MSE
DIN-POE4S
DIN-POE4D

4 Ports Gigabit PoE Injector

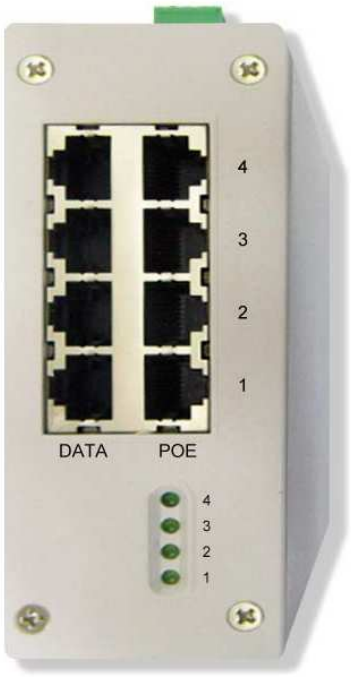
USER'S MANUAL

MSTRONIC CO., LTD.

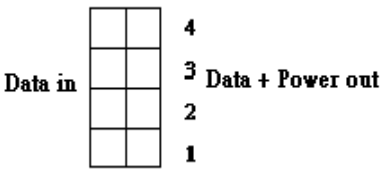
1. General Information

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.

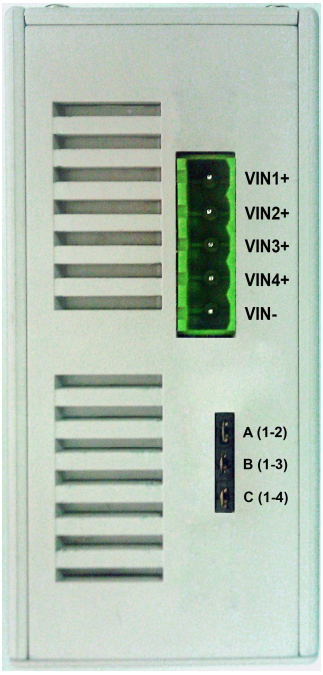
2. Hardware Description



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.

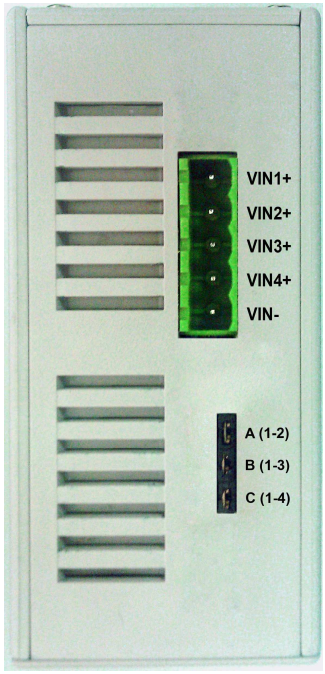
*Data Input

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+	**1**	**1**	**1**	**PoE 1/2/3/4=VIN1 (Factory setting)**
VIN1+ VIN4+	**1**	**1**	**0**	PoE 1/2/3=VIN1 PoE 4=VIN4
VIN1+ VIN3+	**1**	**0**	**1**	PoE 1/2/4=VIN1 PoE 3=VIN3
VIN1+ VIN3+ VIN4+	**1**	**0**	**0**	PoE1/2=VIN1 PoE3=VIN3 PoE4=VIN4
VIN1+ VIN2+	**0**	**1**	**1**	PoE1/3/4=VIN1 PoE2=VIN2
VIN1+ VIN2+ VIN4+	**0**	**1**	**0**	PoE1/3=VIN1 PoE2=VIN2 PoE4=VIN4
VIN1+ VIN2+ VIN3+	**0**	**0**	**1**	PoE1/4=VIN1 PoE2=VIN2 PoE3=VIN3
VIN1+ VIN2+ VIN3+ VIN4+	**0**	**0**	**0**	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)

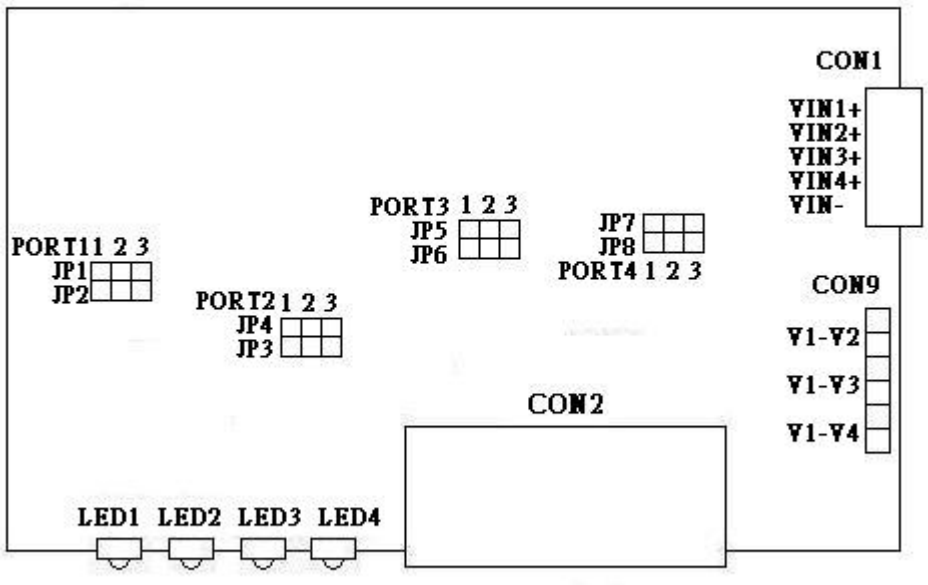
The DIN-POE4S/POE4D may deliver PoE output with reverse polarity. Just move related jumpers from pin 1-2 to pin 2-3, and then

* 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℃~ +75℃
Operation humidity	90% relative humidity, non-condensing
Storage temperature	-40℃~+85℃
Dimension	125mm(H) x46mm(W) x102mm(D) DIN RAIL Mountable

Surge protection on data input ports:

	Signal
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)