



**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 ( $\pm 5\text{ V}$ ,  $\pm 10\text{ V}$ , 0 to 20 mA, and 4 to 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

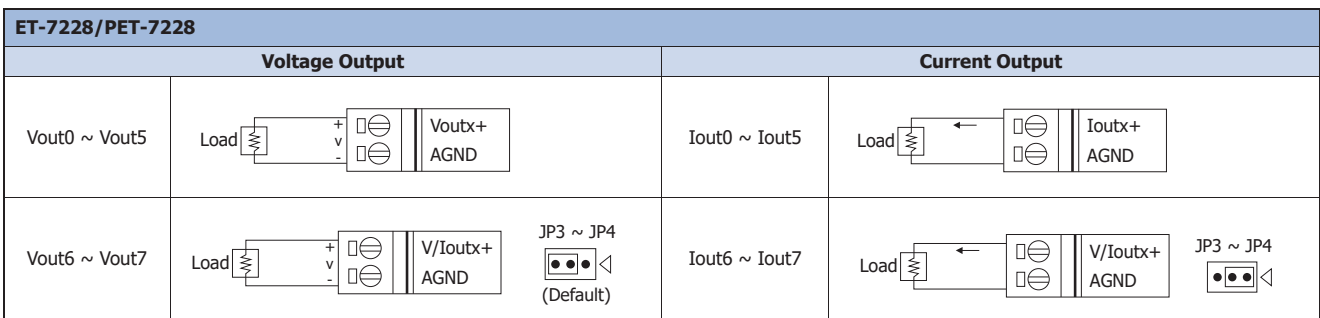
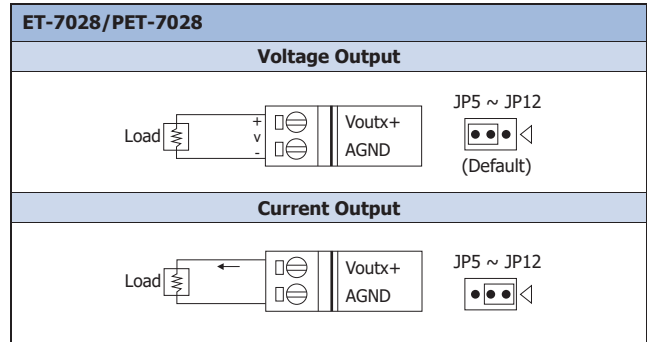
Model	ET-7028	PET-7028	ET-7228	PET-7228
<b>Software</b>				
Built-in Web Server	Yes			
<b>CPU Module</b>				
Watchdog Timer	Module, Communication (Programmable)			
<b>2-Way Isolation</b>				
Ethernet	1500 VDC	-	1500 VDC	-
I/O	2500 VDC		2500 VDC	
<b>EMS Protection</b>				
EFT (IEC 61000-4-4)	$\pm 4\text{ kV}$ for Power Line			
ESD (IEC 61000-4-2)	$\pm 4\text{ kV}$ Contact for Each Terminal $\pm 8\text{ kV}$ Air for Random Point			
<b>LED Indicators</b>				
Status	Run, Ethernet	Run, Ethernet, PoE	Run, Ethernet, I/O	Run, Ethernet, I/O, PoE
<b>Ethernet</b>				
Ports	1 x RJ-45, 10/100 Base-TX		2 x RJ-45, 10/100 Base-TX, Switch Ports	
PoE	-	Yes	-	Yes
LAN bypass	-		Yes	
Access Control	ID, Password and IP Filter			
Protocol	Modbus TCP, Modbus UDP			
<b>Power</b>				
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 to +30 VDC	+12 to +48 VDC		
<b>Mechanical</b>				
Dimensions (mm)	72 x 123 x 35 (W x L x H)		76 x 120 x 38 (W x L x H)	
Installation	DIN-Rail mounting			
<b>Environment</b>				
Operating Temperature	-25 ~ +75 °C			
Storage Temperature	-30 ~ +80 °C			
Humidity	10 ~ 90% RH, Non-condensing			

## I/O Specifications

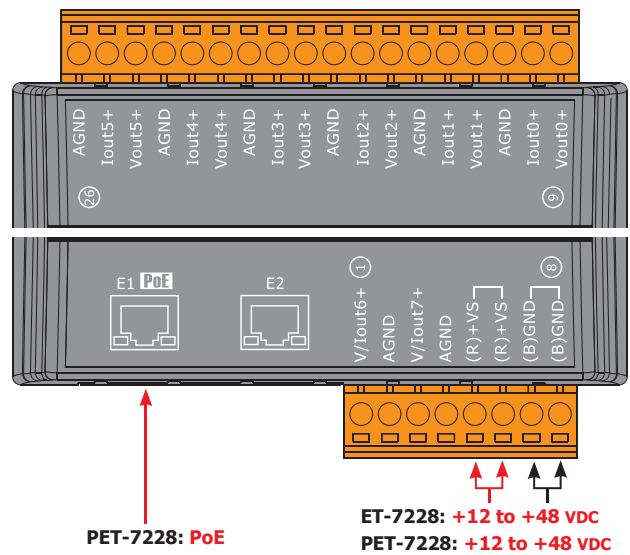
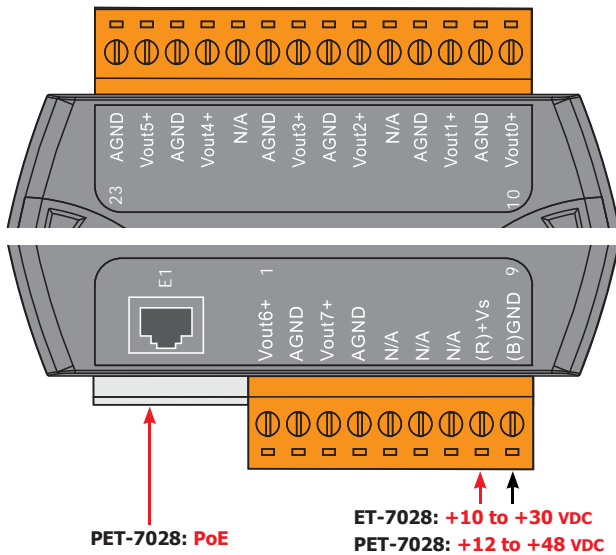
Analog Output	
Channels	8
Type	Voltage, Current
Range	+0 to +5 VDC, ±5 VDC, +0 to +10 VDC, ±10 VDC, 0 to 20 mA, 4 to 20 mA (Jumper Selectable, Note)
Resolution	12-bit
Accuracy	±0.1% of FSR
Open Wire Detection	For 4 to 20 mA only
Voltage Output Capability	10 V @ 10 mA
Individual Channel Configuration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

**Note:** Only (P)ET-7228's CH6 and CH7 support jumper.

## Wire Connections



## Pin Assignments



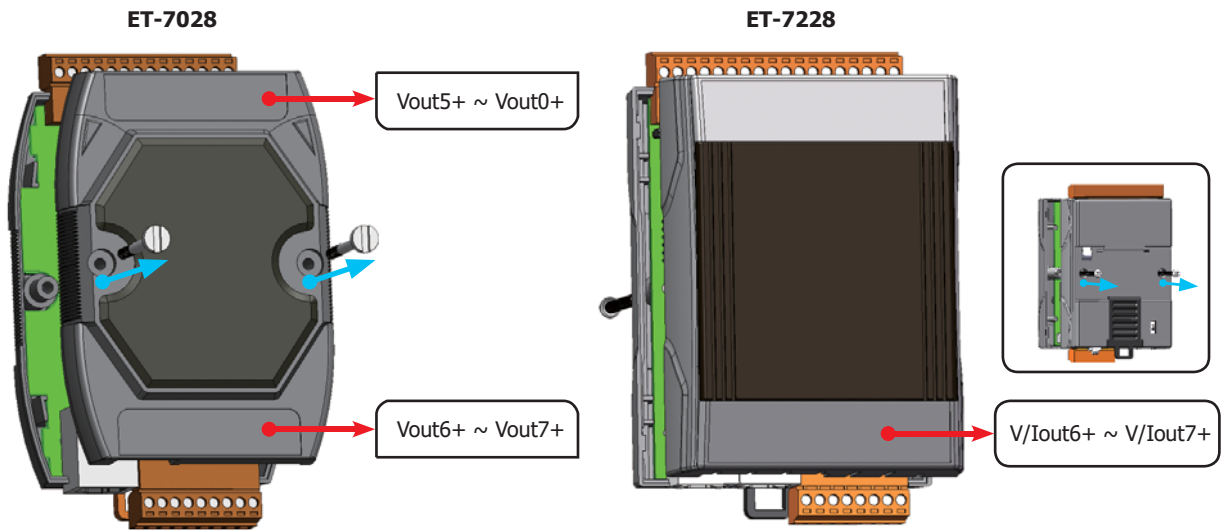
## Ordering Information

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

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

