



## ET-7217RMS

## PET-7217RMS

Ethernet I/O Module with 2-port Ethernet Switch,  
8-ch RMS Input, 4-ch DO

### 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
  - AI: 8 Channels True RMS Input
  - The RMS input range can be from 150 mVrms to 10 Vrms
  - Designed for Standard Operation with Frequencies of 45 Hz to 10 KHz
  - Individual Channel Configurable
  - DO: 4 Channels



### Introduction

The ET-7217RMS/PET-7217RMS is an 8-channel differential AC input and 4-channel digital outputs module that is used to convert the AC input signals to their True RMS DC values. The RMS input range can be from +150 mVrms to +10 Vrms, and each channel can be configured individually. The ET-7217RMS/PET-7217RMS is a complete, high-accuracy, RMS-to-DC converter that computes the True RMS DC value of any complex waveform. It also features 4 kV ESD protection, 2500 VDC intra-module isolation, and  $\pm 35$  Vrms/ $\pm 28$  VDC overvoltage protection.

### System Specifications

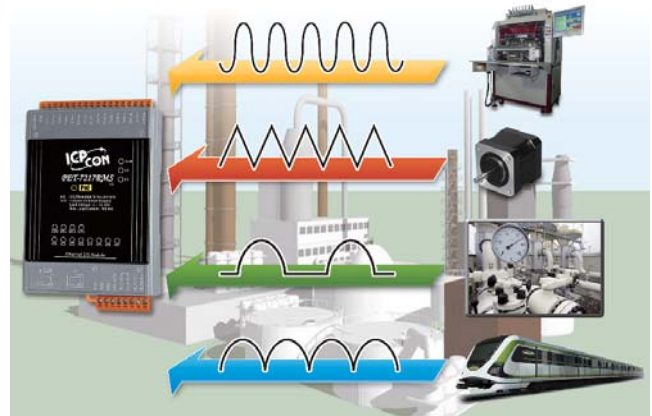
Model	ET-7217RMS	PET-7217RMS
<b>Software</b>		
Built-in Web Server	Yes	
<b>CPU Module</b>		
Watchdog Timer	Module, Communication (Programmable)	
<b>2-Way Isolation</b>		
Ethernet	1500 VDC	-
I/O	2500 VDC	
<b>EMS Protection</b>		
EFT (IEC 61000-4-4)	$\pm 2$ kV for Power Line	
ESD (IEC 61000-4-2)	$\pm 4$ kV Contact for Each Terminal $\pm 8$ kV Air for Random Point	
Surge (IEC 61000-4-5)	$\pm 2$ 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	ID, Password and IP Filter	
Protocol	Modbus TCP, Modbus UDP	
<b>Power</b>		
Reverse Polarity Protection	Yes	
Consumption	4.2 W (max.)	4.4 W (max.)
Powered from PoE	-	IEEE 802.3af, Class1
Powered from Terminal Block	+12 ~ +48 VDC	
<b>Mechanical</b>		
Dimensions (mm)	76 x 120 x 42 (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

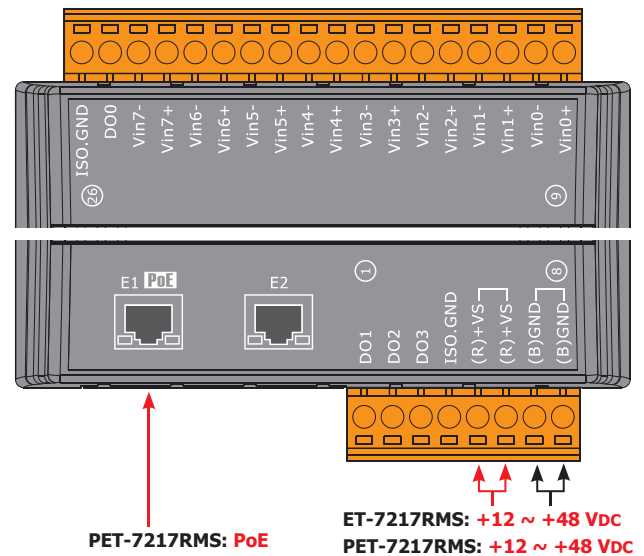
Analog Input		
Channels	8 (Differential)	
Type	True RMS	
Resolution	16-bit	
Accuracy	<b>Sinusoid</b>	
	50/60 Hz	±0.15% of FSR
	45 Hz ~ 10 kHz	±0.5% of FSR
	<b>Non-Sinusoid</b>	
	Crest Factor = 1 ~ 2	±0.2% of FSR
	Crest Factor = 2 ~ 3	±0.35% of FSR
Accuracy	<b>DC</b>	
	0 ~ 10 Vrms, 0 ~ 5 Vrms, 0 ~ 1 Vrms	±0.3% of FSR
	0 ~ 500 mVrms, 0 ~ 150 mVrms	±0.7% of FSR
	Sampling Rate	10 Hz (total channels)
Input Impedance	>2 MΩ	
Overshoot Protection	±35 Vrms/±28 VDC	
Individual Channel Configuration	Yes	
Digital Output		
Channels	4	
Type	Isolated Open Collector	
Sink/Source (NPN/PNP)	Sink	
Load Voltage	+5 ~ +50 VDC	
Load Current	700 mA/channel	
Overshoot Protection	+60 VDC	
Overload Protection	1.4 A	
Short-circuit Protection	Yes	
Power on Value	Programmable	
Safe Value	Programmable	

## Applications

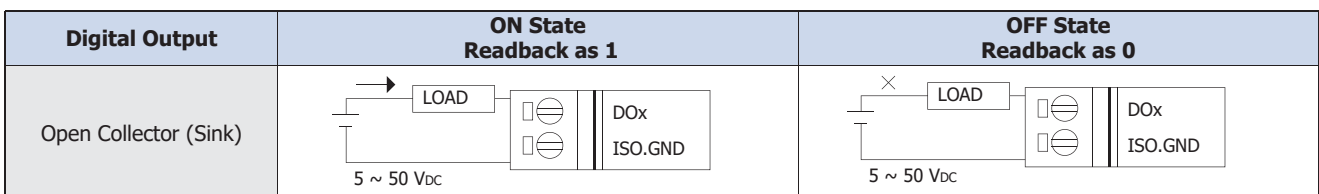
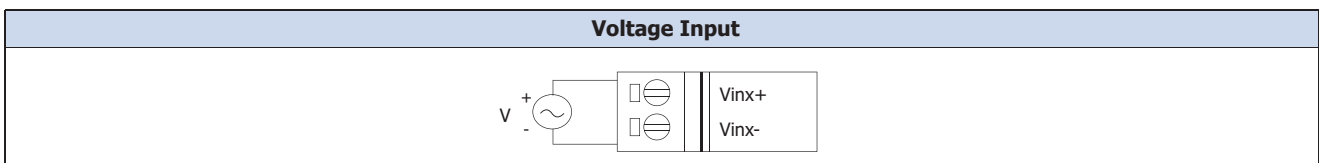
- Building Automation
- Machine Automation
- Remote Diagnosis
- Factory Automation
- Remote Maintenance
- Testing Equipment



## Pin Assignments



## Wire Connections



## Ordering Information

<b>ET-7217RMS CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, 8-ch AI, 4-ch DO (RoHS)
<b>PET-7217RMS CR</b>	PoE I/O Module with 2-port Ethernet Switch, 8-ch AI, 4-ch DO (RoHS)