INTRODUCTION

The ACES battery indicator BM80-50, BM80-100 or BM80-350 is an accurate meter that displays current, voltage, SOC in % and integrated AH values.
By using a 50A, 100A or 350A current shunt, the battery indicator measures the discharge / charging currents and calculates the Ampere hours (Ah) in and out of the battery. Accurate voltage measurements are performed and displayed in real time. The ACES battery indicator is suitable for lithium, lead-acid and nickel-metal hydride batteries. Because the Peukert value can not be adjusted, the accuracy of the SOC% value for lead-acid batteries is limited at discharges <C20.

DISPLAY DATA

Battery voltage
Battery current
Battery State Of Charge in %
Total AH

APPLICATIONS

Marine
Cleaning machines
Pipe Rail Trolleys
Golf cars
RV and Caravans
Solar en Backup

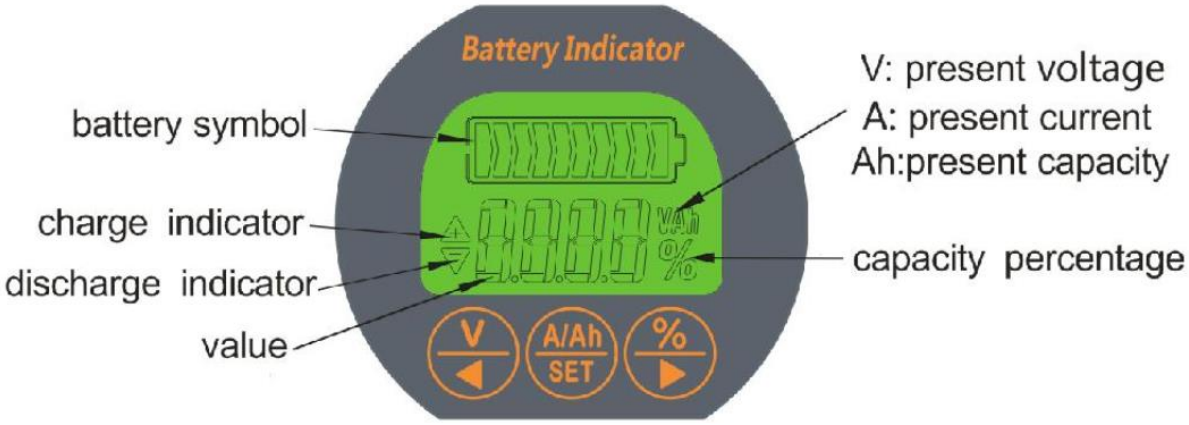
ELECTRICAL SPECIFICATIONS

Parameter	Min	Max	Unit
Voltage	8	100V	V
Current (dependent on model)	0	50, 100, 350	A
Capacity Ah	0,1	999	AH
Usage temperature	0	40	° C
Current consumption in operation		12	mA
Current consumption in Standby		0,6	mA
Current consumption sleepmode		0,06	mA
Accuracy Voltage Indication	± 1		%
Accuracy Current Indication	± 1		%
Accuracy Capacity Indication	± 1		%

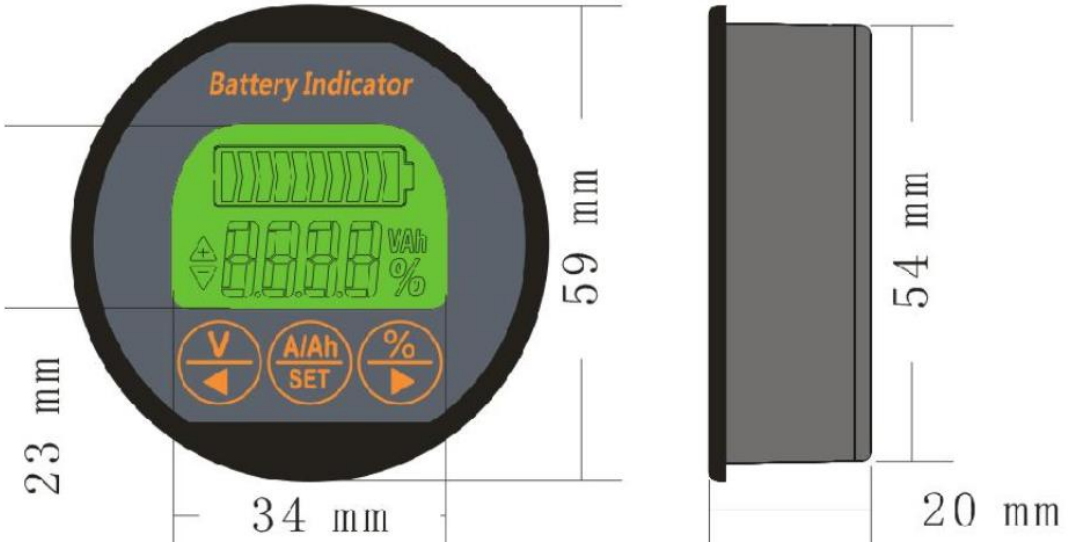
Supplied parts

Current shunt for 50A, 100A or 500A (or model BM80-50, BM80-100, Bm80-350)
Shunt-houder for 100A or 350A model
4m extension cable
Display
Mounting bracket and wing nut

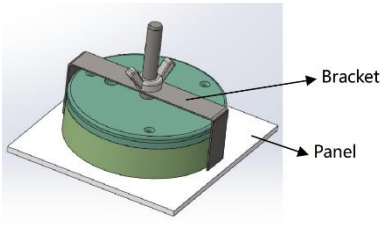
BATTERY INDICATOR VIEW



DIMENSIONS



INSTALLATION:



The battery indicator can be mounted in the panel and held in place by the bracket and butterfly nut. Please take care that the meter is not exposed to rain and very high humidy conditions.

PREPARATION:

Fully charge the battery bank.
Connect the battery indicator.
Failure to perform these steps will result in incorrect SOC value
Before the indicator can indicate correct values, the first must be set correctly

ELECTRICAL CONNECTIONS

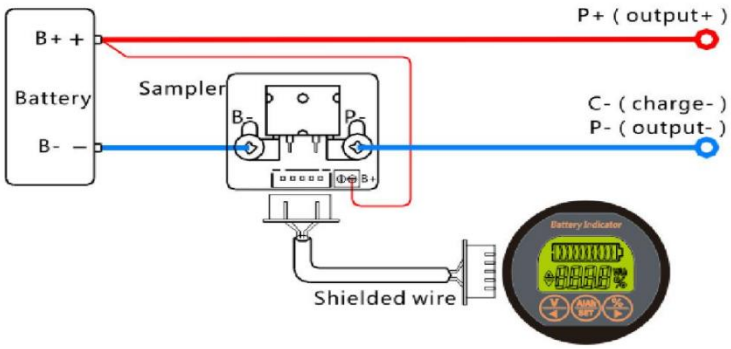
As shown in Figure, connect the B terminal of the shunt with the negative terminal P- of the battery. Connect the P connection of the shunt to the load or the charger.

Connect a detection wire (not supplied) to the positive pole of the battery.
For safety it is necessary to use a suitable 1A fuse in series with the red + voltage detection wire that must be connected as close as possible to the battery.

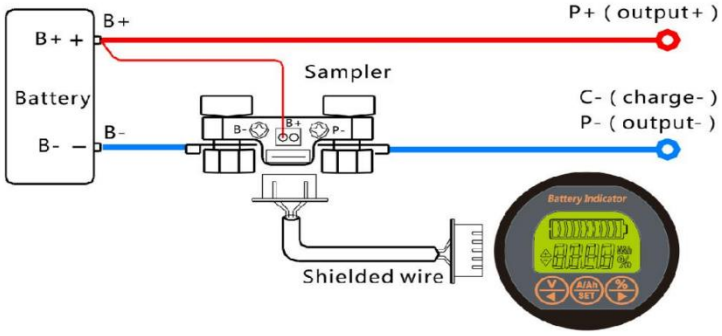
The red + detection wire must be 22AWG and must have a voltage insulation value of 300V and a minimum of 85 ° C.

Connect one end of the extension cable from to the display cable of the battery indicator (already installed on the display) and the other end of the shielded cable to the current shunt.

★ **Connection diagram of 50A sampler :**



★ **Connection diagram of 100A/350A sampler :**



SETUP OF THE BATTERY INDICATOR

1. Check whether the battery indicator correctly displays the discharge current and the charging current. Use the charge and discharge indicators to ensure that it displays the correct currents.

2. Check if the battery voltage is displayed correctly.

3. To adjust the capacity, press and hold the % button for three seconds to set the capacity to 100%. Do this with a freshly 100% charged battery

4. Hold down the A / Ah button for three seconds to enter the capacity. Use the V button and the% button to increase or decrease the capacity. Press the A / Ah button when finished.

5. For parallel connections, enter the total capacity of the system by adding the capacities in Ah of each battery. For example, 2 100 Ah batteries will count 200 Ah.

6. For series connections (ACES batteries may not be connected in series):

a. The system capacity is equal to the capacity of a single battery

b. For single charging systems, the voltage detection wire must be connected to the system terminals.

c. For multi-bank charging systems, connect the shunt and voltage detection wire to the battery with the positive connection of the system. This allows the fuel meter to monitor one battery to display all the batteries in the system.

WARRANTY AND WARNINGS

The tester shall not be exposed to prolonged sunlight or large amounts of ultraviolet radiation when used or stored.

Use the meter within the temperature specifications.
Don’t use the meter in very wet conditions. The meter has an IP65 protection grade at the frontside and an IP54 protection grade at the backside

Warranty does not apply in case of incorrect use or if meter has been opened by third parties.

Warranty period: 1 year for manufacturing defects