



Ethernet I/O Modules



AI Module

Features

- PoE and Regular Ethernet Options
- Built-In Web Server
- Web HMI
- Modbus/TCP, Modbus/UDP Protocol
- Communication Security
- Dual Watchdog
- Operating Temperature: -25 ~ +75 °C
- I/O Pair Connection
- Built-In I/O
- AI: 10/20 Channels



Introduction

The ET-7000/PET-7000, a web-based Ethernet I/O module, features a built-in web server which allows configuration, I/O monitoring and I/O control by simply using a regular web browser. Remote control is as easy as surfing the Internet.

Besides, with the web HMI function, no more programming or HTML skills are required; creating dynamic and attractive web pages for I/O monitoring and I/O control would be fun to engineers ever after. The ET-7000/PET-7000 offers easy and safe access for users from anytime and anywhere! In addition, the ET-7000/PET-7000 also supports Modbus/TCP protocol that makes perfect integration to SCADA software.

Furthermore, PET-7000 features "PoE" that not only data but also power is carried through an Ethernet cable. This feature makes installation of PET-7000 a piece of cake. Imagine that no more unnecessary wires, only an Ethernet cable takes care of everything in the field.

The ET-7017-10 is a 16-bit, 10-channel differential or 20-channel single-ended analog inputs module that 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_{rms} high overvoltage protection. Jumper selectable for voltage or current input. The sampling rate of ET-7017/PET-7017 is changeable; there are fast mode and normal mode for your consideration. ET-7017/PET-7017 also has qualification for 4 kV ESD protection as well as 3000 V_{oc} intra-module isolation.

Applications

Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote diagnosis, Testing Equipment.

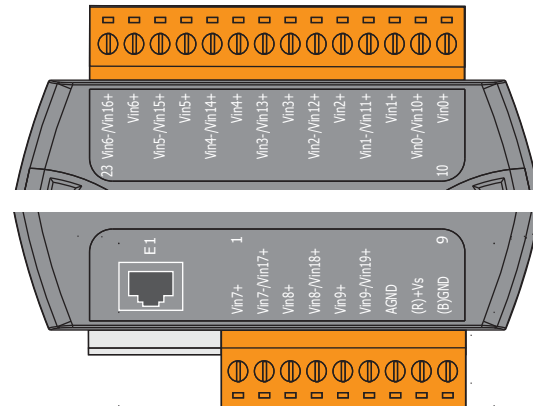
System Specifications

Models	ET-7017-10		PET-7017-10
Software			
Built-In Web Server	Yes		
Web HMI	Yes		
I/O Pair Connection	Yes		
Communication			
Ethernet Port	10/100 Base-TX with Auto MDI/MDI-X		
Protocol	Modbus/TCP, Modbus/UDP		
Security	ID, Password and IP Filter		
Dual Watchdog	Yes, Module (0.8 second), Communication (Programmable)		
LED Indicators			
L1 (System Running)	Yes		
L2 (Ethernet Link/Act)	Yes		
L3 (Ethernet 10/100 M Speed)	Yes		
PoE Power	-	Yes	
2 Way Isolaiton			
Ethernet	1500 V _{oc}	-	
I/O	2500 V _{oc}	2500 V _{oc}	
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		
Power Requirements			
Reverse Polarity Protectionn	Yes		
Powered from terminal block	Yes, 10 ~ 30 V _{oc}	Yes, 12 ~ 48 V _{oc}	
Powered from PoE	-	Yes, IEEE 802.3af, Class1	
Consumption	2.6 W	3.8 W	
Mechanical			
Dimensions (W x L x D)	72 mm x 123 mm x 35 mm		
Installation	DIN-Rail or Wall mounting		
Environment			
Operating Temperature	-25 °C ~ +75 °C		
Storage Temperature	-30 °C ~ +80 °C		
Humidity	10 ~ 90% RH, non-condensing		

I/O Specifications

Analog Input		
Input Channels		10 differential or 20 single-ended (Note1), software selectable
Input Type		+/-150 mV, +/-500 mV, +/-1V, +/-5V, +/-10V +/-20 mA, 0 ~ 20 mA, 4 ~ 20 mA (jumper selectable)
Individual Channel Configuration		Yes
Resolution	Normal Mode	16-bit
	Fast Mode	12-bit
Sampling Rate	Normal Mode	10 Samples/Sec. (Total)
	Fast Mode	60 Samples/Sec. (Total)
Accuracy	Normal Mode	+/-0.1%
	Fast Mode	+/-0.5% or better
Zero Drift		+/-20 μ V/°C
Span Drift		+/-25 ppm/°C
Overvoltage Protection	Differential	240 V _{rms}
	Single-ended	150 V _{rms}
Input Impedance	Voltage	2 M Ω (Differential), 1 M Ω (Single-ended)
	Current	125 Ω
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 Assignment



Wire Connection

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

Ordering Information

ET-7017-10	10/20-channel Analog Input Module with High Voltage Protection Module (RoHS)
PET-7017-10	10/20-channel Analog Input Module with High Voltage Protection PoE Module (RoHS)

Accessories

	NS-205 CR	Unmanaged 5-port Industrial Ethernet Switch; requires 24 V _{oc} Input (RoHS)
	NS-205PSE CR	Unmanaged Ethernet switch with 4-PoE and 1 RJ45 uplink; requires 48 V _{oc} Input (RoHS)
	NS-205PSE-24V CR	Unmanaged Ethernet switch with 4-PoE and 1 RJ45 uplink; requires 24 V _{oc} Input (RoHS)
	MDR-20-24 CR	24V/1A, 24 W Power Supply with DIN-Rail Mounting (RoHS)
	DIN-KA52F-48 CR	48V/0.52A, 25 W Power Supply with DIN-Rail Mounting (RoHS)