



**ET-7051**  
**PET-7051**

**ET-7251**  
**PET-7251**

Ethernet I/O Module with 16-ch DI

### Features

- Built-in Web Server
- Web HMI
- Support for both Modbus TCP and Modbus UDP Protocols
- Communication Access Control
- 2-port Ethernet Switch (LAN Bypass) for Daisy-Chain Wiring
- Dual Watchdog
- I/O Pair Connection
- Built-in I/O
- DI/Counter: 16 Channels



### Introduction

The ET-7051/PET-7051/ET-7251/PET-7251 provides 16 wet contact digital input channels. Each input channel can be used as a 32-bit counter. It features optical isolation for 3750 Vrms of transient overvoltage protection but doesn't provide channel-to-channel isolation. It can safely be used in applications where hazardous voltages are present.

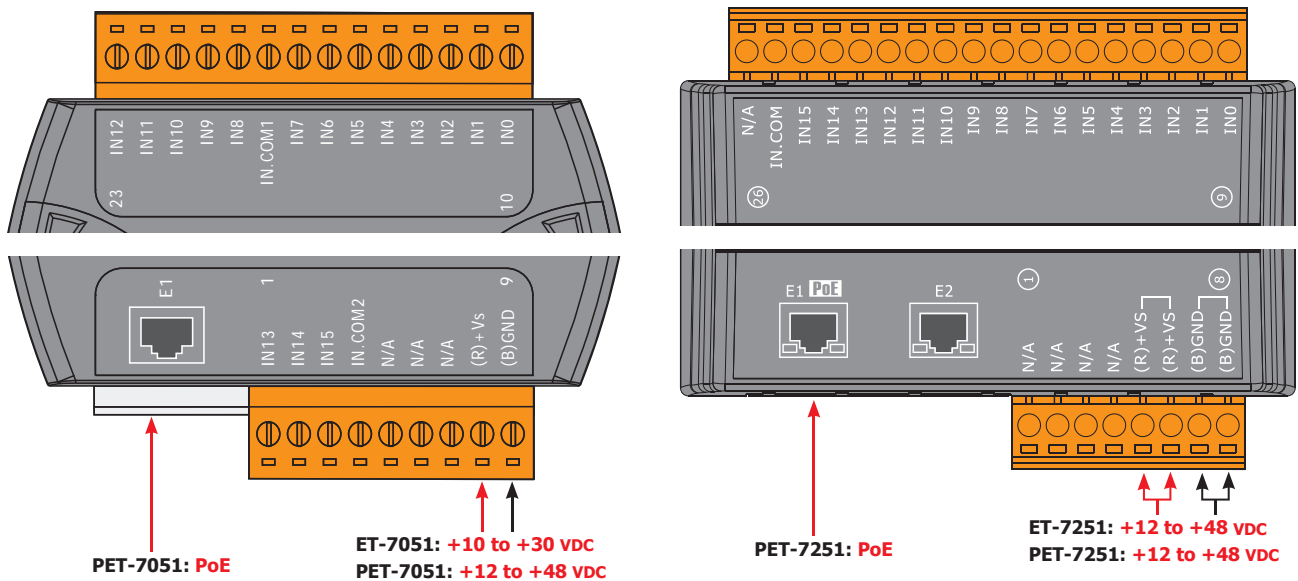
### System Specifications

Model	ET-7051	PET-7051	ET-7251	PET-7251
<b>Software</b>				
Built-in Web Server	Yes			
<b>CPU Module</b>				
Watchdog Timer	Module, Communication (Programmable)			
<b>2-Way Isolation</b>				
Ethernet	1500 VDC	-	1500 VDC	-
I/O	2500 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			
<b>LED Indicators</b>				
Status	Run, Ethernet	Run, Ethernet, PoE	Run, Ethernet, I/O	Run, Ethernet, I/O, PoE
<b>Ethernet</b>				
Ports	1 x RJ-45, 10/100 Base-TX		2 x RJ-45, 10/100 Base-TX, Switch Ports	
PoE	-	Yes	-	Yes
LAN bypass	-		Yes	
Access Control	ID, Password and IP Filter			
Protocol	Modbus TCP, Modbus UDP			
<b>Power</b>				
Reverse Polarity Protection	Yes			
Consumption	2.1 W (max.)	2.1 W (max.)	2.9 W (max.)	3.1 W (max.)
Powered from PoE	-	IEEE 802.3af, Class1	-	IEEE 802.3af, Class1
Powered from Terminal Block	+10 to +30 VDC		+12 to +48 VDC	
<b>Mechanical</b>				
Dimensions (mm)	72 x 123 x 35 (W x L x H)		76 x 120 x 38 (W x L x H)	
Installation	DIN-Rail mounting			
<b>Environment</b>				
Operating Temperature	-25 ~ +75 °C			
Storage Temperature	-30 ~ +80 °C			
Humidity	10 ~ 90% RH, Non-condensing			

## I/O Specifications

Model	ET-7051	PET-7051	ET-7251	PET-7251
<b>Digital Input/Counter</b>				
Channels	16			
Type	Wet Contact			
Sink/Source (NPN/PNP)	Sink/Source			
ON Voltage Level	+10 to +50 VDC			
OFF Voltage Level	+4 VDC (max.)			
Max. Counts	4,294,967,295 (32-bit)			
Frequency	500 Hz			
Min. Pulse Width	1 ms			
Input Impedance	10 kΩ			
Overvoltage Protection	+70 VDC			

## Pin Assignments



## Wire Connections

Digital Input/Counter	Readback as 1 +10 ~ +50 VDC	Readback as 0 OPEN or <4 VDC
Sink		
Source		

## Ordering Information

<b>ET-7051 CR</b>	Ethernet I/O Module with 16-ch DI (RoHS)
<b>PET-7051 CR</b>	PoE I/O Module with 16-ch DI (RoHS)
<b>ET-7251 CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, 16-ch DI (RoHS)
<b>PET-7251 CR</b>	PoE I/O Module with 2-port Ethernet Switch, 16-ch DI (RoHS)