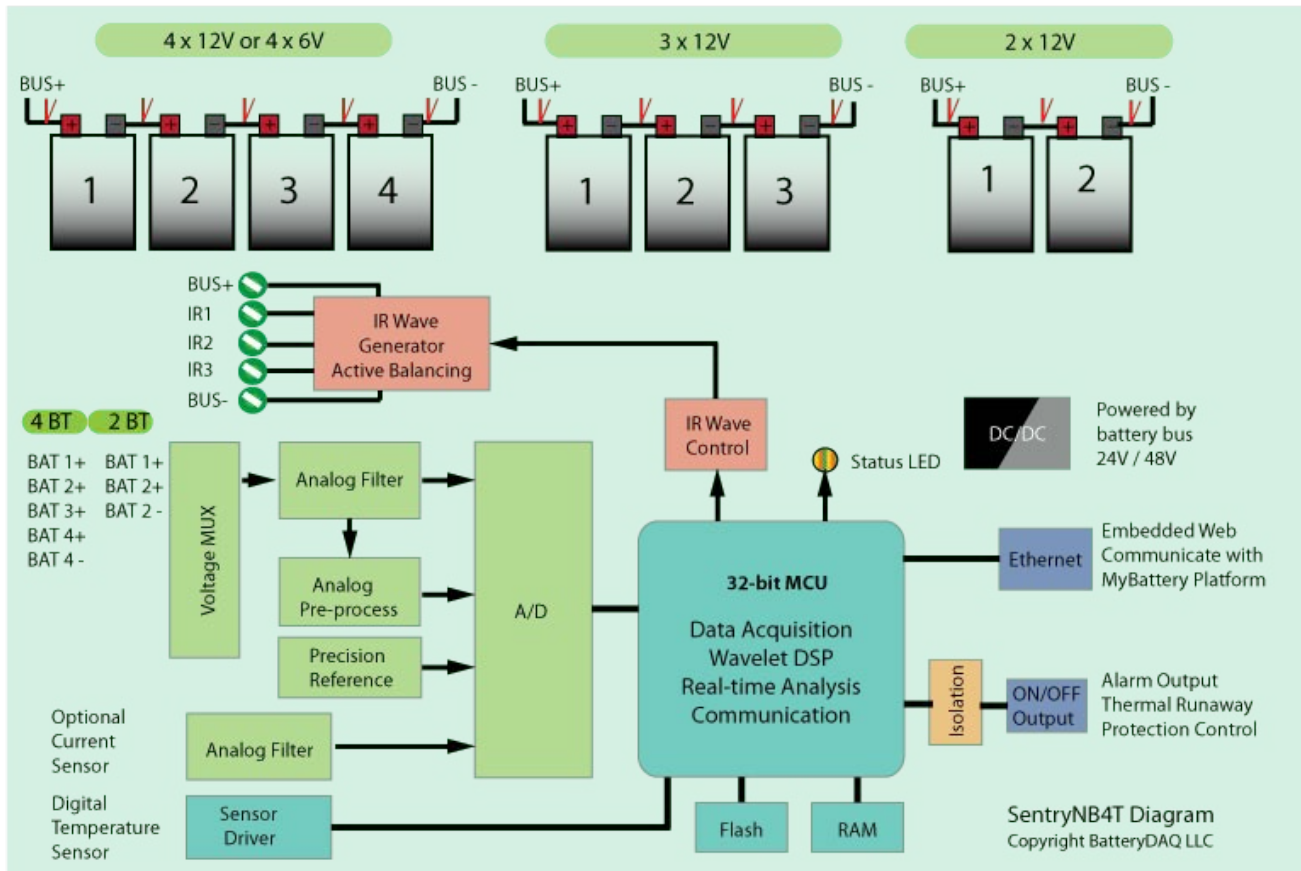


Sentry-NB4T monitoring unit provides powerful functions for online state-of-health battery management for large scale remote telecom, or traffic control cabinets or stations. The compact design makes it suitable for any size indoor/outdoor cabinet with 12V or 6V battery blocks. It combines superior data quality and flexible installation, for effective remote battery management that meets IEEE updated standards:

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



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Main Features

Advanced Feature	Description
Internal Resistance	Precise (4-terminal principle) Internal Resistance measurement for each battery Can be displayed as Conductance/Admittance (setting on web page)
Temperature Points	Ambient temperature Battery temperature, 1 sensor for a string (recommended), or individual battery temperature
SOH Estimation	Analyze battery data over time and display string's State-of-Health percentage
SOC Estimation	Calculate in realtime for State-of-Charge percentage
Runtime	Calculate runtime and display remaining minutes
Discharge History	Record Discharge/Deep Discharge event/counter
Thermal Runaway	Thermal runaway risk evaluation and alarm output [Alarm output can be connected to the charger for counter adjustments]
Active Balancing	Active balancing for individual battery to extend battery service life. Function can be turned ON/OFF remotely.
Modbus-TCP	Standard Modbus-TCP for integration
Web Page	Embedded web page Remote access to battery data Configure for different applications Set/adjust alarm threshold
Flexibility	18 to 72V voltage range Fit directly to 2x12V, 3x12V, 4x6V, 4x12V
Battery Analyzer	PC software to manage remote nodes and archive data to database
Large Scale Application	A single MASTER-800 mini-server (sold separately) can efficiently manage up to 1,000 remote nodes. Data and report for all nodes can be accessed via web browser.
MyBattery Platform	Compatible with secured MyBattery Platform™ for public cloud based remote monitoring. Technician can access battery data with phone or laptop.
SNMP	Both Battery Analyzer software and MASTER-800 mini-Server support SNMP. <i>[Individual Node only provides Modbus-TCP]</i>
Reliability	Metal compact case, industrial grade for indoor and outdoor applications
Easy Installation	Strong magnets and pre-made harness



Battery Data Page

BatteryDAQ™ Data | DTU Settings | Calibration

Sentry ID: 12360 Site: name a site here

8/3/2019, 11:12:35 AM Refresh

String Voltage	54.26 V	String High	54.28 V	String Low	54.25 V
Remaining	346 min	Current	1.1 A	CT1/CT2	1.1/0.0 A
Total Runtime	346 min	Ambient	26.0°C	Ambient High	26.0°C
SOH(Health)	72.1%	SOC(Charge)	100.0%	ThermalRisk(Max)	0 (0)
Discharge Counter	0	Deep Discharge	0	Full Discharge	0

Batt#	Voltage(V)	IR(mohm)
#1	13.603	11.52
#2	13.553	12.11
#3	13.565	22.38
#4	13.551	11.03
#5	13.539	17.21
#6	13.710	12.58
#7	13.495	10.00
#8	13.523	14.52

BatteryDAQ, LLC, USA

Calibration/Alarm Setting Page

192.168.1.122/setup.htm

BatteryDAQ™ Monitoring Solutions Network & Realtime Data | Calibration & Alarm Settings
"It's Nice to Know"

Calibration and Alarming Settings:

-	Description	Stored Value	New Value
01	Calibration: Voltage Offset	1	1
02	Calibration: Voltage Gain	10000	10000
03	Calibration: Current Offset	1	1
04	Calibration: Current Gain	10000	10000
05	Calibration: IR Gain	500	500
11	Alarming: String Voltage (x0.1V) High	565	565
12	Alarming: String Voltage (x0.1V) Low	525	525
13	Alarming: String Discharge (x0.1V) Low	480	480
14	Alarming: Battery Voltage (x0.001V) High	14500	14500
15	Alarming: Battery Voltage (x0.001V) Low	12500	12500
16	Alarming: Battery Discharge (x0.001V) Low	10800	10800
17	Alarming: Temperature (x0.1C) High	450	450
18	Alarming: Temperature (x0.1C) Low	50	50
19	Alarming: Internal Res. (x0.01mohm) High	1	1
20	Alarming: Internal Res. (x0.01mohm) Low	1	1

Enter Password: Update DTU Configuration

Only authorized person can make changes.

Specifications

Power Supply	
Power Input	Internal DC/DC converter, 18-60V input; Maximum Consumption: 3W
Current/Temperature Measurement	
Current Sensor (Optional)	Support LEM HASS current sensor with internal +5V power supply (Default range +/- 100A, window size 20mmx10mm)
Accuracy	0.1% + sensor accuracy
Temperature Sensors	Default: 1 ambient and 1 pilot temperature sensor Optional: 1 ambient and 4 battery temperature sensors on a pre-made bus cord
Temperature Range	Unit working range: -40 to 65°C Sensor measurement range: -50 to 85°C
Accuracy	1 °C
Voltage Measurement	
Battery	4 x12V, up to 300Ah Compatible with 2x12V, 3x12V, 4x6V



Bus Voltage	Range: 18 – 60V; Accuracy: 0.1%
Input Range to Each Channel	+/- 18V for 12V batteries
Accuracy	0.1%
Internal Resistance	
Range and Resolution	0 to 30mΩ, 0.01mΩ resolution
Wiring mode	Separated sensing and current wire for each battery block
Active Balancing	
Balancing Control	Can be turned ON or OFF remotely on web page
Voltage Difference	0.2V among batteries
Communication	
Ethernet	Onboard Ethernet DTU Compatible with Battery Analyzer software and MyBattery Platform™
Indication and Alarm	
LED indication	<ul style="list-style-type: none"> ▪ Dual-color LEDs for status ▪ LED for service alarm ▪ LED for urgent alarm
Alarm Outputs	Service Alarm (Normal Close, 0.1A capacity) Urgent Alarm (Normal Close, 0.1A capacity)
Dimensions	
Unit Dimensions	130mm(L) x 80mm(W) x 30mm(D)
Mounting	2 magnetic Cups

***Specifications subject to change without notice**

