

**ET-7015**  
**PET-7015**

**ET-7215**  
**PET-7215**

Ethernet I/O Module with 7-channels RTD Inputs

## 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
  - RTD Input: 7 Channels



## Introduction

The ET-7015/PET-7015/ET-7215/PET-7215 is specifically designed for long-distance RTD measurement. It features automatic compensation for three-wire RTD regardless of the length of wires and provides open wire detection for RTD measurement. The ET-7015/PET-7015/ET-7215/PET-7215 offers 7 channels, each of which could be connected with different kinds of RTD (Pt100, Pt1000, Ni120, Cu100, Cu1000). Also, The ET-7015/PET-7015/ET-7215/PET-7215 is fully RoHS-compliant and has qualification for 4 kV ESD protection as well as 2500 Vdc intra-module isolation.

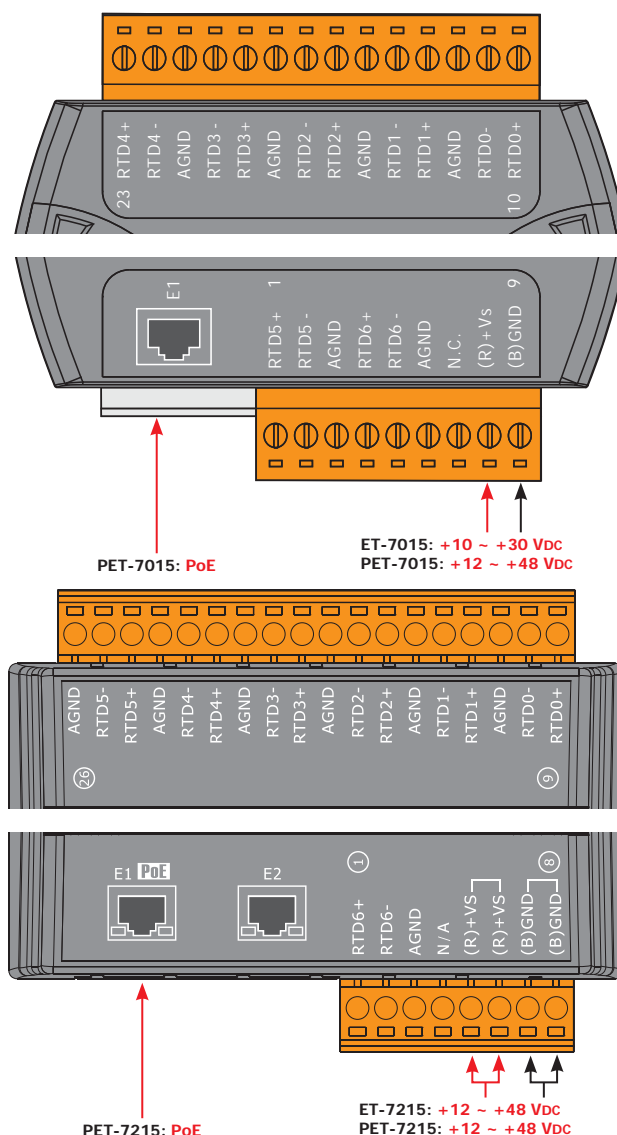
## System Specifications

Models	ET-7015		PET-7015		ET-7215		PET-7215	
Software								
Built-in Web Server	Yes							
Web HMI	Yes							
I/O Pair Connection	Yes							
Communication								
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)							
LED Indicators								
for System Running	Yes							
for Ethernet Link/Act	Yes							
for DI/DO status	-							
for PoE Power	-	Yes		-		Yes		
2-Way Isolation								
Ethernet	1500 Vdc		-		1500 Vdc		-	
I/O	2500 Vdc				3000 Vdc			
EMS Protection								
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				±2 kV for Power Line			
Surge (IEC 61000-4-5)	±0.5 kV for Power Line				±2 kV for Power Line			
Power								
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	2.2 W (Max.)		2.6 W (Max.)		3.0 W (Max.)		3.2 W (Max.)	
Mechanical								
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							
Environment								
Operating Temperature	-25 ~ +75°C							
Storage Temperature	-30 ~ +80°C							
Humidity	10 ~ 90% RH, Non-condensing							

## I/O Specifications

RTD Input	
Channels	7 (Differential)
Sensor Type	Pt100, Pt1000, Ni120, Cu100, Cu1000
Wire Connections	2/3 wire
Individual Channel Configuration	Yes
Resolution	16-bit
Sampling Rate	12 Samples/Second (Total)
Accuracy	+/-0.05%
Zero Drift	+/-0.5 $\mu$ V/ $^{\circ}$ C
Span Drift	+/-20 $\mu$ V/ $^{\circ}$ C
Overvoltage Protection	110 VDC/VAC
Common Mode Rejection	150 dB
Normal Mode Rejection	100 dB
Input Impedance	>1M $\Omega$
Open Wire Detection	Yes
3-wire RTD Lead Resistance Elimination	Yes
Overvoltage Protection	120 VDC
Resistance Measurement	3.2 K $\Omega$ Max.

## Pin Assignments



## Wire Connections

Open Collector (Sink)	CH0, 1, 2, 5 and 6	CH3 and CH4
2-wire of RTD		
3-wire of RTD		

## Ordering Information

ET-7015 CR	Ethernet I/O Module with 7-channels RTD Inputs (RoHS)
PET-7015 CR	PoE Ethernet I/O Module with 7-channels RTD Inputs (RoHS)
ET-7215 CR	Ethernet I/O Module with 2-port Ethernet Switch, with 7-channels RTD Inputs (RoHS)
PET-7215 CR	PoE Ethernet I/O Module with 2-port Ethernet Switch, with 7-channels RTD Inputs (RoHS)