ICP DAS

ET-7050
PET-7050

ET-7250A
PET-7250A

(PoE) Ethernet I/O Module with 12-ch DI and 6-ch DO

Features

- Built-in Web Server
- Web HMI
- Support for both Modbus TCP and Modbus UDP Protocols
- Communication Security
- 2-port Ethernet Switch (LAN Bypass) for Daisy-Chain Wiring
- Dual Watchdog
- I/O Pair Connection
- Built-in I/O
  - ☐ DI/Counter: 12 Channels
  - ☐ DO: 6 Channels

CE UKCA FC RoHS

Introduction

The PET-7050/PET-7250A supports IEEE 802.3af Power-Over-Ethernet (Class 1) specifications. By connecting to network devices that support the IEEE 802.3af PoE standard, power can be supplied via a copper Ethernet cable. The ET-7250A/PET-7250A includes two built-in Ethernet switch ports, which help to reduce implementation costs as there is no need to install an additional switch in order to daisy chain the ports or to extend the network via the Ethernet line. ET-7050/PET-7050/ET-7250A/PET-7250A provides 6 sink-type digital output channels and 12 wet contact digital input channels, each of which is able to be used as a 32-bit counter. In addition, each digital input of ET-7250A/PET-7250A accepts either dry contact or wet contact.
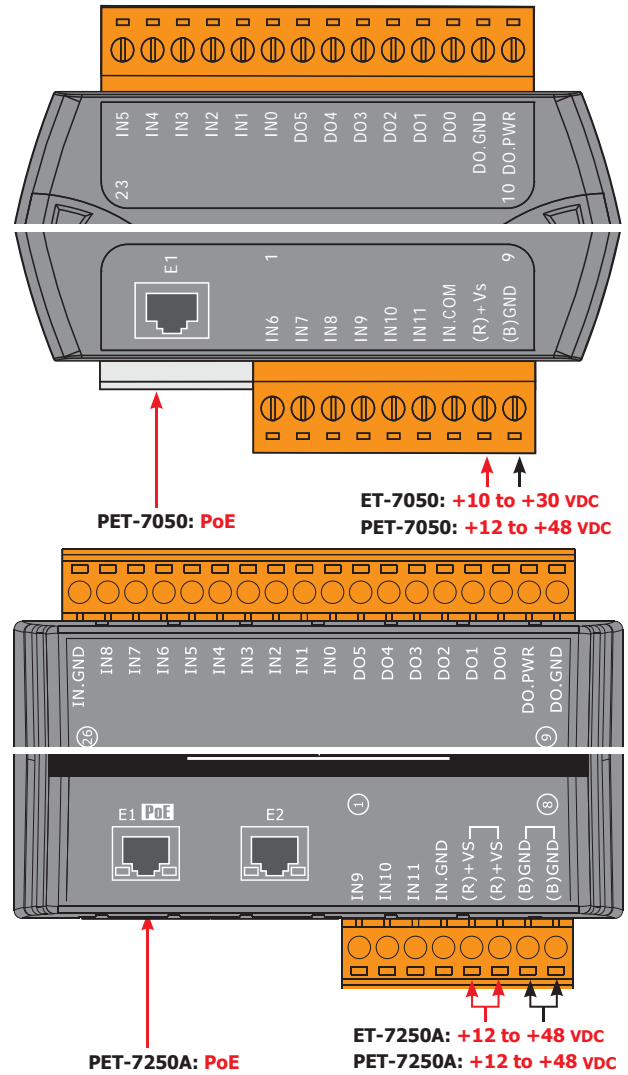
System Specifications

Model	ET-7050	PET-7050	ET-7250A	PET-7250A
Software				
Built-in Web Server	Yes			
CPU Module				
Watchdog Timer	Module, Communication (Programmable)			
2-Way Isolation				
Ethernet	1500 VDC	-	1500 VDC	-
I/O	2500 VDC		2500 VDC	
EMS Protection				
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			
LED Indicators				
Status	Run, Ethernet	Run, Ethernet, PoE	Run, Ethernet, I/O	Run, Ethernet, I/O, PoE
Ethernet				
Ports	1 x RJ-45, 10/100 Base-TX		2 x RJ-45, 10/100 Base-TX, Swtich Ports	
PoE	-	Yes	-	Yes
LAN bypass	-		Yes	
Security	ID, Password and IP Filter			
Protocol	Modbus TCP, Modbus UDP			
Power				
Reverse Polarity Protection	Yes			
Consumption	2.3 W (max.)	2.4 W (max.)	2.7 W (max.)	2.9 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		
Mechanical				
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			
Environment				
Operating Temperature	-25 to +75°C			
Storage Temperature	-30 to +80°C			
Humidity	10 to 90% RH, Non-condensing			

■ I/O Specifications

Model	ET-7050	PET-7050	ET-7250A	PET-7250A
Digital Input/Counter				
Channels	12			
Type	Wet Contact		Dry, Wet Contact	
Sink/Source (NPN/PNP)	Sink/Source		Dry: Source Wet: Sink	
ON Voltage Level — Dry	-		Close to GND	
ON Voltage Level — Wet	+10 to +50 VDC		1 VDC (max.)	
OFF Voltage Level — Dry	-		Open	
OFF Voltage Level — Wet	+4 VDC (max.)		+3.5 to +50 VDC (max.)	
Max. Counts	4,294,967,295 (32-bit)			
Frequency	500 Hz		100 Hz	
Min. Pulse Width	1 ms		5 ms	
Input Impedance	10 kΩ			
Overvoltage Protection	+70 VDC		+60 VDC	
Digital Output				
Channels	6			
Type	Isolated Open Collector			
Sink/Source (NPN/PNP)	Sink			
Load Voltage	+5 to +30 VDC		+5 to +50 VDC	
Load Current	100 mA/channel at 25°C Direct Drive Power Relay Module		500 mA/channel	
Overvoltage Protection	-		+60 VDC	
Overload Protection	-		1.3 A	
Short-circuit Protection	-		Yes	
Power on Value	Programmable			
Safe Value	Programmable			

■ Pin Assignments

23 | IN5 IN4 IN3 IN2 IN1 IN0 DO5 DO4 DO3 DO2 DO1 DO0 DO.GND DO.PWR | 10

E1 | 1 | IN6 IN7 IN8 IN9 IN10 IN11 IN.COM (R)+Vs (B)GND | 9

PET-7050: PoE

ET-7050: +10 to +30 VDC
PET-7050: +12 to +48 VDC

26 | IN.GND IN8 IN7 IN6 IN5 IN4 IN3 IN2 IN1 IN0 DO5 DO4 DO3 DO2 DO1 DO0 DO.PWR DO.GND | 9

E1 PoE | E2 | 1 | IN9 IN10 IN11 IN.GND (R)+VS (R)+VS (B)GND (B)GND | 8

PET-7250A: PoE

ET-7250A: +12 to +48 VDC
PET-7250A: +12 to +48 VDC

■ Wire Connections

ET-7050/PET-7050

Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Wet Contact (Sink)	+10 ~ +50 VDC INx / IN.COM	OPEN or <4 VDC INx / IN.COM
Wet Contact (Source)	+10 ~ +50 VDC INx / IN.COM	OPEN or <4 VDC INx / IN.COM

Digital Output	ON State Readback as 1	OFF State Readback as 0
Open Collector (Sink)	Load — DOx / DO.PWR / DO.GND +5 ~ +30 VDC	Load — DOx / DO.PWR / DO.GND +5 ~ +30 VDC

ET-7250A/PET-7250A

Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Wet Contact (Sink)	1 VDC Max. INx / IN.GND 1 VDC Max.	+3.5 VDC to +50 VDC Max. INx / IN.GND +3.5 ~ +50 VDC Max.
Dry Contact (Source)	Close to GND INx / IN.GND	Open INx / IN.GND

Digital Output	ON State Readback as 1	OFF State Readback as 0
Open Collector (Sink)	Load — DOx / DO.PWR / DO.GND +5 ~ +50 VDC	Load — DOx / DO.PWR / DO.GND +5 ~ +50 VDC

■ Ordering Information

ET-7050 CR	Ethernet I/O Module with 12-ch DI and 6-ch DO (RoHS)
PET-7050 CR	PoE Ethernet I/O Module with 12-ch DI and 6-ch DO (RoHS)
ET-7250A CR	Ethernet I/O Module with 2-port Ethernet Switch, 12-ch DI and 6-ch DO (RoHS)
PET-7250A CR	PoE Ethernet I/O Module with 2-port Ethernet Switch, 12-ch DI and 6-ch DO (RoHS)