

# MERLIN EXPERT PRO BATTERY MONITOR

Designed for professional users, Merlin's Expert PRO is an accurate amp-hour counting battery monitor. The unit provides additional information over the Expert Lite unit, as well as historical data.

Defining the amount of energy available in a battery is a complex task since the battery age, discharge current and temperature influence the actual battery capacity. Merlin's Expert Series range of battery monitors are equipped with high performance measuring circuits, which in combination with complex software algorithms, are used to exactly determine the remaining capacity of your battery.

The Merlin Expert Pro is physically identical to the Merlin Expert Lite, but offers a larger amount of features and a more detailed display. Most of the additional features are very useful when installing the battery monitor in more advanced battery systems.

Programming voltage or state of charge alarms more extensively, recalling certain history events or the capability to extend the input voltage range with an optional voltage prescaler, are some of the additional features offered by the Expert Pro.

- **Critical information provided**  
about the status of your battery bank in a simple readout layout, like a fuel gauge.
- **Two battery inputs**  
all features provided for a single battery bank, voltage only for a 2nd.
- **Multiple display options**  
showing voltage, current, consumed amp-hours, remaining battery capacity, and time remaining.
- **Programmable alarm relay**  
to run a generator when needed or to turn off devices when the battery voltage exceeds programmable boundaries.
- **Communication / expansion port**  
allows optional PC interfacing, access to a windows-based dashboard, and batch programming.
- **Supplied with a 500A shunt**  
as part of the standard kit.
- **CE and E-mark certification**  
for legal use aboard vehicles.



<b>PART #</b>	<b>30-5008</b>
<b>PRODUCT NAME</b>	<b>EXPERT PRO</b>
<b>SUPPLY</b>	
SUPPLY VOLTAGE RANGE	9.35VDC
SUPPLY CURRENT:	
@VIN= 12VDC	9MA
@VIN= 24VDC	7MA
<b>INPUT</b>	
INPUT VOLTAGE RANGE (AUX)	2 .. 35VDC
INPUT VOLTAGE RANGE (MAIN)	0 .. 35VDC
INPUT CURRENT RANGE	-9999 .. +9999A
BATTERY CAPACITY RANGE	20.9990AH
<b>TEMPERATURE</b>	
OPERATING TEMPERATURE	-20-c .. +50°C
STORING TEMPERATURE	-30°C .. +70°C
<b>READOUT RESOLUTION</b>	
VOLTAGE (0 .. 35V)	± 0.1V
VOLTAGE (36 .. 70V)	N/A
CURRENT ( 0 .. 100A)	± 0 .1A
CURRENT (101 .. 600A)	± 1A
CURRENT (601 .. 999A)	± 1A
AMPHOURS (0 .. 100AH)	± 0. 1AH
AMPHOURS (100 .. 999AH)	± 1AH
POWER ( 0 .. 42KW)	N/A
STATE-OF-CHARGE (0 .. 100%)	± 0 .1%
TIME REMAINING (0 .. 24HRS)	± 1 MINUTE
TIME REMAINING (0 .. 240HRS)	± 1 HOUR
MAINTENANCE HOURS (0 .. 10000HRS)	N/A
TEMPERATURES (-20°C .. +50°C)	± 0.5°C
<b>ACCURACY</b>	
VOLTAGE MEASUREMENT	± 0.5%
CURRENT MEASUREMENT	± 0.8%
<b>GENERAL</b>	
DISPLAY DIMENSIONS (MM)	64(L) X 52(W) X 79(H)
DISPLAY WEIGHT (KG)	0.095
SHUNT DIMENSIONS (MM)	87(L) X 45(W) X 35(H)
SHUNT WEIGHT (KG)	0 .145
PROTECTION CLASS	IP20 (FRONT PANEL ONLY IP65)
STANDARDS	CE MARKED MEETING EMC DIRECTIVE 2004/108/EC AND LVD 2006/95/EC COMPLYING WITH EN60335-1, ROHS 2002/95/EC AND E4-95/54/EC