



ET-2254
PET-2254

ET-2254P
PET-2254P

Ethernet I/O Module with Universal 16-ch DIO
(DI: Source, DO: Sink)

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-ch programmable Universal DIO
- Provide Digital Output Maximum Load Current
  - (P)ET-2254: 100 mA/channel
  - (P)ET-2254P: 350 mA/channel
- LED Display to Indicate the I/O Status

Introduction

(P)ET-2254 / (P)ET-2254P is a 16-channel universal DIO module. Eeach channel can be set as a digital input or output, while each DO can drive a 100 mA / 350 mA load. 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. It also offers configurable DO Power-on value and safe value settings.

System Specifications

Model	ET-2254	ET-2254P	PET-2254	PET-2254P
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)	±8 kV Contact for Each Terminal, ±16 kV Air for Random Point			
Surge (IEC 61000-4-5)	±3 kV for Power Line			
LED Indicators				
Status	Run, Ethernet, I/O		Run, Ethernet, I/O, 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	2.9 W (max.)		3.6 W (max.)	

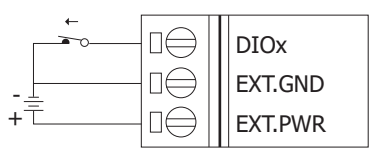
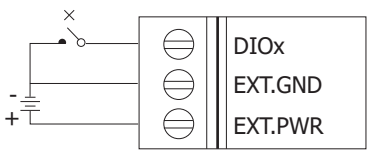
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Model	ET-2254	ET-2254P	PET-2254	PET-2254P
Powered from PoE	-		IEEE 802.3af, Class1	
Powered from Terminal Block	+10 ~ +30 VDC		+10 ~ +48 VDC	
Mechanical				
Casing	Plastic			
Dimensions (mm)	33 x 126 x 108 (W x L x H)			
Installation	DIN-Rail Mounting			
Environment				
Operating Temperature	-25 ~ +75 ℃			
Storage Temperature	-40 ~ +80 ℃			
Humidity	10 ~ 90% RH, Non-condensing			

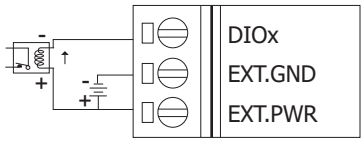
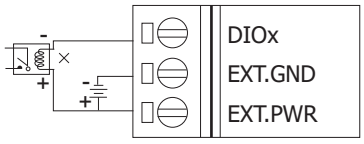
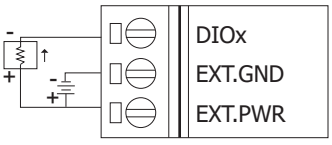
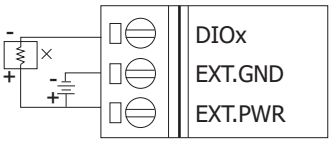
I/O Specifications

Model	(P)ET-2254	(P)ET-2254P
Parallel I/O Module		
DI/DO Mode	By Web/Modbus Configuration	
I/O Channels	16	
Digital Input/Counter		
Type	Dry Contact	
Sink/Source (NPN/PNP)	Source	
ON Voltage Level	Close to GND	
OFF Voltage Level	Open	
Max. Counts	4,294,967,295 (32-bit)	
Frequency	2.5 kHz	
Input Impedance	3 kΩ	7.5 kΩ
Low Pass Filter	1 ~ 6500 ms (0.08 Hz ~ 500 Hz)	
Digital Output		
Type	Open-collector	
Sink/Source (NPN/PNP)	Sink	
Load Voltage	+5 ~ +30 VDC	+5 ~ +50 VDC
Load Current	100 mA/channel	350 mA/channel
Short Circuit Protection	-	Yes
Power-on Value	Programmable	
Safe Value	Programmable	

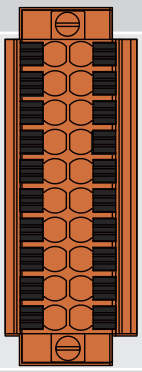
Wire Connections

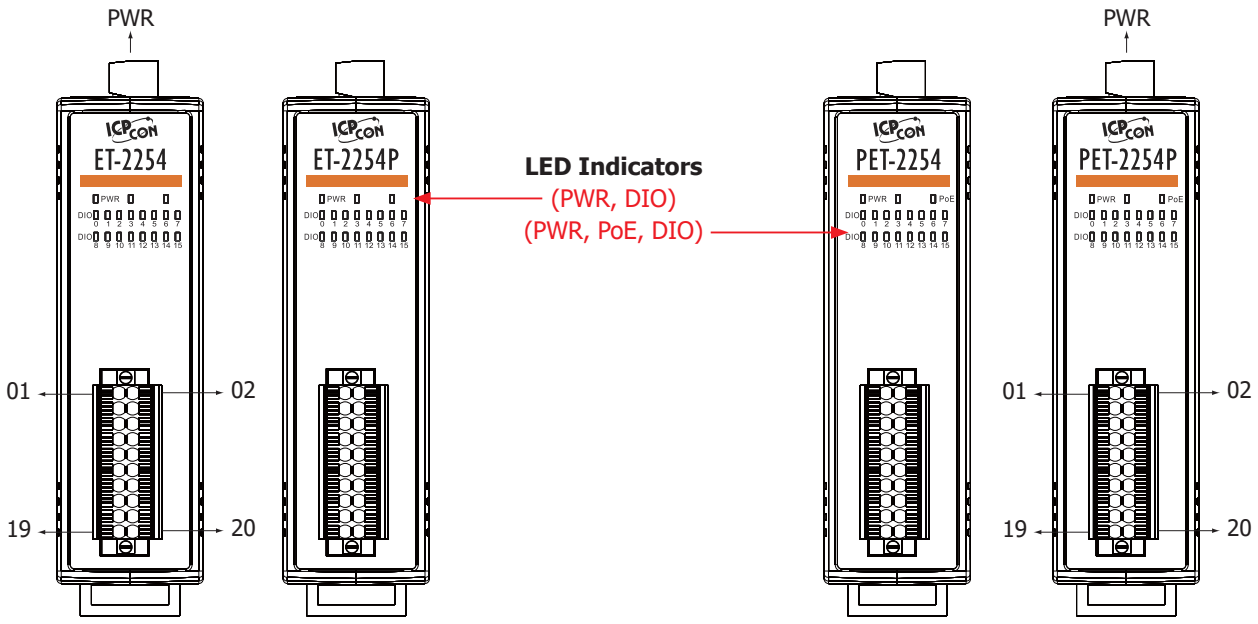
Input Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Dry Contact	Close to GND	Open
		
	Note 1: (P)ET-2254: +5 ~ +30 VDC (P)ET-2254P: +5 ~ +50 VDC	

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Output Type	ON State Readback as 1	OFF State Readback as 0
Inductive Load		
Resistance Load		

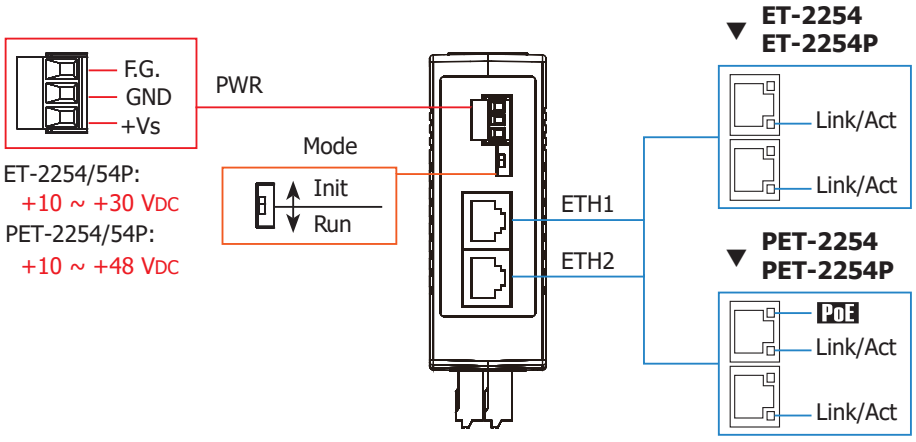
Pin Assignments

Pin Assignment	Terminal No.			Pin Assignment
DIO0	01		02	DIO8
DIO1	03		04	DIO9
DIO2	05		06	DIO10
DIO3	07		08	DIO11
DIO4	09		10	DIO12
DIO5	11		12	DIO13
DIO6	13		14	DIO14
DIO7	15		16	DIO15
EXT.PWR	17		18	EXT.PWR
EXT.GND	19		20	EXT.GND

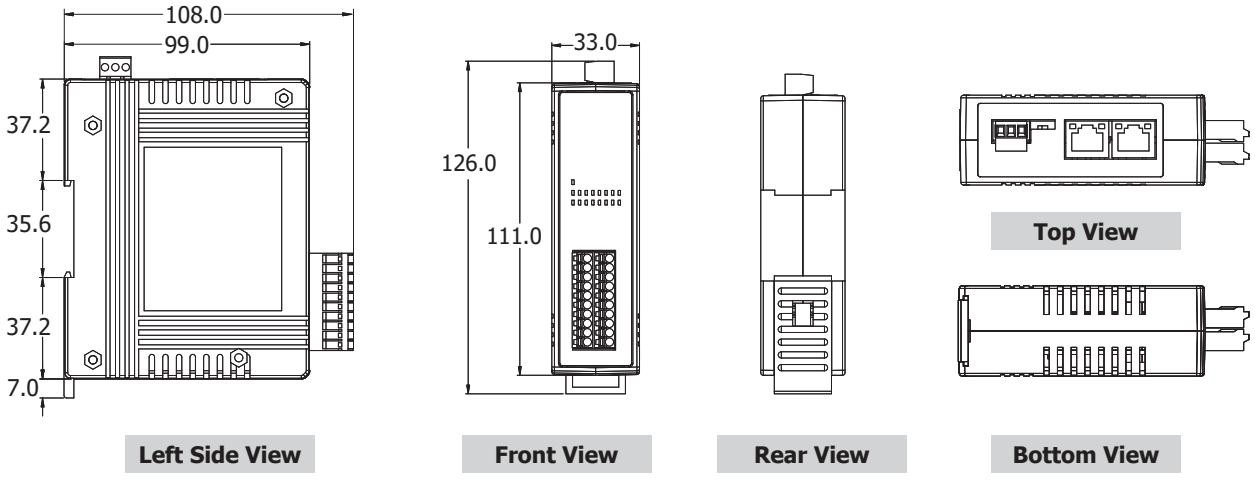


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Appearance



Dimensions (Units: mm)



Ordering Information

ET-2254 CR	Ethernet I/O Module with 2-port Ethernet Switch, Universal 16-ch DIO (DI: Source, DO: Sink, 100 mA max.) (RoHS)
PET-2254 CR	PoE I/O Module with 2-port Ethernet Switch, Universal 16-ch DIO (DI: Source, DO: Sink, 100 mA max.) (RoHS)
ET-2254P CR	Ethernet I/O Module with 2-port Ethernet Switch, Universal 16-ch DIO (DI: Source, DO: Sink, 350 mA max.) (RoHS)
PET-2254P CR	PoE I/O Module with 2-port Ethernet Switch, Universal 16-ch DIO (DI: Source, DO: Sink, 350 mA max.) (RoHS)

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