



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			

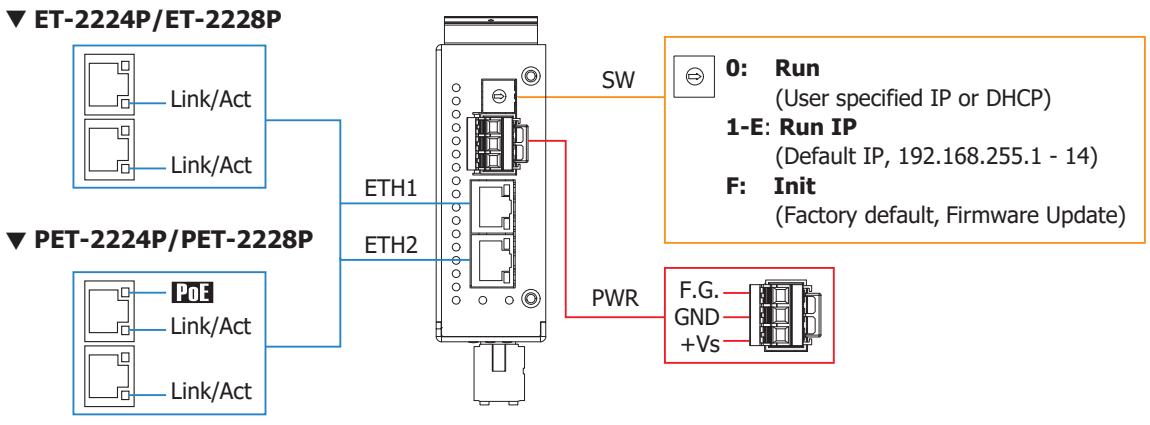
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Model	ET-2224P	ET-2228P	PET-2224P	PET-2228P
Consumption	5.0 W (max.)	6.2 W (max.)	5.2 W (max.)	7.4 W (max.)
Powered from PoE	-		IEEE 802.3af, Class2	IEEE 802.3af, Class3
Powered from Terminal Block	+10 ~ +48 VDC			
Mechanical				
Casing	Metal			
Dimensions (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 ℃			
Storage Temperature	-40 ~ +80 ℃			
Humidity	10 ~ 90% RH, Non-condensing			

I/O Specifications

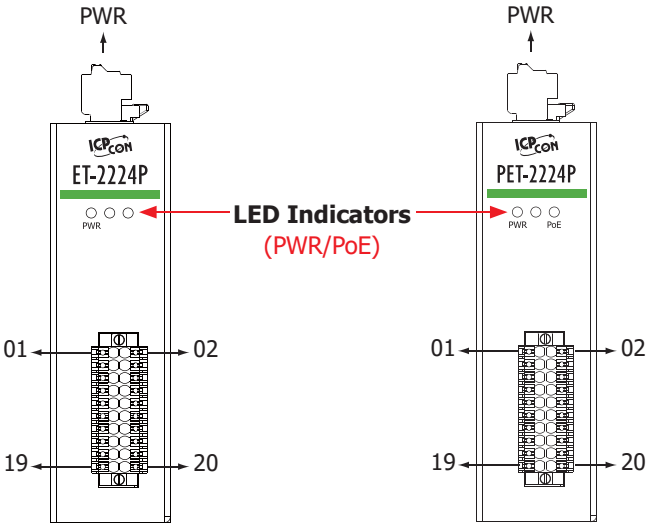
Model		ET-2224P PET-2224P	ET-2228P PET-2228P
Analog Output			
Channels		4	8
Type	Voltage	0 ~ +5 VDC, ±5 VDC, 0 ~ +10 VDC, ±10 VDC	
	Current	0 ~ 20 mA, 4 ~ 20 mA	
Resolution		16-bit	
Accuracy		±0.1% of FSR	
Short Circuit Protection		Yes	
DA Output Response Time		1 ms per channel	
Programmable Output Slope	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	

Appearance

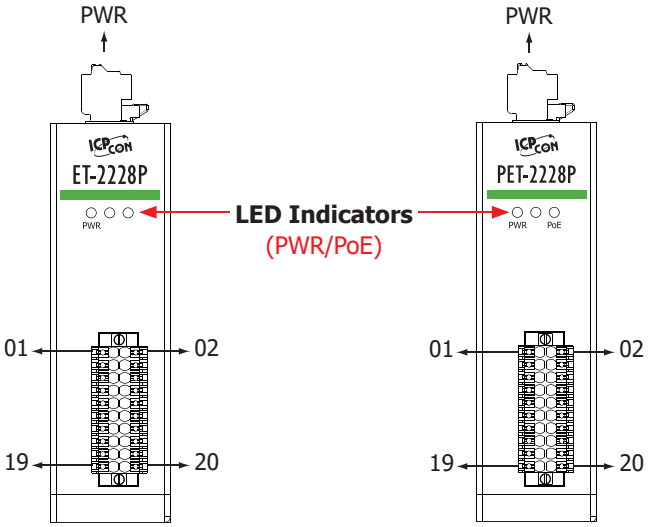


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Pin Assignments

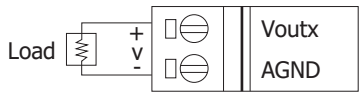
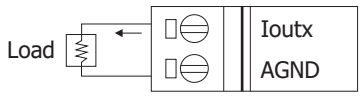


Pin Assignment	(P)ET-2224P		Pin Assignment
Vout0	01	02	Iout0
Vout1	03	04	Iout1
Vout2	05	06	Iout2
Vout3	07	08	Iout3
	09	10	
	11	12	
	13	14	
	15	16	
AGND	17	18	AGND
AGND	19	20	AGND



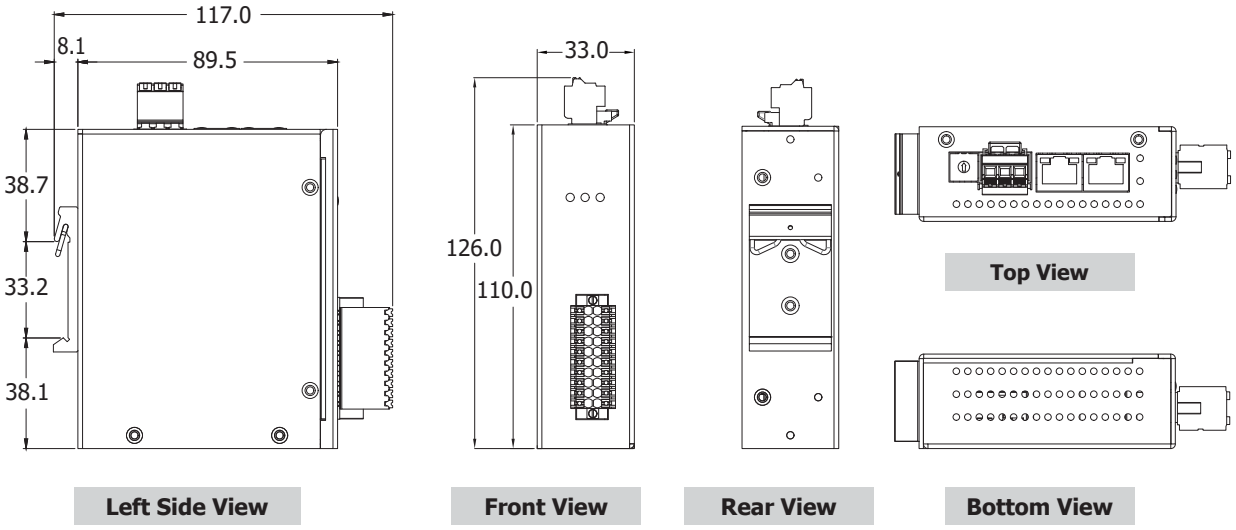
Pin Assignment	(P)ET-2228P		Pin Assignment
Vout0	01	02	Iout0
Vout1	03	04	Iout1
Vout2	05	06	Iout2
Vout3	07	08	Iout3
Vout4	09	10	Iout4
Vout5	11	12	Iout5
Vout6	13	14	Iout6
Vout7	15	16	Iout7
AGND	17	18	AGND
AGND	19	20	AGND

Wire Connections

Voltage Output	Current Output
	

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Dimensions (Units: mm)

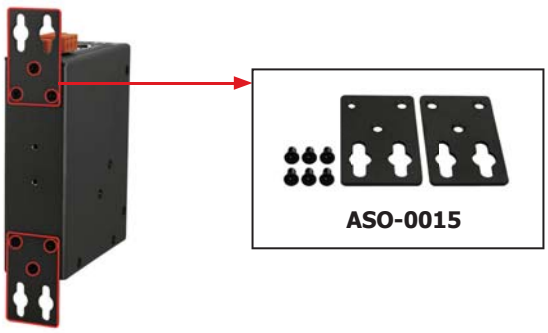


Ordering Information

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: 28 mm) (RoHS)



(P)ET-2000+ASO-0015

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