

1 - Preparations

Check package contents:

- 1 x DC Power Monitor
- 1 x Hall sensor, 2m cable
- 1 x Temperature sensor
- 1 x Installation Guide

2 - Mounting



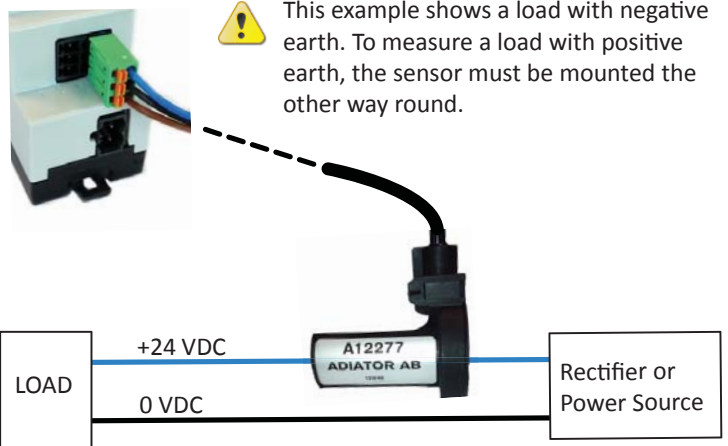
Mount the DC Power Monitor in a free space on a DIN rail.

Pull down on release catch to mount.

3 - Hall Sensor

3a Mount the Hall sensor on the power wire of the load to be measured. Observe the sensor orientation. In this example, the sensor vane should point towards the load and away from the power source or rectifier. Use a cable strap to fix the sensor in place.

3b Insert the green connector at the other end of the cable into the **right** socket on the underside of the DC Power Monitor.

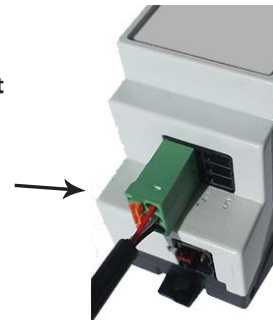


4 - Temperature Sensor

4a Mount the temperature sensor in the required location.



4b Insert the green connector at the other end of the cable into the **left** socket on the underside of the DC Power Monitor.



5 - Voltage Measurement

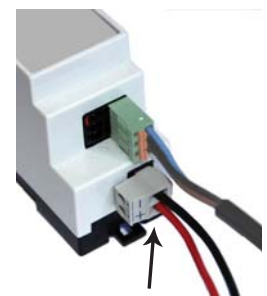
5a Connect a 2-wire cable to the site equipment to be measured (not shown here).



Important! The voltage connection must be fused (max 10A) using an inline fuse holder.

5b

Connect the other end of the 2-wire cable to the grey socket on the underside of the DC Power Monitor. Observe the correct +/- polarity of the wiring.

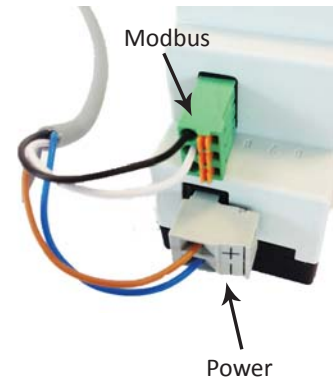


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6 - Modbus & Power

The 24 VDC power supply connector and the RS-485 serial Modbus connector are located on the top of the DC Power Monitor.

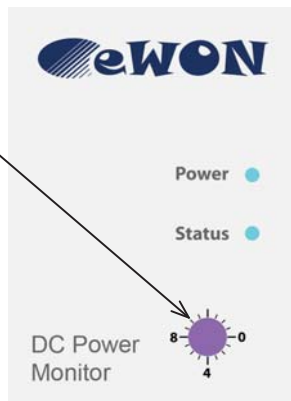
- 6a** Connect Modbus wire A (black) to Pin 1 of the Modbus connector.
- 6b** Connect Modbus wire B (white) to Pin 2 (middle pin) of the Modbus connector.
- 6c** Connect 0V to the (-) terminal of the power supply connector.
- 6d** Connect +24V to the (+) terminal of the power supply connector.



7 - Modbus ID Setting

The selector screw on the front of the unit provides quick setting of Modbus ID 1 or 31–45. See the table to the right.

All other Modbus IDs must be set from software. In this case the selector should be set to **0** (ID 1). Contact HMS support for further information.



Position	Modbus ID
0	Modbus ID 1 (or set from software)
1	Modbus ID 31
2	Modbus ID 32
3	Modbus ID 33
4	Modbus ID 34
5	Modbus ID 35
6	Modbus ID 36
...	...
15	Modbus ID 45

For use with Netbiter, additional settings are available at Netbiter Argos after the DC Power Monitor has been added to a user account using a **device template** or **device profile**. Please see the **Netbiter Argos Administration Manual**.

Modbus Specifications

Modbus Address	Description
1	Measured current
2	Measured voltage
3	Measured watts
10	Temperature
20	Total Wh
22	Total Wh Incoming
24	Total Wh Outgoing
26	Delta In/Out Wh
30	Alarm
52	Overconsumption time factor
53	OC1 Power setting
54	OC2 Power setting
63	Baud rate

- Bit 0 = Overconsumption alarm 1
- Bit 1 = Overconsumption alarm 2

Time constant in seconds for overconsumption alarms.
Allowed values are 60,120,180,240,300,600,900,1800 and 3600.

Overconsumption alarm 1 will be triggered when the average **consumed** energy exceeds this level within the time period specified in **Overconsumption Time Factor**.

Overconsumption alarm 2 will be triggered when the average **overcharging** energy exceeds this level within the time period specified in **Overconsumption Time Factor**.

Allowed values are 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600 and 11520 (for 115200 bps). Any other value will set the Baud rate to the default value 9600 bps.