



**ET-7017-10**      **ET-7217-10**  
**PET-7017-10**    **PET-7217-10**

Ethernet I/O Module with 10/20-channels AI

### 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 ~ +75°C
- I/O Pair Connection
- Built-in I/O
  - AI: 10/20 Channels with 240 V<sub>rms</sub> Overvoltage Protection



### Introduction

The ET-7017-10/PET-7017-10/ET-7217-10/PET-7217-10 is a module with 10-channel differential or 20-channel single-ended analog inputs. 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). Each analog channel is allowed to configure an individual range and has 240 V<sub>rms</sub> 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-7017-10/PET-7017-10/ET-7217-10/PET-7217-10 has two modes; fast mode and normal mode for your consideration. ET-7017-10/PET-7017-10/ET-7217-10/PET-7217-10 also has qualification for 4 kV ESD protection as well as 3000 Vdc intra-module isolation.

### System Specifications

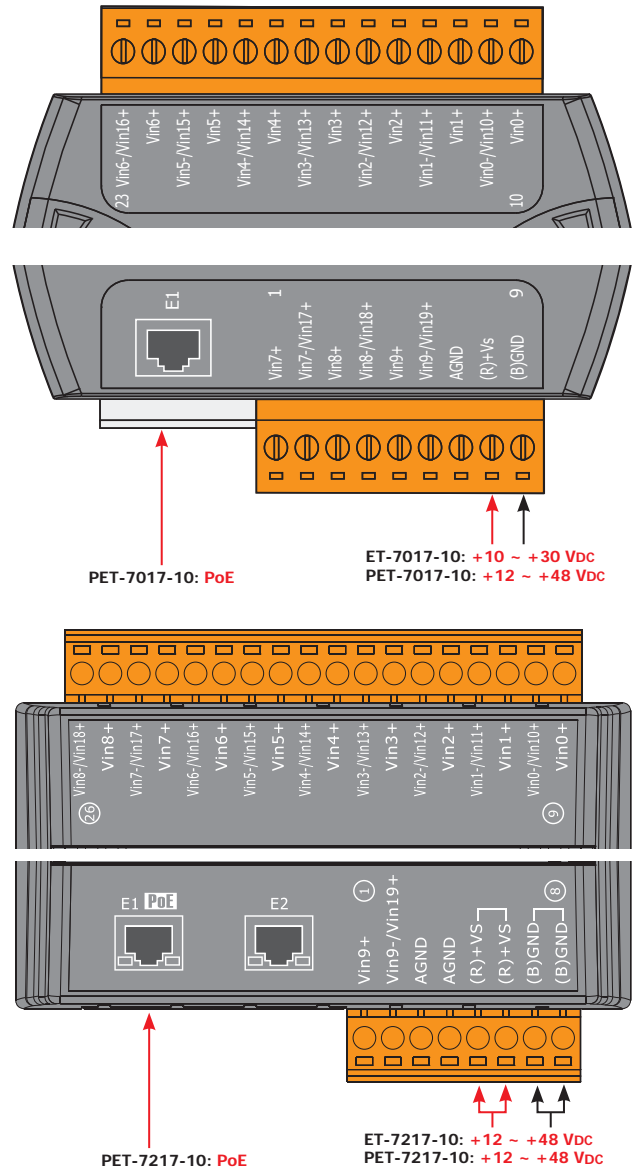
Models	ET-7017-10	PET-7017-10	ET-7217-10	PET-7217-10
<b>Software</b>				
Built-in Web Server			Yes	
Web HMI			Yes	
I/O Pair Connection			Yes	
<b>Communication</b>				
Ethernet Port	1 x RJ-45, 10/100 Base-TX		2 x RJ-45, 10/100 Base-TX, Switch Ports	
PoE	-	Yes	-	Yes
Protocol	Modbus TCP, Modbus UDP			
Security	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			-	
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		±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.)	3.3 W (Max.)	3.6 W (Max.)	3.8 W (Max.)
<b>Mechanical</b>				
Dimensions (L x W x H)	72 mm x 123 mm x 35 mm		76 mm x 120 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

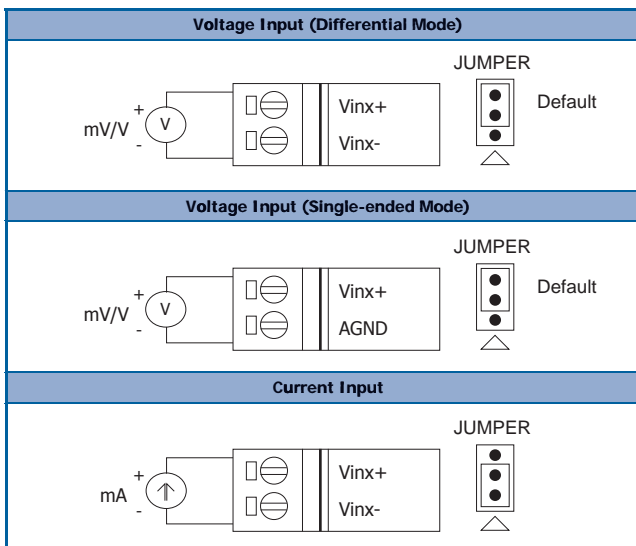
Analog Input		
Channels	10 differential or 20 single-ended (Note1), software selectable	
Type	+/-150 mV, +/-500 mV, +/-1 V, +/-5 V, +/-10 V +/-20 mA, 0 ~ 20 mA, 4 ~ 20 mA (Jumper Selectable)	
Individual Channel Configuration	Yes	
Resolution	16-bit	
Sampling Rate	Normal Mode	10 Samples/Second (Total)
	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	Differential	240 Vrms
	Single-ended	150 Vrms
Common Voltage Protection	$\pm$ 200 Vdc	
Overcurrent Protection	Yes, 50 mA at 110 Vdc	
Virtual Channel to Channel Isolation	Yes, 400 Vdc	
Open Wire Detection for 4 ~ 20 mA	Yes	
Input Impedance	Voltage	2 M $\Omega$ (Differential), 1 M $\Omega$ (Single-ended)
	Current	125 $\Omega$
Common Mode Rejection	86 dB Min.	
Normal Mode Rejection	100 dB	

Note1: Differential mode can be used for voltage input and current input.  
Single-Ended mode can be used for voltage input only.

### Pin Assignments



### Wire Connections



### Ordering Information

ET-7017-10 CR	Ethernet I/O Module with 10/20-channels AI (RoHS)
PET-7017-10 CR	PoE Ethernet I/O Module with 10/20-channels AI (RoHS)
ET-7217-10 CR	Ethernet I/O Module with 2-port Ethernet Switch, with 10/20-channels AI (RoHS)
PET-7217-10 CR	PoE Ethernet I/O Module with 2-port Ethernet Switch, with 10/20-channels AI (RoHS)