



**ET-7028**  
**PET-7028**

**ET-7228**  
**PET-7228**

Ethernet I/O Module with 8-channels AO

## 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 ~ +75°C
- I/O Pair Connection
- Built-in I/O
  - AO: 8 Channels



## Introduction

The ET-7028/PET-7028/ET-7228/PET-7228 is a multifunction module with 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 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.

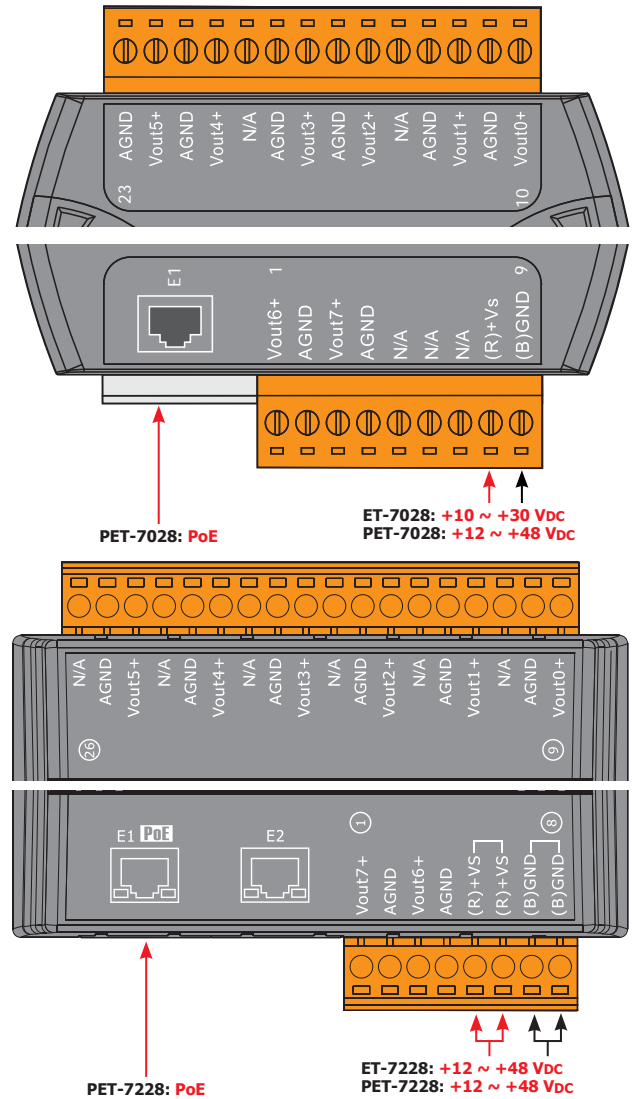
## System Specifications

Models	ET-7028	PET-7028	ET-7228	PET-7228
<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		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			
<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	6 W	6 W	6 W	6 W
<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 ~ +75°C			
Storage Temperature	-30 ~ +80°C			
Humidity	10 ~ 90% RH, Non-condensing			

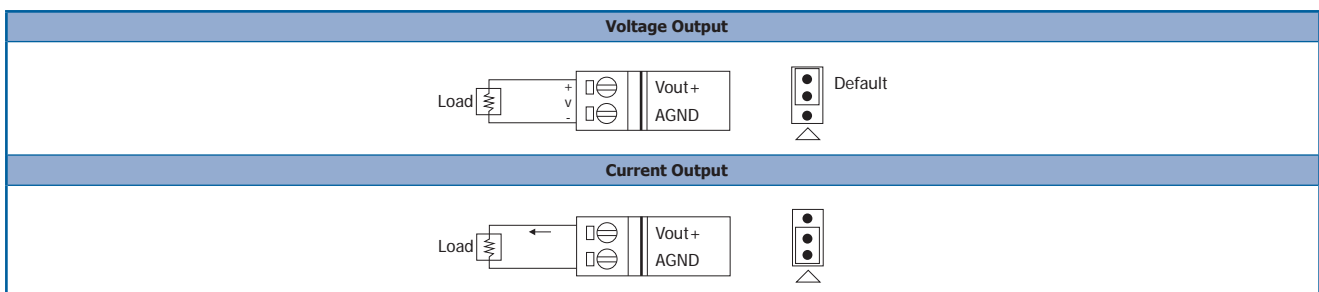
## I/O Specifications

Analog Output	
Channels	8
Type	+0 V <sub>DC</sub> ~ +5 V <sub>DC</sub> , +/-5 V <sub>DC</sub> , +0 V <sub>DC</sub> ~ +10 V <sub>DC</sub> , +/-10 V <sub>DC</sub> , +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 @ 10 mA
Current Load Resistance	500 Ω
Open Wire Detection	Yes, for 4 ~ 20 mA only
Power-on Value	Yes, Programmable
Safe Value	Yes, Programmable

## Pin Assignments



## Wire Connections



## Ordering Information

Art. No. 140483	<b>ET-7028 CR</b>	Ethernet I/O Module with 8-channels AO (RoHS)
Art. No. 140487	<b>PET-7028 CR</b>	PoE Ethernet I/O Module with 8-channels AO (RoHS)
Art. No. 140484	<b>ET-7228 CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, with 8-channels AO (RoHS)
Art. No. 140489	<b>PET-7228 CR</b>	PoE Ethernet I/O Module with 2-port Ethernet Switch, with 8-channels AO (RoHS)