



ET-7015

7-channel RTD Input Module with 3-wire RTD Lead Resistance Elimination

Introduction

The ET-7015, a web-based Ethernet I/O module, features a built-in web server, which allows configuration, I/O monitoring and I/O control by simply using a regular web browser. Besides, with the web HMI function, no more programming or HTML skills are needed; creating dynamic and attractive web pages for I/O monitoring and I/O control would be fun to engineers ever after. The ET-7015 offers easy and safe access for users from anytime and anywhere! In addition, ET-7015 also supports Modbus/TCP protocol that makes seamless integration to SCADA software.

The ET-7015 is a 16-bit, 7-channel RTD inputs module that provides programmable input range on all analog channels(Pt100, Pt1000, Ni120, Cu100, Cu1000). Each channel is allowed to configure an individual range that supports 3-wire RTD lead resistance elimination and open wire detection for RTD measurement.

I/O Specifications

Analog Input	
Input Channels	7 (Differential)
Input Type	RTD
Wire Connection	2/3 wire
RTD Type	Pt100, Pt1000, Ni120, Cu100, Cu1000
Resolution	16-bit
Sampling Rate	12 Samples/Sec. (Total)
Accuracy	+/-0.05%
-3dB Bandwidth	15.7 Hz
Zero Drift	+/-0.5 μ V/ $^{\circ}$ C
Span Drift	+/-20 μ V/ $^{\circ}$ C
Common Mode Rejection	150 dB
Normal Mode Rejection	100 dB
Voltage Input Impedance	>1M Ω
Open Wire Detection	Yes
Individual Channel Configurable	Yes
3-wire RTD Lead Resistance Elimination	Yes
ESD Protection	+/-4 kV (Contact for each channel)
	+/-8 kV air for random point
EFT Protection	+/-4 kV for Power

Analog Input

Features

- Built-in Web Server
- Communication Security
- Modbus/TCP Protocol
- 2-way Isolation/ESD Protection
- Built-in Dual Watchdog
- 10/100 Base-TX Ethernet
- I/O Pair Connection
- AI Type: 7 RTD (Pt100, Pt1000, Ni120, Cu100, Cu1000)
- Individual Channel Configuration
- Open Wire Detection
- 3-wire RTD Input with Lead Resistance Elimination



Applications

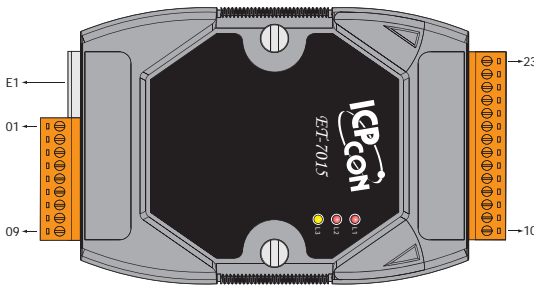
Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote diagnosis, Testing Equipment.

System Specifications

System	
CPU	80186 CPU (80 MHz)
SRAM	512 KB
Flash Memory	512 KB
EEPROM	16 KB
Dual Watchdog	Yes
Communication	
Ethernet Port	10/100 Base-TX (With link, activity led indicator) and auto MDI/MDI-X connection
2-way Isolation	
Ethernet	1500 V _{DC}
AI	2500 V _{DC}
LED Display	
L1 LED as run indicator	
L2 LED as Link/Act indicator	
L3 LED as 10/100M indicator	
Power Requirements	
Protection	Power reverse polarity protection
Required Supply Voltage	+10 V _{DC} ~ +30 V _{DC} (non-regulated)
Power Consumption	0.1 A @ 24 V _{DC} Max.
Mechanical	
Dimensions (W x H x D)	72 mm x 123 mm x 35 mm
Installation	DIN-Rail or Wall mounting
Environment	
Operating Temperature	-25 $^{\circ}$ C ~ +75 $^{\circ}$ C
Storage Temperature	-30 $^{\circ}$ C ~ +80 $^{\circ}$ C
Humidity	5 ~ 90% RH, non-condensing

Pin Assignment

Terminal No.	Pin Assignment
E1	RJ-45
01	RTD5+
02	RTD5-
03	AGND
04	RTD6+
05	RTD6-
06	AGND
07	N.C.
08	(R)Vs+
09	(B)GND

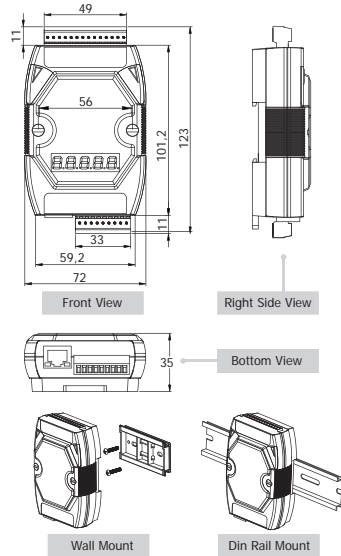


Terminal No.	Pin Assignment
23	RTD4+
22	RTD4-
21	AGND
20	RTD3-
19	RTD3+
18	AGND
17	RTD2-
16	RTD2+
15	AGND
14	RTD1-
13	RTD1+
12	AGND
11	RTD0-
10	RTD0+

Wire Connection

	CH0, 1, 2, 5 and 6	CH3 and CH4
2-Wire of RTD		
3-Wire of RTD		

Dimensions (Unit: mm)



Ordering Information

ET-7015 CR	7-channel RTD Input Module with 3-wire RTD Lead Resistance Elimination (RoHS)
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Accessories

GPSU06U-6	24V/0.25A, 6 W Power Supply
MDR-20-24	24V/1A, 24 W Power Supply with DIN-Rail Mounting
NS-205 CR	Unmanaged 5-Port Industrial Ethernet Switch (RoHS)

Related Products

Converters	USB, RS-232, Fiber Optical to RS-485 Converters and Repeaters
Power Supply	24 Vdc Power Supply
Relay Module	External Relay Modules for ET-7000 DO Module

Learning Kit	Starter Learning Kit
Application Books	Application Books Designed with Our Products
Data Logger Software	User Friendly Data Logger Software (free)