# Conext Battery Monitor

Battery bank monitoring with battery string health detection.



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# Product at a glance

Conext<sup>™</sup> Battery Monitor indicates hours of battery-based runtime and determines battery bank state of charge. It shares key battery bank parameters with Conext XW+ inverter/chargers improving overall system performance of 24 V and 48 V battery banks. Detecting battery string imbalance is determined using innovative mid-point sensing technology providing time to address the issue before performance is significantly impacted.

Conext Battery Monitor features built-in data logging and a local display to selectively show the voltage, current, consumed amp-hours, remaining capacity, and remaining hours. The same information and battery bank data is reported by ComBox and distributed to other Conext devices such as XW+ inverter chargers, MPPT Solar Charge Controllers, Automatic Generator Start module, and System Control Panel via Xanbus<sup>™</sup> network connectivity, enhancing performance of the overall system.

Industrial and telecom customers can integrate Conext Battery Monitor with energy management systems over Modbus RS485.

## **Product applications**



Backup power



Community electrification



Residential grid-tie solar with backup power



Self-consumption



Off-grid solar

### Why choose Conext Battery Monitor?

#### Higher return on investment

- Get the most out of battery-based Conext inverter/ charger systems
- Cleary understand hours of available battery-based autonomy
- Detect imbalance between battery strings before it becomes an issue

#### Designed for reliability

- · Extensive quality and reliability testing
- Highly Accelerated Life Testing (HALT)

#### Flexible

- Stand-alone application or integration with Conext XW+ inverter charger systems
- Enables state of charge triggers for AGS module control of diesel generators
- Enables balancing of multi-battery bank systems for large clustered Conext XW+ inverter/charger systems

#### Easy to service

- Remotely monitor, troubleshoot, or upgrade firmware
  with Conext ComBox
- Built-in data logger

#### Easy to install

- · Wall-mount, DIN-rail mount, panel mount
- RJ45 connections for Xanbus network and battery signals
- Configure with front-panel buttons, Conext ComBox, or RS485 Modbus

#### **Conext Battery Monitor**

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|--|---|
| Device short name  | Conext Battery Monitor  |
| Electrical specifications  |   |
| Supply voltage   | 18 – 66 Vdc   |
| Supply current (backlight off,<br>logging-disabled)  | 80 mA @ VIN=48 Vdc, 150 mA @ VIN=24 Vdc   |
| Input voltage range  | 0 – 70 Vdc  |
| Input current range  | -9999 – +9999 A   |
| Battery capacity range   | 20 – 10,000 Ah  |
| Operating temperature range  | -20 - +50 °C  |
| Displayed increments   |   |
| Voltage  | 0 – 70 V (0.01 V)   |
| Current  | 0 – 200 A/200 – 9999 A (0.1 A/1 A)  |
| Amp-hours  | 0 – 200 Ah/200 – 99990 Ah (0.1 Ah/1 Ah)   |
| State of charge  | 0 – 100% (0.1%)   |
| Time remaining   | 0 – 24 hrs/24 – 240 hrs (1 min/1 hr)  |
| Temperature  | -20 to +50 °C (0.1 °C)  |
| Accuracy   |   |
| Voltage measurement  | +/- 0.3%  |
| Current measurement  | +/- 0.4%  |
| Features   |   |
| Network  | Protocol: Xanbus/Connectors: RJ45   |
| USB 2.0  | Protocol: MSD (data extraction) Connector: USB mini-B   |
| Modbus   | Isolated RS-485, 2-wire serial  |
| Data logging   | 10 data points every 10 mins for 10 years   |
| Display  | Backlight LCD   |
| Front-panel interface  | 3 menu buttons, 1 power button  |
| Battery string imbalance detection   | Two point sensing   |
| Temperature sensor(included)   | 762 cm  |
| Warranty   | 2 – 5 years (depending on country)  |
| General specifications   |   |
| Product dimensions (H x W x D)   | 8.5 x 8.5 x 9.0 cm (3.3 x 3.3 x 3.5 in)   |
| Product/shipping weight  | 0.2 kg (0.4 lb)/1.95 kg (4.3 lb)  |
| Mounting options   | Panel-mount, wall-mount, DIN rail: 35 mm  |
| IP rating/location   | IP 20, NEMA 1, indoor only  |
| Storage temperature range  | -30 - +70 °C  |
| Part number  | 865-1080-01   |
| Battery interface kit with shunt (included)  |   |
| Connection to battery  | 300 cm cable with ring terminals  |
| Connection to battery monitor  | 500 cm CAT5 cable RJ45  |
| Shunt  | 500 A/50 mv   |
| Regulatory approvals   |   |
| Markings   | CE, RCM, UL, CSA  |
| Safety   | IEC/EN62109-1, UL1741, CSA 107.1  |
| EMC  | Directive 2004/108/EC, IEC/EN61000-6-3, IEC/EN61000-6-1, FCC Part 15 Class B,<br>Industry Canada ICES-003 Class B |
| Compatible products  |   |
| Conext XW+ (230 V)   | XW 7048 E product no. 865-7048-61/XW 8548 E product no. 865-8548-61   |
| Conext XW+ (120/240 V)   | XW 5548 NA product no. 865-5548-01/XW 6848 NA product no. 865-6848-01   |
| Conext SW (230 V)  | SW 2524 product no. 865-2524-61/SW 4024 product no. 865-4024-61/SW 4048 product no. 865-4048-61                   |
| Conext SW (120 V)  | SW 2524 product no. 865-2524/SW 4024 product no. 865-4024/ SW 4048 product no. 865-4048                           |
| Conext MPPT 80 600   | Product no. 865-1032  |
| Conext MPPT 60 150   | Product no. 865-1030-1  |
| Conext System Control Panel  | Product no. 865-1050  |
| Conext Automatic Generator Start   | Product no. 865-1060  |
| Conext ComBox  | Product no. 865-1058  |
| Conext Portable Installation<br>and Configuration Tool   | Product no. 865-1155-01   |

Specifications are subject to change without notice.

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