



ET-7024
PET-7024

ET-7224
PET-7224

Ethernet I/O Module with 4-channels AO, 5-channels DI and
5-channels DO

Features

- Built-in Web Server
- Web HMI
- Support for both Modbus TCP and Modbus UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 ~ +75°C
- I/O Pair Connection
- Built-in I/O
 - AO: 4 Channels
 - DI/Counter: 5 Channels
 - DO: 5 Channels



Introduction

The ET-7024/PET-7024/ET-7224/PET-7224 is a multifunction module includes 4 channels analog output, 5 channels digital input and 5 channels digital output. It provides a variety of programmable analog output options (+/-5 V, +/-10 V, 0 ~ 20 mA and 4 ~ 20 mA), and each analog output can be programmed to accept either current or voltage as output depending upon the position of corresponding jumper. The ET-7024/PET-7024/ET-7224/PET-7224 is fully RoHS compliant and provides 4 kV ESD protection as well as 2500 Vdc intra-module isolation.

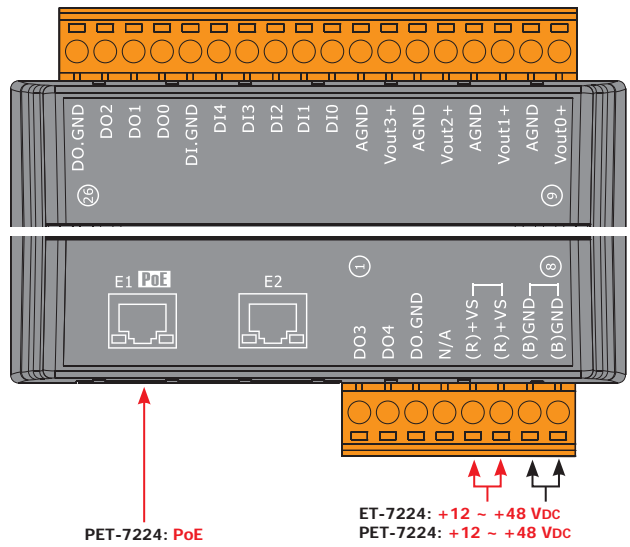
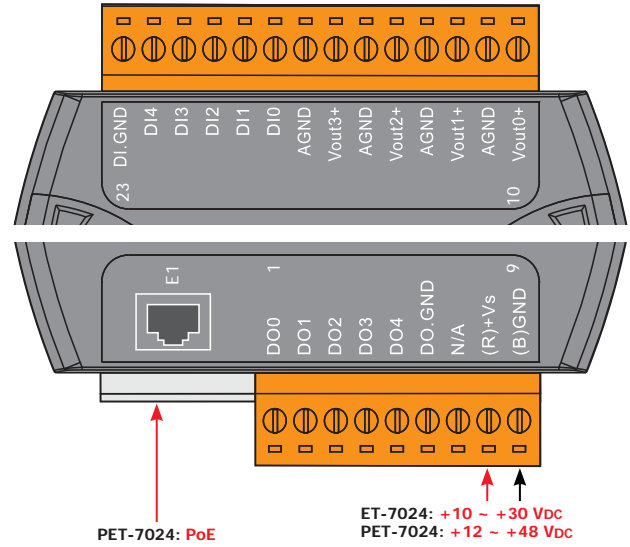
System Specifications

| Models | ET-7024 | PET-7024 | ET-7224 | PET-7224 |
|-----------------------------|--|---------------------------|---|---------------------------|
| 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 | | | |
| 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 | | | |
| Surge (IEC 61000-4-5) | ±0.5 kV for Power Line | | ±2 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 | 4.3 W (Max.) | 4.8 W (Max.) | 5.2 W (Max.) | 5.5 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

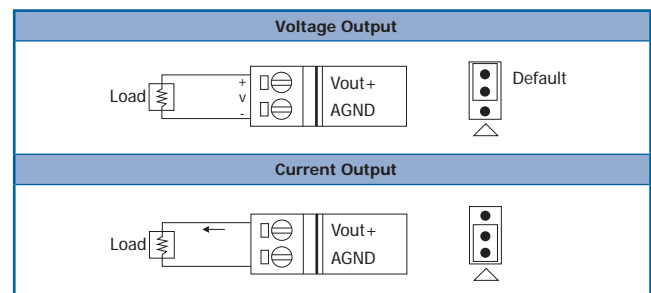
| Analog Output | | |
|----------------------------------|--|------------------------|
| Channels | 4 | |
| Type | +0 Vdc ~ +5 Vdc, +/-5 Vdc, +0 Vdc ~ +10 Vdc, +/-10 Vdc, +0 mA ~ +20 mA, +4 mA ~ +20 mA (Jumper Selectable) | |
| Individual Channel Configuration | Yes | |
| Resolution | 12-bit | |
| Accuracy | +/-0.1% of FSR | |
| Voltage Output Capability | 10 V @ 20 mA | |
| Current Load Resistance | 500 Ω | |
| Open Wire Detection | Yes, for 4 ~ 20 mA only | |
| Power-on Value | Yes, Programmable | |
| Safe Value | Yes, Programmable | |
| Digital Input/Counter | | |
| Channels | 5 | |
| Dry Contact (Source) | On Voltage Level | Close to GND |
| | Off Voltage Level | Open |
| | Effective Distance for Dry Contact | 500 Meters Max. |
| Wet contact (Sink Source) | On Voltage Level | +1 Vdc Max. |
| | Off Voltage Level | +3.5 Vdc ~ +30 Vdc |
| Input Impedance | - | |
| Counters | Channels | 5 |
| | Max. Count | 4,294,967,295 (32-bit) |
| | Max. Input Frequency | 100 Hz |
| | Min. Pulse Width | 5 ms |
| Overvoltage Protection | 30 Vdc | |
| Digital Output | | |
| Channels | 5 | |
| Type | Isolated Open Collector | |
| Sink/Source (NPN/PNP) | Sink | |
| Max. Load Current | 600 mA/Channel | |
| Load Voltage | +5 Vdc ~ +50 Vdc | |
| Overvoltage Protection | 60 Vdc | |
| Overload Protection | 1.4 A | |
| Short-circuit Protection | Yes | |
| Power-on Value | Yes, Programmable | |
| Safe Value | Yes, Programmable | |

Pin Assignments



Wire Connections

| Digital Input/Counter | ON State Readback as 1 | OFF State Readback as 0 |
|-----------------------|------------------------|-------------------------|
| Dry Contact | | |
| Wet Contact | | |
| Digital Output | ON State Readback as 1 | OFF State Readback as 0 |
| Open Collector (Sink) | | |



Ordering Information

| | |
|--------------------|---|
| ET-7024 CR | Ethernet I/O Module with 4-channels AO, 5-channels DI and 5-channels DO (RoHS) |
| PET-7024 CR | PoE Ethernet I/O Module with 4-channels AO, 5-channels DI and 5-channels DO (RoHS) |
| ET-7224 CR | Ethernet I/O Module with 2-port Ethernet Switch, with 4-channels AO, 5-channels DI and 5-channels DO (RoHS) |
| PET-7224 CR | PoE Ethernet I/O Module with 2-port Ethernet Switch, with 4-channels AO, 5-channels DI and 5-channels DO (RoHS) |