



ET-7204

PET-7204

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

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
 - 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 (± 500 mV, ± 1 V, ± 5 V, ± 10 V, ± 20 mA, 0 to 20 mA and 4 to 20 mA), and analog outputs (± 5 V, ± 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.

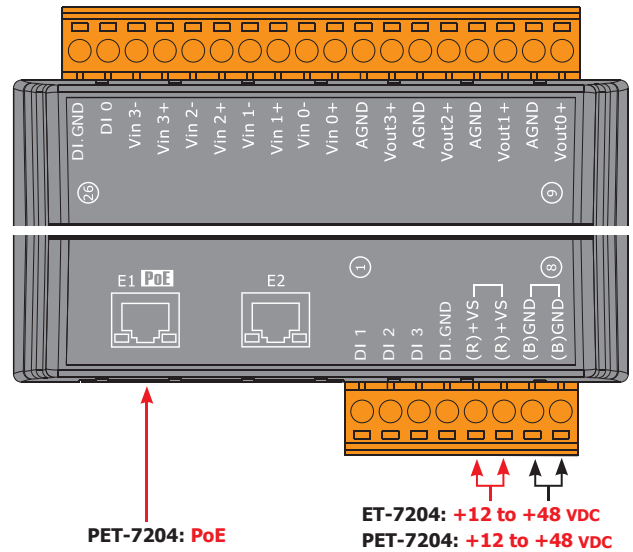
System Specifications

Model	ET-7204	PET-7204
Software		
Built-in Web Server	Yes	
CPU Module		
Watchdog Timer	Module, Communication (Programmable)	
2-Way Isolation		
Ethernet	1500 Vdc	-
I/O	2500 Vdc	
EMS Protection		
EFT (IEC 61000-4-4)	± 2 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)	± 2 kV for Power Line	
LED Indicators		
Status	Run, Ethernet, I/O	Run, Ethernet, I/O, PsoE
Ethernet		
Ports	2 x RJ-45, 10/100 Base-TX, Swtich Ports	
PoE	-	Yes
LAN bypass	Yes	
Access Control	ID, Password and IP Filter	
Protocol	Modbus TCP, Modbus UDP	
Power		
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	
Mechanical		
Dimensions (mm)	76 x 120 x 38 (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

Analog Input		
Channels	4 (Differential)	
Type	Voltage, Current	
Range	± 500 mV, ± 1 V, ± 5 V, ± 10 V $+0$ mA \sim $+20$ mA, ± 20 mA, 4 to 20 mA (Jumper Selectable)	
Resolution	16-bit	
Accuracy	Normal Mode	$\pm 0.1\%$
	Fast Mode	$\pm 0.5\%$ or better
Sampling Rate	Normal Mode	10 Hz (total channels)
	Fast Mode	50 Hz (total channels)
Input Impedance	Voltage	2 M Ω
	Current	125 Ω
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	
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	$\pm 0.1\%$ 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

	Input	
	Voltage (Default)	
	Output	
		J5 ~ J8 (Default)
Current	Input	
		J1 ~ J4
	Output	
		J5 ~ J8
Digital Input /Counter	ON State Readback as 1	OFF State Readback as 0
Dry Contact (Source)		
Wet Contact (Sink)		

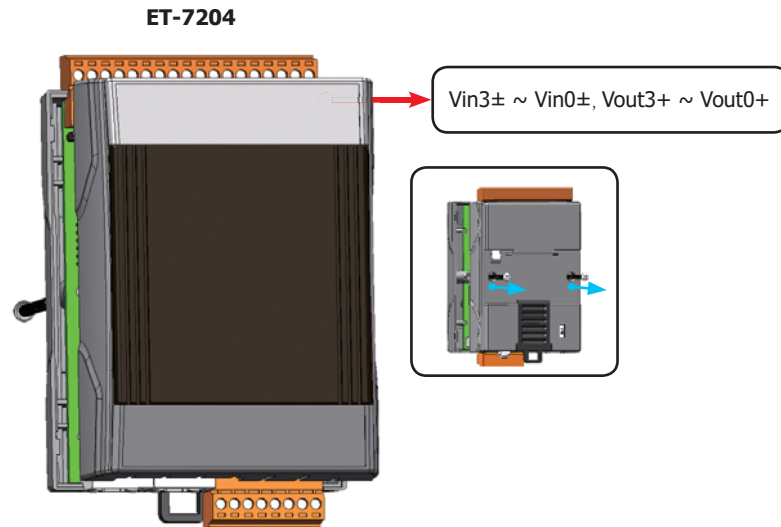
Ordering Information

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

Jumper

Notice:

1. Remove the top cover of the module before adjusting the jumper. Additionally, the screws for the ET-7200 are located on the back cover.



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

Channel	Vin3±	Vin2±	Vin1±	Vin0±	Vout3+	Vout2+	Vout1+	Vout0+
Jumper	J4	J3	J2	J1	J8	J7	J6	J5

