



## 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 Vrms 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 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-7017-10/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
Software				
Built-in Web Server			Yes	
Web HMI			Yes	
I/O Pair Connection			Yes	
Communication				
Ethernet Port	1 x RJ-45, 10/100 Base-TX		2 x RJ-45, 10/100 Base-TX, Swtich Ports	
PoE	-	Yes	-	Yes
Protocol	Modbus TCP, Modbus UDP			
Security	ID, Password and IP Filter			
Dual Watchdog	Yes, Module (0.8 seconds), Communication (Programmable)			
LED Indicators				
for System Running	Yes			
for Ethernet Link/Act	Yes			
for DI/DO status	-			
for PoE Power	-	Yes	-	Yes
2-Way Isolation				
Ethernet	1500 Vdc	-	1500 Vdc	-
I/O	2500 Vdc			
EMS Protection				
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	
Power				
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.)
Mechanical				
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			
Environment				
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/°C
Span Drift		+/-25 ppm/°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.		

## Wire Connections

Voltage Input (Differential Mode)	
	JUMPER Default
Voltage Input (Single-ended Mode)	
	JUMPER Default
Current Input	
	JUMPER Default

## 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)

## Pin Assignments

