



### AI and DO 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: 8 Channels
  - DO: 4 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/PET-7017 is a 16-bit, 8-channel differential analog inputs and 4-channel digital outputs 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) 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 V<sub>rms</sub> 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<sub>oc</sub> intra-module isolation.

### Applications

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

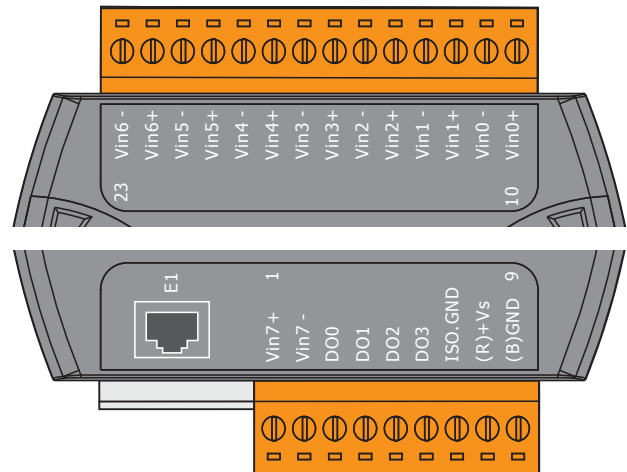
### System Specifications

Models	ET-7017	PET-7017
<b>Software</b>		
Built-In Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
<b>Communication</b>		
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)	
<b>LED Indicators</b>		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	-	Yes
<b>2 Way Isolation</b>		
Ethernet	1500 V <sub>oc</sub>	-
I/O	2500 V <sub>oc</sub>	2500 V <sub>oc</sub>
<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	
<b>Power Requirements</b>		
Reverse Polarity Protection	Yes	
Powered from terminal block	Yes, 10 ~ 30 V <sub>oc</sub>	Yes, 12 ~ 48 V <sub>oc</sub>
Powered from PoE	-	Yes, IEEE 802.3af, Class1
Consumption	2.6 W	3.1 W
<b>Mechanical</b>		
Dimensions (W x L x D)	72 mm x 123 mm x 35 mm	
Installation	DIN-Rail or Wall mounting	
<b>Environment</b>		
Operating Temperature	-25 °C ~ +75 °C	
Storage Temperature	-30 °C ~ +80 °C	
Humidity	10 ~ 90% RH, non-condensing	

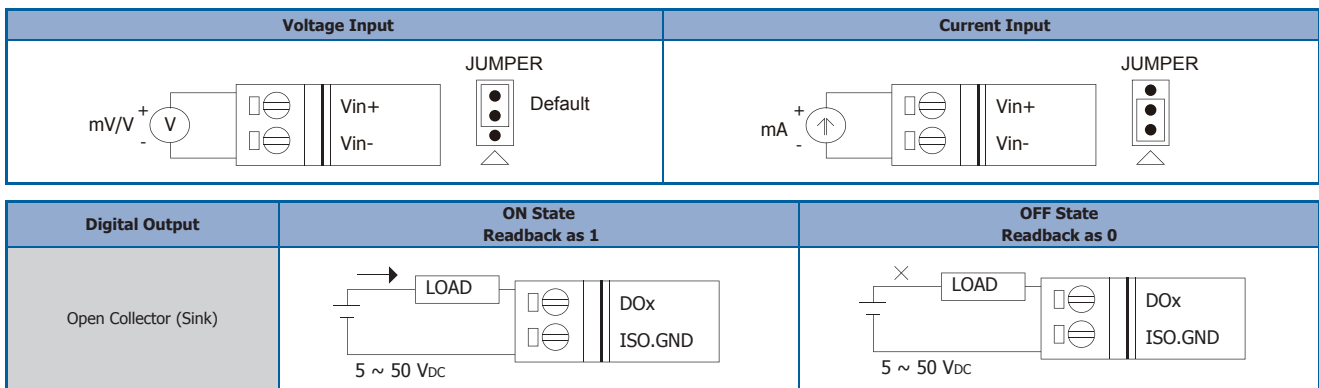
### I/O Specifications

Analog Input		
Input Channels	8 (Differential)	
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 uV/°C	
Span Drift	+/-25 ppm/°C	
Overvoltage Protection	240 V <sub>rms</sub>	
Input Impedance	Voltage	2 MΩ
	Current	125 Ω
Common Mode Rejection	86 dB Min.	
Normal Mode Rejection	100 dB	
Digital Output		
Output Channels	4	
Type	Isolated Open Collector (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 Assignment



### Wire Connection



### Ordering Information

ET-7017 CR	8-channel Analog Input with High Voltage Protection and 4-channel Isolated Digital Output Module (RoHS)
PET-7017 CR	8-channel Analog Input with High Voltage Protection and 4-channel Isolated Digital Output PoE Module (RoHS)

### Accessories

NS-205 CR	Unmanaged 5-port Industrial Ethernet Switch; requires 24 V <sub>DC</sub> Input (RoHS)
NS-205PSE CR	Unmanaged Ethernet switch with 4-PoE and 1 RJ45 uplink; requires 48 V <sub>DC</sub> Input (RoHS)
NS-205PSE-24V CR	Unmanaged Ethernet switch with 4-PoE and 1 RJ45 uplink; requires 24 V <sub>DC</sub> 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)