



ET-2224P
PET-2224P



ET-2228P
PET-2228P

Ethernet I/O Module with 16-bit, 4/8-ch AO

Features

- Web Server for Configuration
- Support Modbus TCP/UDP, MQTT, and SNMP V2c Protocols
- 2-port Ethernet Switch (LAN Bypass) for Daisy-chain Wiring
- Supports Dual-watchdog
- I/O Pair Connection (Push and Pull)
- 16-bit Analog Output
- Built-in I/O
 - ET-2224P/PET-2224P: 4-ch AO
 - ET-2228P/PET-2228P: 8-ch AO



Introduction

(P)ET-2224P/(P)ET-2228P is a 4/8-channel, 16-bit analog output module that provides a variety of programmable output ranges, including 0-5 V, +/-5 V, 0-10 V, +/-10 V, 4-20 mA, and 0-20 mA. It offers configurable AO power-on value and safe value settings, as well as open wire detection for each 4-20 mA output channel. The module includes a built-in 2-port Ethernet switch, facilitating a daisy-chain topology. This feature offers flexibility in device configuration, simplifies installation, and reduces infrastructure costs. Additionally, the module provides EMS (EFT/ESD/Surge) protection and 3000 VDC I/O isolation to enhance noise protection capabilities in industrial environments.

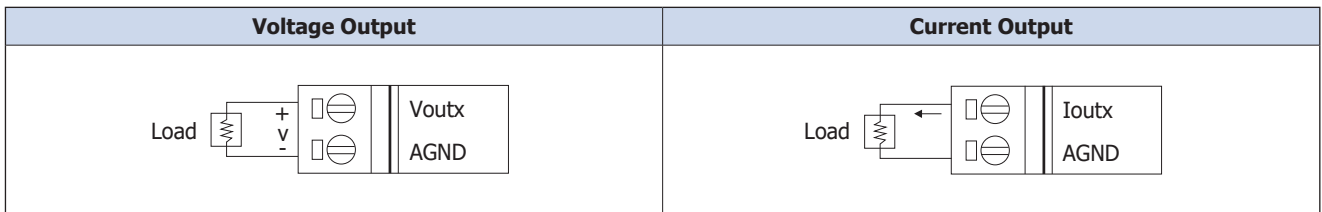
System Specifications

| Model | ET-2224P | ET-2228P | PET-2224P | PET-2228P |
|-----------------------------|---|--------------|----------------------|----------------------|
| Software | | | | |
| Built-in Web Server | Yes | | | |
| CPU Module | | | | |
| CPU | 32-bit ARM | | | |
| Watchdog Timer | Module, Communication (Programmable) | | | |
| Isolation | | | | |
| 2-way Isolation | Ethernet: 1500 VDC, I/O: 3000 VDC | | I/O: 3000 VDC | |
| EMS Protection | | | | |
| EFT (IEC 61000-4-4) | ±4 kV for Power Line | | | |
| ESD (IEC 61000-4-2) | ±4 kV Contact for Each Terminal, ±8 kV Air for Random Point | | | |
| Surge (IEC 61000-4-5) | ±2 kV for Power Line | | | |
| LED Indicators | | | | |
| Status | Run, Ethernet | | Run, Ethernet, PoE | |
| Ethernet | | | | |
| Ports | 2 x RJ-45, 10/100 Base-Tx, Switch Ports | | | |
| PoE | - | | Yes | |
| LAN bypass | Yes | | | |
| Access Control | Password and IP Filter | | | |
| Protocol | Modbus TCP, Modbus UDP, MQTT, SNMP V2c | | | |
| Power | | | | |
| Reverse Polarity Protection | Yes | | | |
| Consumption | 5.0 W (max.) | 6.2 W (max.) | 5.2 W (max.) | 7.4 W (max.) |
| Powered from PoE | - | | IEEE 802.3af, Class2 | IEEE 802.3af, Class3 |
| Powered from Terminal Block | +10 ~ +48 VDC | | | |
| Mechanical | | | | |
| Casing | Metal | | | |
| Dimensions (mm) | 33 x 126 x 117 (W x L x H) | | | |
| Installation | DIN-Rail Mounting / Wall mounting (Optional ASO-0015) | | | |
| Environment | | | | |
| Operating Temperature | -25 ~ +75 °C | | | |
| Storage Temperature | -40 ~ +80 °C | | | |
| Humidity | 10 ~ 90% RH, Non-condensing | | | |

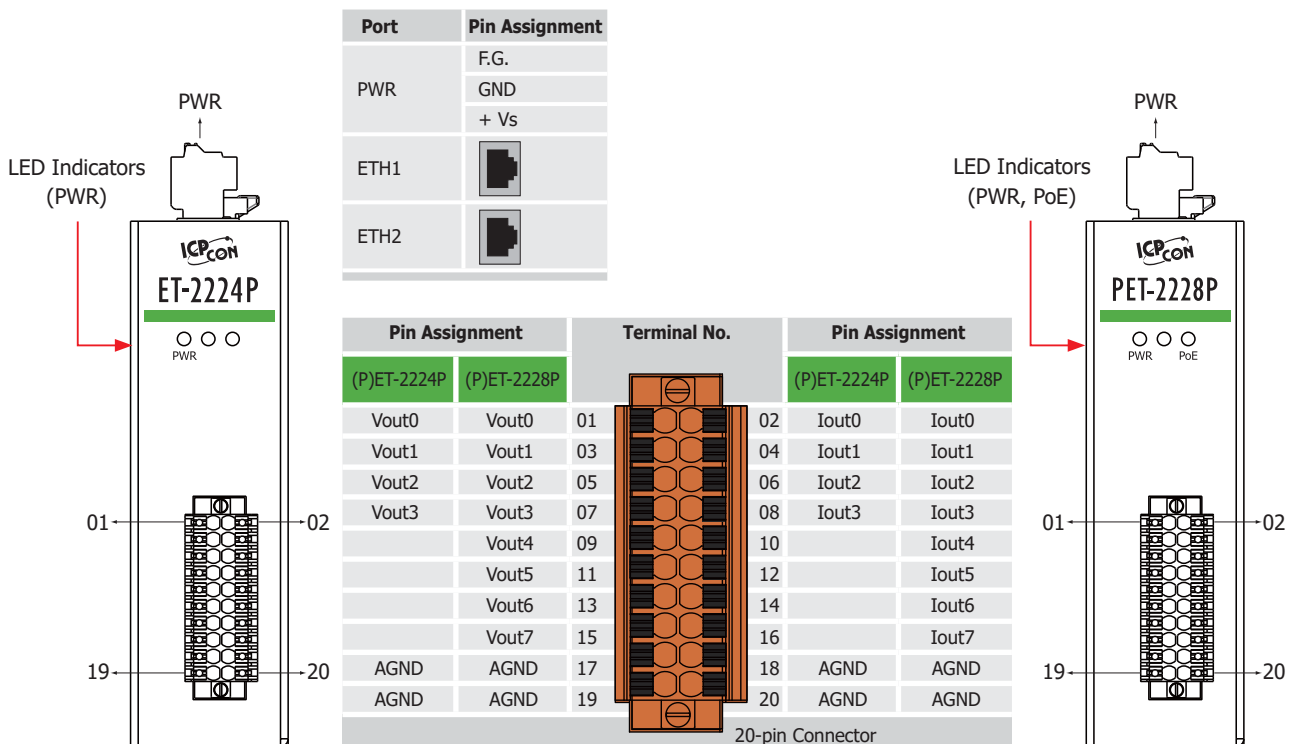
I/O Specifications

| Model | ET-2224P | PET-2224P | ET-2228P | PET-2228P |
|----------------------------------|--------------------|--|----------|-----------|
| Analog Output | | | | |
| Channels | 4 | | 8 | |
| Type | Voltage | 0 ~ +5 VDC, ±5 VDC, 0 ~ +10 VDC, ±10 VDC | | |
| | Current | 0 ~ 20 mA, 4 ~ 20 mA | | |
| Resolution | 16-bit | | | |
| Accuracy | ±0.1% of FSR | | | |
| Short Circuit Protection | Yes | | | |
| DA Output Response Time | 1 ms per channel | | | |
| Programmable Output Slope | Voltage | 0.0625 ~ 512 V/Second | | |
| | Current | 0.125 ~ 1024 mA/Second | | |
| Open Wire Detection | For 4 ~ 20 mA only | | | |
| Voltage Output Capability | 10 V @ 10 mA | | | |
| Current Load Resistance | 500 Ω | | | |
| Individual Channel Configuration | Yes | | | |
| Power-on Value | Programmable | | | |
| Safe Value | Programmable | | | |

Wire Connections

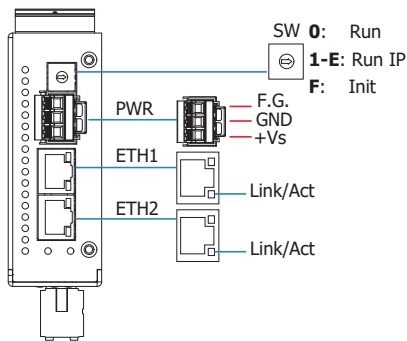


Pin Assignments

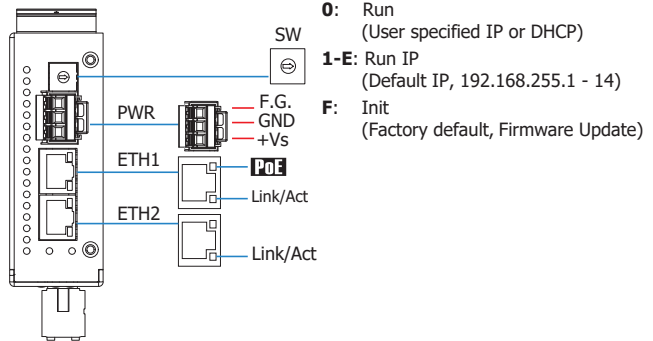


Appearance

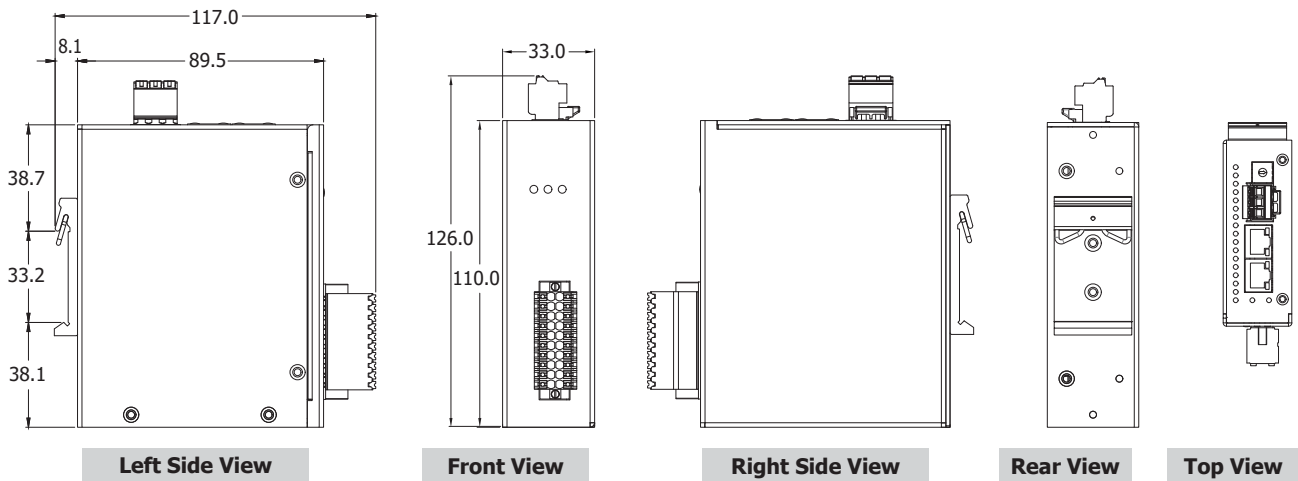
ET-2224P/ET-2228P



PET-2224P/PET-2228P



Dimensions (Units: mm)



Ordering Information

| | |
|--------------|---|
| ET-2224P CR | Ethernet I/O Module with 2-port Ethernet Switch, 16-bit, 4-ch AO (RoHS) |
| PET-2224P CR | PoE I/O Module with 2-port Ethernet Switch, 16-bit, 4-ch AO (RoHS) |
| ET-2228P CR | Ethernet I/O Module with 2-port Ethernet Switch, 16-bit, 8-ch AO (RoHS) |
| PET-2228P CR | PoE I/O Module with 2-port Ethernet Switch, 16-bit, 8-ch AO (RoHS) |

Accessories

| | |
|-------------|--------------------------------|
| ASO-0015 CR | Wall Mount Kit (W:28mm) (RoHS) |
|-------------|--------------------------------|

