



## ET-7217RMS      PET-7217RMS

Ethernet I/O Module with 8-channel AI, 4-channel DO

### 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 to +75°C
- 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 ±35 Vrms/±28 Vdc overvoltage protection.

### System Specifications

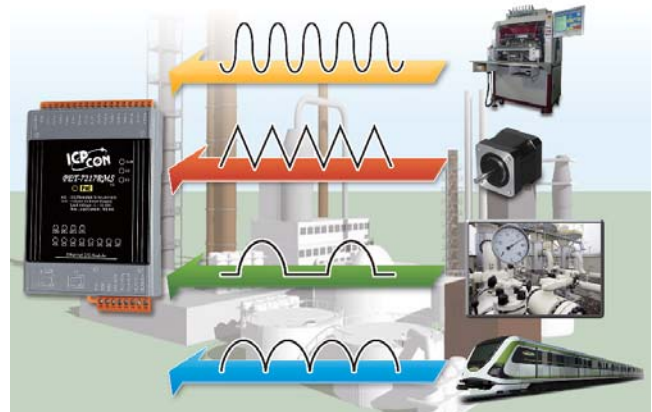
Model	ET-7217RMS	PET-7217RMS
<b>Software</b>		
Built-in Web Server		Yes
Web HMI		Yes
I/O Pair Connection		Yes
<b>Communication</b>		
Ethernet Port	2 x RJ-45, 10/100 Base-TX, Switch Ports	
PoE	-	Yes
Protocol	Modbus TCP, Modbus UDP	
Security	ID, Password and IP Filter	
Dual Watchdog	Yes, Module (0.8 seconds), Communication (Programmable)	
<b>LED Indicators</b>		
for System Running		Yes
for Ethernet Link/Act		Yes
for DI/DO status		Yes
for PoE Power	-	Yes
<b>2-Way Isolation</b>		
Ethernet	1500 Vdc	-
I/O	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)	±2 kV for Power Line	
Surge (IEC 61000-4-5)	±2 kV for Power Line	
<b>Power</b>		
Reverse Polarity Protection		Yes
Powered from Terminal Block	12 ~ 48 Vdc	12 ~ 48 Vdc
Powered from PoE	-	Yes, IEEE 802.3af, Class1
Consumption	4.2 W (Max.)	4.4 W (Max.)
<b>Mechanical</b>		
Dimensions (L x W x H)	120 mm x 76 mm x 38 mm	
Installation	DIN-Rail or Wall Mounting	
<b>Environment</b>		
Operating Temperature	-25 to +75°C	
Storage Temperature	-30 to +80°C	
Humidity	10 to 90% RH, Non-condensing	

### I/O Specifications

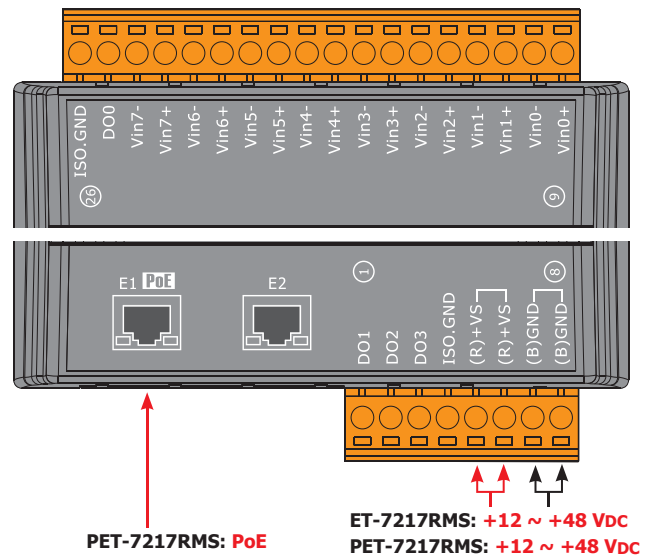
Analog Input		
Channels	8	
Wiring	Differential	
Input Range	0 ~ +10 Vrms, 0 ~ +5 Vrms, 0 ~ +1 Vrms, 0 ~ +500 mVrms, 0 ~ +150 mVrms	
Resolution	16-bit	
Accuracy	Sinusoid	
	50/60 Hz	±0.15% of FSR
	45 Hz to 10 kHz	±0.5% of FSR
	Non-Sinusoid	
	Crest Factor = 1 to 2	±0.2% of FSR
	Crest Factor = 2 to 3	±0.35% of FSR
	DC	
	0 ~ +10 Vrms/ 0 ~ +5 Vrms/ 0 ~ +1 Vrms	±0.3% of FSR
Other	±0.7% of FSR	
Sampling Rate	10 Hz (Total)	
-3dB Bandwidth	15.7 Hz	
Zero Drift	±20 μV/°C	
Span Drift	±25 ppm/°C	
Common Mode Rejection	86 dB	
Normal Mode Rejection	100 dB	
Input Impedance	>2 MΩ	
Individual Channel Configuration	Yes	
Overvoltage Protection	±35 Vrms/±28 VDC	
Digital Output		
Channels	4	
Type	Isolated Open Collector	
Sink/Source (NPN/PNP)	Sink	
Max. Load Current	700 mA/Channel	
Load Voltage	5 Vdc ~ 50 Vdc	
Overvoltage Protection	60 Vdc	
Overload Protection	1.4 A	
Short-circuit Protection	Yes	
Power-on Value	Yes, Programmable	
Safe Value	Yes, Programmable	

### Applications

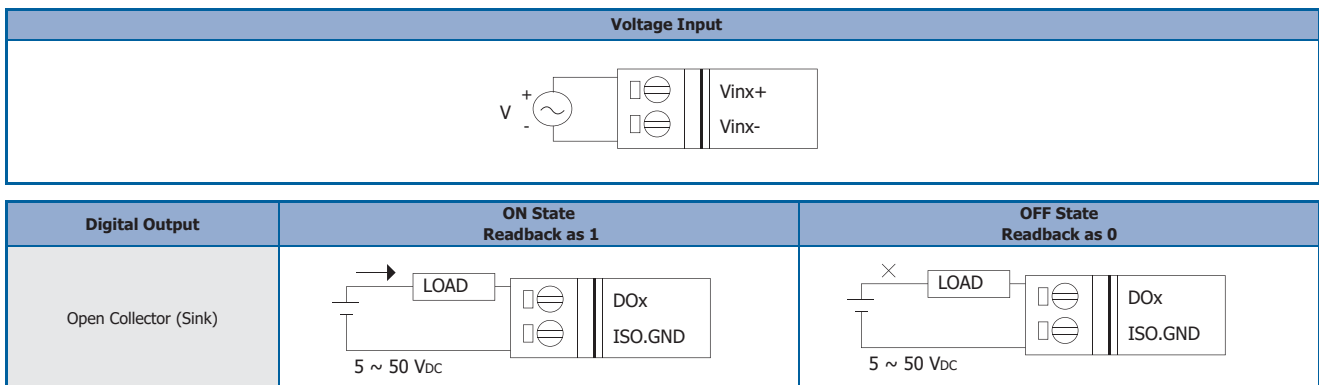
- Building Automation
- Machine Automation
- Remote Diagnosis
- Factory Automation
- Remote Maintenance
- Testing Equipment



### Pin Assignments



### Wire Connections



### Ordering Information

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