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# **MSE**

## **DIN-POE4S**

## **DIN-POE4D**

### **4 Ports Gigabit PoE Injector**

### **USER'S MANUAL**

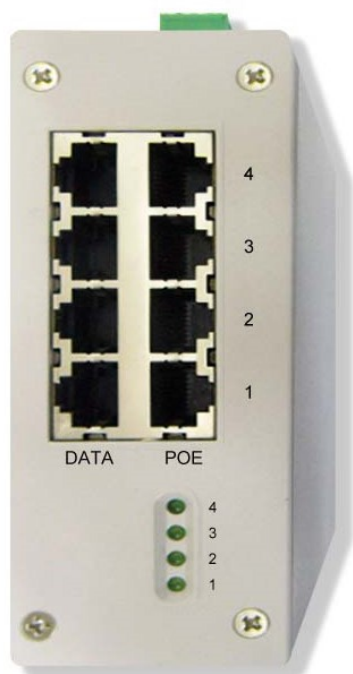


MSTRONIC CO., LTD.

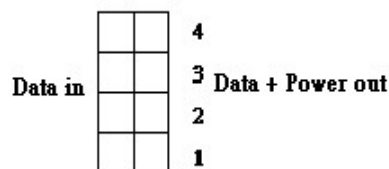
# 1. General Information

The DIN-POE4S and DIN-POE4D family is a DC/DC PoE (Power over Ethernet) Injector, provide up to 4 different voltage DC input and four different voltage PoE output, output power maximum 35W/port (DIN-POE4D) or 1A/port (DIN-POE4S), data rate can be operating at 10M/100M/1000M. The polarity of each PoE output can be reversed if you need to reverse the output polarity. This manual will help you to install and setting the PoE injector.

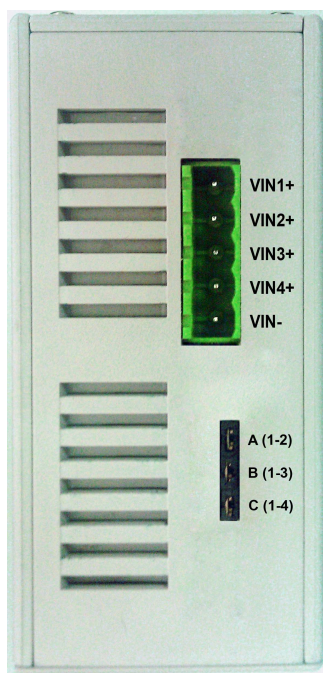
# 2. Hardware Description



Front panel detail



the port number is as the diagram shows.



Top panel detail

### \*LED Indicator

There are 4 LEDs on the front panel to indicate the input and output power status of each port.

LED	STATUS	Description
1~4	Green	A valid power device is detected on this port. Active current is 80mA.
	Off	For DIN-POE4S: No valid input applied, the voltage is larger than 58VDC, or less than 10.5VDC, or the output current over 2A limit.  For DIN-POE4D: No valid input applied, the voltage is larger than 58VDC, or less than 42.5VDC, or the output current over 0.684A limit.

### \*Data Input

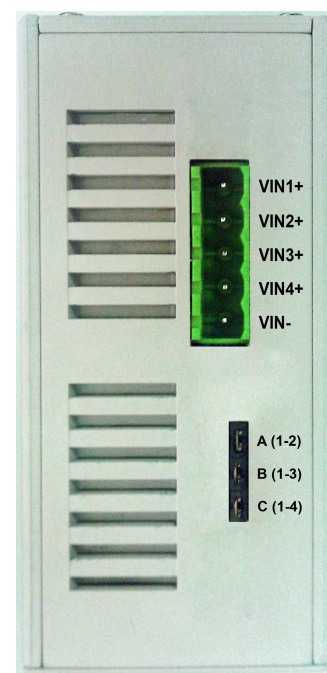
The left ports 1-4 on the front panel are used for Gigabit Ethernet data input.

All four ports with surge protection.

## \*Power Input

The input voltage range of DIN-POE4S is 12VDC to 57VDC, and 44~57VDC for DIN-POE4D, they are all common negative design, the green terminal (CON1) on top panel is used for power input wiring, it can be connected to maximum 4 different sources with 4 different voltages, the jumper A, B, C, of JP9 on top panel controls the input/output connection, its setting as below. (1=jumper on, 0=off)

Jumper Input	A (1-2)	B (1-3)	C (1-4)	PoE Output
VIN1+	<b>1</b>	<b>1</b>	<b>1</b>	<b>PoE 1/2/3/4=VIN1 (Factory setting)</b>
VIN1+ VIN4+	<b>1</b>	<b>1</b>	<b>0</b>	PoE 1/2/3=VIN1 PoE 4=VIN4
VIN1+ VIN3+	<b>1</b>	<b>0</b>	<b>1</b>	PoE 1/2/4=VIN1 PoE 3=VIN3
VIN1+ VIN3+ VIN4+	<b>1</b>	<b>0</b>	<b>0</b>	PoE1/2=VIN1 PoE3=VIN3 PoE4=VIN4
VIN1+ VIN2+	<b>0</b>	<b>1</b>	<b>1</b>	PoE1/3/4=VIN1 PoE2=VIN2
VIN1+ VIN2+ VIN4+	<b>0</b>	<b>1</b>	<b>0</b>	PoE1/3=VIN1 PoE2=VIN2 PoE4=VIN4
VIN1+ VIN2+ VIN3+	<b>0</b>	<b>0</b>	<b>1</b>	PoE1/4=VIN1 PoE2=VIN2 PoE3=VIN3
VIN1+ VIN2+ VIN3+ VIN4+	<b>0</b>	<b>0</b>	<b>0</b>	PoE 1=VIN1 PoE 2=VIN2 PoE 3=VIN3 PoE 4=VIN4



## \*PoE Output

The right ports 1-4 on the front panel are used for carry PoE output, the output voltage is the same as input, no regulated. Normally as detailed below:

- \* Data pair A on line 1 and 2
- \* Data pair B on line 3 and 6
- \* Data pair C plus V+ on line 4 and 5
- \* Data pair D plus V- on line 7 and 8

## \*Output Polarity Reverse (for technician operation only)

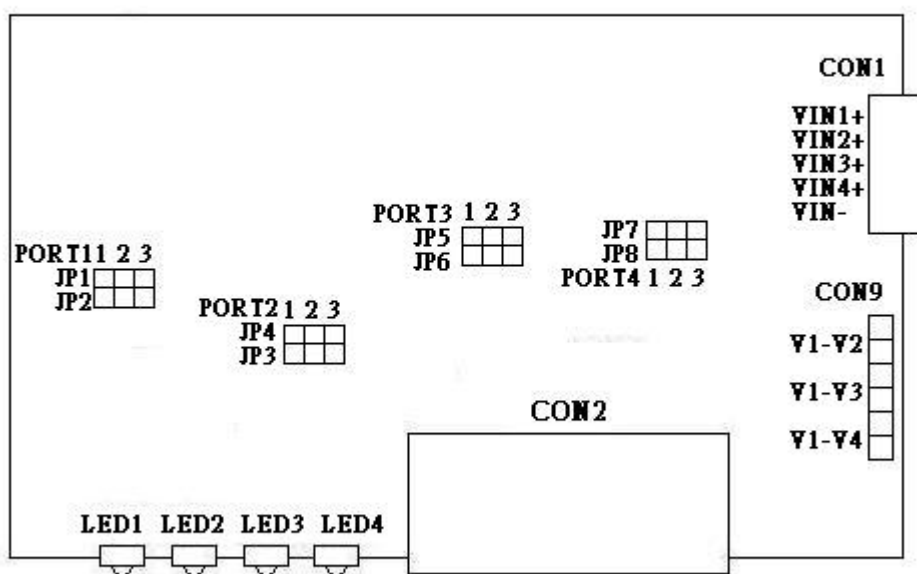
The DIN-POE4S/POE4D may deliver PoE output with reverse polarity. Just move related jumpers from pin 1-2 to pin 2-3, and then

- \* Data pair C carry V- on line 4 and 5
- \* Data pair D carry V+ on line 7 and 8

Open the cover, the JP1~JP8 on the PCB responds for the output polarity of port 1~4, each two jumpers should be paired moved to ensure the path enough for the through current.

	JP1 & JP2	JP3 & JP4	JP5 & JP6	JP7 & JP8
Control port	Port 1	Port 2	Port 3	Port 4

- \* Pin1-2(short pin1 & pin2): RJ45 pair C (pin4 & 5) carry PoE positive voltage.
- \* Pin2-3(short pin2 & pin3): RJ45 pair C (pin4 & 5) carry PoE negative voltage.



## 4. Technical Information

Data Rate	10M/100M/1000M
Input voltage:	12VDC to 57VDC (DIN-POE4S) 44 VDC to 57VDC (DIN-POE4D)
Maximum PoE power	35W/port (DIN-POE4D) Current limited – 1A/port (DIN-POE4S)
Compliance	802.3af/at (DIN-POE4D)
PoE protection	over-current, over/under voltage
LEDs:	Green-Power ready, Off-No power apply
Operating temperature	-40°C ~ +75°C
Operation humidity	90% relative humidity, non-condensing
Storage temperature	-40°C ~ +85°C
Dimension	125mm(H) x46mm(W) x102mm(D) DIN RAIL Mountable

Surge protection on data input ports:

Operating Voltage	Data 5V
Clamping Voltage	Data 16.5V (@I PP =5A, t p =8/20μs, I/O pin to GND)
Peak Pulse Current	20A (tp=8/20μs)
Pin Protected	All 8 pin protected
Max. Shut Capacitance	<3pF (VR = 0V, f = 1MHz, I/O pin to GND) < 1.5 pF (VR = 0V, f = 1MHz, Between I/O pins)
IEC COMPATIBILITY (EN61000-4)	IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact) IEC61000-4-4 (EFT) 40A (5/50ns) IEC61000-4-5 (Lightning) 20A (8/20μs)