

EC2-RTD16

EtherCAT Slave I/O Module with 16-channel RTD Inputs

Features

- On the fly processing: EtherCAT
- 2 x RJ-45 bus interface
- Distance between stations up to 100 m (100 BASE-TX)
- Support daisy chain connection
- Built-In 16-channel RTD Intputs

Introduction

The EC2-RTD16 is an industrial slave I/O module built in 16 RTD intputs. That provides 90Hz high-speed measurement and open wire detection for each channel. Each channel can be connected to diff erent types of RTD sensors and supports 3-wire RTD lead wire compensation, ensuring accurate measurements regardless of wire length. It is equipped with the EtherCAT protocol and installed by daisy chain connection that provides a more scalable system with fewer wires. The EC2-RTD16 has passed and verified by the conformance test tool, therefore eligible EtherCAT Master or configurator can manipulate it simply and implement your various applications easily.

Specifications

EMS Protection		
EFT (IEC 61000-4-4)		Signal: 1 KV Class B; Power: 1 KV Class B
ESD (IEC 61000-4-2)		±4 kV Contact for Each Terminal
Surge (IEC 61000-4-5)		± 1 kV Class A
Analog Input		
Channels		16
Sensor Type		Pt100, Ni120, Cu50, Cu100
Resolution		16-bit
Accuracy	Fast Mode	±0.1 % of FSR (25°C)
	Normal Mode	±0.05 % of FSR (25°C)
Sampling Rate	Fast Mode	90 Hz (per channel)
	Normal Mode	1.5Hz (per channel)
Input Impedance		> 1 MΩ
Individual ChannelConfiguration		Yes
3-wire RTD Lead Resistance Elimination		Yes
Open Wire Detection		Yes

EtherCAT	
Ports	EtherCAT, 2 X RJ45
Distance Between Stations	Max. 100 m (100 Base-Tx)
Data Transfer Medium	Ethernet/EtherCAT cable (min. CAT5), shielded
Cycle Time	100 us
Distributed Clocks	Yes
Node ID	Up to 256
Power	
Input Range	+24 V_{DC}
Consumption	1.6W
Mechanical	
Casing	Metal with IP40
Dimensions (mm)	83 x 112 x 68 (W x L x D)
Installation	DIN-Rail or Wall Mounting
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

Ordering Information

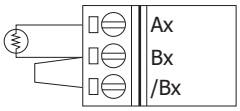
EC2-RTD16 CR	EtherCAT Slave I/O Module with 16-channel RTD Inputs (RoHS)

RTD Type Code Table

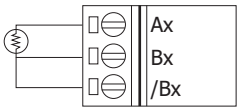
Type Code	RTD Type	Temperature
0	Pt 100, α = 0.00385	-200 ~ 600°C
1	Pt 100, α = 0.003916	-200 ~ 600°C
2	Ni 100	-60 ~ 180°C
3	Ni 120	-80 ~ 150°C
4	Cu 50	-50 ~ 150°C
5	Cu 100, α = 0.00421	-20 ~ 150°C
6	Cu 100, α = 0.00427	0 ~ 200°C
7	Cu 100, α = 0.00428	0 ~ 150°C
8	Resistance	0 ~ 655

Wire Connections

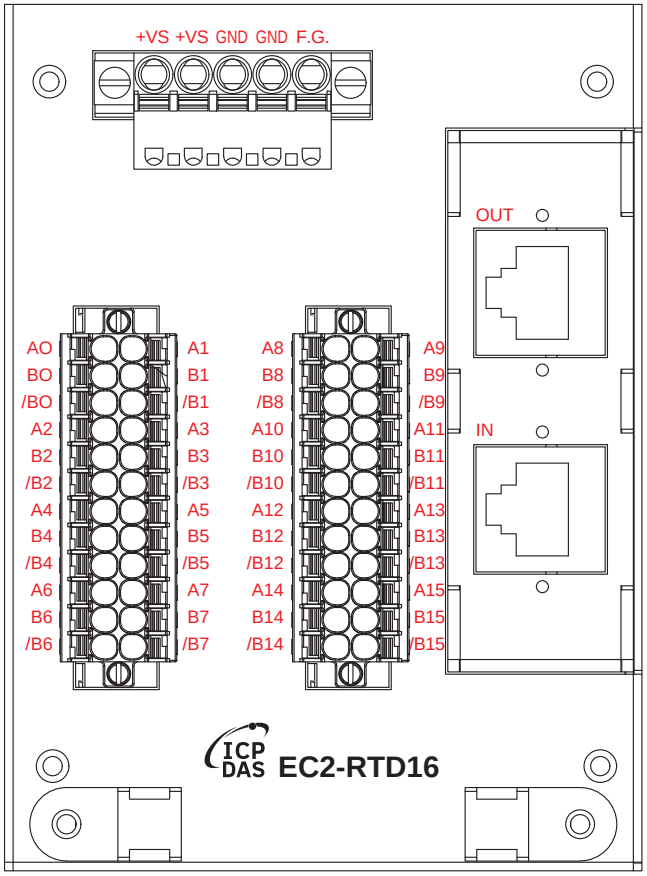
2-wire RTD Connection



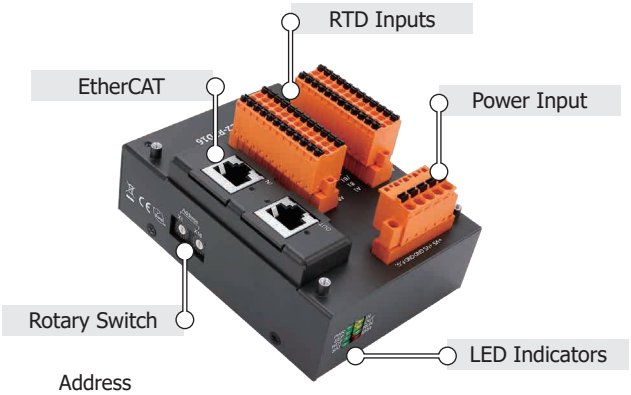
3-wire RTD Connection

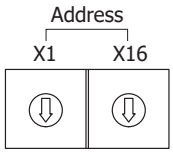


Pin Assignments



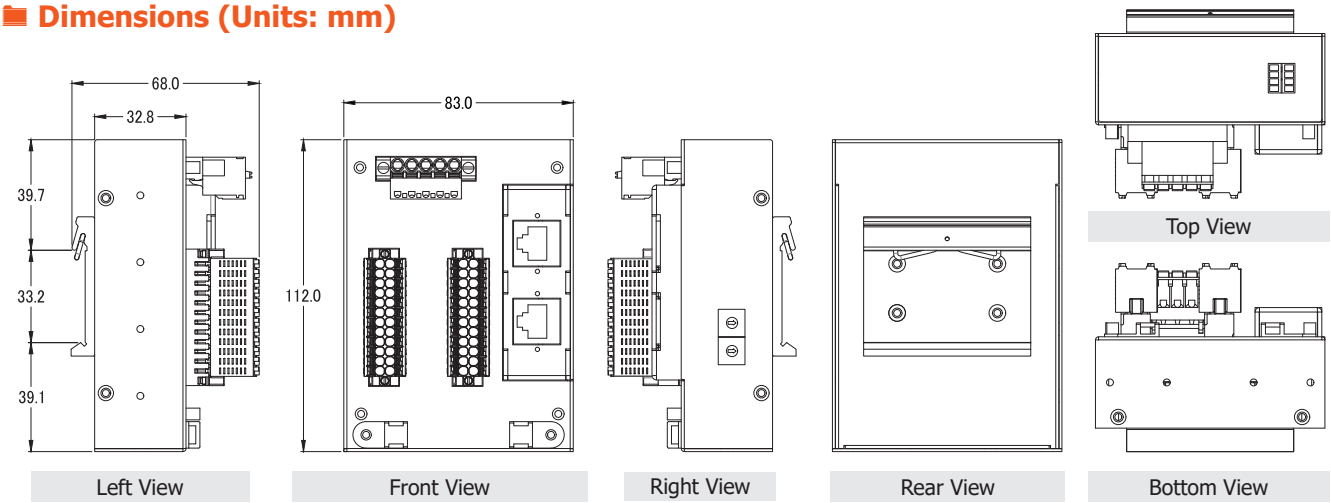
Appearance





Rotary Switch is Hex
Address is double digits
X16 is High digit
X1 is Low digit

Dimensions (Units: mm)



Applications

