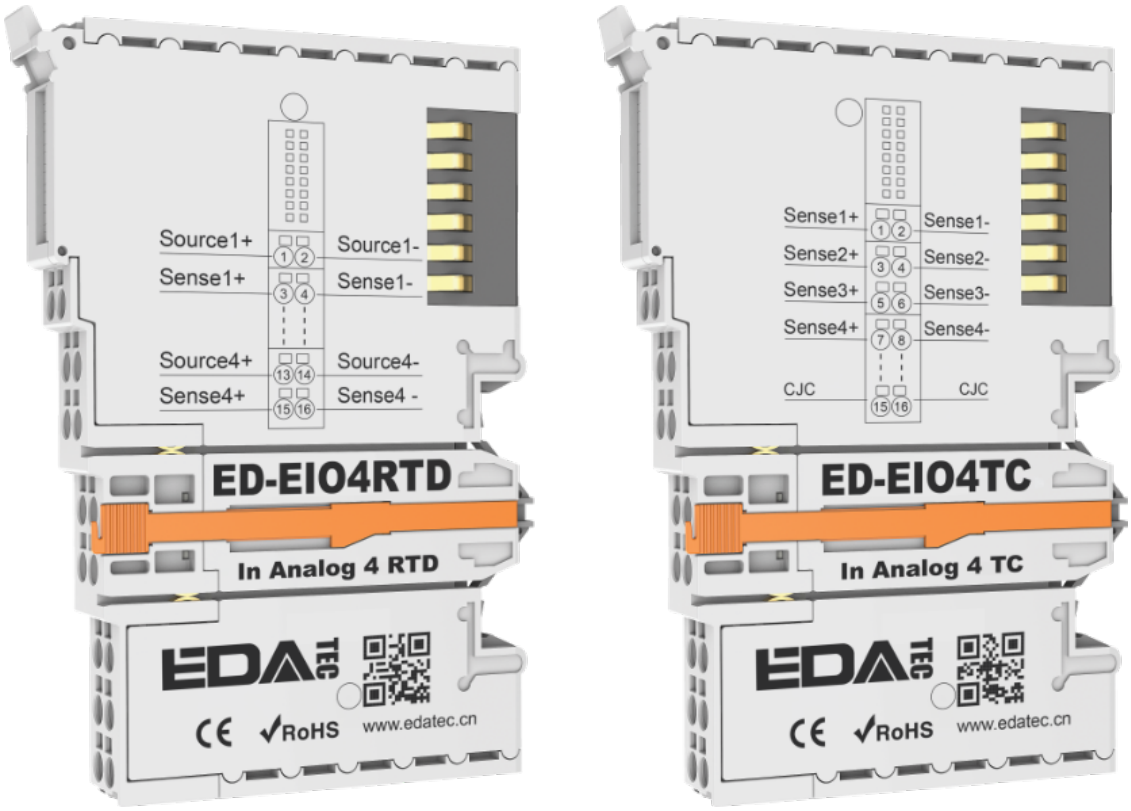


EtherCAT Temperature Input Modules

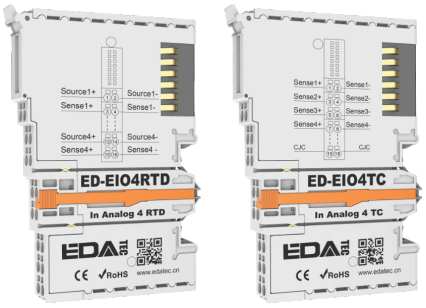
Datasheet

by EDA Technology Co., Ltd

built: 2025-12-22

EtherCAT Temperature Input Module

- 4-channel RTD module, 4-channel TC module
- Each channel is equipped with the LED for an operation check
- Support PT100/PT200/PT500/PT1000/Ni20 RTDs
- Support K/J/T/E/N/S/R/B/C TCs
- Plug-in construction, DIN-rail installation
- PT removable terminal block for screwless wiring
- Support cascading up to 32 I/O modules without additional power supply



Specifications

Input		
Signal Type	RTD	TC
Number of Input Signal Channels	4	
Input Filter	Configurable from 1 to 6, the default is 1	
Connection	2-wire/3-wire(default)/4-wire	2-wire
Sensor Type	PT100/PT200/PT500/PT1000/Ni20	K/J/T/E/N/S/R/B/C
Temperature Range	PT sensor: -200~+800 ℃ Ni sensor: -79~+309 ℃	K sensor (default): -100~+1370 ℃
Resolution	0.1℃	
Precision	±1℃	0.5% (full-scale)
Overvoltage Protection	Support	
Isolation Voltage	AC500V on field and digital side, no isolation between channels	

Diagnostics and Alarms	
Temperature Anomaly Alarm	Support

Diagnostics and Alarms	
Disconnection Alarm	Support
System Power Monitoring	Support

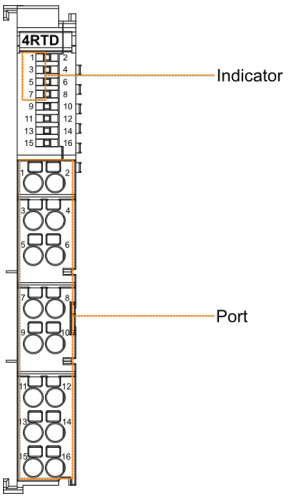
Software	
Fieldbus	EtherCAT
EtherCAT Master Software Platform	CODESYS

Mechanical Characteristics	
Dimensions	100mm x 67.6mm x 14.8 mm
Weight	About 51g
Wiring Specifications	0.2mm² ~ 1.5mm²
Wiring Method	Screwless
Installation	DIN-rail installation

Environmental & Regulatory	
Operating Temperature	-10°C ~ 55°C
Storage Temperature	-20°C ~ 85°C
Ambient Humidity	5% ~ 95% (non-condensing)
Air Pressure	≥ 795 hPa (altitude ≤ 2000 m), compliant with IEC 61131-2
Overvoltage Categories	I
Certifications	CE and RoHS

Interface Definition

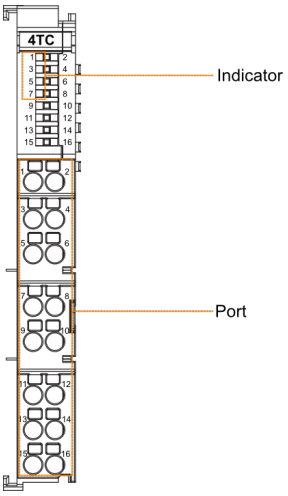
4-channel RTD module:



Indicator			
LED No.	Input	Color	Description
1/3/5/7	1 corresponds to channel 1 3 corresponds to channel 2 5 corresponds to channel 3 7 corresponds to channel 4	Green	The states of indicators are blink and off. • blink: A temperature signal input for corresponding channel • off: No signal input for corresponding channel

Port			
Pin No.	Input	Pin No.	Input
1	Source1+	2	Source1-
3	Sense1+	4	Sense1-
5	Source2+	6	Source2-
7	Sense2+	8	Sense2-
9	Source3+	10	Source3-
11	Sense3+	12	Sense3-
13	Source4+	14	Source4-
15	Sense4+	16	Sense4-

4-channel TC module:



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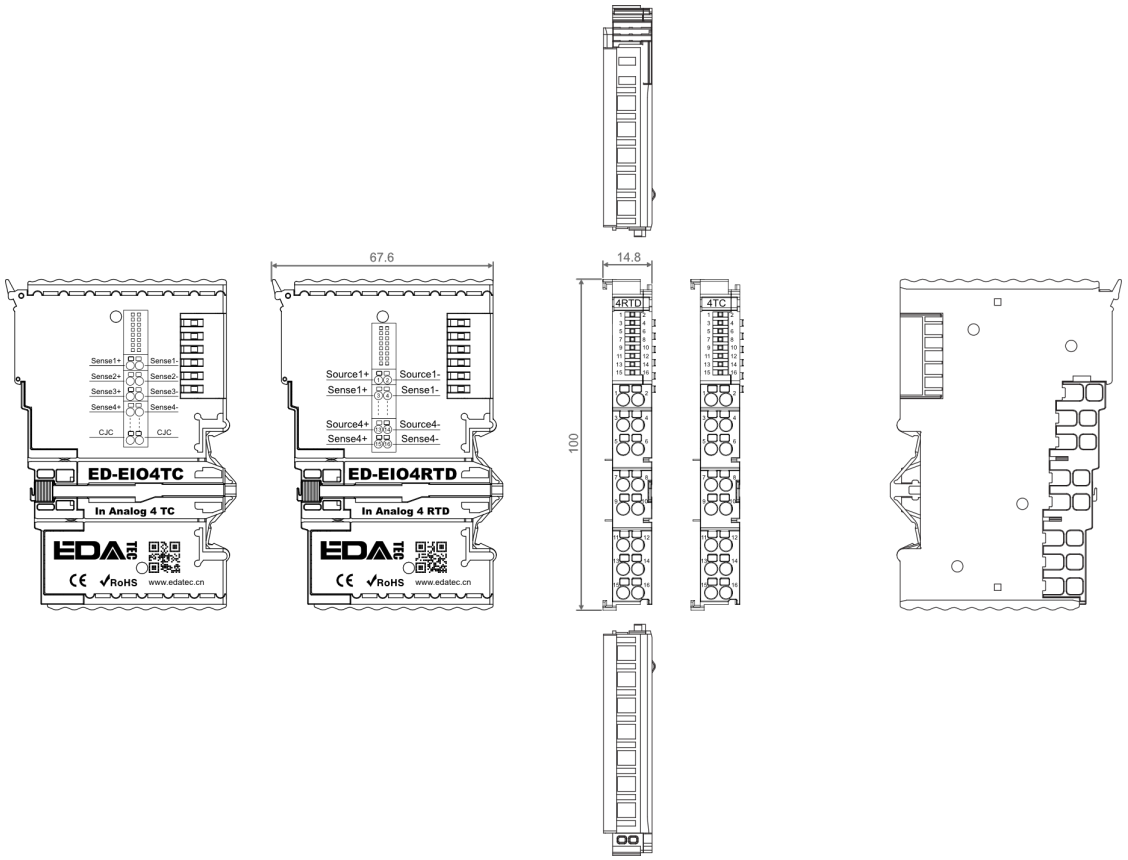
LED No.	Input	Color	Description
1/3/5/7	1 corresponds to channel 1 3 corresponds to channel 2 5 corresponds to channel 3 7 corresponds to channel 4	Green	The states of indicators are blink and off. • blink: A temperature signal input for corresponding channel • off: No signal input for corresponding channel

Port			
Pin No.	Input	Pin No.	Input
1	Sense1+	2	Sense1-
3	Sense2+	4	Sense2-
5	Sense3+	6	Sense3-
7	Sense4+	8	Sense4-
9	NC	10	NC
11	NC	12	NC
13	NC	14	NC
15	CJC	16	CJC

Dimensions

Unit: mm



Ordering Code

Model	Description
ED-EIO4RTD	4-channel RTD Module
ED-EIO4TC	4-channel TC Module

Adapted PLC Unit or EtherCAT Coupler

Model	Description
ED-PLC2010	EtherCAT Master based on CODESYS
ED-EIOBRG-EC	EtherCAT Coupler

Packing List

- 1 x EtherCAT Temperature Input Module

Installation

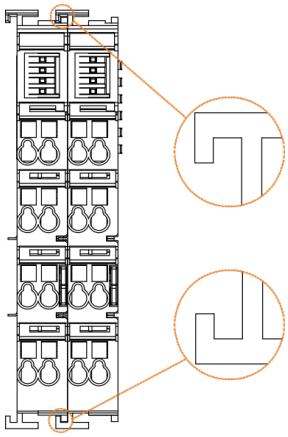
> TIP
>
> - DIN-rail is not included in the box, the following is intended as an installation illustration only.

- Before you start installing, please turn off the power to the module.
- If you encounter a situation where the module cannot be installed, please do not force the installation to avoid damaging the module.

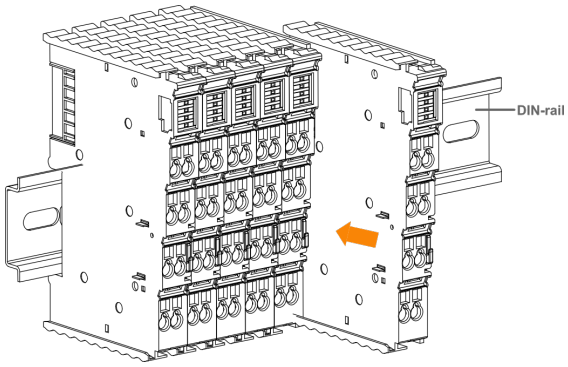
Steps

The following is an example of the installation of an 8-terminal module only.

1. Align the notches in the I/O module.



2. Secure the I/O module to the DIN-rail by pushing the I/O module in the direction of the arrow onto the DIN snap pin.



Dismantling

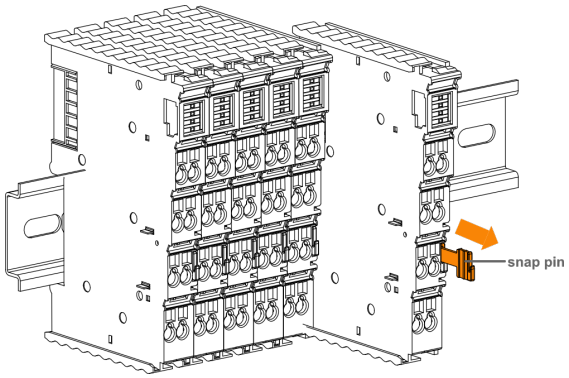
TIP

- Before you start installing, please turn off the power and disconnect the cable to the module.
- If you encounter a situation where the module cannot be installed, please do not force the installation to avoid damaging the module.

Steps

The following is an example of the dismantling of an 8-terminal module only.

1. Hold the snap pin of the I/O module by hand and then pull it out in the direction of the arrow to disengage the module from the DIN-rail.


snap pin