



## ET-7083 PET-7083

Ethernet I/O Module with 3-ch Encoder/Counter Input

### Features

- Built-in Web Server
- Web HMI
- Support for both Modbus TCP and Modbus UDP Protocols
- Communication Access Control
- Dual Watchdog
- I/O Pair Connection
- Built-in I/O
  - 3-axis 32-bit Encoder/Counter Input
  - 1 MHz max. for Quadrant Mode
  - 4 MHz max. for CW/CCW, Pulse/Direction Mode
  - Counter Value Retention



### Introduction

The ET-7083/PET-7083 is a 3-axis high speed encoder/counter module. Its each axis can be individually configured for Quadrant, Pulse/Direction or CW/CCW counting modes. The maximum input rate for Quadrant counting mode is 1 MHz, and for Pulse/Direction, CW/CCW counting modes is 4 MHz.

The encoder/counter module is equipped a FRAM to retain the counter value after it is powered off. FRAM is a nonvolatile memory that can hold written data even after it is powered off. The data retention can be 10 years. And the feature can be configured as enabled or disabled.

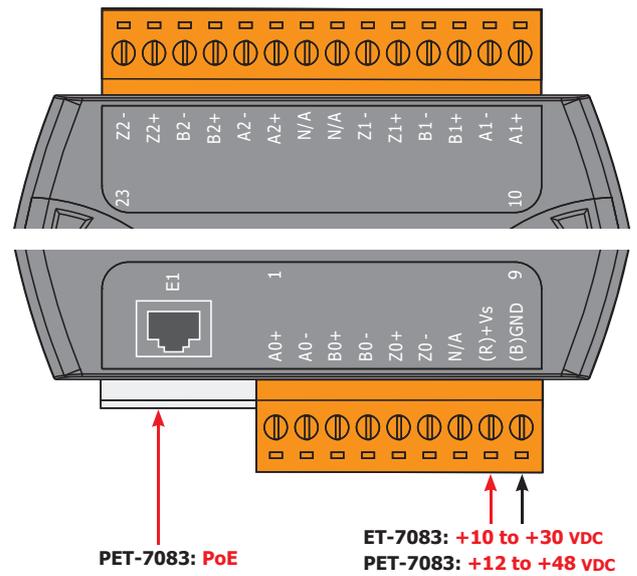
### System Specifications

Model	ET-7083	PET-7083
<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	-
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
<b>Ethernet</b>		
Ports	1 x RJ-45, 10/100 Base-TX	
PoE	-	Yes
Access Control	ID, Password and IP Filter	
Protocol	Modbus TCP, Modbus UDP	
<b>Power</b>		
Reverse Polarity Protection	Yes	
Consumption	2.7 W (max.)	2.7 W (max.)
Powered from PoE	-	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)	
Installation	DIN-Rail mounting	
<b>Environment</b>		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-30 ~ +80 °C	
Humidity	10 ~ 90% RH, Non-condensing	

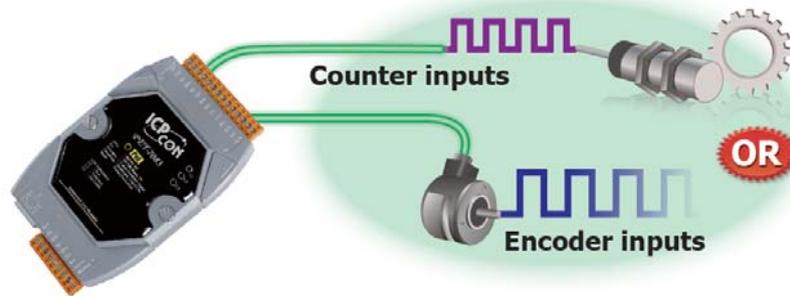
## I/O Specifications

Model	ET-7083	PET-7083
<b>Counter/Frequency/Encoder Input</b>		
Channels	3-axis	
Counter Mode	Quadrant	
	CW/CCW	
	Pulse/Direction	
Bits	32-bit	
ON Voltage Level	5 V: +3.5 to +5 VDC	
	12 V with 1 kΩ External Resistor: +5 to +12 VDC	
	24 V with 2 kΩ External Resistor: +7 to +24 VDC	
OFF Voltage Level	+2 VDC (max.)	
Individual Channel Configuration	Yes	
Max. Speed	Quadrant mode: 1 MHz	
	CW/CCW mode: 4 MHz	
	Pulse/Direction mode: 4 MHz	
Counter Value Retention	Yes	
Counter Preset Value	Programmable	

## Pin Assignments



## Applications



## Wire Connections

Input Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Relay Contact	Relay ON 	Relay OFF 
	Voltage > 5 V 	Voltage < 0.8 V 
NPN Output	Open Collector ON 	Open Collector OFF 
	Open Collector ON 	Open Collector OFF 

## Ordering Information

<b>ET-7083 CR</b>	Ethernet I/O Module with 3-ch Encoder/Counter Input (RoHS)
<b>PET-7083 CR</b>	PoE I/O Module with 3-ch Encoder/Counter Input (RoHS)