



Innovative Electronics for a changing World

DC ENERGY MONITOR



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System description:

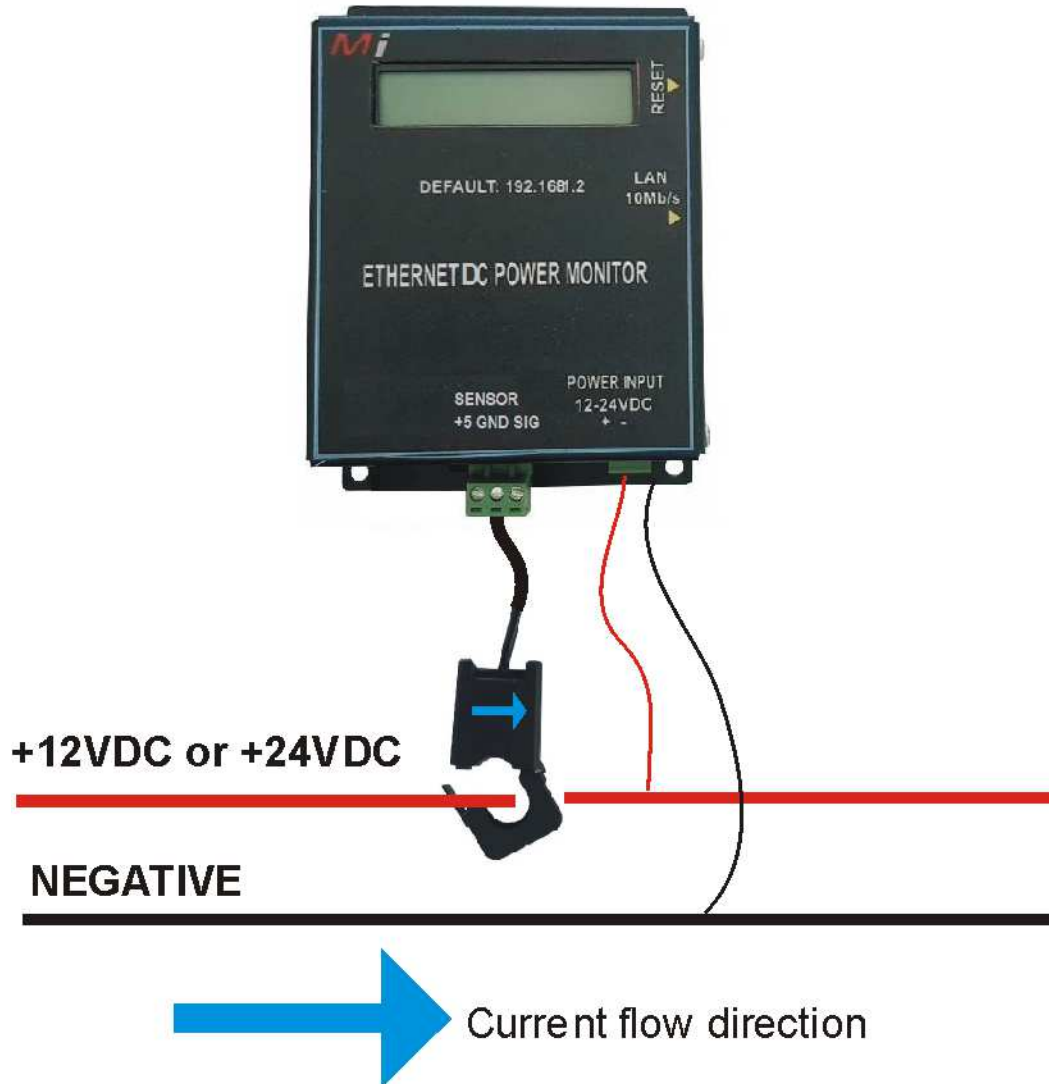
The Mi **Ethernet DC Energy monitor** monitors the voltage of a single 12VDC or 24VDC power supply and the current consumption on the power line by means of a non-invasive (non contact) clip on current sensor.

The system is powered by the same 12V or 24V DC supply.

The DC voltage, current and wattage readings is available via SNMP over Ethernet and in the embedded web pages

Compatible with Mi SNMP monitor or any other SNMP monitoring software.

1. System connections:



The DC Energy monitor needs to be connected to a 12V to 24V DC power supply to operate

The sensor should be installed (clipped) over the **Live power** wire with the arrow pointing in the direction of the load equipment on the power line – direction of current flow

The current sensor can measure a max of 75 AMP

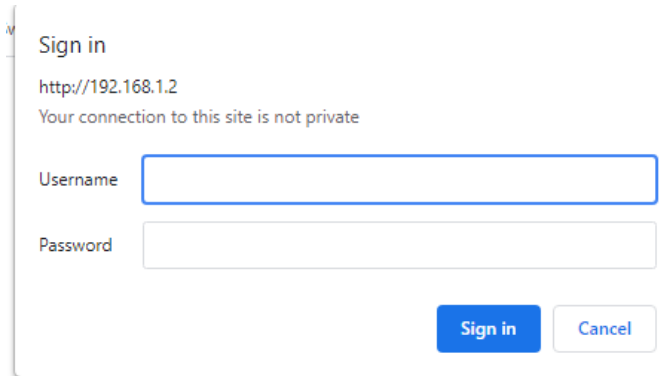
Home Page / Battery supply voltage is displayed

The screenshot shows the 'Home Page' of the DC Energy monitor SNMP interface. It features the Micro Instruments logo in the top left. A red navigation bar at the top right contains the text 'DC Energy monitor SNMP'. On the left, a vertical red menu lists 'Home Page', 'Status', 'Network Configuration', and 'SNMP Configuration'. The main content area is titled 'DC Energy monitor' and displays the following information: 'Stack Version: v5.36', 'Build Date: May 06 2021 serial # Mi-00001', 'Module Heartbeat' (indicated by a green dot), and 'Battery Voltage: 13.2V'. A copyright notice 'Copyright © 2021 Micro Instruments.' is located at the bottom center.

2. **Status page** / Indicates the battery supply voltage , AC voltage , Current and wattage

The screenshot shows the 'Status' page of the DC Energy monitor SNMP interface. It features the Micro Instruments logo in the top left. A red navigation bar at the top right contains the text 'DC Energy monitor SNMP'. On the left, a vertical red menu lists 'Home Page', 'Status', 'Network Configuration', and 'SNMP Configuration'. The main content area is titled 'STATUS' and displays the following information: 'DC Volts:.' with a value of '13.3V', 'DC Amps:.' with a value of '00.0A', and 'DC Wattage:.' with a value of '0'. A copyright notice 'Copyright © 2021 Micro Instruments.' is located at the bottom center.

3. Network page / IP address can be configured here Password default / admin , admin



Sign in
http://192.168.1.2
Your connection to this site is not private

Username

Password



Home Page

Status

Network Configuration

SNMP Configuration

Network Configuration

This page allows the configuration of network settings.

CAUTION: Incorrect settings may cause the system to lose network connectivity.

Enter the new settings for the board below:

MAC Address:	<input type="text" value="00:19:F6:00:28:0D"/>
Host Name:	<input type="text" value="DC ENERGY"/>
Password: [max 9]	<input type="text" value="admin"/>
IP Address:	<input type="text" value="192.168.1.2"/>
Gateway:	<input type="text" value="192.168.1.1"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
	<input type="button" value="Save Config / Reboot"/>

SNMP config page:



DC Energy monitor SNMP

Home Page

Status

Network Configuration

SNMP Configuration

SNMP Community Configuration

Read/Write Community String configuration for SNMPv2c Agent.

Configure multiple community names if you want the SNMP agent to respond to the NMS/SNMP manager with different read and write community names. If less than three communities are needed, leave extra fields blank to disable them.

Read Comm1 :	<input type="text" value="public"/>
Read Comm2 :	<input type="text" value="read"/>
Read Comm3 :	<input type="text"/>
Write Comm1:	<input type="text" value="private"/>
Write Comm2:	<input type="text" value="write"/>
Write Comm3:	<input type="text" value="public"/>
<input type="button" value="Save Config"/>	

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SNMP community names can be configured here – leave unaltered for Mi SNMP monitor

4. OID Table

1.3.6.1.4.1.45501.1.3.1.0 –

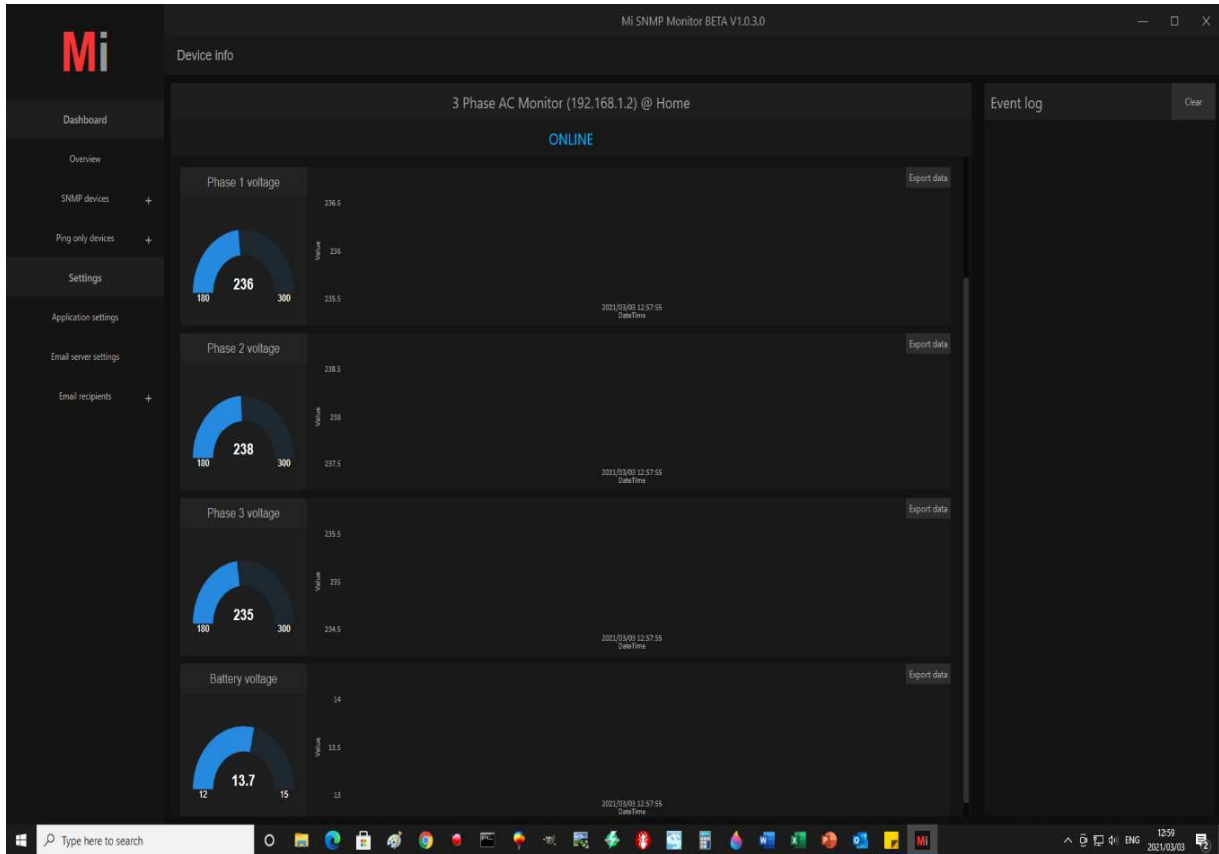
1.3.6.1.4.1.45501.1.3.2.0 – Amps

1.3.6.1.4.1.45501.1.3.3.0 – Wattage

1.3.6.1.4.1.45501.1.3.4.0 –

1.3.6.1.4.1.45501.1.3.5.0 – Battery supply voltage (12-24VDC)

5. SNMP screenshots – Mi SNMP Monitor screenshot



Irreasing screenshot....

Result Table

Name/OID	
.1.3.6.1.2.1.1.1.0	DC Energy monitor
.1.3.6.1.2.1.1.2.0	.1.3.6.1.4.1.45501
.1.3.6.1.2.1.1.3.0	3 minutes 41 seconds (22106)
.1.3.6.1.2.1.1.4.0	admin
.1.3.6.1.2.1.1.5.0	Micro Instruments
.1.3.6.1.2.1.1.6.0	Remote
.1.3.6.1.2.1.1.7.0	4
.1.3.6.1.4.1.45501.1.1.1.0	SNMPv1/2Agent
.1.3.6.1.4.1.45501.1.1.2.0	V1
.1.3.6.1.4.1.45501.1.1.3.0	June 15
.1.3.6.1.4.1.45501.1.2.1.1.1.0	0
.1.3.6.1.4.1.45501.1.2.1.1.1.1	1
.1.3.6.1.4.1.45501.1.2.1.1.2.0	0
.1.3.6.1.4.1.45501.1.2.1.1.2.1	0
.1.3.6.1.4.1.45501.1.2.1.1.3.0	0.0.0.0
.1.3.6.1.4.1.45501.1.2.1.1.3.1	0.0.0.0
.1.3.6.1.4.1.45501.1.2.1.1.4.0	
.1.3.6.1.4.1.45501.1.2.1.1.4.1	
.1.3.6.1.4.1.45501.1.3.2.0	00.0
.1.3.6.1.4.1.45501.1.3.3.0	0
.1.3.6.1.4.1.45501.1.3.5.0	13.2

6. Physical dimensions

L = 135mm

W = 100mm

H = 38mm

Weight = 0.65Kg