



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

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

Ethernet I/O Module with 16-ch Universal DIO

## Features

- Built-in Web Server
- Support Modbus TCP/UDP, MQTT, and SNMP V2c Protocols
- 2-port Ethernet Switch (LAN Bypass) for Daisy-Chain Wiring
- Dual Watchdog
- I/O Pair Connection (Push and Pull)
- 16-channel 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

The (P)ET-2254(P) provides 16-channel universal DIO. Each I/O port can be configured as a DI or DO port. The (P)ET-2254 provides Digital Output channel can drive 100 mA load, while the (P)ET-2254P provides Digital Output channel can drive 350 mA load. There are configurable power-on and safe values for Digital Output. With 2 Ethernet ports, the (P)ET-2254(P) allows daisy chain connection which permits the flexibility in locating devices, eases installation and lowers infrastructure costs. These modules feature 8 kV ESD protection, 4 kV EFT protection, 3 kV surge, and 3000 VDC I/O isolation to enhance noise protection capabilities in industrial environments.

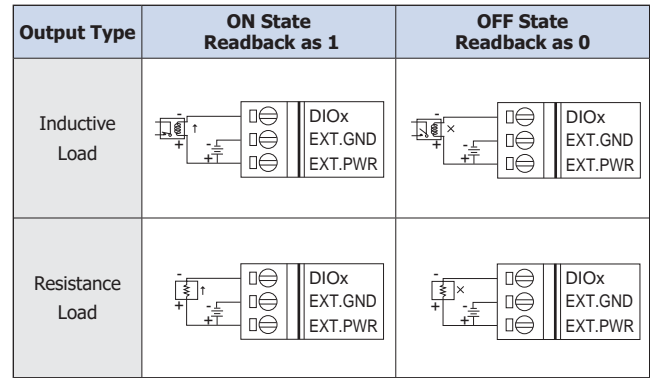
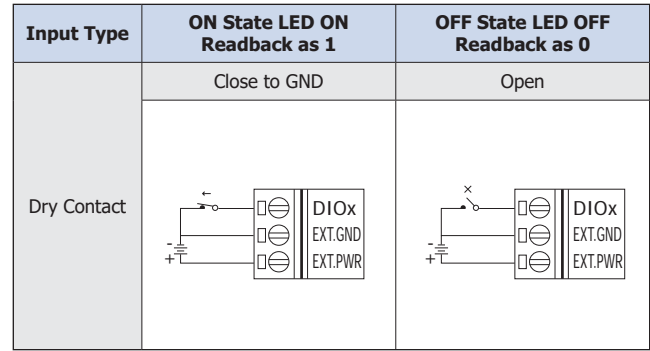
## System Specifications

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			
Security	Password and IP Filter			
Protocol	Modbus TCP, Modbus UDP, MQTT, and 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 to +30 VDC		+10 to +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 to +75°C			
Storage Temperature	-40 to +80°C			
Humidity	10 to 90% RH, Non-condensing			

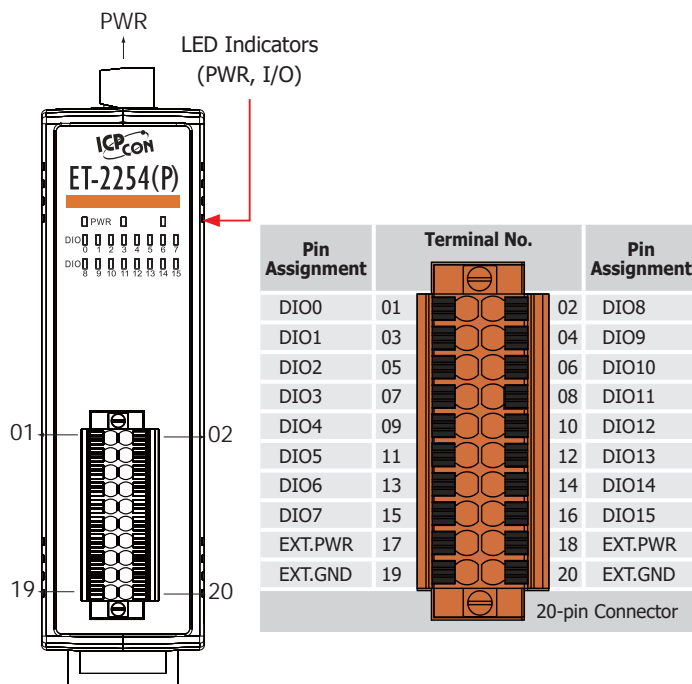
## I/O Specifications

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 to 6500 ms (0.08 Hz to 500 Hz)	
<b>Digital Output</b>		
Type	Open-collector	
Sink/Source (NPN/PNP)	Sink	
Load Voltage	+5 to +30 VDC	+5 to +50 VDC
Load Current	100 mA/channel	350 mA/channel
Short Circuit Protection	-	Yes
Power-on Value	Programmable	
Safe Value	Programmable	

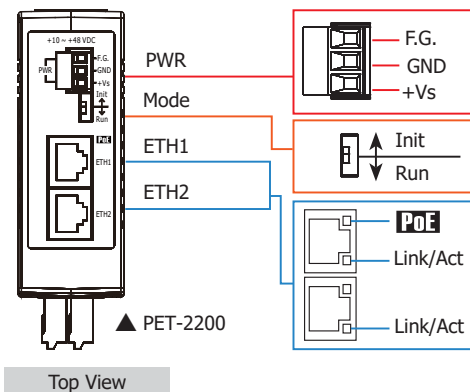
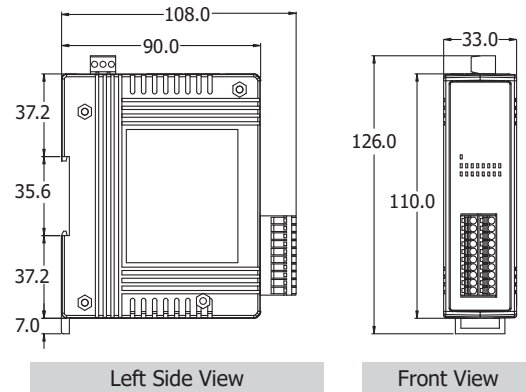
## Wire Connections



## Pin Assignments



## Dimensions (Units: mm)



## Ordering Information

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