



ET-7051
PET-7051

ET-7251
PET-7251

Ethernet I/O Module with 16-channels DI

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: 16 Channels



Introduction

The ET-7051/PET-7051/ET-7251/PET-7251 provides 16 wet contact digital input channels. Each input channel can be used as a 32-bit counter. It features optical isolation for 3750 V_{rms} of transient overvoltage protection but doesn't provide channel-to-channel isolation. It can safely be used in applications where hazardous voltages are present.

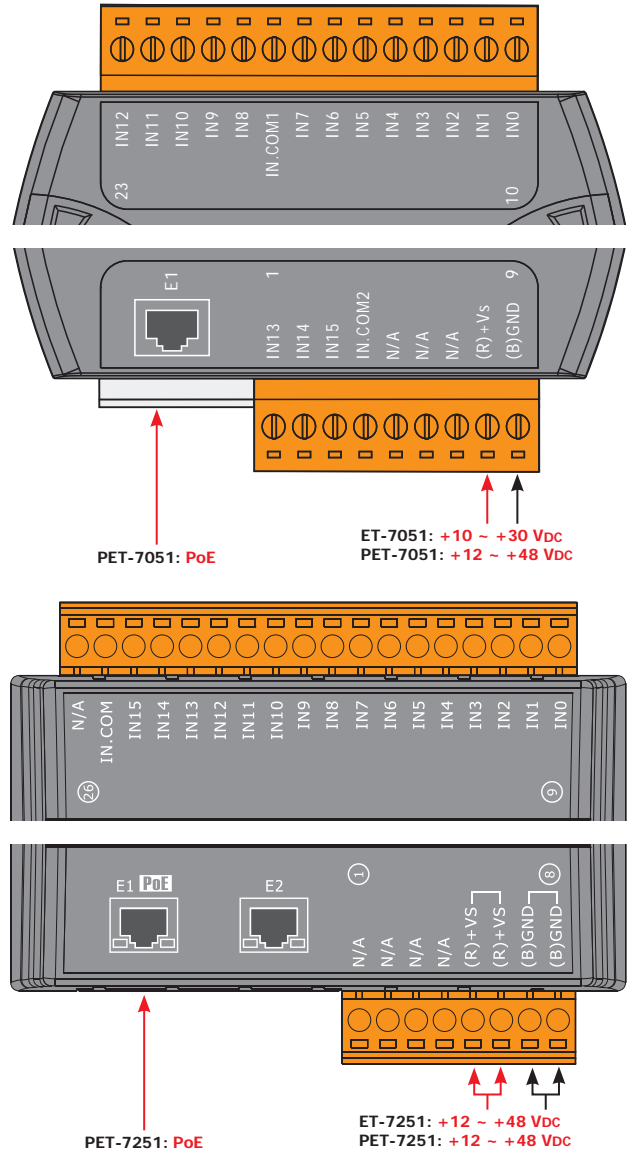
System Specifications

| Models | ET-7051 | PET-7051 | ET-7251 | PET-7251 |
|-----------------------------|--|---------------------------|---|---------------------------|
| Software | | | | |
| Built-in Web Server | | | Yes | |
| Web HMI | | | Yes | |
| I/O Pair Connection | | | Yes | |
| Communication | | | | |
| 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) | | | |
| LED Indicators | | | | |
| for System Running | | | Yes | |
| for Ethernet Link/Act | | | Yes | |
| for DI/DO status | | - | | Yes |
| for PoE Power | - | Yes | - | Yes |
| 2-Way Isolation | | | | |
| Ethernet | 1500 Vdc | - | 1500 Vdc | - |
| I/O | 2500 Vdc | | 2500 Vdc | |
| 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 Line | | | |
| Power | | | | |
| 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 | 2.1 W (Max.) | 2.1 W (Max.) | 2.9 W (Max.) | 3.1 W (Max.) |
| Mechanical | | | | |
| 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 | | | |
| Environment | | | | |
| Operating Temperature | -25 ~ +75°C | | | |
| Storage Temperature | -30 ~ +80°C | | | |
| Humidity | 10 ~ 90% RH, Non-condensing | | | |

I/O Specifications

| Models | ET-7051 | PET-7051 | ET-7251 | PET-7251 |
|------------------------------|----------------------|-------------------------|---------|----------|
| Digital Input/Counter | | | | |
| Channels | 16 | | | |
| 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 | | | |

Pin Assignments



Wire Connections

| Digital Input/Counter | Readback as 1 +10 ~ +50 Vdc | Readback as 0 OPEN or <4 Vdc |
|-----------------------|--------------------------------|---------------------------------|
| Sink | | |
| Source | | |

Ordering Information

| | |
|-------------|---|
| ET-7051 CR | Ethernet I/O Module with 16-channels DI (RoHS) |
| PET-7051 CR | PoE Ethernet I/O Module with 16-channels DI (RoHS) |
| ET-7251 CR | Ethernet I/O Module with 2-port Ethernet Switch, with 16-channels DI (RoHS) |
| PET-7251 CR | PoE Ethernet I/O Module with 2-port Ethernet Switch, with 16-channels DI (RoHS) |