



## Ethernet I/O Modules



### 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
- DO: 16 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.

### Applications

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

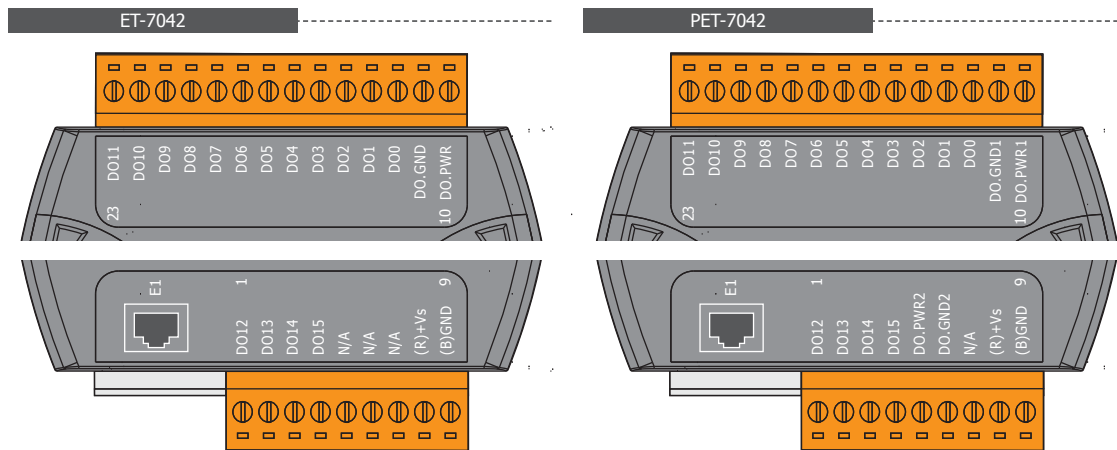
### System Specifications

| Models                       | ET-7042                                                |                              | PET-7042 |
|------------------------------|--------------------------------------------------------|------------------------------|----------|
| 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 <sub>DC</sub>                                   | -                            |          |
| I/O                          | 3750 V <sub>rms</sub>                                  | 3750 V <sub>rms</sub>        |          |
| EMS Protection               |                                                        |                              |          |
| ESD (IEC 61000-4-2)          | 4 kV Contact for each terminal                         |                              |          |
| EFT (IEC 61000-4-4)          | +/-2 kV for Power                                      |                              |          |
| Power Requirements           |                                                        |                              |          |
| Reverse Polarity Protectionn | Yes                                                    |                              |          |
| Powered from terminal block  | Yes, 10 ~ 30 V <sub>DC</sub>                           | Yes, 12 ~ 48 V <sub>DC</sub> |          |
| Powered from PoE             | -                                                      | Yes, IEEE 802.3af, Class1    |          |
| Consumption                  | 2.7 W                                                  | 4.3 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

| Models                   | ET-7042                                                    | PET-7042           |
|--------------------------|------------------------------------------------------------|--------------------|
| <b>Digital Output</b>    |                                                            |                    |
| Output Channels          | 16                                                         |                    |
| Type                     | Isolated Open Collector (Sink)                             |                    |
| Max. Load Current        | 100 mA/channel at 25 °C<br>Direct drive power relay module |                    |
| Load Voltage             | +5 V <sub>DC</sub> ~ +30 V <sub>DC</sub>                   |                    |
| Overvoltage Protection   | -                                                          | 60 V <sub>DC</sub> |
| Overload Protection      | -                                                          | 1.3 A              |
| Short-circuit Protection | -                                                          | Yes                |
| Power On Value           | Yes, Programmable                                          |                    |
| Safe Value               | Yes, Programmable                                          |                    |

## Pin Assignment



## Wire Connection

| Output Type     | ON State<br>Readback as 1 | OFF State<br>Readback as 0 |
|-----------------|---------------------------|----------------------------|
| Drive Relay     |                           |                            |
| Resistance Load |                           |                            |

## Ordering Information

|             |                                                                               |
|-------------|-------------------------------------------------------------------------------|
| ET-7042 CR  | 16-channel Isolated Sink Type Open Collector Digital Output Module (RoHS)     |
| PET-7042 CR | 16-channel Isolated Sink Type Open Collector Digital Output PoE Module (RoHS) |

## Accessories

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