



**ET-2252**



**PET-2252**

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

## 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
  - 450 mA/channel
- LED Display to Indicate the I/O Status



## Introduction

ET-2252 / PET-2252 is a 16-channel universal DIO module. Each channel can be set as a digital input or output, while each DO can drive a 450 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.

### Redundant Power:

The modules support dual Power inputs (+10 to +48 Vdc) for enhanced redundancy. If one source becomes inactive or is interrupted, the other immediately takes over to ensure uninterrupted operation in critical Environments

## System Specifications

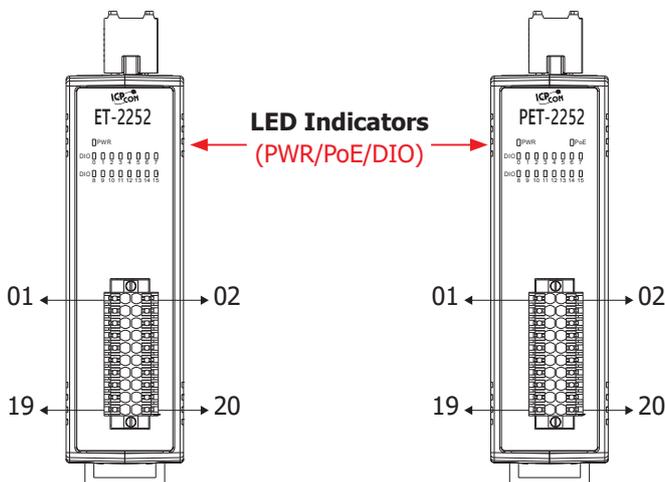
Model	ET-2252	PET-2252
<b>Software</b>		
Built-in Web Server	Yes	
<b>CPU Module</b>		
CPU	32-bit ARM	
Watchdog Timer	Module, Communication (Programmable)	
<b>Isolation</b>		
2-way Isolation	Ethernet: 1500 Vdc, I/O: 3000 Vdc	I/O: 3000 Vdc
<b>EMS Protection</b>		
EFT (IEC 61000-4-4)	±4 kV for Power Line	
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal, ±8 kV Air for Random Point	
Surge (IEC 61000-4-5)	±2 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	

Model	ET-2252	PET-2252
Consumption	3.6 W (max.)	3.9 W (max.)
Powered from PoE	-	IEEE 802.3af, Class1
Powered from Terminal Block	+10 ~ +48 Vdc	
<b>Mechanical</b>		
Casing	Plastic	
Dimensions (mm)	33 x 135 x 109 (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

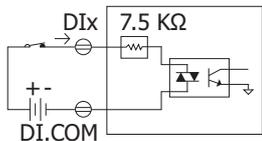
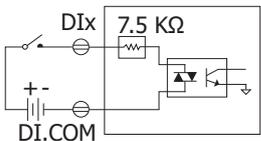
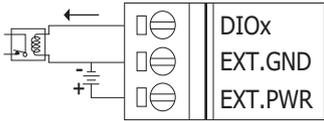
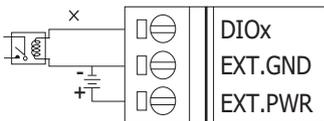
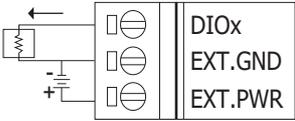
Model	ET-2252	PET-2252
<b>Parallel I/O Module</b>		
DI/DO Mode	By Web/Modbus Configuration	
I/O Channels	16	
<b>Digital Input/Counter</b>		
Type	Wet Contact	
Sink/Source (NPN/PNP)	Sink	
ON Voltage Level	+5 ~ +50 VDC	
OFF Voltage Level	+1 VDC (max.)	
Max. Counts	4,294,967,295 (32-bit)	
Frequency	3 kHz	
Input Impedance	7.5 kΩ	
Low Pass Filter	1 ~ 6500 ms (0.08 Hz ~ 500 Hz)	
<b>Digital Output</b>		
Type	Open Source	
Sink/Source (NPN/PNP)	Source	
Load Voltage	+5 ~ +50 VDC	
Load Current	450 mA/channel	
Power-on Value	Programmable	
Safe Value	Programmable	

## Pin Assignments

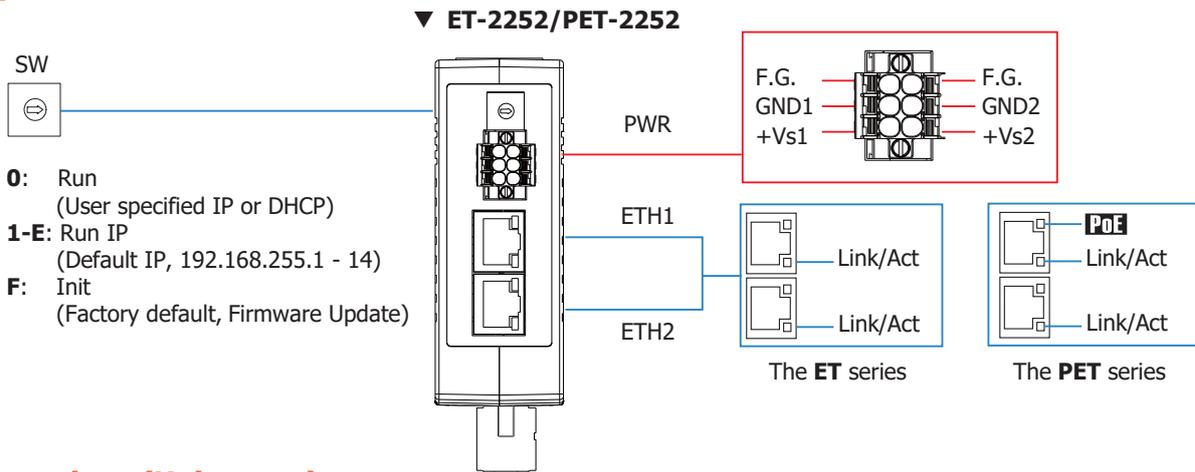


Pin Assignment	Terminal No.	Pin Assignment
DIO0	01	DIO8
DIO1	03	DIO9
DIO2	05	DIO10
DIO3	07	DIO11
DIO4	09	DIO12
DIO5	11	DIO13
DIO6	13	DIO14
DIO7	15	DIO15
EXT.PWR	17	EXT.PWR
DI.COM	19	EXT.GND

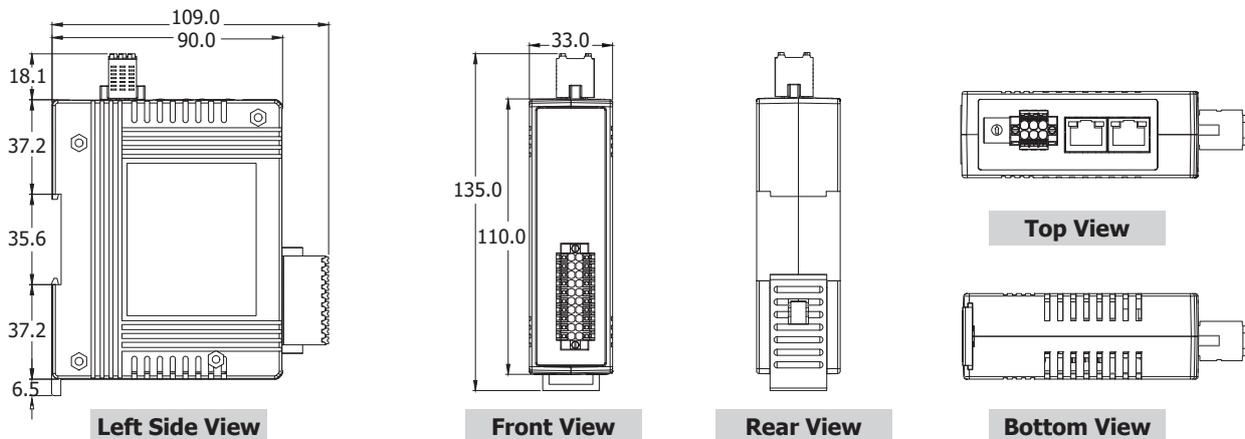
## Wire Connections

Input Type	ON State LED ON, Readback as 1	OFF State LED OFF, Readback as 0
Wet Contact (Sink)	+5 ~ +50 Vdc	OPEN or <1 Vdc
		
Output Type	ON State, Readback as 1	OFF State, Readback as 0
Inductive Load		
	Resistance Load	

## Appearance



## Dimensions (Units: mm)



## Ordering Information

<b>ET-2252 CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, Universal 16-ch DIO (RoHS)	DI: Sink DO: Source 450 mA max.
<b>PET-2252 CR</b>	PoE I/O Module with 2-port Ethernet Switch, Universal 16-ch DIO (RoHS)	