



## ET-7204

## PET-7204

(PoE) Ethernet I/O Module with 2-port Ethernet Switch,  
4-ch AI, 4-ch AO and 4-ch DI

### Features

- Built-in Web Server
- Web HMI
- Support for both Modbus TCP and Modbus UDP Protocols
- Communication Security
- 2-port Ethernet Switch (LAN Bypass) for Daisy-Chain Wiring
- Dual Watchdog
- I/O Pair Connection
- Built-in I/O
  - AI: 4 Channels with 240 Vrms Overvoltage Protection
  - AO: 4 Channels
  - DI/Counter: 4 Channels



### Introduction

The ET-7204/PET-7204 is a multi-function module with 4-channel analog inputs, 4-channel analog outputs, 4-channel digital inputs. It provides various programmable analog inputs ( $\pm 500$  mV,  $\pm 1$  V,  $\pm 5$  V,  $\pm 10$  V,  $\pm 20$  mA, 0 to 20 mA and 4 to 20 mA), and analog outputs ( $\pm 5$  V,  $\pm 10$  V, 0 to 20 mA and 4 to 20 mA). Each analog input is allowed to configure a proper range with 240 Vrms high voltage protection. Each analog input/output can be programmed to accept current or voltage as input/output depending upon the position of corresponding jumper.

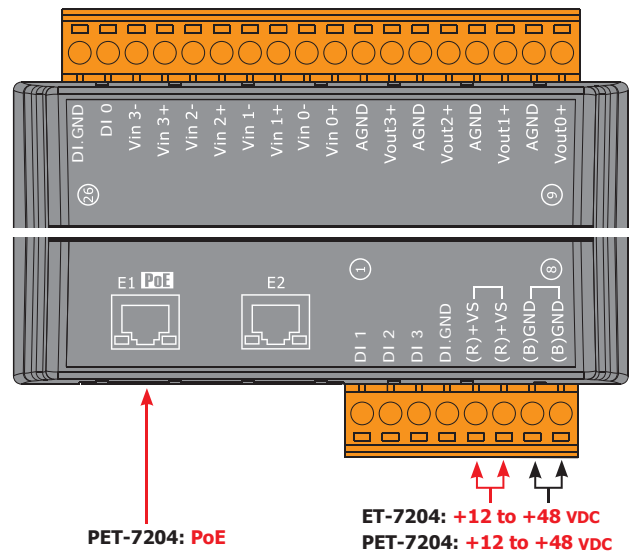
### System Specifications

Model	ET-7204	PET-7204
<b>Software</b>		
Built-in Web Server	Yes	
<b>CPU Module</b>		
Watchdog Timer	Module, Communication (Programmable)	
<b>2-Way Isolation</b>		
Ethernet	1500 Vdc	-
I/O	2500 Vdc	
<b>EMS Protection</b>		
EFT (IEC 61000-4-4)	$\pm 2$ kV for Power Line	
ESD (IEC 61000-4-2)	$\pm 4$ kV Contact for Each Terminal $\pm 8$ kV Air for Random Point	
Surge (IEC 61000-4-5)	$\pm 2$ kV for Power Line	
<b>LED Indicators</b>		
Status	Run, Ethernet, I/O	Run, Ethernet, I/O, PsoE
<b>Ethernet</b>		
Ports	2 x RJ-45, 10/100 Base-TX, Swtich Ports	
PoE	-	Yes
LAN bypass	Yes	
Security	ID, Password and IP Filter	
Protocol	Modbus TCP, Modbus UDP	
<b>Power</b>		
Reverse Polarity Protection	Yes	
Consumption	4.9 W (max.)	5.5 W (max.)
Powered from PoE	-	IEEE 802.3af, Class1
Powered from Terminal Block	+12 to +48 VDC	
<b>Mechanical</b>		
Dimensions (mm)	76 x 120 x 38 (W x L x H)	
Installation	DIN-Rail mounting	
<b>Environment</b>		
Operating Temperature	-25 to +75°C	
Storage Temperature	-30 to +80°C	
Humidity	10 to 90% RH, Non-condensing	

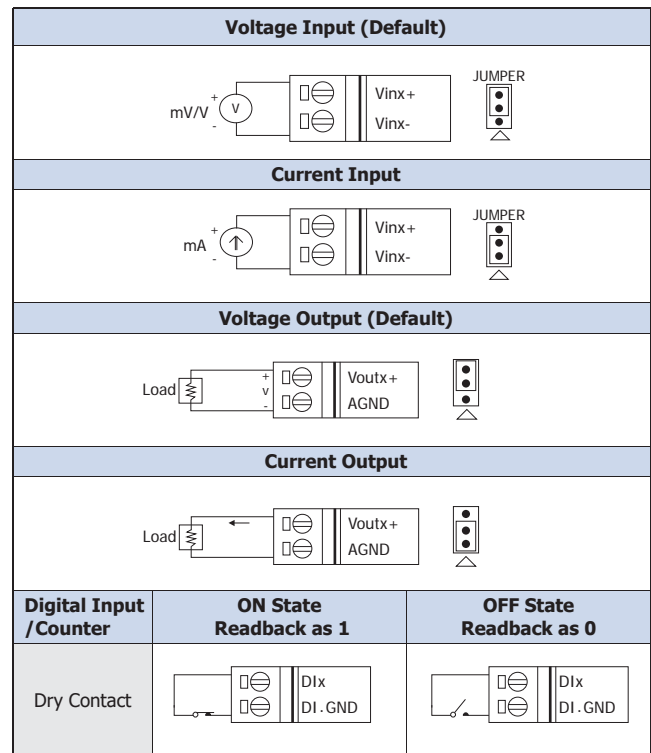
## I/O Specifications

Analog Input		
Channels	4 (Differential)	
Type	Voltage, Current	
Range	±500 mV, ±1 V, ±5 V, ±10 V +0 mA ~ +20 mA, ±20 mA, 4 to 20 mA (Jumper Selectable)	
Resolution	16-bit	
Accuracy	Normal Mode	±0.1%
	Fast Mode	±0.5% or better
Sampling Rate	Normal Mode	10 Hz (total channels)
	Fast Mode	50 Hz (total channels)
Input Impedance	Voltage	2 MΩ
	Current	125 Ω
Common Mode Rejection	86 dB (min.)	
Normal Mode Rejection	100 dB	
Common Voltage Protection	±200 VDC	
Overvoltage Protection	240 Vrms	
Overcurrent Protection	50 mA at 110 VDC (max.)	
Individual Channel Configuration	Yes	
Open Wire Detection	For 4 to 20 mA only	
Zero Drift	±20 μV/°C	
Span Drift	±25 ppm/°C	
Virtual Channel to Channel Isolation	±400 VDC	
Analog Output		
Channels	4	
Type	Voltage, Current	
Range	+0 to +5 VDC, ±5 VDC, +0 to +10 VDC, ±10 VDC 0 to 20 mA, 4 to 20 mA (Jumper Selectable)	
Resolution	12-bit	
Accuracy	±0.1% of FSR	
Open Wire Detection	For 4 to 20 mA only	
Voltage Output Capability	10 V @ 20 mA	
Current Load Resistance	400 Ω	
Individual Channel Configuration	Yes	
Power on Value	Programmable	
Safe Value	Programmable	
Digital Input/Counter		
Channels	4	
Type	Dry Contact, Wet Contact	
ON Voltage Level	Dry	Open
	Wet	+1 VDC (max.)
OFF Voltage Level	Dry	Close to GND
	Wet	+3.5 to +30 VDC
Max. Counts	4,294,967,295 (32-bit)	
Frequency	100 Hz	
Min. Pulse Width	5 ms	
Effective Distance	500m (max.)	
Overvoltage Protection	+30 VDC	

## Pin Assignments



## Wire Connections



## Ordering Information

<b>ET-7204 CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, 4-ch AI, 4-ch AO and 4-ch DI (RoHS)
<b>PET-7204 CR</b>	PoE Ethernet I/O Module with 2-port Ethernet Switch, 4-ch AI, 4-ch AO and 4-ch DI (RoHS)