



ET-7028
PET-7028

ET-7228
PET-7228

Ethernet I/O Module with 8-ch AO

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: 8 Channels

Introduction

The ET-7028/PET-7028/ET-7228/PET-7228 is an 8 channels analog 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-7028/PET-7028 is fully RoHS compliant and provides 4 kV ESD protection as well as 2500 VDC intra-module isolation.

System Specifications

Model	ET-7028	PET-7028	ET-7228	PET-7228
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		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			
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	6 W (max.)	6 W (max.)	6 W (max.)	6 W (max.)
Powered from PoE	-	IEEE 802.3af, Class1	-	IEEE 802.3af, Class1
Powered from Terminal Block	+10 ~ +30 VDC	+12 ~ +48 VDC		
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			

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I/O Specifications

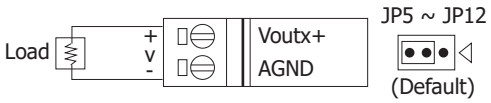
Analog Output	
Channels	8
Type	Voltage, Current
Range	+0 ~ +5 VDC, ±5 VDC, +0 ~ +10 VDC, ±10 VDC, 0 ~ 20 mA, 4 ~ 20 mA (Jumper Selectable, **Note1**)
Resolution	12-bit
Accuracy	±0.1% of FSR
Open Wire Detection	For 4 ~ 20 mA only
Voltage Output Capability	10 V @ 10 mA
Individual Channel Configuration	Yes
Current Load Resistance	500 Ω
Power on Value	Programmable
Safe Value	Programmable

Wire Connections

ET-7028/PET-7028

Voltage Output

Vout0 ~ Vout7



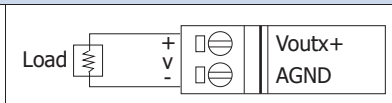
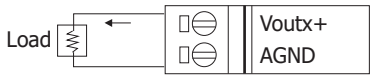
Current Output

Iout0 ~ Iout7

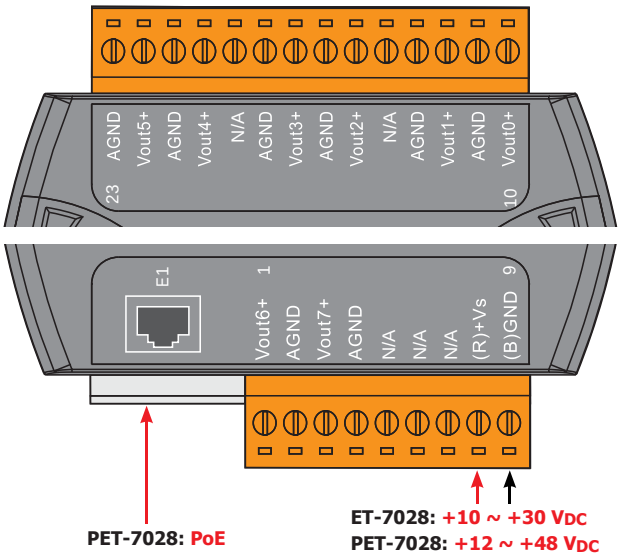


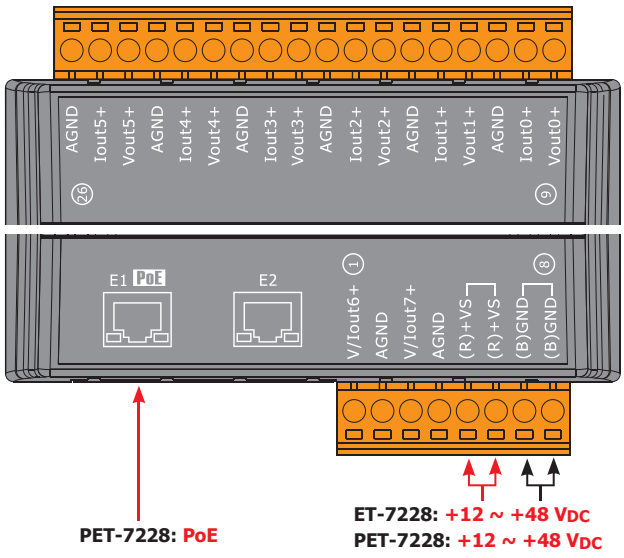
Note1: Only CH6 and CH7 of the (P)ET-7228 support jumper configuration.

ET-7228/PET-7228

Voltage Output		Current Output	
Vout0 ~ Vout5		Iout0 ~ Iout5	
Vout6 ~ Vout7		Iout6 ~ Iout7	

Pin Assignments





Ordering Information

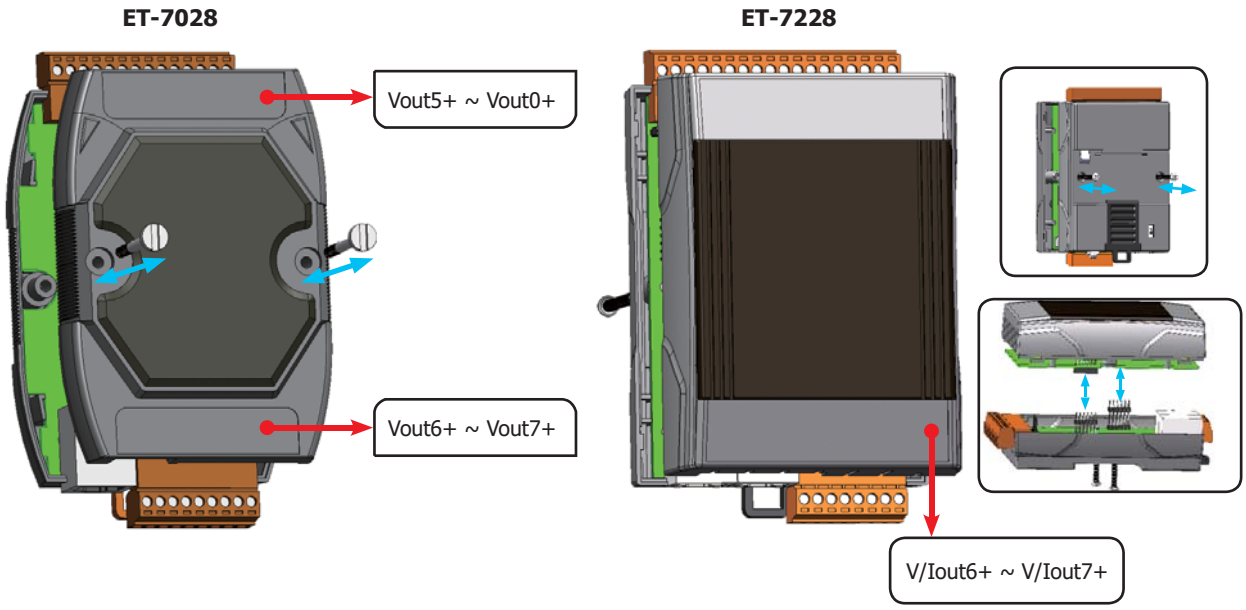
ET-7028 CR	PoE I/O Module with 8-ch AO
PET-7028 CR	PoE I/O Module with 8-ch AO (RoHS)
ET-7228 CR	Ethernet I/O Module with 2-port Ethernet Switch, 8-ch AO (RoHS)
PET-7228 CR	PoE I/O Module with 2-port Ethernet Switch, 8-ch AO (RoHS)

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Jumper

Notice:

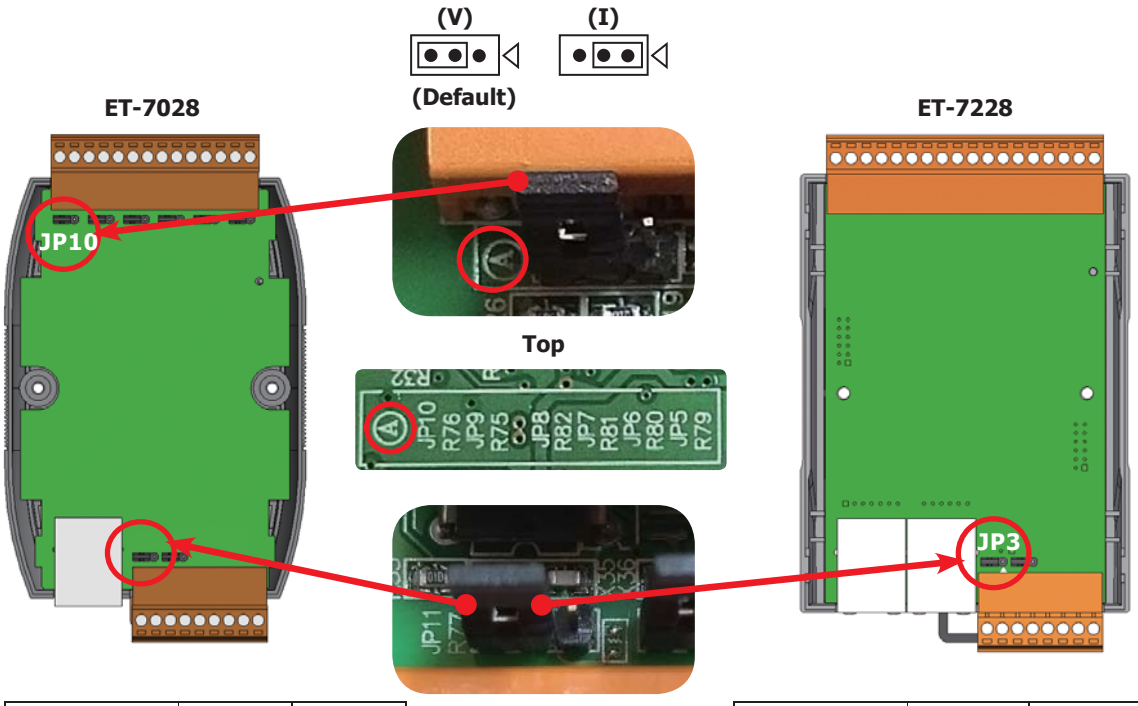
1. Before adjusting the jumpers, remove the module's top cover. For the ET-7200 series, the screws are located on the rear cover, and the CPU board must be removed as well.



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

Model	ET-7028					
Channel (Top)	Vout5+	Vout4+	Vout3+	Vout2+	Vout1+	Vout0+
Jumper	JP10	JP9	JP8	JP7	JP6	JP5

Note:
Only CH6 and CH7 of the (P)ET-7228 support jumpers.



Channel (Bottom)	Vout6+	Vout7+
Jumper	JP11	JP12

Channel (Bottom)	V/Iout6+	V/Iout7+
Jumper	JP3	JP4

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

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