Micro Instruments

Electronic Research & Development

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MANUAL

POE 4+4 GM

Index:

Description:

The **POE 4 +4 GM** is an 4+4 = 8 Channel Gigabit DC passive power over Ethernet injector unit with a 10Mbs management Ethernet interface to allow the user to toggle the power output of each one of the 8 POE power outputs via a web-browser interface.

POE output ports is Grouped into **Group A** (4 POE channels) and **Group B** (4 POE channels) –The user can select the **MODE** (MODE B-2 pair power or PHANTOM POWER-4 pair power) and **voltage** (24VDC or 48VDC- input dependant) for each group of 4 POE outputs individually via changing power connections at the rear of the unit.

The unit operates from 18Vdc to 60Vdc supply voltage for Group A and B .

Technical & Connections:

The unit have 8 LAN input Ports and 8 LAN + POE output ports via 70W POE+ Gigabit Ethernet transformers.

All Power output Ports on the device is protected via **1Amp** PTC thermal self recoverable fuses against short circuits and faulty equipment that might be connected to the port.

The unit controls power to each POE output port via **mechanical relays** for robustness on the power line from incoming spikes on the power line caused by ESD discharges etc.

POE Port 1 to 8 can only be toggled to break power to the POE outputs 1 to 8 to reset connected devices.

The POE port will after being toggled – automatically re-connect power to the connected device after **15 seconds** so the user can not log himself out permanently of a connection to the remote tower.

10Mbs User control Ethernet interface for remote management.

Each Port have led indication for port power status , led's also indicates if the unit is connected in MODE B- 2pair power or PHANTOM MODE-4pair power mode for POE A and POE B.

When POE A or POE B is connected in the MODE B mode – only the green led illuminates on the POE port

When POE A or POE B is connected in the PHANTOM mode – the green and amber led illuminates on the POE port

Rear view

POE A is the master unit and POE B is the slave unit

The unit will not work if Power is connected to POE B only – always use POE A power input

RESET

To factory reset the unit to the default 192.168.1.2 IP address , disconnect power from the unit , short circuit the 2 pins carefully as indicated by the arrow on the backside , apply power to POE A , wait 10seconds , remove the short circuit across the 2 reset pins.

Green pluggable terminals for power connection:

The unit can be powered from the **same** supply voltage or from **two different** supply voltages –see connection diagrams below
 ** Reverse polarity connections could damage your POE connected equipment**
Please be careful about correct polarity when connecting the power source

Each POE group , POE A (ch1-4) and POE B (ch1-4) can be wired to function in the

 (same or different modes) and the (same or different) voltages.

MODES :

MODE B = 2 pair powering over LAN cable

PHANTOM = 4 pair powering over LAN cable

Provision was made for the user to write the voltage for the POE A group and the POE B group onto the front facia of the unit to avoid confusion between different voltage supplies between the channels
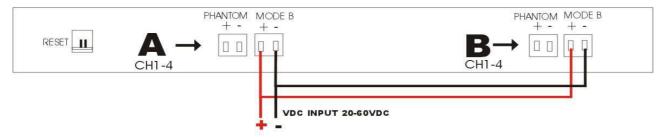
Voltage outputs will be equal to voltage inputs

MODE B = POWER OVER 2 PAIRS =+4,5 and - 7,8

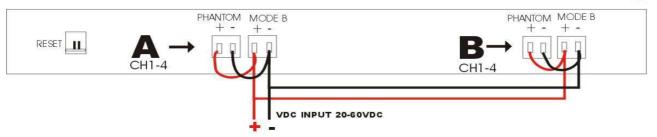**PHANTOM = POWER OVER all 4 pairs + 1,2,4,5 and - 3,6,7,8**

POWER Connection - MODE B for POE A + POE B at the same voltage

RESET

A →
CH1-4

PHANTOM
+ -

MODE B
+ -

B →
CH1-4

PHANTOM
+ -

MODE B
+ -

VDC INPUT 20-60VDC

+ -

POWER Connection - MODE B for POE A + POE B at different voltages

RESET

A →
CH1-4

PHANTOM
+ -

MODE B
+ -

B →
CH1-4

PHANTOM
+ -

MODE B
+ -

VDC INPUT 20-60VDC

+ -

Eg: 48Vdc

VDC INPUT 20-60VDC

+ -

Eg: 24Vdc

POWER Connection - PHANTOM for POE A + POE B at the same voltage

RESET

A →
CH1-4

PHANTOM
+ -

MODE B
+ -

B →
CH1-4

PHANTOM
+ -

MODE B
+ -

VDC INPUT 20-60VDC

+ -

POWER Connection - PHANTOM for POE A + POE B at different voltages

RESET

A →
CH1-4

PHANTOM
+ -

MODE B
+ -

B →
CH1-4

PHANTOM
+ -

MODE B
+ -

VDC INPUT 20-60VDC

+ -

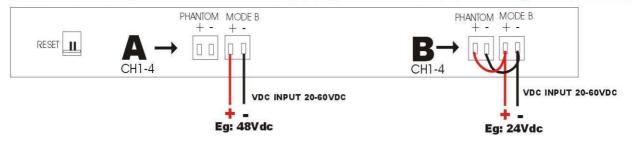**Eg: 48Vdc**

VDC INPUT 20-60VDC

+ -

Eg: 24Vdc

PHANTOM = POWER OVER all 4 pairs + 1,2,4,5 and - 3,6,7,8

POWER Connection - MODE B for POE A and Phantom for POE B at the same voltage or vice versa

POWER Connection - MODE B for POE A and Phantom for POE B at different voltages or vice versa
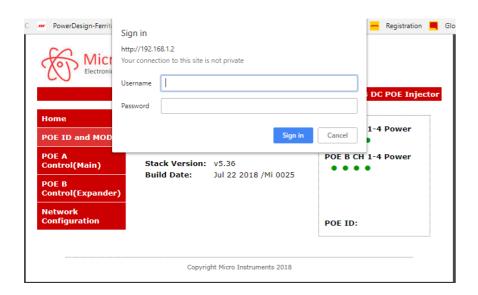

Screenshots:

Home page

Indicates PORT output power active with a green dot
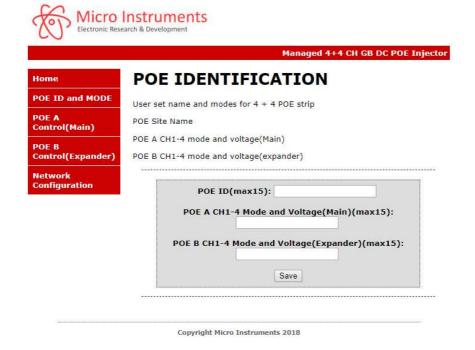POE ID – user can specify a site name for the POE 4+4GM

Selecting any menu will bring up the password pop up

Default : admin & admin

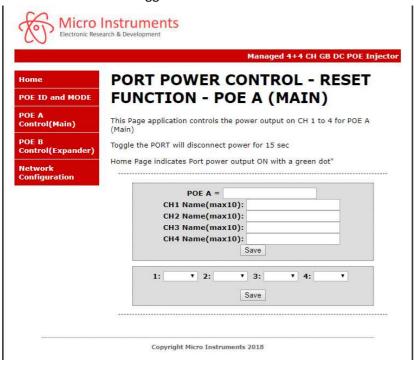**POE ID :** user defined site name for the POE 4+4GM

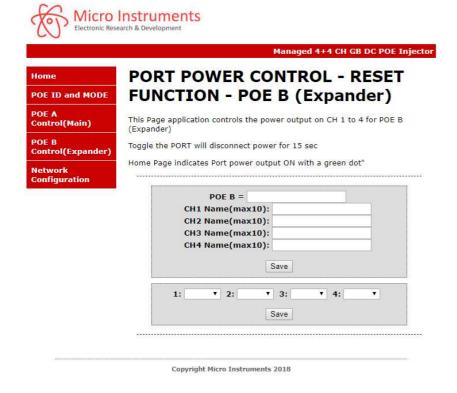User can enter the voltage and the mode for POE A and POE B for reference

POE A - PORT POWER CYCLE:

User defined Names can be specified for **PORT A** channel 1 to 4 to easily identifies connected devices to the port
PORT A CH 1-4 can be toggled for 15 sec to reset connected devices
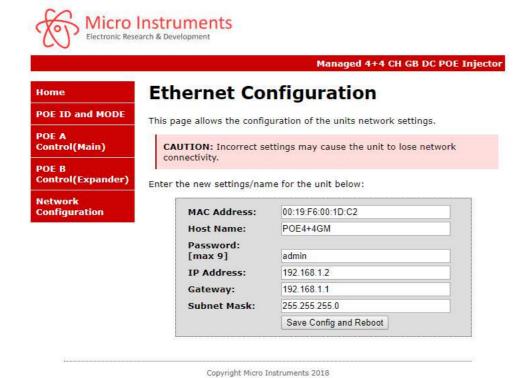

POE B - PORT POWER CYCLE:

User defined Names can be specified for **PORT B** channel 1 to 4 to easily identifies connected devices to the port
PORT B CH 1-4 can be toggled for 15 sec to reset connected devices

Network Configuration:

Change User defined password

Set IP address , Gateway and subnet Mask for the Ethernet interface

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Physical:

The unit is housed in a **19"** standard rack mount enclosure – the mounting flanges on the sides can be turned 90 degrees to act as mounting feet if a **19"** rack cabinet is not available.

LENGHT: 440mm

HIGHT: 45mm

WIDTH: 80mm

WEIGHT : 1.375Kg