



**ET-7024**  
**PET-7024**

**ET-7224**  
**PET-7224**

Ethernet I/O Module with 4-ch AO, 5-ch DI, 5-ch DO

### Features

- Built-in Web Server
- Web HMI
- Support for both Modbus TCP and Modbus UDP Protocols
- Communication Access Control
- 2-port Ethernet Switch (LAN bypass) for Daisy-chain Wiring
- Dual Watchdog
- I/O Pair Connection
- Built-in I/O
  - AO: 4 Channels
  - DI/Counter: 5 Channels
  - DO: 5 Channels



### Introduction

The ET-7024/PET-7024/ET-7224/PET-7224 is a multifunction module includes 4 channels analog output, 5 channels digital input and 5 channels digital output. It provides a variety of programmable analog output options (+/-5 V, +/-10 V, 0 ~ 20 mA, and 4 ~ 20 mA), and each analog output can be programmed to accept either current or voltage as output depending upon the position of the corresponding jumper. The ET-7024/PET-7024/ET-7224/PET-7224 is fully RoHS compliant and provides 4 kV ESD protection as well as 2500 V<sub>DC</sub> intra-module isolation.

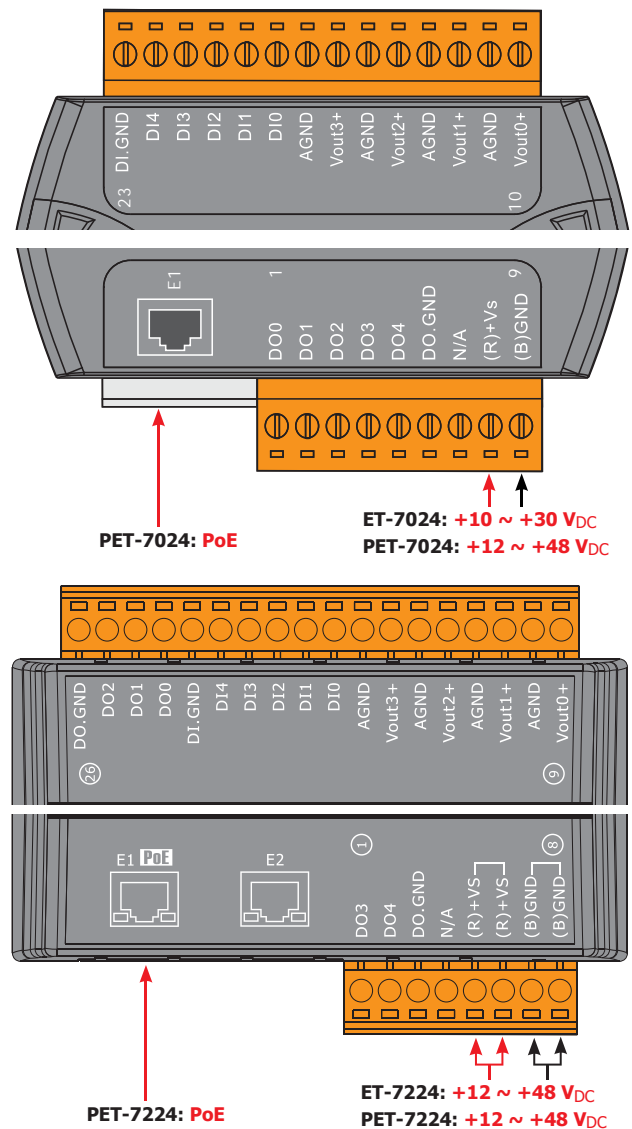
### System Specifications

Model	ET-7024	PET-7024	ET-7224	PET-7224
<b>Software</b>				
Built-in Web Server	Yes			
<b>CPU Module</b>				
Watchdog Timer	Module, Communication (Programmable)			
<b>2-Way Isolation</b>				
Ethernet	1500 V <sub>DC</sub>	-	1500 V <sub>DC</sub>	-
I/O	2500 V <sub>DC</sub>			
<b>EMS Protection</b>				
EFT (IEC 61000-4-4)	±4 kV for Power Line			
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal ±8 kV Air for Random Point			
Surge (IEC 61000-4-5)	±0.5 kV for Power Line		±2 kV for Power Line	
<b>LED Indicators</b>				
Status	Run, Ethernet	Run, Ethernet, PoE	Run, Ethernet, I/O	Run, Ethernet, I/O, PoE
<b>Ethernet</b>				
Ports	1 x RJ-45, 10/100 Base-TX		2 x RJ-45, 10/100 Base-TX, Switch Ports	
PoE	-	Yes	-	Yes
LAN bypass	-		Yes	
Access Control	ID, Password and IP Filter			
Protocol	Modbus TCP, Modbus UDP			
<b>Power</b>				
Reverse Polarity Protection	Yes			
Consumption	4.3 W (max.)	4.8 W (max.)	5.2 W (max.)	5.5 W (max.)
Powered from PoE	-	IEEE 802.3af, Class1	-	IEEE 802.3af, Class1
Powered from Terminal Block	+10 ~ +30 V <sub>DC</sub>		+12 ~ +48 V <sub>DC</sub>	
<b>Mechanical</b>				
Dimensions (mm)	72 x 123 x 35 (W x L x H)		76 x 120 x 42 (W x L x H)	
Installation	DIN-Rail Mounting			
<b>Environment</b>				
Operating Temperature	-25 ~ +75 °C			
Storage Temperature	-30 ~ +80 °C			
Humidity	10 ~ 90% RH, Non-condensing			

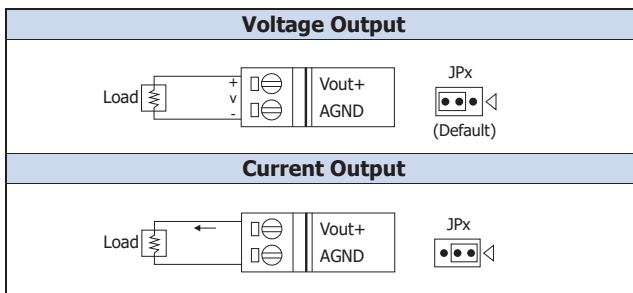
## I/O Specifications

Analog Output		
Channels	4	
Type	Voltage, Current	
Current	+0 ~ +5 V <sub>DC</sub> , ±5 V <sub>DC</sub> , +0 ~ +10 V <sub>DC</sub> , ±10 V <sub>DC</sub> 0 ~ 20 mA, 4 ~ 20 mA (Jumper Selectable)	
Resolution	12-bit	
Accuracy	±0.1% of FSR	
Open Wire Detection	For 4 ~ 20 mA only	
Voltage Output Capability	10 V @ 20 mA	
Current Load Resistance	500 Ω	
Individual Channel Configuration	Yes	
Power on Value	Programmable	
Safe Value	Programmable	
Digital Input/Counter		
Channels	5	
Type	Dry Contact, Wet Contact	
ON Voltage Level	Dry	Close to GND
	Wet	+1 V <sub>DC</sub> (max.)
OFF Voltage Level	Dry	Open
	Wet	+3.5 ~ +30 V <sub>DC</sub>
Max. Counts	4,294,967,295 (32-bit)	
Frequency	100 Hz	
Min. Pulse Width	5 ms	
Effective Distance	500 m (max.)	
Overvoltage Protection	+30 V <sub>DC</sub>	
Digital Output		
Channels	5	
Type	Isolated Open Collector	
Sink/Source (NPN/PNP)	Sink	
Load Voltage	+5 ~ +50 V <sub>DC</sub>	
Load Current	600 mA/channel	
Overvoltage Protection	+60 V <sub>DC</sub>	
Overload Protection	1.4 A	
Short-circuit Protection	Yes	
Power on Value	Programmable	
Safe Value	Programmable	

## Pin Assignments



## Wire Connections



Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Dry Contact		
Wet Contact		

## Ordering Information

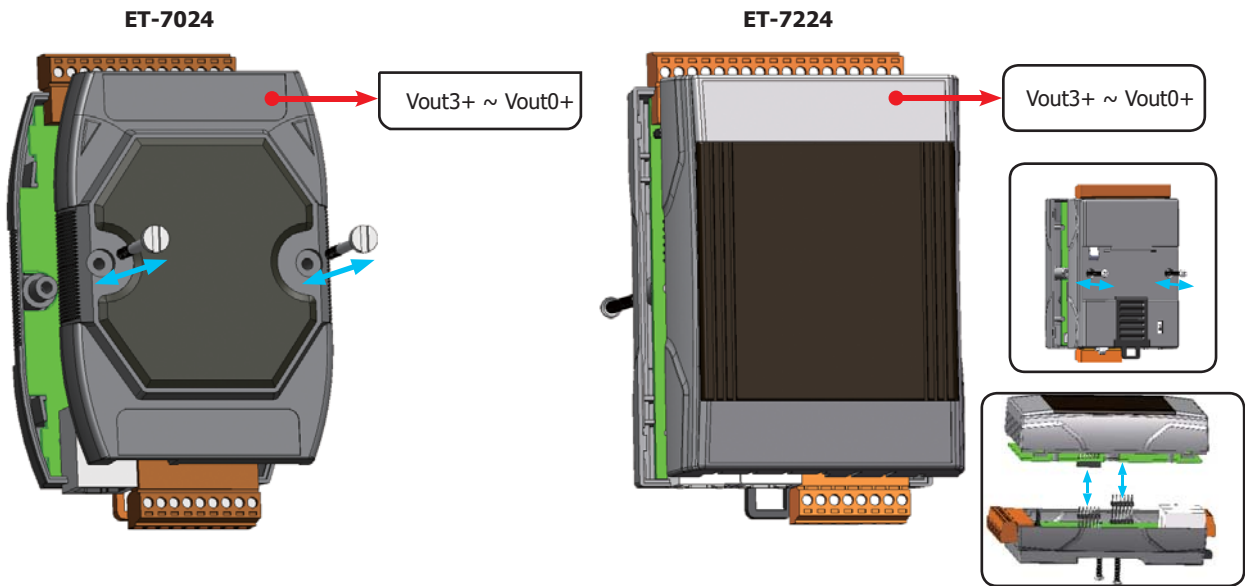
<b>ET-7024 CR</b>	Ethernet I/O Module with 4-ch AO, 5-ch DI, 5-ch DO (RoHS)
<b>PET-7024 CR</b>	PoE I/O Module with 4-ch AO, 5-ch DI, 5-ch DO (RoHS)
<b>ET-7224 CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, 4-ch AO, 5-ch DI, 5-ch DO (RoHS)
<b>PET-7224 CR</b>	PoE I/O Module with 2-port Ethernet Switch, 4-ch AO, 5-ch DI, 5-ch DO (RoHS)

Digital Output	ON State Readback as 1	OFF State Readback as 0
Open Collector (Sink)		

## Jumper

### Notice:

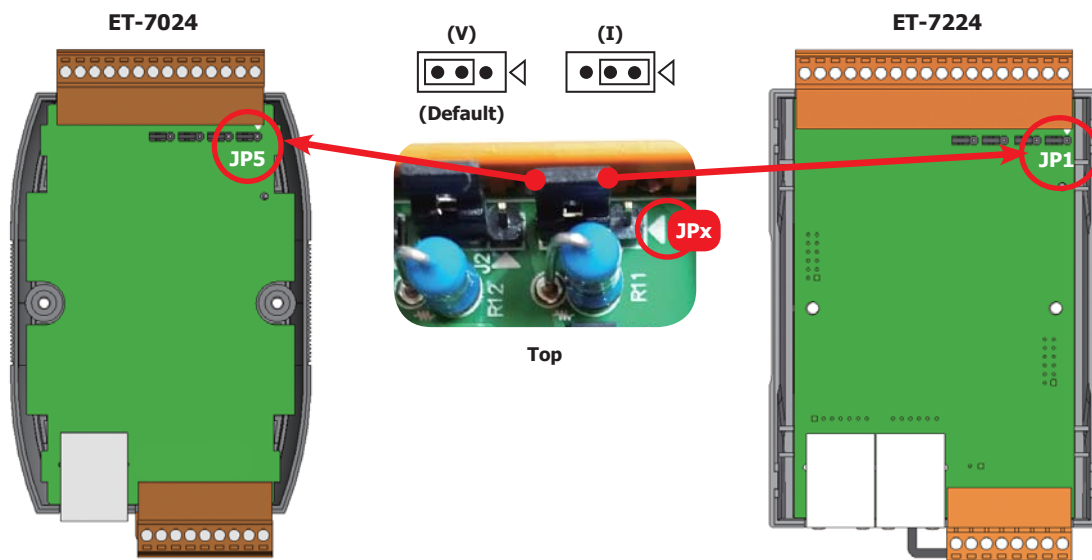
1. Before adjusting the jumpers, remove the module's top cover. For the ET-7200 series, the screws are located on the rear cover, and the CPU board must be removed as well.



2. Users can locate the Jx/JPx jumpers on the board by checking the I/O labels on the cover.

Model	ET-7024			
Channel	Vout3+	Vout2+	Vout1+	Vout0+
Jumper	JP8	JP7	JP6	JP5

Model	ET-7224			
Channel	Vout3+	Vout2+	Vout1+	Vout0+
Jumper	JP4	JP3	JP2	JP1



3. After adjusting the jumpers, reinstall the top cover (along with the CPU board) and secure the screws.