



**ET-2254**  
**PET-2254**

**ET-2254P**  
**PET-2254P**

Ethernet I/O Module with Universal 16-ch DIO

## 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
  - (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. Each channel can be set as a digital input or output via wiring, 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.

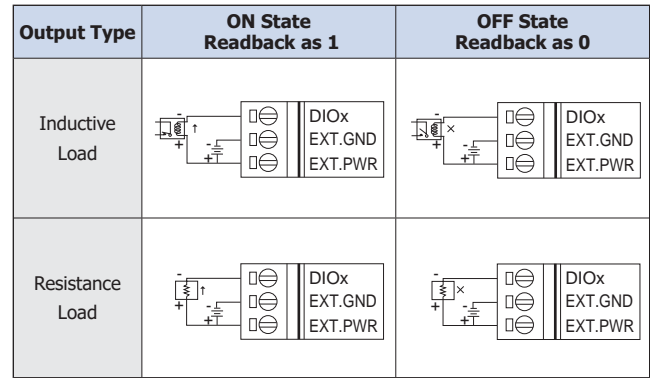
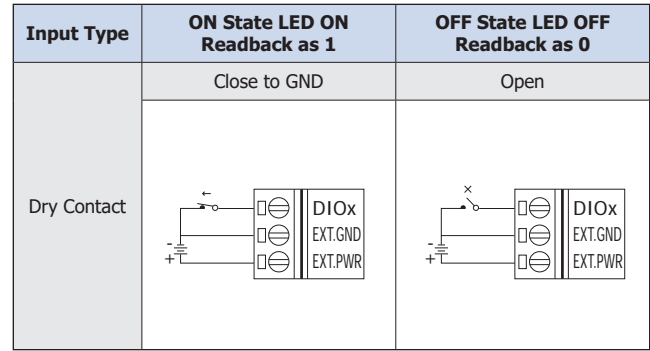
## System Specifications

Model	ET-2254	ET-2254P	PET-2254	PET-2254P
<b>Software</b>				
Built-in Web Server	Yes			
<b>CPU Module</b>				
CPU	32-bit ARM			
Watchdog Timer	Module, Communication (Programmable)			
<b>Isolation</b>				
2-way Isolation	Ethernet: 1500 VDC, I/O: 3000 VDC		I/O: 3000 VDC	
<b>EMS Protection</b>				
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			
<b>LED Indicators</b>				
Status	Run, Ethernet, I/O		Run, Ethernet, I/O, PoE	
<b>Ethernet</b>				
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			
<b>Power</b>				
Reverse Polarity Protection	Yes			
Consumption	2.9 W (max.)		3.6 W (max.)	
Powered from PoE	-		IEEE 802.3af, Class1	
Powered from Terminal Block	+10 ~ +30 VDC		+10 ~ +48 VDC	
<b>Mechanical</b>				
Casing	Plastic			
Dimensions (mm)	33 x 126 x 108 (W x L x H)			
Installation	DIN-Rail Mounting			
<b>Environment</b>				
Operating Temperature	-25 ~ +75 °C			
Storage Temperature	-40 ~ +80 °C			
Humidity	10 ~ 90% RH, Non-condensing			

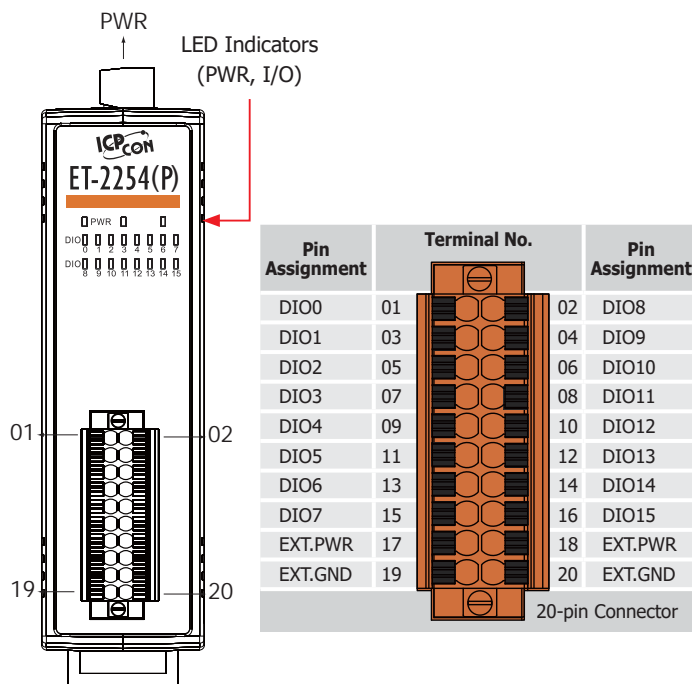
## I/O Specifications

Model	(P)ET-2254	(P)ET-2254P
<b>Parallel I/O Module</b>		
DI/DO	By Wire Connection	
I/O Channels	16	
<b>Digital Input/Counter</b>		
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	3 kHz	2.5 kHz
Input Impedance	3 k $\Omega$	7.5 k $\Omega$
Low Pass Filter	1 ~ 6500 ms (0.08 Hz ~ 500 Hz)	
<b>Digital Output</b>		
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	

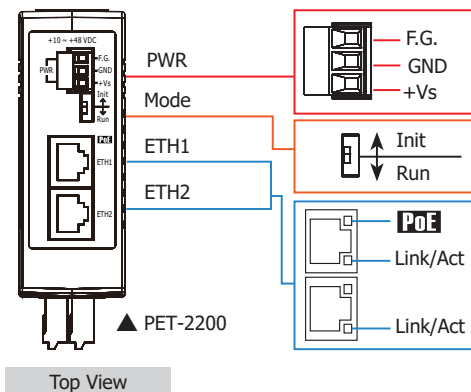
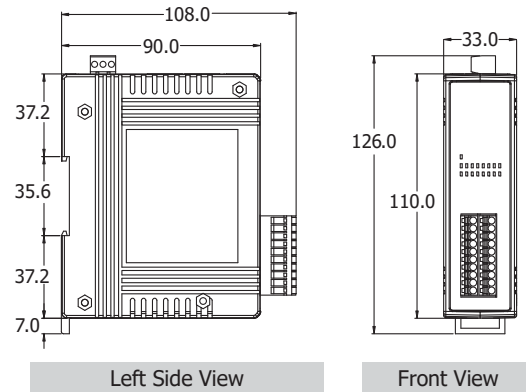
## Wire Connections



## Pin Assignments



## Dimensions (Units: mm)



## Ordering Information

<b>ET-2254 CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, Universal 16-ch DIO (DO Max. Load Current: 100 mA) (RoHS)
<b>PET-2254 CR</b>	PoE I/O Module with 2-port Ethernet Switch, Universal 16-ch DIO (DO Max. Load Current: 100 mA) (RoHS)
<b>ET-2254P CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, Universal 16-ch DIO (DO Max. Load Current: 350 mA) (RoHS)
<b>PET-2254P CR</b>	PoE I/O Module with 2-port Ethernet Switch, Universal 16-ch DIO (DO Max. Load Current: 350 mA) (RoHS)