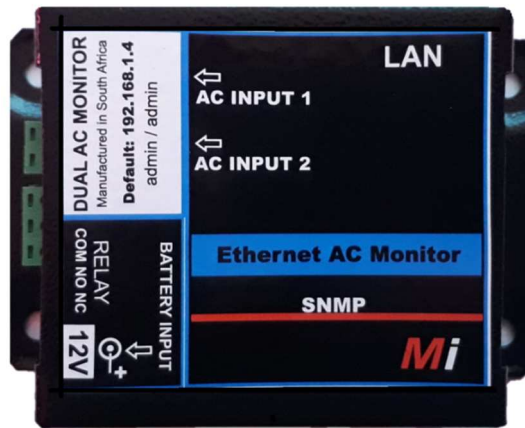




Innovative Electronics for a changing world

MANUAL



Our Site – Monitor products permit the monitoring and control of equipment at any site with IP connectivity in the comfort of your office. The Ethernet Relay is the perfect addition to any remote repeater site to control and monitor equipment via Ethernet and SNMP.

The Ethernet **DUAL AC Monitor** was developed to inform users about the status of **2 x 220 VAC** inputs and **1 x Relay** status at remote sites.

The user can now monitor the status of the Mains supply and the status of a Generator, Inverter or UPS.

The board can also be used to get the status of pre-paid electricity meters, if funds have run out or if the incoming voltage failed.

The Ethernet AC Monitor connects to an Ethernet-based TCP/IP network and accepts SNMPv1 or SNMPv2 queries to permit monitoring of the DC Supply voltage to the board , **2 x AC 220V** inputs and the monitoring and control of the **1 x Relay** output rated 10Amps, all the information is also available via the embedded web pages and SNMP.

The board accepts **12Vdc to 24Vdc power** from a standard 2.5mm Barrel DC jack connector.

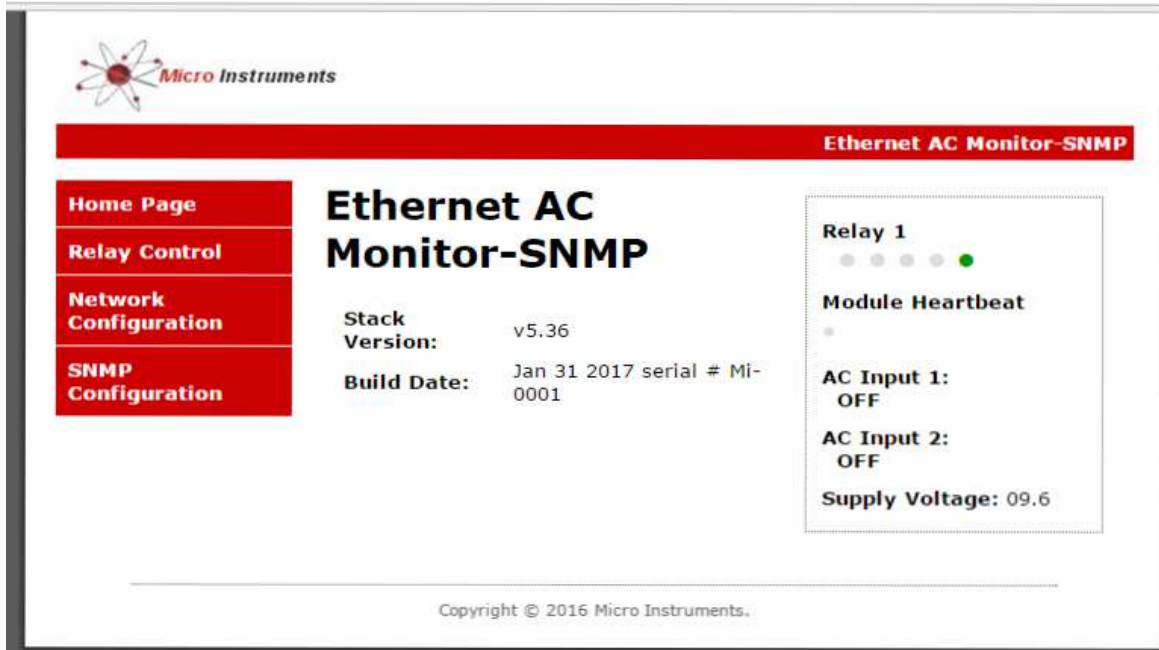
\The on board Relay can be controlled via web browser and can be selected by a pcb jumper to either do a reset function for 8sec to reset remote equipment or to switch and keep its position until change by the user to switch remote equipment on or off.

Default IP: 192.168.1.2

Master Reset the unit: Remove power to the unit

Install J10 jumper marked “reset” on the pcb across both pins, power the unit and wait 15sec, remove the jumper from J10, unit will be reachable at the default 192.168.1.2 address

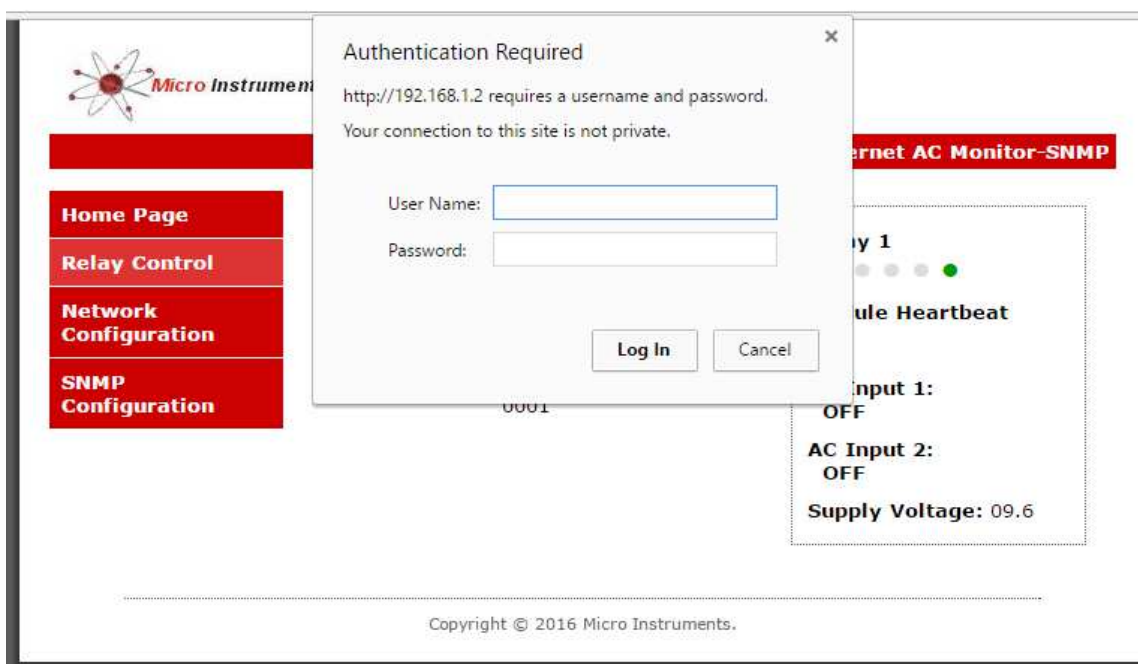
Home Page // Default IP address = 192.168.1.2



Selector Menu on the left

Stack version and Serial number in middle

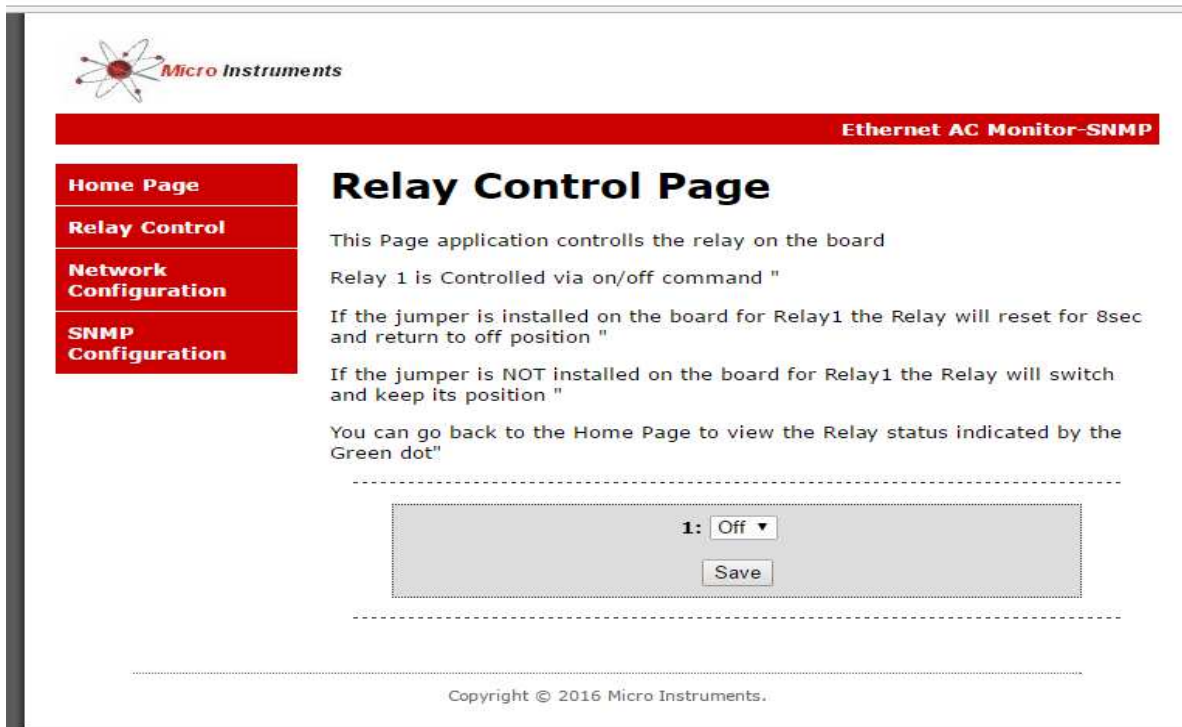
Relay Status – module heartbeat- The status of 2 x AC inputs and the supply voltage on the home page



User name: **admin**

Password: **admin** / user can change the password under network settings page

Relay Control Page



The screenshot shows the 'Relay Control Page' of the 'Ethernet AC Monitor-SNMP' web application. The page features a navigation menu on the left with options: Home Page, Relay Control (selected), Network Configuration, and SNMP Configuration. The main content area includes the 'Micro Instruments' logo, a title bar, and a heading 'Relay Control Page'. Below the heading, there is explanatory text about the relay's operation based on the presence of a jumper. At the bottom, there is a control interface with a dropdown menu set to 'Off' and a 'Save' button. The footer contains the copyright notice: 'Copyright © 2016 Micro Instruments.'

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Ethernet AC Monitor-SNMP

Home Page

Relay Control

Network Configuration

SNMP Configuration

Relay Control Page

This Page application controls the relay on the board

Relay 1 is Controlled via on/off command "

If the jumper is installed on the board for Relay1 the Relay will reset for 8sec and return to off position "

If the jumper is NOT installed on the board for Relay1 the Relay will switch and keep its position "

You can go back to the Home Page to view the Relay status indicated by the Green dot"

1: Off ▼

Save

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J9 jumper on board for **Relay1**(Reset/Pulse) jumper installed – **Relay 1** will energize for 8sec and then return to off position (reset a device)

J9 jumper on board for **Relay1** (Reset/Pulse) jumper **NOT** installed – **Relay 1** will energize and keep the position until switched off.

Ethernet Interface Settings Page

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Ethernet AC Monitor-SNMP

Home Page

Relay Control

Network Configuration

SNMP Configuration

Board Configuration

This page allows the configuration of the board's network settings.

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

Enter the new settings for the board below:

MAC Address:	<input type="text" value="00:19:F6:00:1B:6A"/>
Host Name:	<input type="text" value="AC MONITOR"/>
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"/>

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Here the IP address, Password, Gateway, subnet mask and password can be specified to match your network settings

Click Save Configuration, the board will reboot with the new settings

SNMP Configuration Page

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Ethernet Relay-SNMP

Home Page

Relay Control

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 walk 192.168.1.2

From: server To: 192.168.1.2 Profile: v1-public Timeout: 3000 Tries: 6

#	OID	Type	Value
1	iso.org.dod.internet.mgmt.mib-2.system.sysDescr.0	octet string	Ethernet Relay
2	iso.org.dod.internet.mgmt.mib-2.system.sysObjectID.0	object id	iso.org.dod.internet.private.enterprises.45501
3	iso.org.dod.internet.mgmt.mib-2.system.sysUpTime.sysUpTimeInstance	timeTicks	00:04:16.29
4	iso.org.dod.internet.mgmt.mib-2.system.sysContact.0	octet string	admin
5	iso.org.dod.internet.mgmt.mib-2.system.sysName.0	octet string	Micro Instruments
6	iso.org.dod.internet.mgmt.mib-2.system.sysLocation.0	octet string	Remote
7	iso.org.dod.internet.mgmt.mib-2.system.sysDescr.0	octet string	Ethernet Relay
8	iso.org.dod.internet.mgmt.mib-2.system.sysObjectID.0	object id	iso.org.dod.internet.private.enterprises.45501
9	iso.org.dod.internet.mgmt.mib-2.system.sysUpTime.sysUpTimeInstance	timeTicks	00:04:16.42
10	iso.org.dod.internet.mgmt.mib-2.system.sysContact.0	octet string	admin
11	iso.org.dod.internet.mgmt.mib-2.system.sysName.0	octet string	Micro Instruments
12	iso.org.dod.internet.mgmt.mib-2.system.sysLocation.0	octet string	Remote
13	iso.org.dod.internet.mgmt.mib-2.system.sysServices.0	integer	10
14	iso.org.dod.internet.private.enterprises.45501.1.1.1.0	octet string	SNMPv1/2Agent
15	iso.org.dod.internet.private.enterprises.45501.1.1.2.0	octet string	V1
16	iso.org.dod.internet.private.enterprises.45501.1.1.3.0	octet string	June 16
17	iso.org.dod.internet.private.enterprises.45501.1.2.1.1.1.0	integer	0
18	iso.org.dod.internet.private.enterprises.45501.1.2.1.1.1.1	integer	1
19	iso.org.dod.internet.private.enterprises.45501.1.2.1.1.2.0	integer	0
20	iso.org.dod.internet.private.enterprises.45501.1.2.1.1.2.1	integer	0
21	iso.org.dod.internet.private.enterprises.45501.1.2.1.1.3.0	ip address	0.0.0.0
22	iso.org.dod.internet.private.enterprises.45501.1.2.1.1.3.1	ip address	0.0.0.0
23	iso.org.dod.internet.private.enterprises.45501.1.2.1.1.4.0	octet string	
24	iso.org.dod.internet.private.enterprises.45501.1.2.1.1.4.1	octet string	
25	iso.org.dod.internet.private.enterprises.45501.1.3.1.0	integer	0
26	iso.org.dod.internet.private.enterprises.45501.1.3.2.0	integer	0
27	iso.org.dod.internet.private.enterprises.45501.1.3.3.0	integer	0
28	iso.org.dod.internet.private.enterprises.45501.1.3.4.0	octet string	09.8
29	iso.org.dod.internet.private.enterprises.45501.1.3.4.0.0	null	
30	iso.org.dod.internet.private.enterprises.45501.1.3.4.0.0.0	null	
31	iso.org.dod.internet.private.enterprises.45501.1.3.4.0.0.0.0	null	
32	iso.org.dod.internet.private.enterprises.45501.1.3.4.0.0.0.0.0	null	
33	iso.org.dod.internet.private.enterprises.45501.1.3.4.0.0.0.0.0.0	null	
34	iso.org.dod.internet.private.enterprises.45501.1.3.4.0.0.0.0.0.0.0	null	
35	ccitt.zeroDotZero		

OID 1.3.6.1.4.1.45501.1.3.1.0 = Relay 1 (0 for off and 1 for On)

OID 1.3.6.1.4.1.45501.1.3.2.0 = AC Input 1 (0 for off and 1 for On)

OID 1.3.6.1.4.1.45501.1.3.3.0 = AC Input 2 (0 for off and 1 for On)

OID 1.3.6.1.4.1.45501.1.3.4.0 = Supply voltage from either DC jack or pcb terminal (Max 15V)

Physical

Default IP : 192.168.1.2

L=80mm – W = 70mm – H = 30mm

Consumption with relay on = 100mA @12V / 50mA@24V

Consumption with relay off = 60mA @12V / 30mA@24V