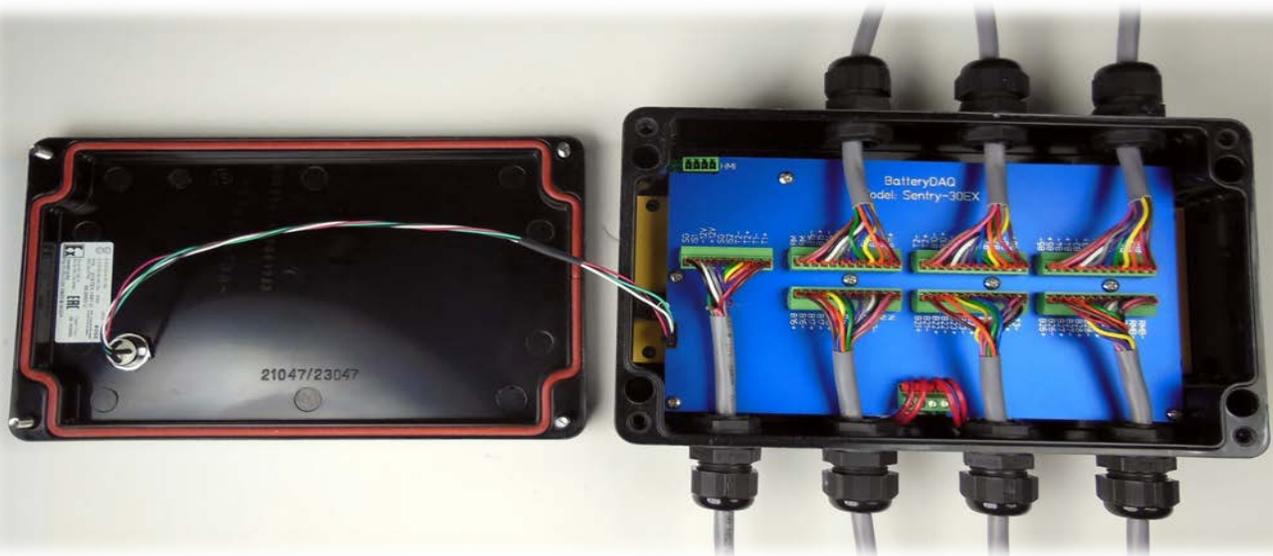


**Sentry-30EX** is an exceptional battery monitoring system with an explosion-proof enclosure for battery rooms with vented (flooded), or valve regulated lead acid batteries. Its design and precision are inherited from our field proven BM6500 (1996), BM6800 (2007) and Sentry-6002NEMA models, and provides effective remote battery management according to the IEEE and NERC updated standards.

**IEEE Std. 1188-2005: Recommended Practice for Maintenance, Testing, and Replacement of Valve-Regulated Lead-Acid (VRLA) Batteries for Stationary Applications ([IEEE Link](#))**

**IEEE Std. 450 - 2010: Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications ([IEEE Link](#))**

**NERC Standard PRC-005-2**

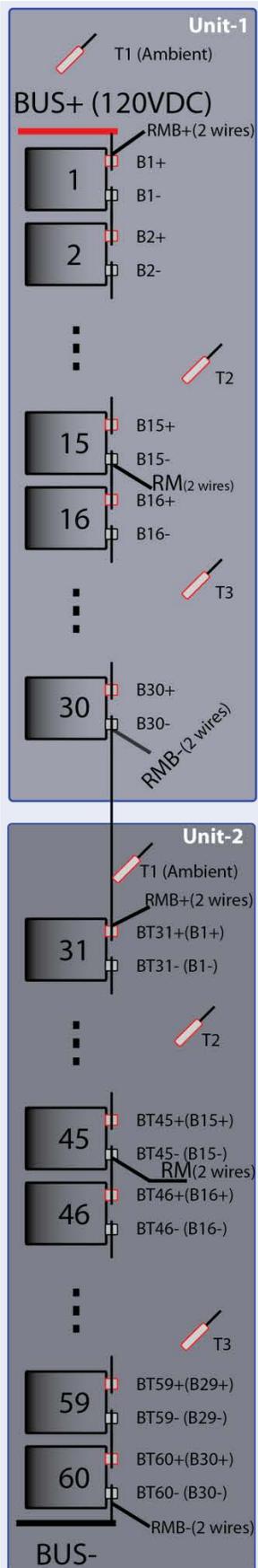


**Accurate, Robust, Quick Installation**  
**Easy Generation of “Auto-Fill” Internal and NERC Reporting**



**Enclosure meets  
NEC, CEC, ATEX, and  
IEX standards.**





**Main Features**

- Ultra-precision IR (Internal Resistance) measurement for each cell detects electrolyte level low, dry-out and deterioration/capacity loss long before a problem occurs.
- Discriminate inter-cell connection resistance to ensure proper torque to each battery and identify a continuity/connection problem without a discharge.
- Ambient and multi-point pilot battery temperature monitoring.
- Explosion proof and IP65 (NEMA4) grade protection allows unit(s) to be located inside the battery room. Compact design for easy rack or wall mounting.
- Automatic discharge capture to database to record planned load test and unplanned power outage.
- No mechanical scanning relays, resulting in high reliability.
- Press & play button allows HMI (optional) connection for field service without a computer.
- Ethernet DTU provides web pages with battery data and Modbus-TCP.
- Full support to SNMP networking battery management system.
- Compatible with Battery Analyzer software and MyBattery Platform™ for large scale remote monitoring.
- Standard or customized NERC Excel template with “auto-fill” remote battery data to generate report.

**Sentry-30EX Kit**

Each battery room will need one DTU and multiple units of Sentry-30EX.

Bus Voltage	48V	120V	240V	480V
Battery Configuration	24 x 2V	60 x 2V	120 x 2V	240 x 2V
Number of Sentry-30EX Kit	1 unit	2 units	4 units	8 units

Example: a substation with 2 banks of 120V battery and 1 bank of 48V battery will need 5 Sentry-30EX units and 1 DTU.

**Each Sentry-30EX kit includes:**

- 1) Sentry-30EX unit with wireless or RS485 x 1
- 2) 20ft of pre-made 12-conductor cable cable x 6
- 3) Current sensor cable with ambient Tsensor x 1
- 4) Pilot Temperature sensor x 2
- 5) O-ring 500mA fused leads x 60
- 6) O-ring 10A fused leads x 4
- 7) Current transducer (size and number depending on battery connection and current range. One bank may need multiple CTs.)

**System includes:**

- 1) Ethernet DTU unit with wireless or RS485 and AC adapter
- 2) Battery Analyzer software



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## Specifications

<b>Power Supply</b>	
Power Input	Powered by the battery bank. Maximum Consumption: 5W per module.
<b>Current/Temperature Measurement</b>	
Current Transducer (CT)	Support LEM current transducer with internal +/-12V power supply Default CT: HTA 300-S, measurement range +/- 450A, window size D-32mm. Accuracy: 0.1% + sensor accuracy
Temperature Sensors	1 ambient temperature sensor, 2 pilot temperature sensors Measurement range: -20°C to 60°C, Accuracy: 1 °C Operating range: 5°C to 40°C (41°F to 104°F)
<b>Voltage Measurement</b>	
Battery	30 x2V cell per unit, up to 4,500Ah
Battery Arrangement	<b>Default Model:</b> continuous order. Unit-1 for battery #1-15 and #16-30; Unit-2 for #31-45 and #46-60. <b>Sentry-30EX-U:</b> U-loop, unit-1 for battery #1-15 and #46-60; Unit-2 for battery #16-30 and #31-45.
Input Range to Each Channel	+/- 3V for 2V batteries
Accuracy	0.1%
Input Wiring	2-wire sampling for each battery, UL 300V 12-conductor 20AWG cable
<b>Internal Resistance and Connection Resistance</b>	
Range and Resolution	0 to 3mΩ, 0.005 mΩ resolution
2-wire mode	Internal Resistance and discriminate Connection Resistance.
<b>Communication</b>	
Unit address	Maximum 16 units in a system. (Standard DTU firmware supports 8 units. For more than 8 units in a battery room, a customized DTU is required. ) Modbus address is configurable with HMI
Ethernet	External DTU with wireless or RS485 to Sentry units. Data format compatible with MyBattery Platform™ or Battery Analyzer software Modbus-TCP for integration.
Wireless or RS485	433Mhz, <100mW, FCC 47 C.F.R. 15 regulated. For the facility where the wireless is prohibitive, units can be chained with RS485.
<b>Indication and Alarm</b>	
LED indication	Dual-color LEDs for status and alarm
<b>Unit Dimensions</b>	6.3" (H) x 10.3" (W) x 3.6" (D) (for enclosure body, not including conduit and cables) 160mm (H) x 260mm (W) x 90mm (D)
<b>Weight</b>	5lbs per unit (about 2.6kg)

**\*Specifications subject to change without notice**

