



ET-2224
PET-2224



ET-2228
PET-2228

Ethernet I/O Module with 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)
- Built-in I/O
 - (P)ET-2224: 4-ch AO
 - (P)ET-2228: 8-ch AO



Introduction

(P)ET-2224/(P)ET-2228 is a 4-channel 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.

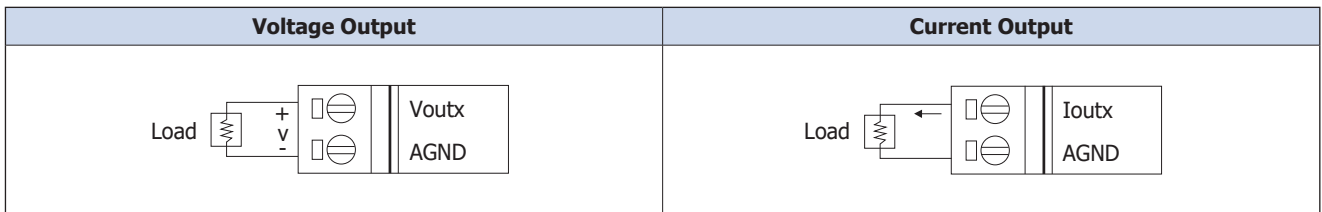
System Specifications

Model	ET-2224	ET-2228	PET-2224	PET-2228
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			

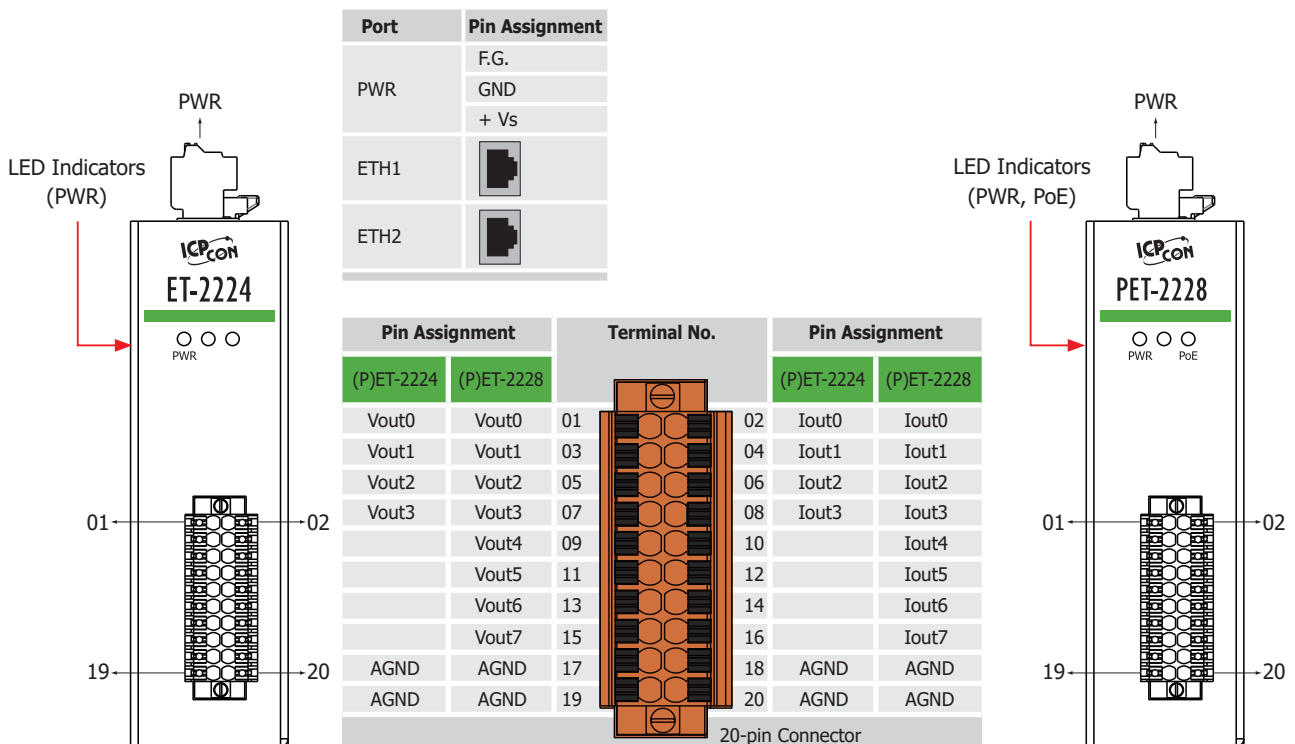
I/O Specifications

Model	ET-2224	PET-2224	ET-2228	PET-2228
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	12-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			

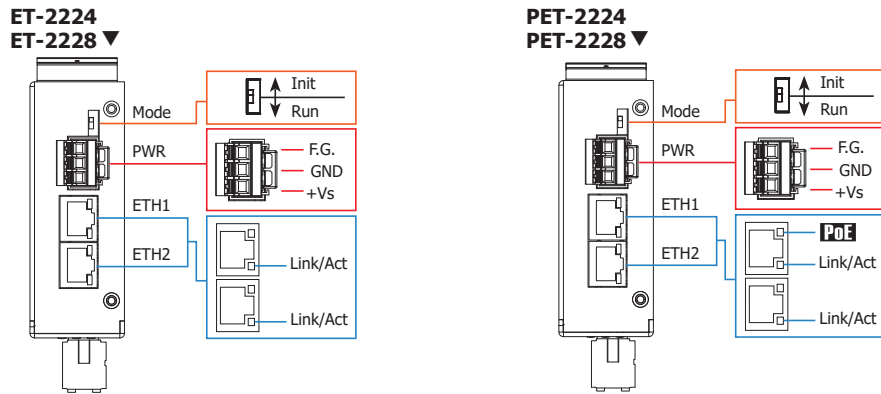
Wire Connections



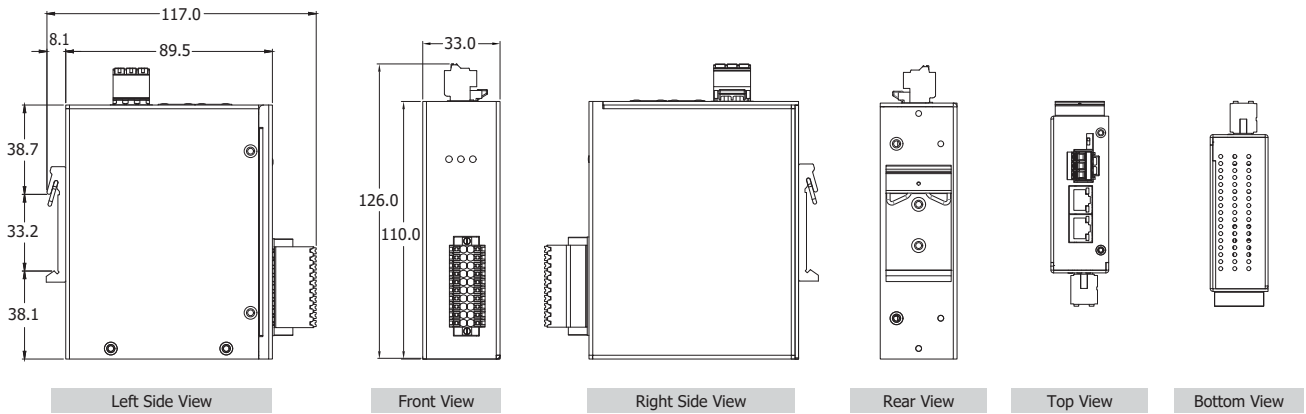
Pin Assignments



Appearance



Dimensions (Units: mm)

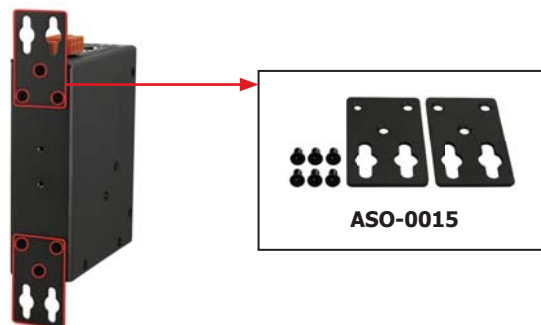


Ordering Information

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

Accessories

ASO-0015 CR	Wall Mount Kit (W:28mm) (RoHS)
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(P)ET-2000+ASO-0015