



### Features

- Built-in Web Server
- Web HMI
- Support for both Modbus TCP and Modbus UDP Protocols
- Communication Security
- 2-port Ethernet Switch for Daisy-Chain Topology
- Dual Watchdog
- Wide Operating Temperature Range: -25 ~ +75°C
- 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 V<sub>rms</sub> of transient overvoltage protection but doesn't provide channel-to-channel isolation. It can safely be used in applications where hazardous voltages are present.

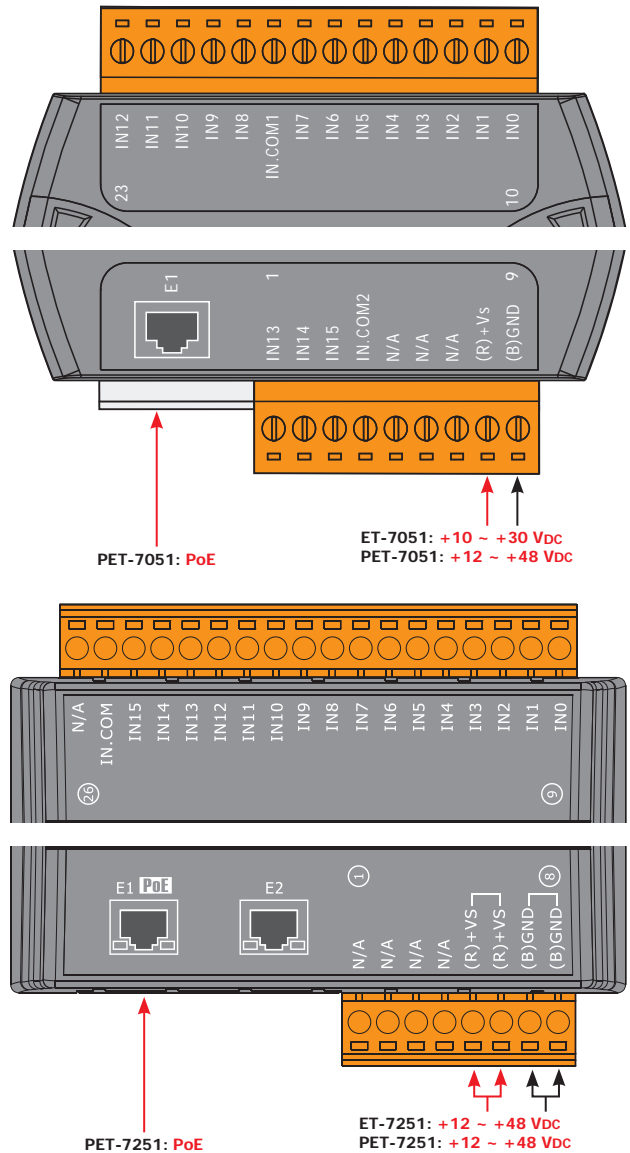
### System Specifications

Models	ET-7051	PET-7051	ET-7251	PET-7251
<b>Software</b>				
Built-in Web Server			Yes	
Web HMI			Yes	
I/O Pair Connection			Yes	
<b>Communication</b>				
Ethernet Port	1 x RJ-45, 10/100 Base-TX		2 x RJ-45, 10/100 Base-TX, Switch Ports	
PoE	-	Yes	-	Yes
Protocol	Modbus TCP, Modbus UDP			
Security	ID, Password and IP Filter			
Dual Watchdog	Yes, Module (0.8 seconds), Communication (Programmable)			
<b>LED Indicators</b>				
for System Running			Yes	
for Ethernet Link/Act			Yes	
for DI/DO status		-		Yes
for PoE Power	-	Yes	-	Yes
<b>2-Way Isolation</b>				
Ethernet	1500 Vdc	-	1500 Vdc	-
I/O	2500 Vdc		2500 Vdc	
<b>EMS Protection</b>				
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal and ±8 kV Air for Random Point			
EFT (IEC 61000-4-4)	±4 kV for Power Line			
<b>Power</b>				
Reverse Polarity Protection	Yes			
Powered from Terminal Block	10 ~ 30 Vdc	12 ~ 48 Vdc	12 ~ 48 Vdc	12 ~ 48 Vdc
Powered from PoE	-	Yes, IEEE 802.3af, Class1	-	Yes, IEEE 802.3af, Class1
Consumption	2.1 W (Max.)	2.1 W (Max.)	2.9 W (Max.)	3.1 W (Max.)
<b>Mechanical</b>				
Dimensions (L x W x H)	123 mm x 72 mm x 35 mm		120 mm x 76 mm x 38 mm	
Installation	DIN-Rail or Wall Mounting			
<b>Environment</b>				
Operating Temperature	-25 ~ +75°C			
Storage Temperature	-30 ~ +80°C			
Humidity	10 ~ 90% RH, Non-condensing			

### I/O Specifications

Models	ET-7051	PET-7051	ET-7251	PET-7251
<b>Digital Input/Counter</b>				
Channels	16			
Contact	Wet Contact			
Sink/Source (NPN/PNP)	Sink/Source			
On Voltage Level	+10 Vdc ~ +50 Vdc			
Off Voltage Level	+4 Vdc Max.			
Input Impedance	10 kΩ			
Counters	Max. Count	4,294,967,295 (32 bits)		
	Max. Input Frequency	500 Hz	100 Hz	
	Min. Pulse Width	1 ms	5 ms	
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-channels DI (RoHS)
<b>PET-7051 CR</b>	PoE Ethernet I/O Module with 16-channels DI (RoHS)
<b>ET-7251 CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, with 16-channels DI (RoHS)
<b>PET-7251 CR</b>	PoE Ethernet I/O Module with 2-port Ethernet Switch, with 16-channels DI (RoHS)