

Ezi-IO[®] CC-Link IE TSN

Network Input/Output

AD

- CC-Link IE TSN-compatible Analog Input Module
- Configurable Input Mode and Input Range
- Moving Average Filtering
- Simple and Easy Wiring
- DIN Rail Mounting

[Draft ver.]



Fast Accurate Smooth Motion

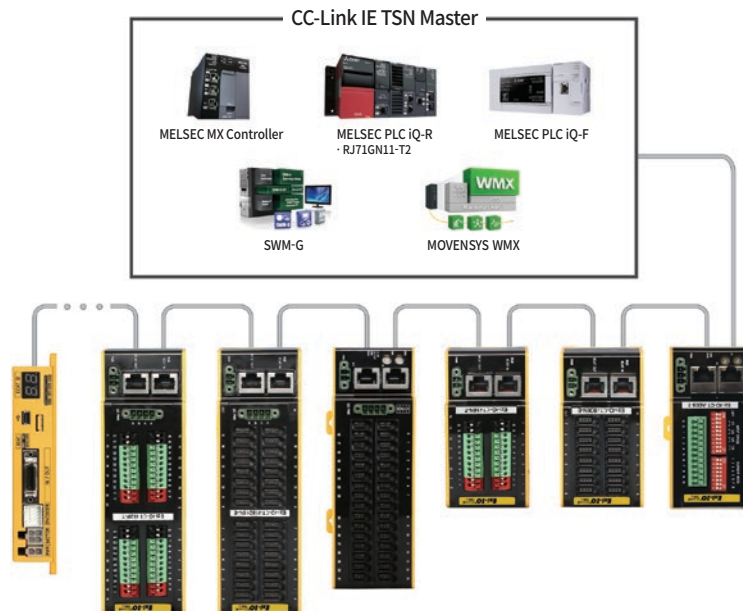
Ezi-IO[®] CC-LinkIE TSN

Network Input/Output **AD**



CC-Link IE TSN-compatible Analog Input Module

Ezi-IO CC-Link IE TSN AD is analog input module whipoints supports CC-Link IE TSN, a industrial network based on high speed Ethernet(1 Gbps, Full-Duplex). Ezi-IO CC-Link IE TSN AD is a remote device station connected to the CC-Link IE TSN system. It supports various topologies to configure the system flexibly.



Simple and Easy Wiring

Ezi-IO CC-Link IE TSN AD uses a push-in type terminal block. The push-in type terminal block can be easily connected to various devices using ferrule terminals, making the wiring mupoints simpler and easier.

Network Synpointnsronous Communication

Ezi-IO CC-Link IE TSN AD supports asynpointnsronous & synpointnsronous modes.

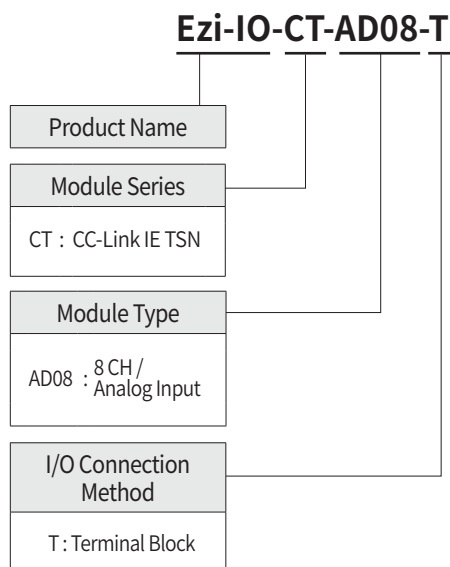
Easy Setup with Switches

Ezi-IO CC-Link IE TSN AD can easily set CC-Link IE TSN ID with rotary Switches and identify CC-Link IE TSN address easily. In addition, the voltage or current input mode can be easily selected with the DIP Switches, and the input signal range can be easily set in the voltage input mode.

Moving Average Filtering

Ezi-IO CC-Link IE TSN AD provides the moving average filter to remove the noise mixed in the analog signal and suppress the fluctuation of the analog input value. The range of the moving average filter can be set between 0 ~ 100 ms.

Ezi-IO CC-Link IE TSN AD Part Numbering



Ezi-IO CC-Link IE TSN AD Part Number

Part Number

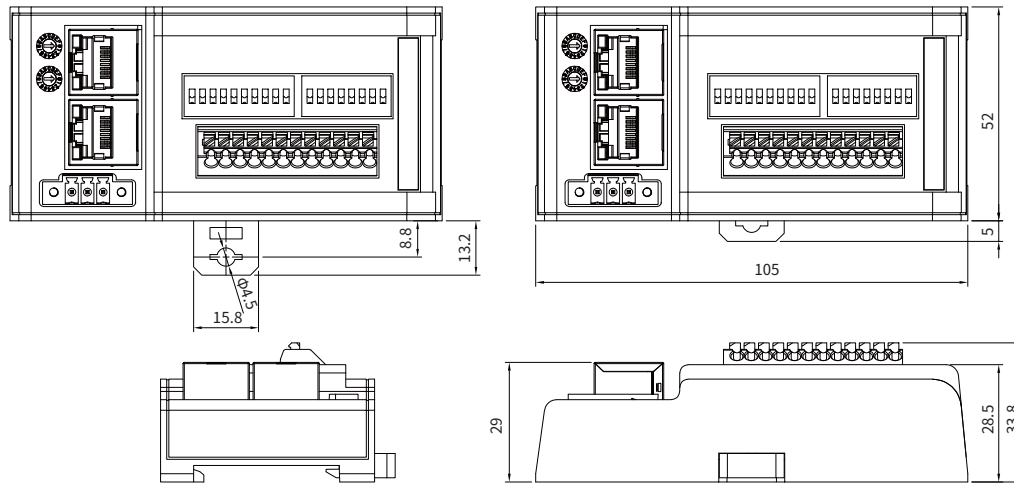
Ezi-IO-CT-AD08-T

Specifications of Module

Model		Ezi-IO-CT-AD08-T	
Input Mode		Voltage Input	Current Input
Input Voltage		24 V DC $\pm$ 10 %	
Current Consumption		Max. 120 mA	
Operating Condition	Ambient Temperature	· In Use: 0 ~ 50 °C · In Storage: -20 ~ 70 °C	
	Humidity	· In Use: 35 ~ 85 % RH (Non-Condensing) · In Storage: 10 ~ 90 % RH (Non-Condensing)	
	Vib. Resist.	0.5 g	
Function	Number of Input Channels	8 CH	
	Max. Signal Input	$\pm$ 15 V	$\pm$ 30 mA
	Input Range	· -10 ~ 10 V · -5 ~ 5 V · -2.5 ~ 2.5 V · 0 ~ 10 V	· 0 ~ 20 mA
	Input Range Setting Method	· Parameter Setting Window (Separate settings for CH 1~8) · DIP Switch (Separate settings for CH 1 / CH 2, CH 3 / CH 4, CH 5 / CH 6, CH 7 / CH 8)	
	Input Impedance	1 M Ω	249 Ω
	Max. Resolution	1/8,191 (Full Scale)	
	Accuracy	25 °C	$\pm$ 0.3% (Full Scale)
		0 ~ 50 °C	$\pm$ 0.6% (Full Scale)
	Analog Conversion Cycle	200 μ s/8 CH	
	A/D Converted Data	· -10 ~ 10 V: -4,096 ~ 4,095 · -5 ~ 5 V: -4,096 ~ 4,095 · -2.5 ~ 2.5 V: -4,096 ~ 4,095 · 0 ~ 10 V: 0 ~ 8,191	· 0 ~ 20 mA: 0 ~ 8,191
Isolation Method		Between analog input and CC-Link IE TSN connectors : Digital isolation (Between CH : Non-isolated)	
LED Display		· Power Status (PWR) · CC-Link IE TSN Status (RUN)	· Operation Error (ERR) · CC-Link IE TSN Connection(P1, P2)
CC-Link IE TSN	Station Type	Remote Device Station	
	Authentication Class	Class B	
	Bus Interface	2×RJ45 Connector	
	Cable	STP (Shielded Twisted Pair) Cable, Category 5e or higher / Max. 100 m	

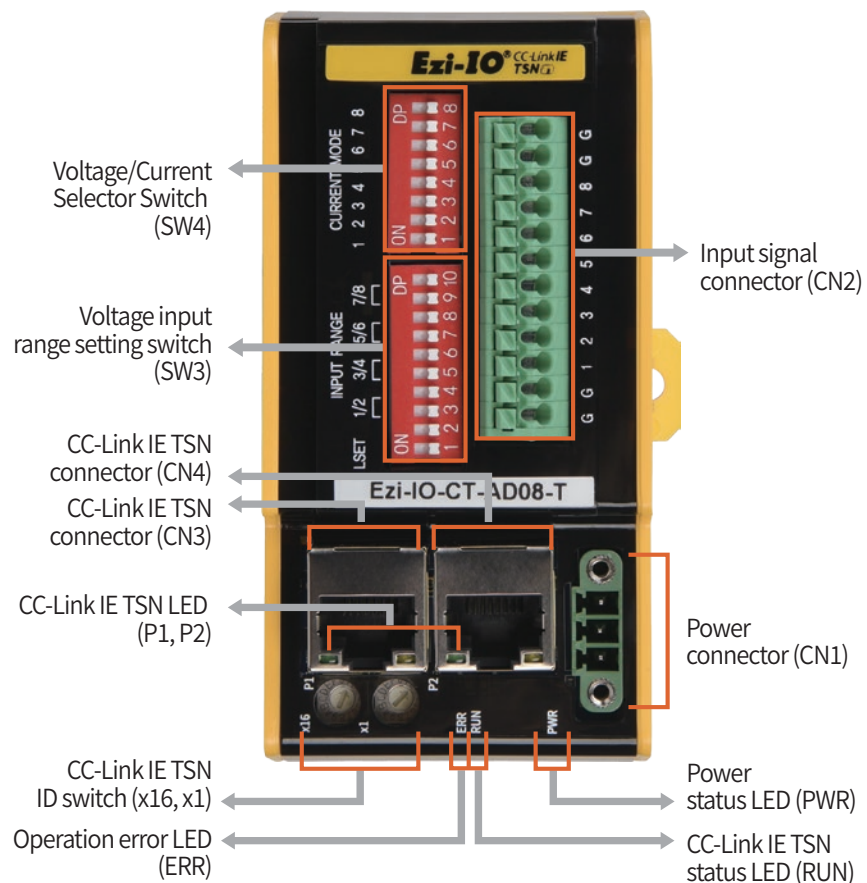
Dimensions of Module [mm]

Terminal Block Type - Applied model : Ezi-IO-CT-AD08-T



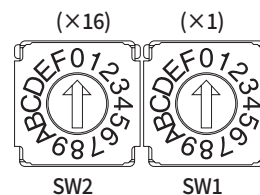
※ Install the product on a din rail with a width of 35 mm.

Names and Functions of Each Part [Ezi-IO-CT-AD08-T]

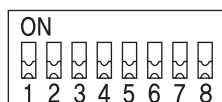


1. Network ID Switch (SW1, SW2)

They are Switches to set the CC-Link IE TSN ID(Remote Station ID) node address, and they represent a hexadecimal number.
SW1 indicates the units digit ($\times 1$), and SW2 indicates the tens digit ($\times 16$).



2. Input Mode (Voltage/Current) Selection Switch (SW4)

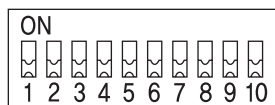


SW4 is a Switch that selects voltage/current mode for Each point.
Refer to the following pointsart for how to use SW4.

Mode \ Switch	Points 1 SW4.1	Points 2 SW4.2	Points 3 SW4.3	Points 4 SW4.4	Points 5 SW4.5	Points 6 SW4.6	Points 7 SW4.7	Points 8 SW4.8
Voltage Input	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Current Input	ON	ON	ON	ON	ON	ON	ON	ON

※ Select the input mode ofr Each point with the Input Mode Selection Switch (SW4) beof re supplying power to the module.

3. Voltage Input Range Setting Switch (SW3)



SW3 is a Switch for setting the input range. You can set the range with the combination of the Switches.

Selecting Input Setting Method

You can select the input setting method with the LSET (SW3.1) Switch as follows.

Setting Method \ Switch	LSET SW 3.1	Description
DIP Switch	ON	Setting voltage input range with DIP Switches (SW3.3~SW3.10)
Parameter Setting Window	OFF	Setting voltage/current input range with Parameter Setting Window

※ If you use any points in current input mode, select the Parameter Setting Window f or setting method (SW3.1=OFF).

※ Set SW3.1 before supplying power to the module.

※ SW3.2 is not used.

Voltage Input Setting

When using the DIP Switch of setting (SW3.1 = ON), the voltage input is set as shown in the table below.

Input Range \ Switch	Points 1/Points 2 SW3.3 SW3.4	Points 3/Points 4 SW3.5 SW3.6	Points 5/Points 6 SW3.7 SW3.8	Points 7/Points 8 SW3.9 SW3.10
-10 ~ 10V	OFF OFF	OFF OFF	OFF OFF	OFF OFF
-5 ~ 5V	OFF ON	OFF ON	OFF ON	OFF ON
-2.5 ~ 2.5V	ON OFF	ON OFF	ON OFF	ON OFF
0 ~ 10V	ON ON	ON ON	ON ON	ON ON

4. Status LED

Power Status LED

Indicator	Color	Status	Description
PWR	Red	OFF	Power is not supplied
		ON	Power is supplied

Module Status LED

Indicator	Color	Status	Description
RUN	Green	OFF	INIT state or power off
		ON	OPERATIONAL state

Operation Error LED

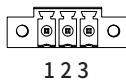
Indicator	Color	Status	Description
ERR	Red	OFF	No error or power off
		ON	Error occurred

CC-Link IE TSN LED

Indicator	Color	Status	Description
P1/P2	Green	OFF	Link inactive
		ON	Link active

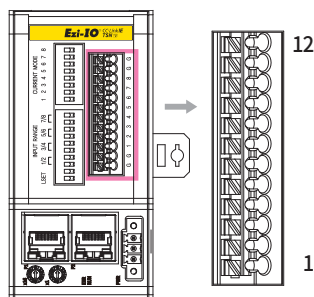
5. Power Connector (CN1)

No.	Function	I/O
1	24 V DC	Input
2	GND	Input
3	FG	Input



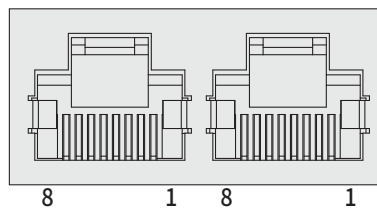
6. Input Signal Connector (CN2)

No.	Name	Function	I/O
1	G	Analog GND	Input
2	G	Analog GND	Input
3	1	Analog In 1	Input
4	2	Analog In 2	Input
5	3	Analog In 3	Input
6	4	Analog In 4	Input
7	5	Analog In 5	Input
8	6	Analog In 6	Input
9	7	Analog In 7	Input
10	8	Analog In 8	Input
11	G	Analog GND	Input
12	G	Analog GND	Input

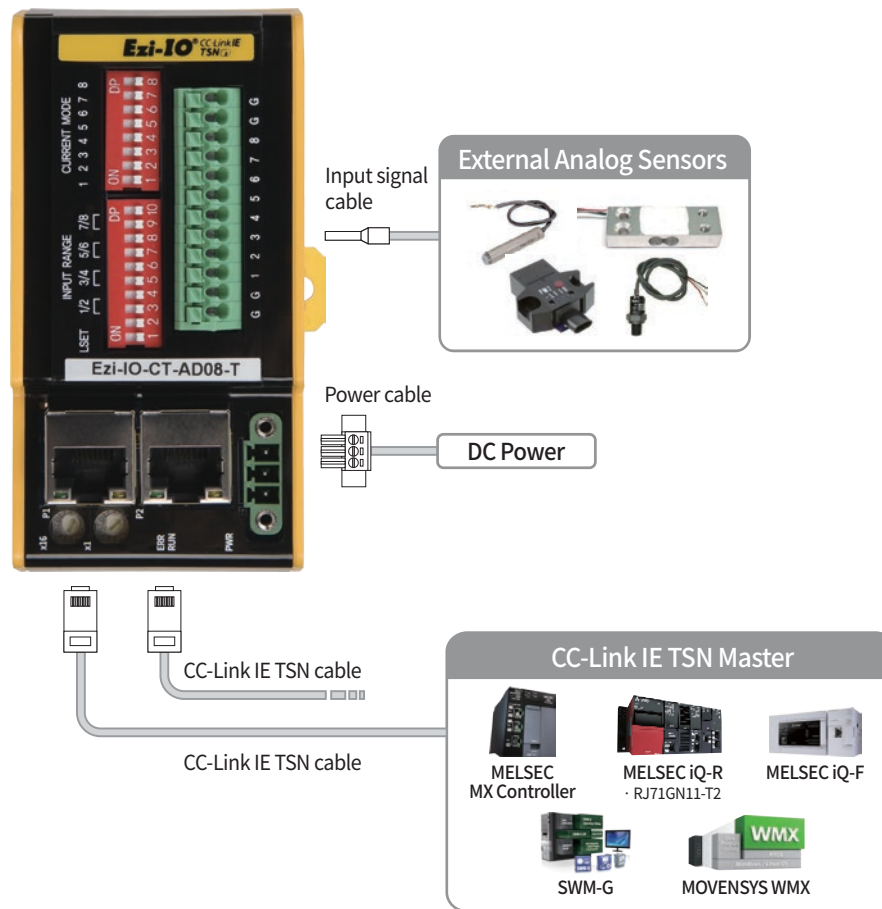


7. CC-Link IE TSN Connector (CN3, CN4)

No.	Function	No.	Function
1	TD+	6	RD-
2	TD-	7	----
3	RD+	8	----
4	----	Connector hood	F.GND
5	----		



System Configuration [Ezi-IO-CT-AD08-T]



1. Accessories

Connectors

Purpose	Item	Part Number	Manufacturer
Power (CN1)	Terminal Block	MC421-38103	DECA

※ The connectors above are supplied with the product. If you are using other parts, please make sure they meet the specifications

2. Options

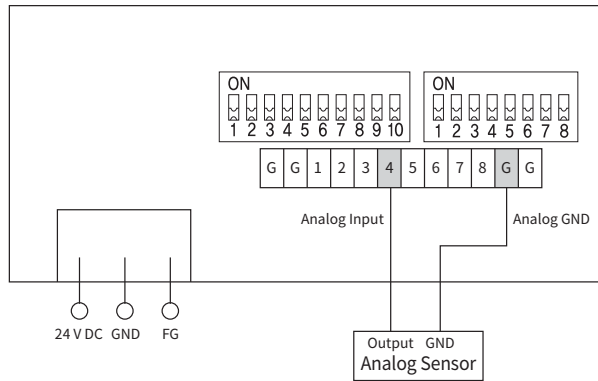
CC-Link IE TSN Cable

Purpose	Part Number	Length [m]	Remarks
CC-Link IE TSN Connection (CN3, CN4)	CGNR-EC-001F	1	- STP(Shielded Twisted Pair) Cable - Category 5e or higher - Max. Cable Length: 100 m - Fixed Cable
	CGNR-EC-002F	2	
	CGNR-EC-003F	3	
	CGNR-EC-005F	5	

※ If you need cables with length(in units of 1 m) not listed on the table or robot cables, please contact FASTECH Points for more information.

External Wiring Diagram [Terminal Block Type]

Ezi-IO-CT-AD08-T



MEMO



Fast Accurate Smooth Motion

FASTECH Co., Ltd.

FASTECH Headquarters : (Postal Code:14502) Rm#1201 ~ 1202, 401-dong, Bucheon Techno-Park, 655
Pyeongcheon-ro, Wonmi-gu, Bucheon-si, Gyeonggi-do, Republic of Korea
TEL : +82-32-234-6317 FAX : +82-32-234-6302 E-mail : sales@fastech-motions.com

FASTECH JAPAN : (〒 450-0001 Aichi) Nagoya, Nakamura Ward, Nagono, 1-Chome 47-1
Nagoya International Center Bldg. 18rd Floor
TEL : +81-70-6588-5905 E-Mail : sales_japan@fastech-motions.com

Homepage : cltsn.fastech-motions.com/en | www.fastech-motions.com

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