



ET-7017-10
PET-7017-10

ET-7217-10
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Ethernet I/O Module with 10/20-ch AI

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
- 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 the 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 V_{DC} intra-module isolation.

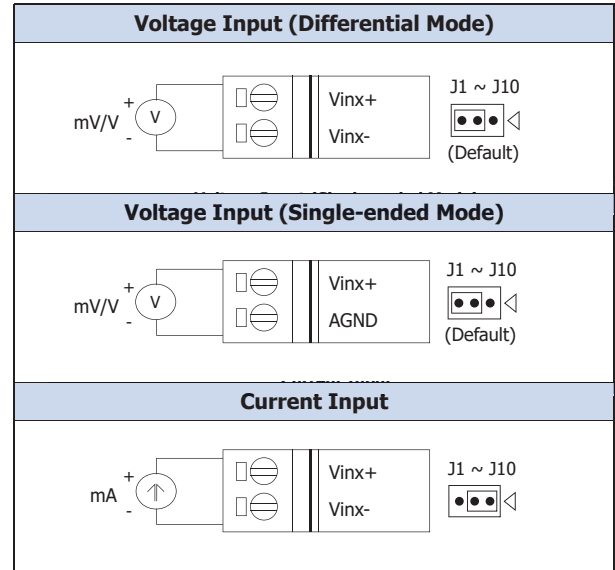
System Specifications

Model	ET-7017-10	PET-7017-10	ET-7217-10	PET-7217-10
Software				
Built-in Web Server	Yes			
CPU Module				
Watchdog Timer	Module, Communication (Programmable)			
2-Way Isolation				
Ethernet	1500 VDC	-	1500 VDC	-
I/O	2500 VDC			
EMS Protection				
EFT (IEC 61000-4-4)	±4 kV for Power Line		±2 kV for Power Line	
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal ±8 kV Air for Random Point			
Surge (IEC 61000-4-5)	±0.5 kV for Power Line		±2 kV for Power Line	
LED Indicators				
Status	Run, Ethernet	Run, Ethernet, PoE	Run, Ethernet, I/O	Run, Ethernet, I/O, PoE
Ethernet				
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			
Power				
Reverse Polarity Protection	Yes			
Consumption	2.8 W (max.)	3.3 W (max.)	3.6 W (max.)	3.8 W (max.)
Powered from PoE	-	IEEE 802.3af, Class1	-	IEEE 802.3af, Class1
Powered from Terminal Block	+10 ~ +30 VDC		+12 ~ +48 VDC	
Mechanical				
Dimensions (mm)	72 x 123 x 35 (W x L x H)		76 x 120 x 42 (W x L x H)	
Installation	DIN-Rail Mounting			
Environment				
Operating Temperature	-25 ~ +75 °C			
Storage Temperature	-30 ~ +80 °C			
Humidity	10 ~ 90% RH, Non-condensing			

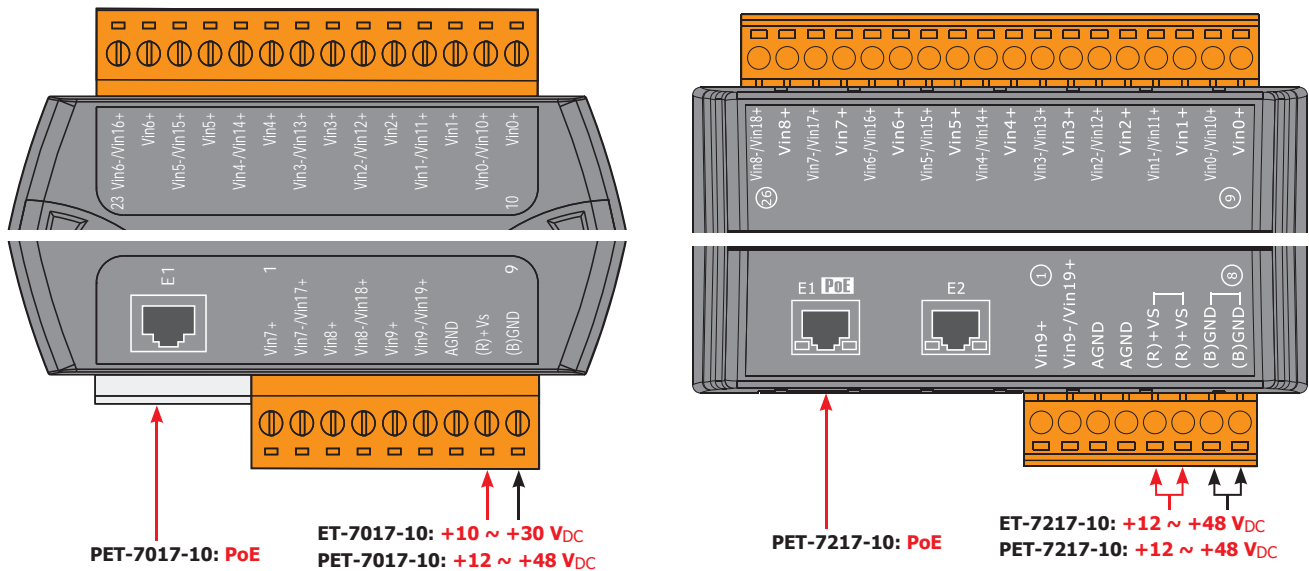
I/O Specifications

Analog Input		
Channels	10 differential or 20 single-ended (Note1), software selectable	
Type	Voltage, Current	
Range	±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±20 mA, 0 ~ 20 mA, 4 ~ 20 mA (Jumper Selectable)	
Resolution	16-bit	
Accuracy	Normal Mode	±0.1%
	Fast Mode	±0.5% or better
Sampling Rate	Normal Mode	10 Hz (total channels)
	Fast Mode	50 Hz (total channels)
Input Impedance	Voltage	2 MΩ (Differential), 1 MΩ (Single-ended)
	Current	125 Ω
Common Voltage Protection	±200 V _{DC}	
Overvoltage Protection	Differential	240 V _{rms}
	Single-ended	150 V _{rms}
Overcurrent Protection	50 mA at 110 V _{DC} (max.)	
Individual Channel Configuration	Yes	
Open Wire Detection	For 4 ~ 20 mA only	
Virtual Channel to Channel Isolation	±400 V _{DC}	
Note1: Differential mode can be used for voltage input and current input. Single-ended mode can be used for voltage input only.		

Wire Connections



Pin Assignments



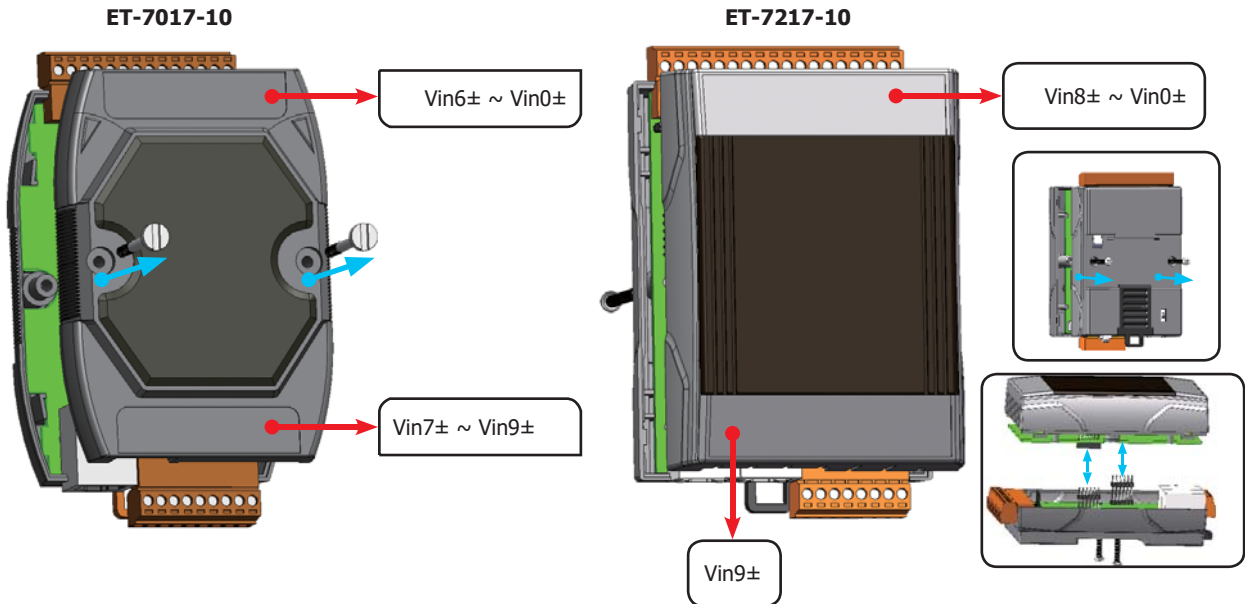
Ordering Information

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

Jumper

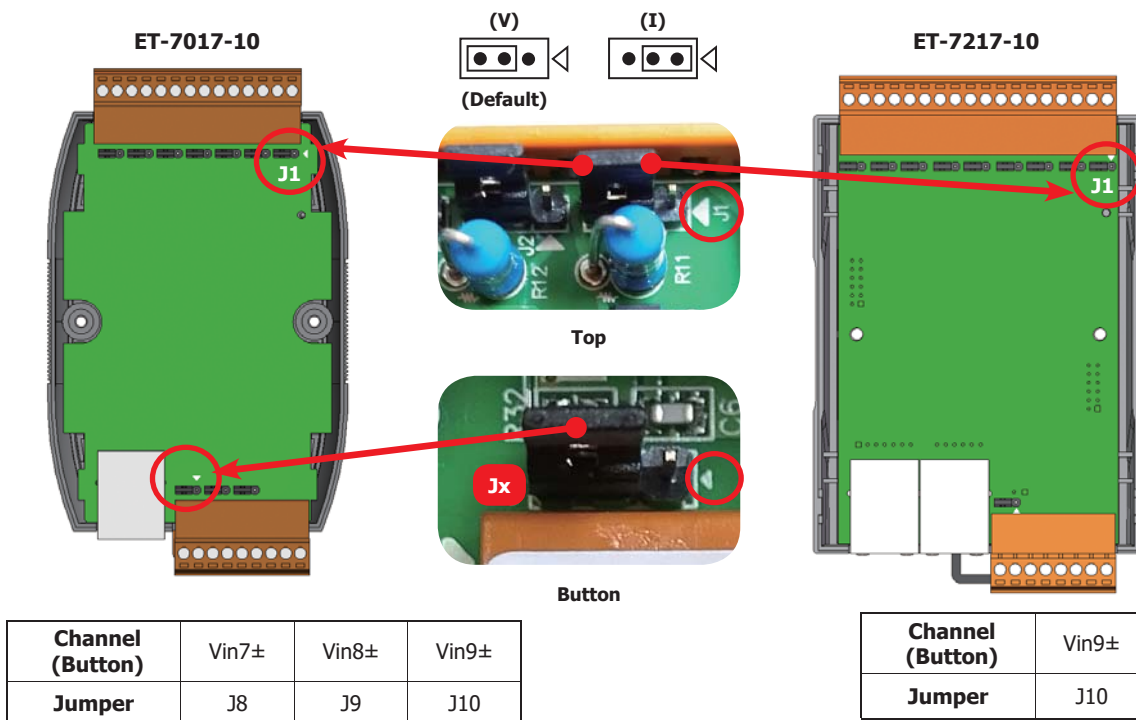
Notice:

- Before adjusting the jumpers, remove the module's top cover. For the ET-7200 series, the screws are located on the rear cover, and the CPU board must be removed as well.



- Users can locate the Jx/JPx jumpers on the board by checking the I/O labels on the cover.

Model	ET-7217-10								
	ET-7017-10								
Channel (Top)	Vin8±	Vin7±	Vin6±	Vin5±	Vin4±	Vin3±	Vin2±	Vin1±	Vin0±
Jumper	J9	J8	J7	J6	J5	J4	J3	J2	J1



Channel (Button)	Vin7±	Vin8±	Vin9±
Jumper	J8	J9	J10

Channel (Button)	Vin9±
Jumper	J10

- After adjusting the jumpers, reinstall the top cover (along with the CPU board) and secure the screws.