



**ET-7052**  
**PET-7052**

**ET-7252**  
**PET-7252**

Ethernet I/O Module with 8-channels DI, 8-channels DO

### 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
  - DI/Counter: 8 Channels
  - DO: 8 Channels



### Introduction

The ET-7052/PET-7052/ET-7252/PET-7252 provides 8 wet contact digital input channels and 8 source-type digital output channels. It features optical isolation for 2500 Vdc of transient overvoltage protection but doesn't provide channel-to-channel isolation. Each input channel can be used as a 32-bit counter and each output channel can drive 650 mA load. The power-on value and safe value of digital output channel are programmable. It can safely be used in applications where hazardous voltages are present.

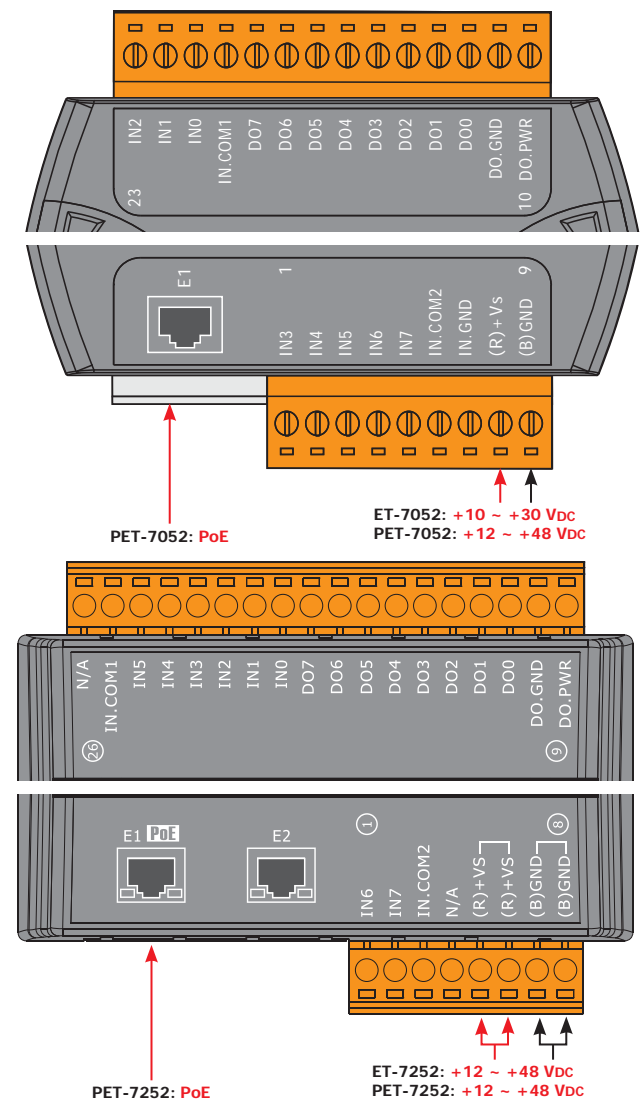
### System Specifications

| Models                      | ET-7052  | PET-7052                  | ET-7252                                 | PET-7252                  |
|-----------------------------|--|---------------------------|---|---------------------------|
| <b>Software</b>             |  |                           |   |                           |
| Built-in Web Server         |  |                           | Yes                                     |                           |
| Web HMI                     |  |                           | Yes                                     |                           |
| I/O Pair Connection         |  |                           | Yes                                     |                           |
| <b>Communication</b>        |  |                           |   |                           |
| Ethernet Port               | 1 x RJ-45, 10/100 Base-TX                                      |                           | 2 x RJ-45, 10/100 Base-TX, Switch Ports |                           |
| PoE                         | -  | Yes                       | -                                       | Yes                       |
| Protocol                    | Modbus TCP, Modbus UDP   |                           |   |                           |
| Security                    | ID, Password and IP Filter                                     |                           |   |                           |
| Dual Watchdog               | Yes, Module (0.8 seconds), Communication (Programmable)        |                           |   |                           |
| <b>LED Indicators</b>       |  |                           |   |                           |
| for System Running          |  |                           | Yes                                     |                           |
| for Ethernet Link/Act       |  |                           | Yes                                     |                           |
| for DI/DO status            |  | -                         |   | Yes                       |
| for PoE Power               | -  | Yes                       | -                                       | Yes                       |
| <b>2-Way Isolation</b>      |  |                           |   |                           |
| Ethernet                    | 1500 Vdc   | -                         | 1500 Vdc                                | -                         |
| I/O                         | 2500 Vdc   |                           | 2500 Vdc                                |                           |
| <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 Line Line                                      |                           | ±2 kV for Power Line                    |                           |
| Surge (IEC 61000-4-5)       | ±0.5 kV for Power Line   |                           | ±2 kV for Power Line                    |                           |
| <b>Power</b>                |  |                           |   |                           |
| 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                 | 2.5 W (Max.)   | 2.5 W (Max.)              | 3.4 W (Max.)                            | 3.5 W (Max.)              |
| <b>Mechanical</b>           |  |                           |   |                           |
| Dimensions (L x W x H)      | 123 mm x 72 mm x 35 mm   |                           | 120 mm x 76 mm x 38 mm                  |                           |
| Installation                | DIN-Rail or Wall Mounting                                      |                           |   |                           |
| <b>Environment</b>          |  |                           |   |                           |
| Operating Temperature       | -25 ~ +75°C  |                           |   |                           |
| Storage Temperature         | -30 ~ +80°C  |                           |   |                           |
| Humidity                    | 10 ~ 90% RH, Non-condensing                                    |                           |   |                           |

### I/O Specifications

| Models                       | ET-7052                 | PET-7052                | ET-7252 | PET-7252 |
|------------------------------|-------------------------|-------------------------|---------|----------|
| <b>Digital Input/Counter</b> |                         |                         |         |          |
| Channels                     | 8                       |                         |         |          |
| Contact                      | Wet Contact             |                         |         |          |
| Sink/Source (NPN/PNP)        | Sink/Source             |                         |         |          |
| On Voltage Level             | +10 Vdc ~ +50 Vdc       |                         |         |          |
| Off Voltage Level            | +4 Vdc Max.             |                         |         |          |
| Input Impedance              | 10 kΩ                   |                         |         |          |
| Counters                     | Max. Count              | 4,294,967,295 (32 bits) |         |          |
|                              | Max. Input Frequency    | 500 Hz                  | 100 Hz  |          |
|                              | Min. Pulse Width        | 1 ms                    | 5 ms    |          |
| Overvoltage Protection       | +70 Vdc                 |                         |         |          |
| <b>Digital Output</b>        |                         |                         |         |          |
| Channels                     | 8                       |                         |         |          |
| Type                         | Isolated Open Collector |                         |         |          |
| Sink/Source (NPN/PNP)        | Source                  |                         |         |          |
| Max. Load Current            | 650 mA/channel at 25°C  |                         |         |          |
| Load Voltage                 | +10 Vdc ~ +40 Vdc       |                         |         |          |
| Overvoltage Protection       | 47 Vdc                  |                         |         |          |
| Overload Protection          | -                       |                         |         |          |
| Short-circuit Protection     | Yes                     |                         |         |          |
| Power-on Value               | Yes, Programmable       |                         |         |          |
| Safe Value                   | Yes, Programmable       |                         |         |          |

### Pin Assignments



### Wire Connections

| Digital Input/Counter | Readback as 1<br>+10 ~ +50 Vdc | Readback as 0<br>OPEN or <4 Vdc |
|-----------------------|--------------------------------|---------------------------------|
| Sink                  |                                |                                 |
| Source                |                                |                                 |
| Digital Output        | ON State<br>Readback as 1      | OFF State<br>Readback as 0      |
| Source                |                                |                                 |

### Ordering Information

|                    |   |
|--------------------|---|
| <b>ET-7052 CR</b>  | Ethernet I/O Module with 8-channels DI, 8-channels DO (RoHS)                                  |
| <b>PET-7052 CR</b> | PoE Ethernet I/O Module with 8-channels DI, 8-channels DO (RoHS)                              |
| <b>ET-7252 CR</b>  | Ethernet I/O Module with 2-port Ethernet Switch, with 8-channels DI, 8-channels DO (RoHS)     |
| <b>PET-7252 CR</b> | PoE Ethernet I/O Module with 2-port Ethernet Switch, with 8-channels DI, 8-channels DO (RoHS) |