



**ET-7017  
PET-7017**

**ET-7217  
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Ethernet I/O Module with 8-channel AI, 4-channel DO

### Features

- Built-in Web Server
- Web HMI
- Support for both Modbus TCP and Modbus UDP Protocols
- Communication Security
- 2-port Ethernet Switch for Daisy-Chain Topology
- Dual Watchdog
- Wide Operating Temperature Range: -25 to +75°C
- I/O Pair Connection
- Built-in I/O
  - AI: 8 Channels with 240 Vrms Overvoltage Protection
  - DO: 4 Channels



### Introduction

The ET-7017/PET-7017/ET-7217/PET-7217 is a module with 8-channel differential analog inputs and 4-channel digital outputs. It provides programmable input range on all analog channels (+/-150 mV, +/-500 mV, +/-1 V, +/-5 V, +/-10 V, +/-20 mA, 0 ~ 20 mA and 4 ~ 20 mA) and digital output can be set alarm output with Short-circuit protection and overload protection. Each analog channel is allowed to configure an individual range and has 240 Vrms high overvoltage protection. Each analog input can be programmed to accept voltage or current as input depending upon the position of corresponding jumper. The sampling rate of ET-7017/PET-7017/ET-7217/PET-7217 is changeable; there are fast mode and normal mode for your consideration. ET-7017/PET-7017/ET-7217/PET-7217 also has qualification for 4 kV ESD protection as well as 2500 VDC intra-module isolation.

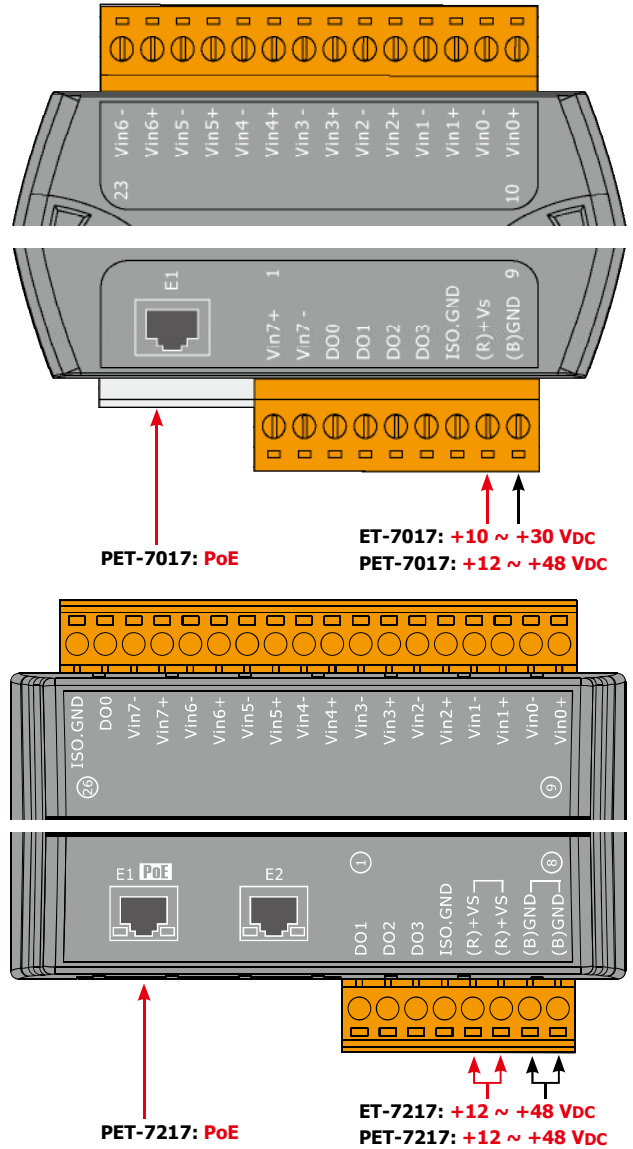
### System Specifications

Model	ET-7017	PET-7017	ET-7217	PET-7217
<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			
<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 Line		±2 kV for Power Line	
Surge (IEC 61000-4-5)	±0.5 kV for Power Line		±2 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	2.8 W (Max.)	3.2 W (Max.)	4.2 W (Max.)	4.4 W (Max.)
<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 to +75°C			
Storage Temperature	-30 to +80°C			
Humidity	10 to 90% RH, Non-condensing			

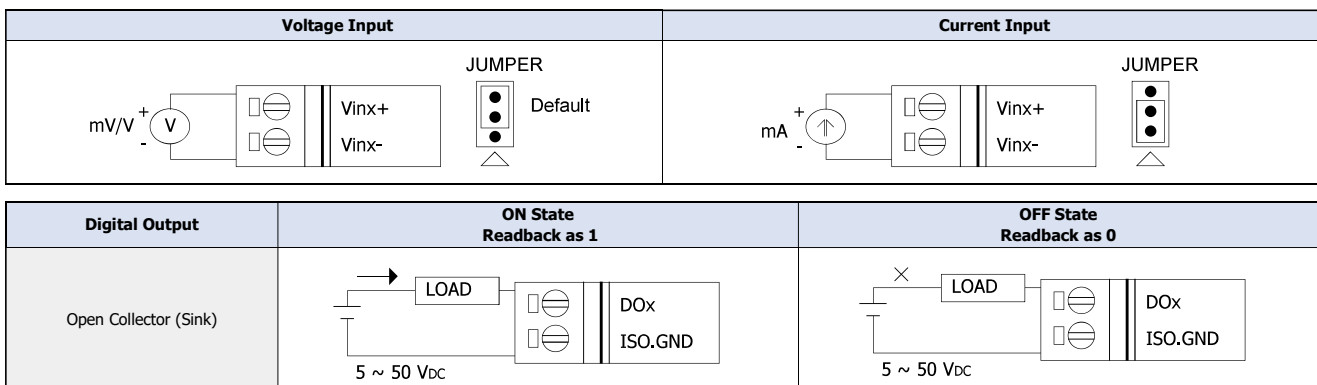
## I/O Specifications

Analog Input		
Channels	8 (Differential)	
Type	+/-150 mV, +/-500 mV, +/-1 V, +/-5 V, +/-10 V +/-20 mA, 0 ~ 20 mA, 4 ~ 20 mA (Jumper Selectable)	
Individual Channel Configuration	Yes	
Resolution	16-bit	
Sampling Rate	Normal Mode	10 Samples/Second (Total)
	Fast Mode	50 Samples/Second (Total)
Accuracy	Normal Mode	+/-0.1%
	Fast Mode	+/-0.5% or better
Zero Drift	+/-20 $\mu$ V/ $^{\circ}$ C	
Span Drift	+/-25 ppm/ $^{\circ}$ C	
Overvoltage Protection	240 V <sub>rms</sub>	
Common Voltage Protection	$\pm$ 200 V <sub>dc</sub>	
Overcurrent Protection	Yes, 50 mA at 110 V <sub>dc</sub>	
Virtual Channel to Channel Isolation	Yes, 400 V <sub>dc</sub>	
Open Wire Detection for 4 ~ 20 mA	Yes	
Input Impedance	Voltage	2 M $\Omega$
	Current	125 $\Omega$
Common Mode Rejection	86 dB Min.	
Normal Mode Rejection	100 dB	
Digital Output		
Channels	4	
Type	Isolated Open Collector	
Sink/Source (NPN/PNP)	Sink	
Max. Load Current	700 mA/Channel	
Load Voltage	5 V <sub>dc</sub> ~ 50 V <sub>dc</sub>	
Overvoltage Protection	60 V <sub>dc</sub>	
Overload Protection	1.4 A	
Short-circuit Protection	Yes	
Power-on Value	Yes, Programmable	
Safe Value	Yes, Programmable	

## Pin Assignments



## Wire Connections



## Ordering Information

<b>ET-7017 CR</b>	Ethernet I/O Module with 8-channel Analog Input, 4-channel Digital Output (RoHS)
<b>PET-7017 CR</b>	PoE Ethernet I/O Module with 8-channel Analog Input, 4-channel Digital Output (RoHS)
<b>ET-7217 CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, with 8-channel Analog Input, 4-channel Digital Output (RoHS)
<b>PET-7217 CR</b>	PoE Ethernet I/O Module with 2-port Ethernet Switch, with 8-channel Analog Input, 4-channel Digital Output (RoHS)