



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 VDC intra-module isolation.

System Specifications

Model	ET-7024	PET-7024	ET-7224	PET-7224
Software				
Built-in Web Server	Yes			
CPU Module				
Watchdog Timer	Module, Communication (Programmable)			
2-Way Isolation				
Ethernet	1500 VDC	-	1500 VDC	-
I/O	2500 VDC			
EMS Protection				
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	
LED Indicators				
Status	Run, Ethernet	Run, Ethernet, PoE	Run, Ethernet, I/O	Run, Ethernet, I/O, PoE
Ethernet				
Ports	1 x RJ-45, 10/100 Base-TX		2 x RJ-45, 10/100 Base-TX, Swtich Ports	
PoE	-	Yes	-	Yes
LAN bypass	-		Yes	
Access Control	ID, Password and IP Filter			
Protocol	Modbus TCP, Modbus UDP			
Power				
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 VDC	+12 ~ +48 VDC		

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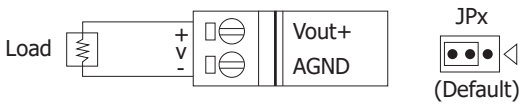
Model	ET-7024	PET-7024	ET-7224	PET-7224
Mechanical				
Dimensions (mm)	72 x 123 x 35 (W x L x H)		76 x 120 x 42 (W x L x H)	
Installation	DIN-Rail Mounting			
Environment				
Operating Temperature	-25 ~ +75 °C			
Storage Temperature	-30 ~ +80 °C			
Humidity	10 ~ 90% RH, Non-condensing			

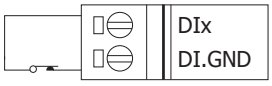
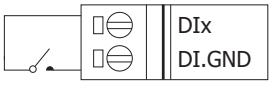
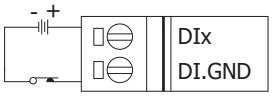
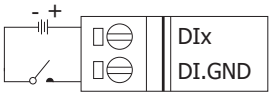
I/O Specifications

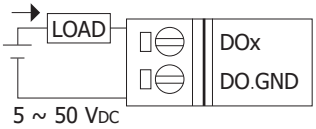
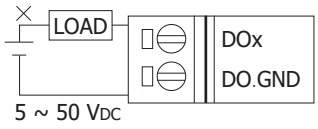
Model		ET-7024	PET-7024	ET-7224	PET-7224
Analog Output					
Channels		4			
Type		Voltage, Current			
Range		+0 ~ +5 VDC, ±5 VDC, +0 ~ +10 VDC, ±10 VDC 0 ~ 20 mA, 4 ~ 20 mA (Jumper Selectable)			
Resolution		12-bit			
Accuracy		±0.1% of FSR			
Open Wire Detection		For 4 ~ 20 mA only			
Voltage Output 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 VDC (max.)			
OFF Voltage Level	Dry	Open			
	Wet	+3.5 ~ +30 VDC			
Max. Counts		4,294,967,295 (32-bit)			
Frequency		100 Hz			
Min. Pulse Width		5 ms			
Effective Distance		500 m (max.)			
Overvoltage Protection		+30 VDC			
Digital Output					
Channels		5			
Type		Isolated Open Collector			
Sink/Source (NPN/PNP)		Sink			
Load Voltage		+5 ~ +50 VDC			
Load Current		600 mA/channel			
Overvoltage Protection		+60 VDC			
Overload Protection		1.4 A			
Short-circuit Protection		Yes			
Power on Value		Programmable			
Safe Value		Programmable			

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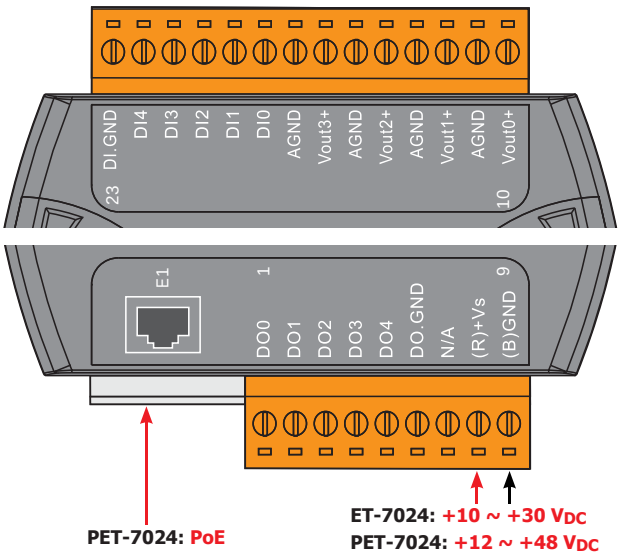
Wire Connections

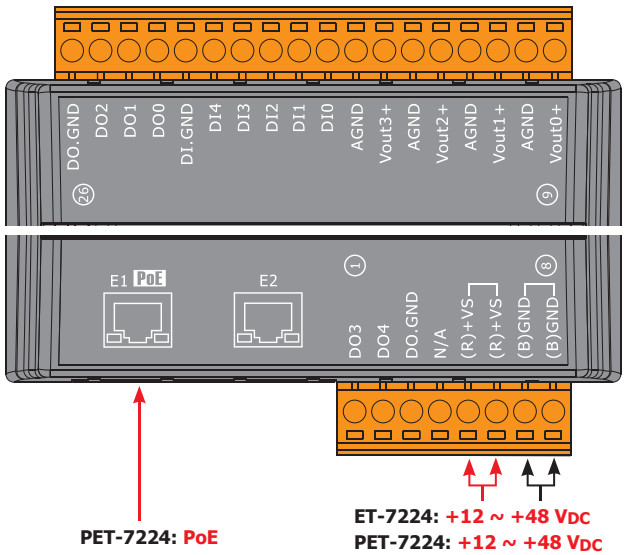
Voltage Output	Current Output
	

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

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

Pin Assignments





Ordering Information

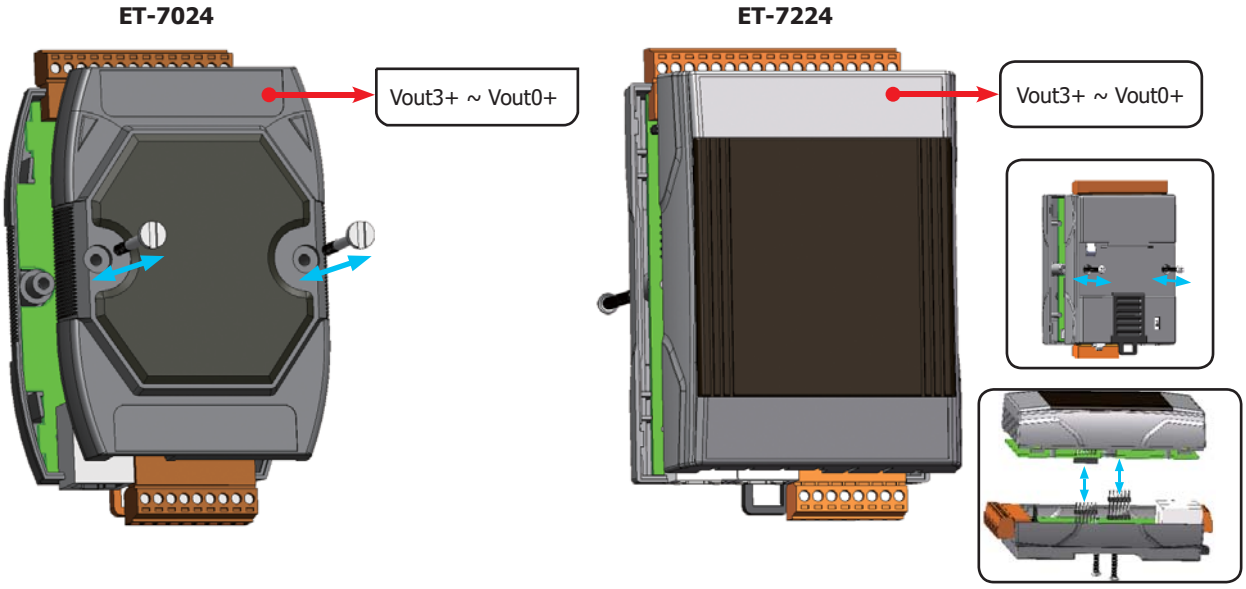
ET-7024 CR	Ethernet I/O Module with 4-ch AO, 5-ch DI, 5-ch DO (RoHS)
PET-7024 CR	PoE I/O Module with 4-ch AO, 5-ch DI, 5-ch DO (RoHS)
ET-7224 CR	Ethernet I/O Module with 2-port Ethernet Switch, 4-ch AO, 5-ch DI, 5-ch DO (RoHS)
PET-7224 CR	PoE I/O Module with 2-port Ethernet Switch, 4-ch AO, 5-ch DI,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

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Jumper

Notice:

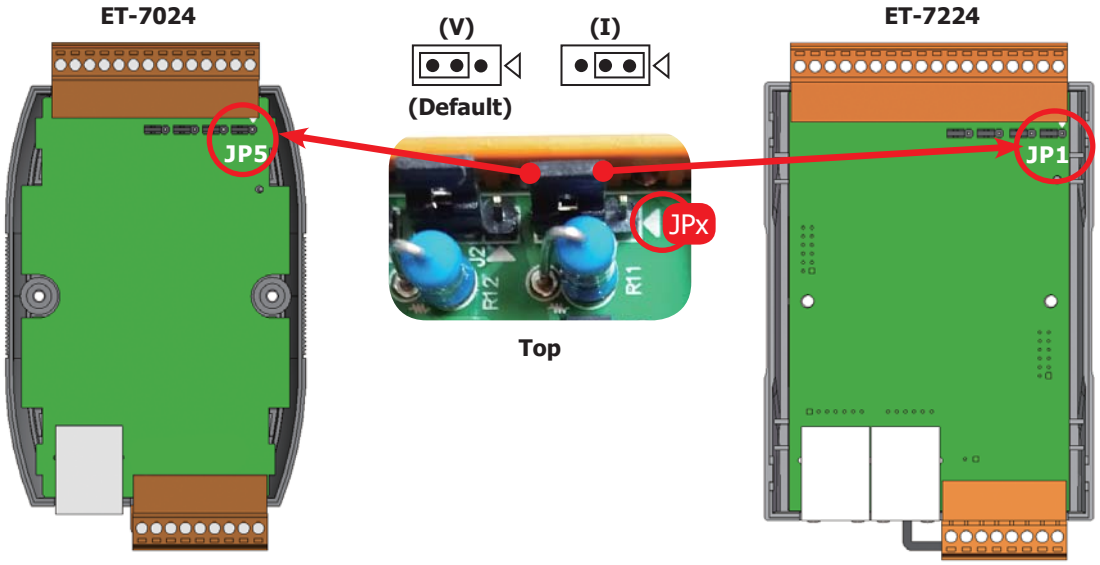
1. **Before adjusting the jumpers, remove the module's top cover. For the ET-7200 series, the screws are located on the rear cover, and the CPU board must be removed as well.**



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.**

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