



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

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

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

## Features

- Built-in Web Server
- Web HMI
- Support for both Modbus TCP and Modbus UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to +75°C
- 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 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.

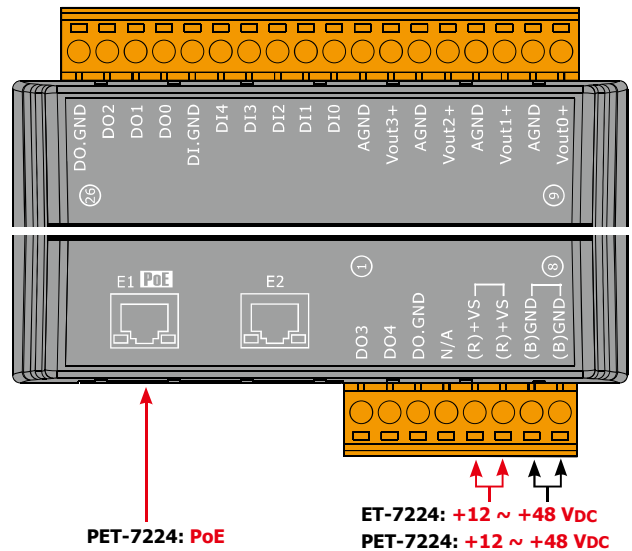
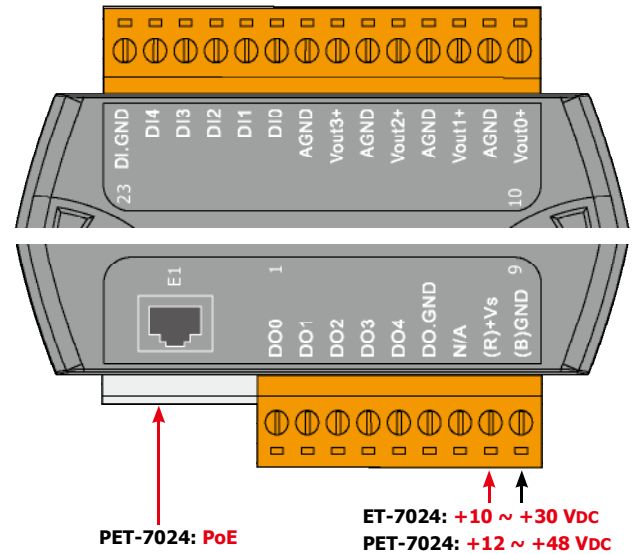
## System Specifications

Model	ET-7024	PET-7024	ET-7224	PET-7224
<b>Software</b>				
Built-in Web Server			Yes	
Web HMI			Yes	
I/O Pair Connection			Yes	
<b>Communication</b>				
Ethernet Port	1 x RJ-45, 10/100 Base-TX		2 x RJ-45, 10/100 Base-TX, Switch Ports	
PoE	-	Yes	-	Yes
Protocol	Modbus TCP, Modbus UDP			
Security	ID, Password and IP Filter			
Dual Watchdog	Yes, Module (0.8 seconds), Communication (Programmable)			
<b>LED Indicators</b>				
for System Running			Yes	
for Ethernet Link/Act			Yes	
for DI/DO status		-		Yes
for PoE Power	-	Yes	-	Yes
<b>2-Way Isolation</b>				
Ethernet	1500 Vdc	-	1500 Vdc	-
I/O	2500 Vdc			
<b>EMS Protection</b>				
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal and ±8 kV Air for Random Point			
EFT (IEC 61000-4-4)	±4 kV for Power Line			
Surge (IEC 61000-4-5)	±0.5 kV for Power Line		±2 kV for Power Line	
<b>Power</b>				
Reverse Polarity Protection	Yes			
Powered from Terminal Block	10 ~ 30 Vdc	12 ~ 48 Vdc	12 ~ 48 Vdc	12 ~ 48 Vdc
Powered from PoE	-	Yes, IEEE 802.3af, Class1	-	Yes, IEEE 802.3af, Class1
Consumption	4.3 W (Max.)	4.8 W (Max.)	5.2 W (Max.)	5.5 W (Max.)
<b>Mechanical</b>				
Dimensions (L x W x H)	123 mm x 72 mm x 35 mm		120 mm x 76 mm x 38 mm	
Installation	DIN-Rail or Wall Mounting			
<b>Environment</b>				
Operating Temperature	-25 to +75°C			
Storage Temperature	-30 to +80°C			
Humidity	10 to 90% RH, Non-condensing			

## I/O Specifications

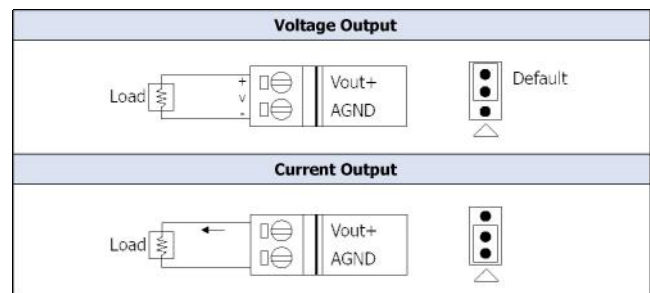
Analog Output		
Channels	4	
Type	+0 Vdc ~ +5 Vdc, +/-5 Vdc, +0 Vdc ~ +10 Vdc, +/-10 Vdc, +0 mA ~ +20 mA, +4 mA ~ +20 mA (Jumper Selectable)	
Individual Channel Configuration	Yes	
Resolution	12-bit	
Accuracy	+/-0.1% of FSR	
Voltage Output Capability	10 V @ 20 mA	
Current Load Resistance	500 Ω	
Open Wire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

## Pin Assignments



## Wire Connections

Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Dry Contact		
Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Wet Contact		
Digital Output	ON State Readback as 1	OFF State Readback as 0
Open Collector (Sink)		



## Ordering Information

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