



## EC4-TC8

EtherCAT Slim I/O Module with 8-ch High Speed Thermocouple Inputs

### Features

- On the fly processing: EtherCAT
- Removable terminal block connector
- Built-In 8-channel Thermocouple Inputs
- 100 Hz High-speed Sampling Rate for each Channel
- Open Wire Detection
- Individual Channel Configuration



### Introduction

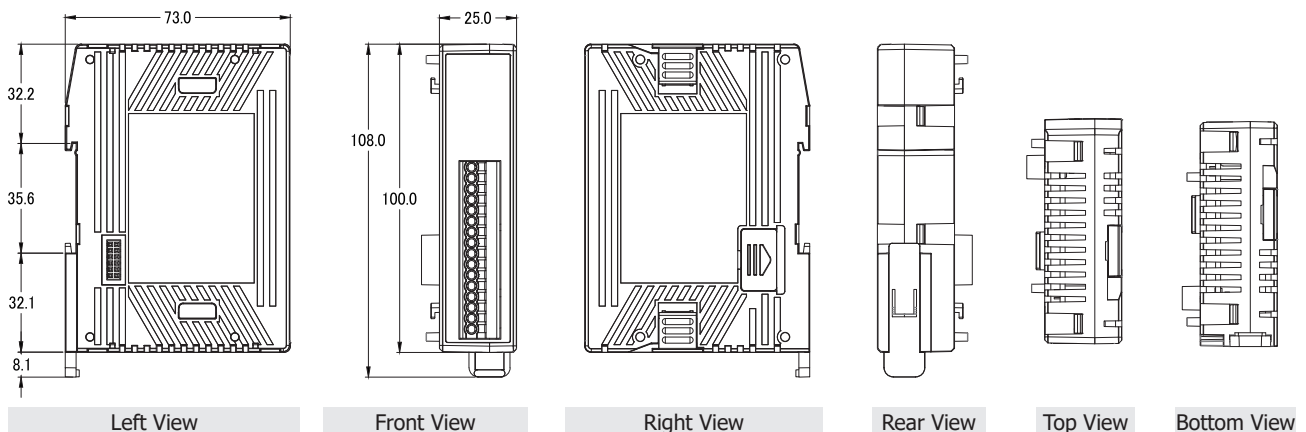
The EC4-TC8 is an industrial I/O module built in 8-ch Thermocouple inputs, based on the slim-type design. That provides 100Hz high-speed measurement and open wire detection for each channel. The module supports a variety of thermocouple input types, including Type J, K, T, E, R, S, B, N, C, L, M, and LDIN43710, and features an automatic cold-junction compensation function for all channels. It features the EtherCAT protocol, providing a system with higher scalability and fewer cables. Having passed consistency tests and verification, the EC4-TC8 can be easily operated by compatible EtherCAT MainDevice, facilitating the implementation of various applications.

### Specifications

Analog Input		
Channels	8	
Sensor Type	Thermocouple (J, K, T, E, R, S, B, N, C, L, M, LDIN43710)	
Resolution	16-bit	
Accuracy	±0.1 % of FSR ( 25°C )	
Sampling Rate	Fast Mode	100 Hz ( Per channel )
	Normal Mode	1.5Hz ( per channel )
Overvoltage Protection	30 VDC	
Individual Channel Configuration	Yes	
Open Wire Detection	Yes	

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
EtherCAT	
Cycle Time	100 us
Distributed Clocks	Yes
Power	
Input Range	+24 VDC
Consumption	1 W (max.)
Mechanical	
Casing	Plastic
Dimensions (mm)	25 x 108 x 73 (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

### Dimensions (Units: mm)



## Applications

# Create your own I/O module

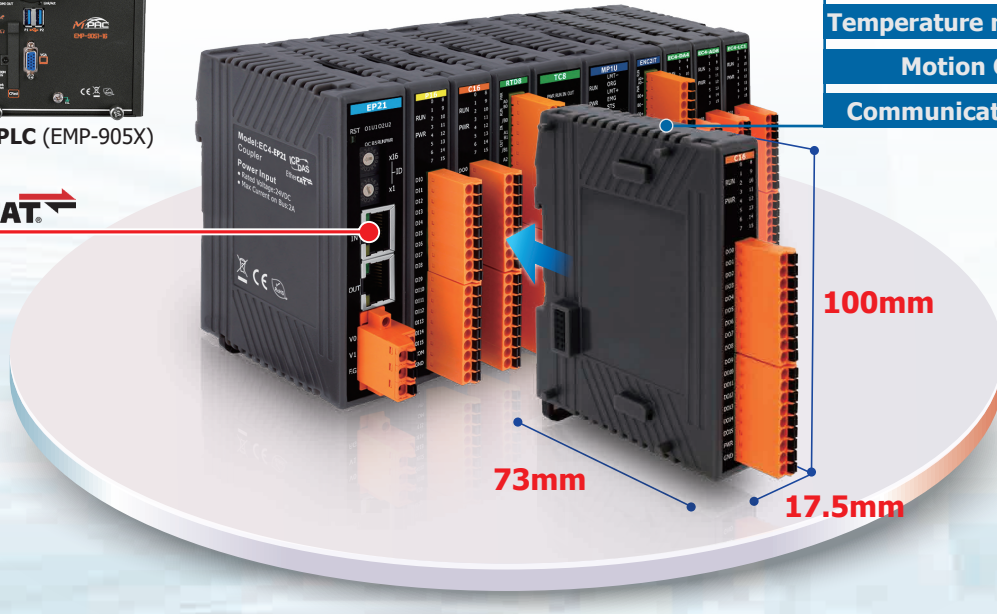
Maximize your I/O system and applications in limited space



▲ PAC/PLC (EMP-905X)

EtherCAT

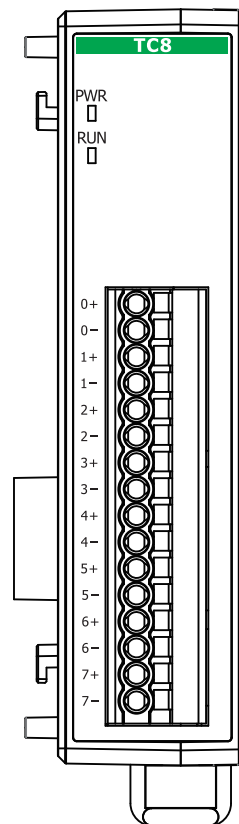
- Digital I/O
- Analog I/O
- Strain measurement
- Temperature measurement
- Motion Control
- Communication coupler



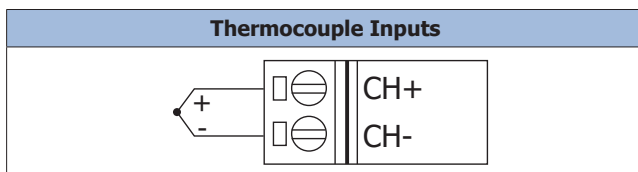
## Thermocouple Type

Type Code	Temperature
J	-210 ~ +760°C
K	-270 ~ +1372°C
T	-270 ~ +400°C
E	-270 ~ +1000°C
R	0 ~ +1768°C
S	0 ~ +1768°C
B	0 ~ +1820°C
N	-270 ~ +1300°C
C	0 ~ +2320°C
L	-200 ~ +800°C
M	-200 ~ +100°C
LDIN43710	-200 ~ +900°C

## Pin Assignments



## Wire Connections



## Ordering Information

<b>EC4-RTD8 CR</b>	EtherCAT Slim I/O Module with 8-ch High Speed Thermocouple Inputs, 100 S/s (RoHS)
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