ICP DAS

ET-7015
PET-7015

ET-7215
PET-7215

Ethernet I/O Module with 7-channel 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 to +75°C
- I/O Pair Connection
- Built-in I/O
  - RTD Input: 7 Channels

CE FC RoHS

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 V_{DC} intra-module isolation.

System Specifications

Model	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, Swtich 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 V_{DC}	-	1500 V_{DC}	-
I/O	2500 V_{DC}		3000 V_{DC}	
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 V_{DC}	12 ~ 48 V_{DC}	12 ~ 48 V_{DC}	12 ~ 48 V_{DC}
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 to +75°C			
Storage Temperature	-30 to +80°C			
Humidity	10 to 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 μV/°C
Span Drift	+/-20 μV/°C
Overvoltage Protection	110 V_{DC}/V_{AC}
Common Mode Rejection	150 dB
Normal Mode Rejection	100 dB
Input Impedance	>1M Ω
Open Wire Detection	Yes
3-wire RTD Lead Resistance Elimination	Yes
Overvoltage Protection	120 V_{DC}
Resistance Measurement	3.2 KΩ Max.

◼ Pin Assignments

PET-7015: PoE

ET-7015: +10 ~ +30 V_{DC}
PET-7015: +12 ~ +48 V_{DC}

PET-7215: PoE

ET-7215: +12 ~ +48 V_{DC}
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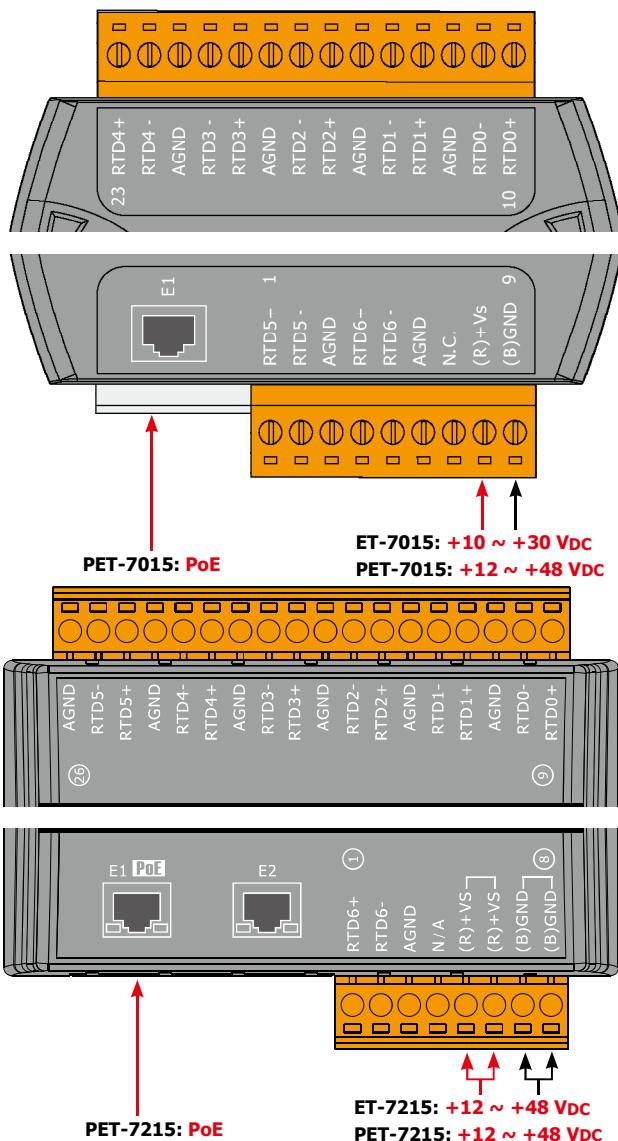
◼ Wire Connections

Open Collector (Sink)	CH0, 1, 2, 5 and 6	CH3 and CH4
2-wire of RTD	RTDx+ RTDx- AGND	RTD3+ RTD3- AGND RTD4- RTD4+
3-wire of RTD	RTDx+ RTDx- AGND	RTD3+ RTD3- AGND RTD4- RTD4+
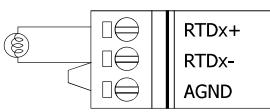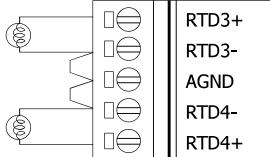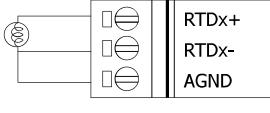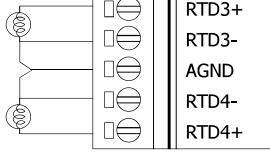
◼ Ordering Information

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