

Ezi-IO[®]

Input/Output Module

- Ethernet Based Analog Output Module
- Simple and Easy Wiring
- Output Range Configurable
- Calibration for Output Deviation

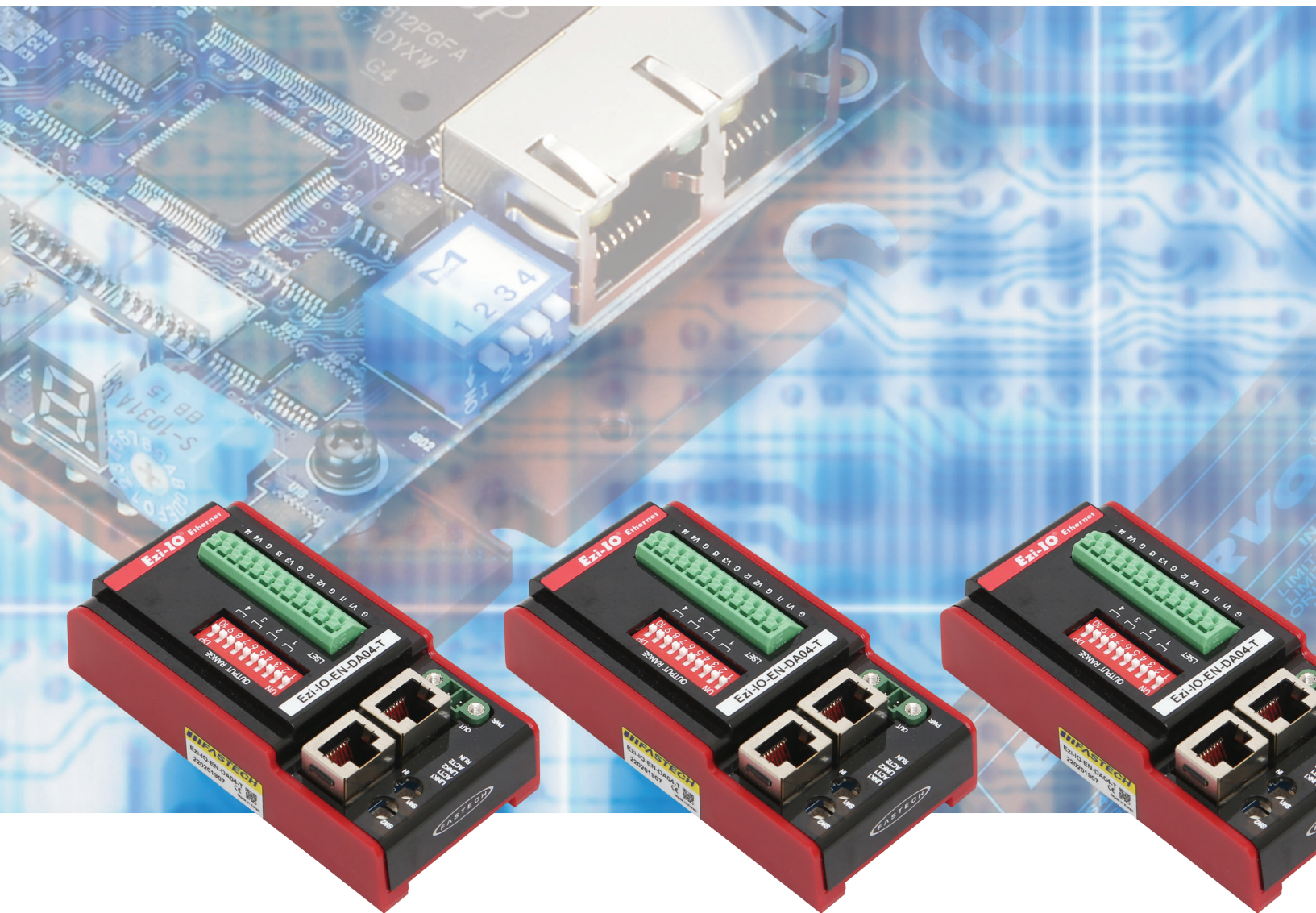
Ethernet
DA



CE

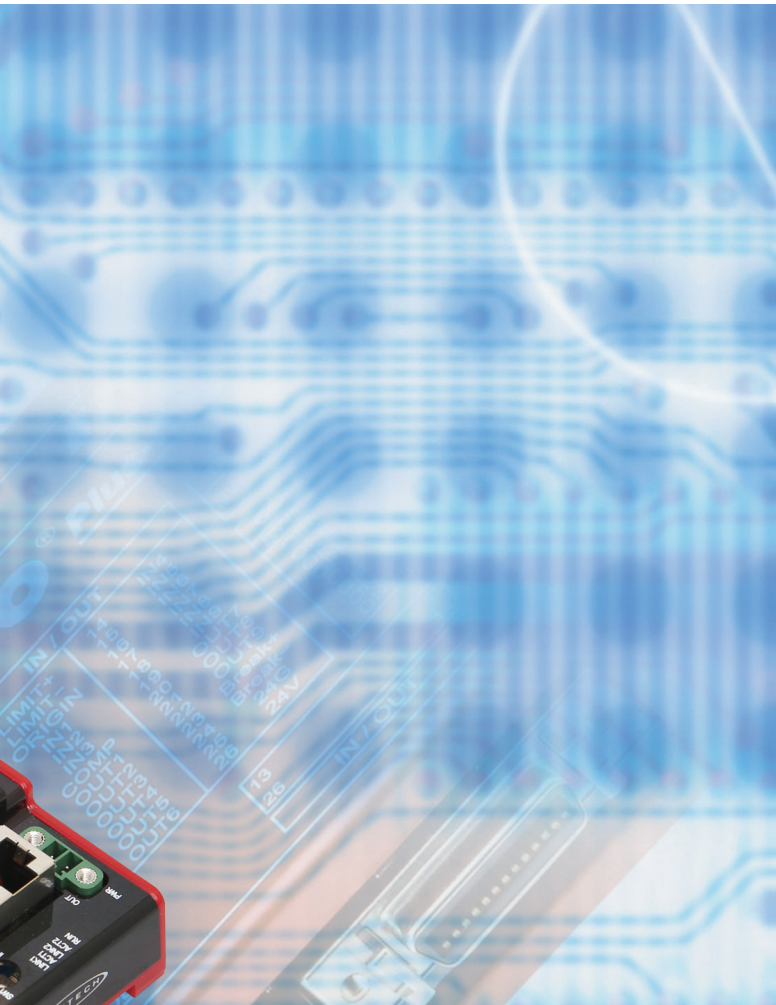
FASTECH

Fast, Accurate, Smooth Motion



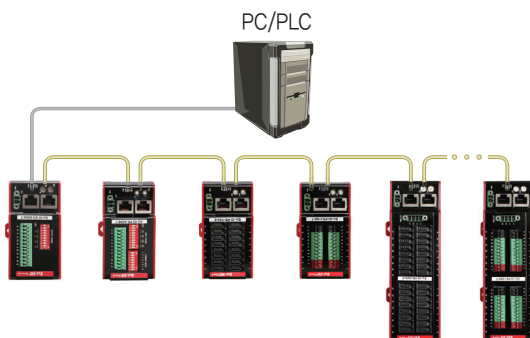
Fast, Accurate, Smooth Motion

Ezi-IO® **Ethernet**
Input/Output Module **DA**



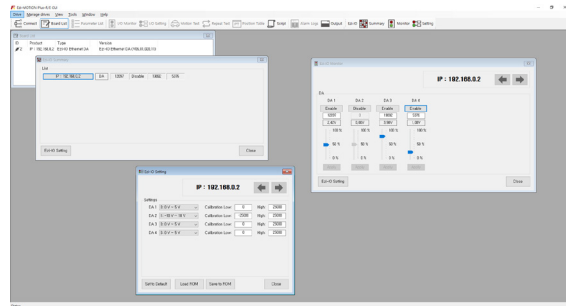
1 Ethernet Based Analog Output Module

Ezi-IO Ethernet DA is an analog output module, controlled via Ethernet. Since Ezi-IO Ethernet DA uses the same communication protocol as FASTECH's other Ethernet products, it can be applied very easily to the customers who have experiences using FASTECH's Ethernet products. Also, FASTECH provides Motion Library(API) for making programs of Ezi-IO Ethernet DA in Windows 7/8/10.



2 GUI and Library(API) Provided

You can set output parameters or monitor D/A conversion values of Ezi-IO Ethernet DA by using GUI (Graphical User Interface)-based support software provided by FASTECH.



3 Simple and Easy Wiring

Ezi-IO Ethernet DA 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 much simpler and easier.

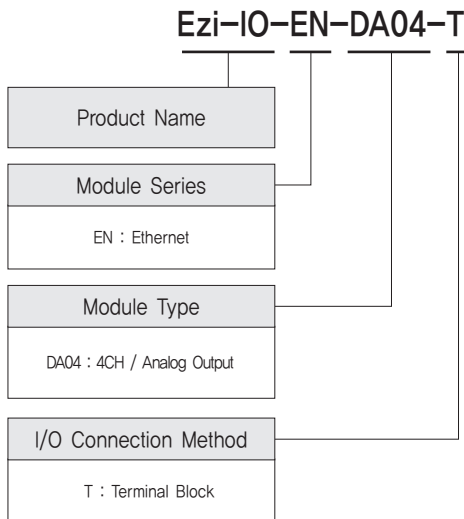
4 Easy Setup with Switches

The Ethernet IP can be set simply with the rotary switch, and the product address can be easily identified. Also, the output signal range can be easily set with the DIP switches.

5 Calibration for Output Deviation

Ezi-IO Ethernet DA provides an output deviation calibration function as a countermeasure against deviations in the output signal due to the type of connection device, the characteristics of the cable, and the difference in the connection method.

● Ezi-IO Ethernet DA Part Numbering



● Ezi-IO Ethernet DA Part Number

Part Number

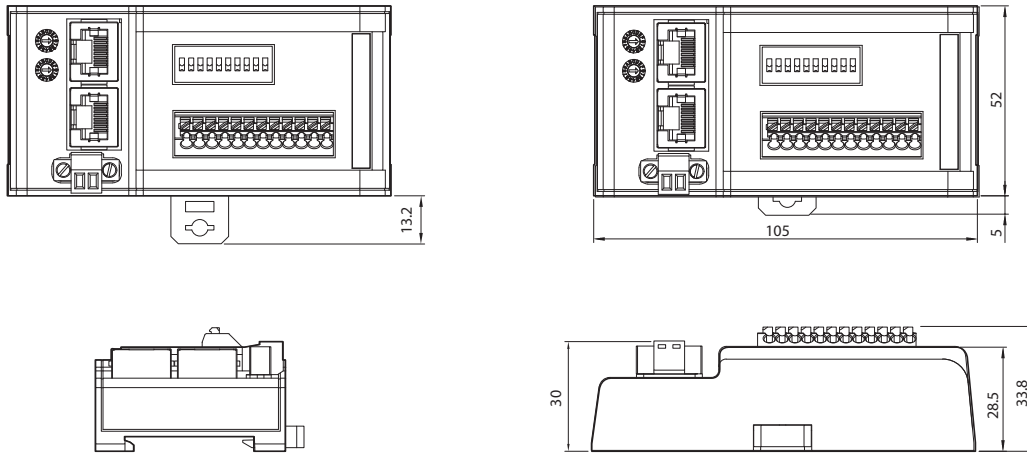
Ezi-IO-EN-DA04-T

● Specifications of Module

Model		Ezi-IO-EN-DA04-T		
Output Mode		Voltage Output	Current Output	
Input Voltage		DC24V ±10%		
Current Consumption		Max. 180mA		
Operating Condition	Ambient Temperature	<ul style="list-style-type: none"> · In Use: 0~50°C · In Storage: -20~70°C 		
	Humidity	<ul style="list-style-type: none"> · In Use: 35~85%RH (Non-Condensing) · In Storage: 10~90%RH (Non-Condensing) 		
	Vib. Resist.	0.5g		
Function	Number of Output Channels	4CH		
	Output Range	<ul style="list-style-type: none"> · 0~5V · 1~5V · 0~10V · -10~10V 	<ul style="list-style-type: none"> · 0~20mA · 4~20mA 	
	Output Range Setting Method	<ul style="list-style-type: none"> · Ethernet Communications (Separate settings for CH1~4) · DIP Switch (Separate settings for CH1~4) 		
	External Load Resistance	1kΩ or higher	400Ω or lower	
	Max. Resolution	1/50,000 (Full Scale)		
	Accuracy	25°C	±0.3% (Full Scale)	
		0~50°C	±0.4% (Full Scale)	
	Analog Conversion Cycle	500μs/4CH		
	D/A Converted Data	<ul style="list-style-type: none"> · -25,000~25,000 (-10~10V output range) · 0~25,000 (Other output ranges except -10~10V) 	0~25,000	
Isolation Method	Between analog output and communication connections : Digital isolation (Between channels : Non-isolated)			
LED Display		<ul style="list-style-type: none"> · Power Status (PWR) · Run Status · Ethernet Status (Link, Activity) 		
Communication Interface		<ul style="list-style-type: none"> · Ethernet UDP/TCP Communication · Ethernet standard: 10BASE-T, 100BASE-TX · Full-Duplex 		
GUI		User Interface Program with in Windows		
Library		Motion Library (API) for windows 7/8/10		

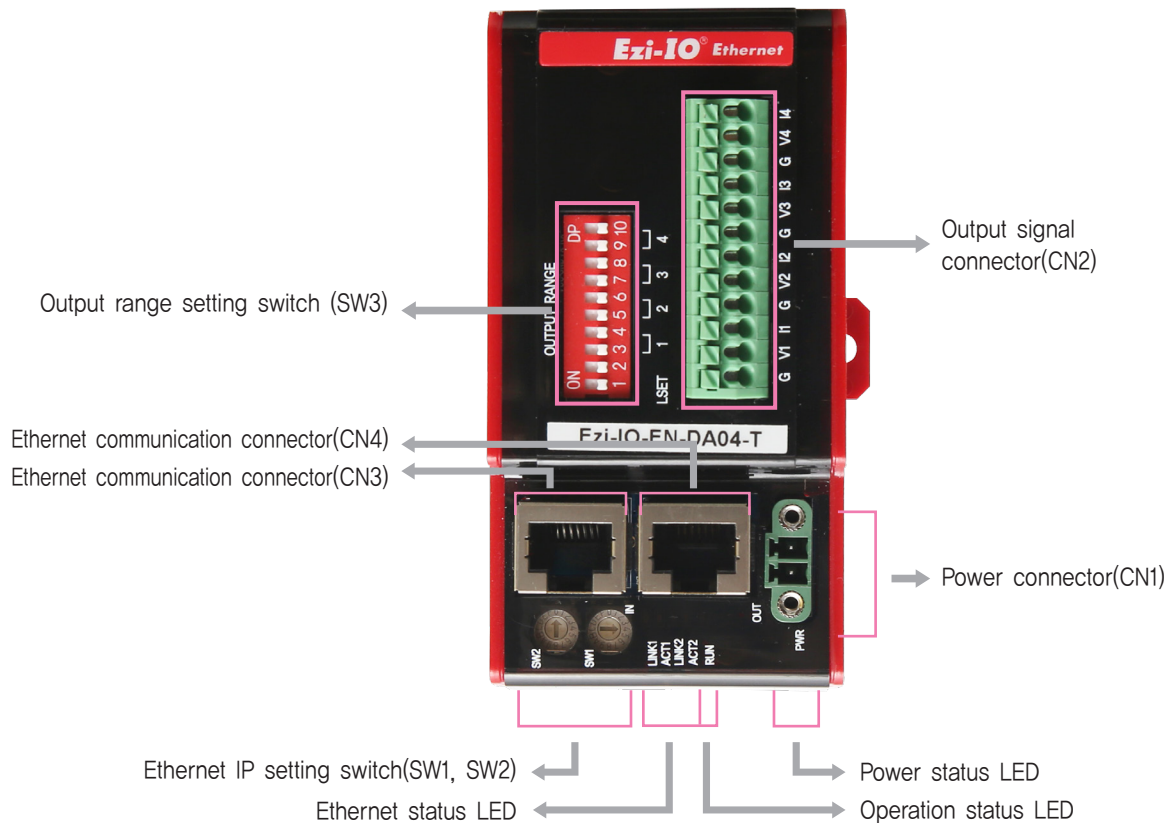
● Dimensions of Module [mm]

◆ Ezi-IO-EC-DA04-T

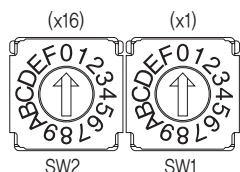


* Install the product on a din rail with a width of 35mm.

● Settings and Operation [Ezi-IO-EN-DA04-T]



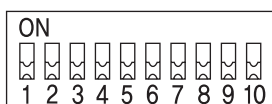
1. Ethernet IP Setting Switch (SW1, SW2)



These switches set the 4th octet of Ethernet IP. The 1st octet, the 2nd octet, and the 3rd octet are set by GUI. If the switches are set to 255(FF), DHCP function is activated, and IP is automatically set, ignoring the set value. (Please refer to the manual for details.)

e.g.,) In case of SW2 : 5 and SW1 : 7
 $(5 \times 16) + (7 \times 1) = 87$
 IP is to be set as 192.168.0.87

2. Output Range Setting Switch (SW3)



SW3 is a switch for setting the output range. You can set the range with the combination of the switches.

• Selecting Input Setting Method

You can select the output setting method with the LSET (SW3,1) switch as follows.

Mode	Switch	Description
	LSET SW3,1	
DIP Switch	ON	Setting output range with DIP switches (SW3,3~SW3,10)
Ethernet communication	OFF	Setting output range with Ethernet communication

* Set SW3,1 before supplying power to the module

* SW3,2 is not used.

• Output Range Setting

When using the DIP Switch for setting (SW3,1 = ON), the output range is set as shown in the table below.

Output Range	Switch	CH1		CH2		CH3		CH4	
		SW3,3	SW3,4	SW3,5	SW3,6	SW3,7	SW3,8	SW3,9	SW3,10
0~5V		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
-10~10V		OFF	ON	OFF	ON	OFF	ON	OFF	ON
0~20mA		ON	OFF	ON	OFF	ON	OFF	ON	OFF
4~20mA		ON	ON	ON	ON	ON	ON	ON	ON

* Output range of 1~5V and 0~10V can only be set by parameters with Ethernet communication.

3. Status LED

• Power Status LED

Name	Color	Status	Description
PWR	Red	OFF	Power is OFF
		ON	Power is ON

• Operation Status LED

Name	Color	Status	Description
RUN	Green	OFF	Abnormal Operation
		Blinking	Normal Operation

• Ethernet Status LED

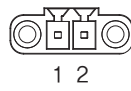
Name	Color	Status	Description
LINK1, LINK2	Green	OFF	Link not Established
		ON	Link Established

• Ethernet Status LED

Name	Color	Status	Description
ACT1, ACT2	Yellow	OFF	Stand-by
		Flickering	In Operation

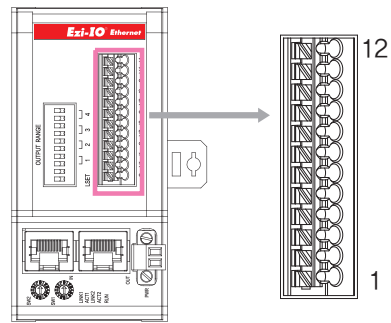
4. Power Connector (CN1)

No.	Function	I/O
1	DC24V	Input
2	GND	Input



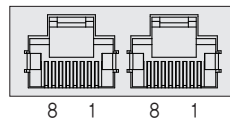
5. Output Signal Connector (CN2)

No.	Name	Function	I/O
1	G	Analog GND	Output
2	V1	Voltage Out 1	Output
3	I1	Current Out 1	Output
4	G	Analog GND	Output
5	V2	Voltage Out 2	Output
6	I2	Current Out 2	Output
7	G	Analog GND	Output
8	V3	Voltage Out 3	Output
9	I3	Current Out 3	Output
10	G	Analog GND	Output
11	V4	Voltage Out 4	Output
12	I4	Current Out 4	Output

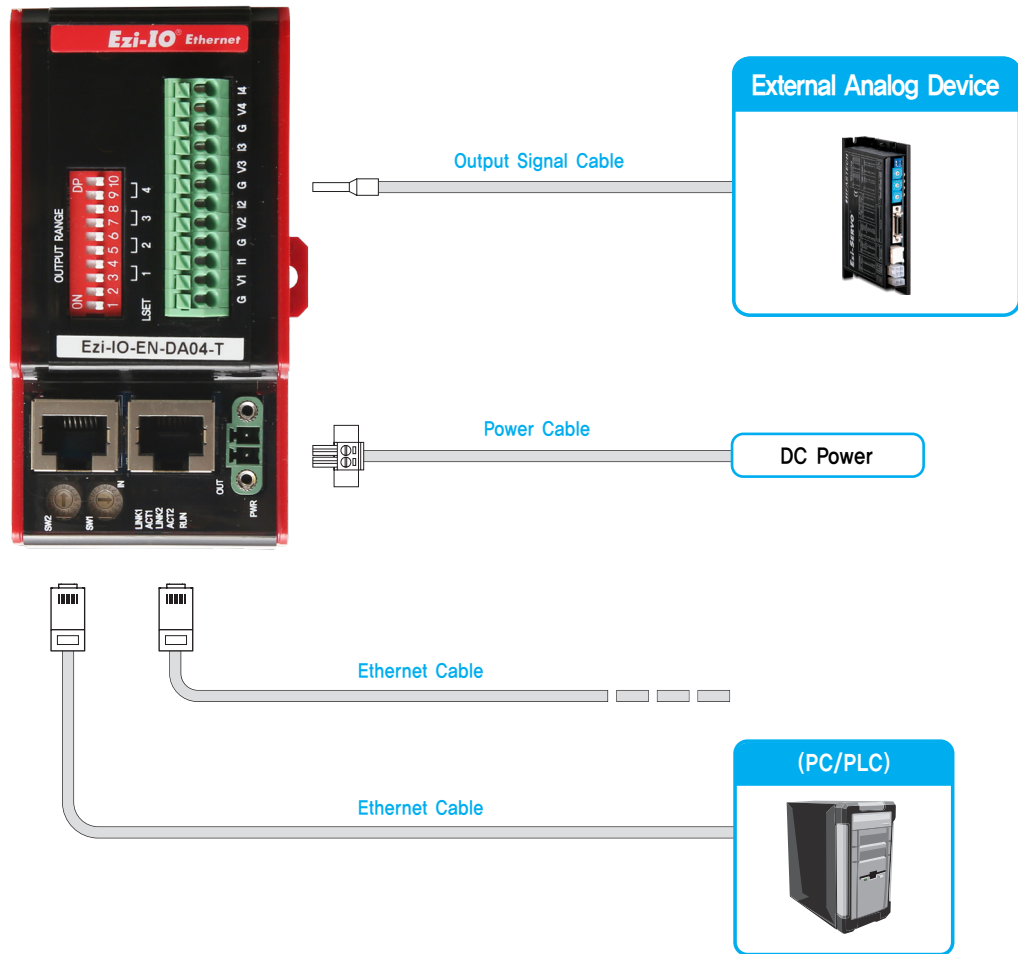


6. Ethernet Communication Connector (CN3, CN4)

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



● System Configuration [Ezi-IO-EN-DA04-T]



FASTECH Ezi-IO Ethernet DA

1. Accessories

● Connectors

Purpose	Item	Part Number	Manufacturer
Power (CN1)	Terminal Block	MC421-38102	DECA

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

2. Options

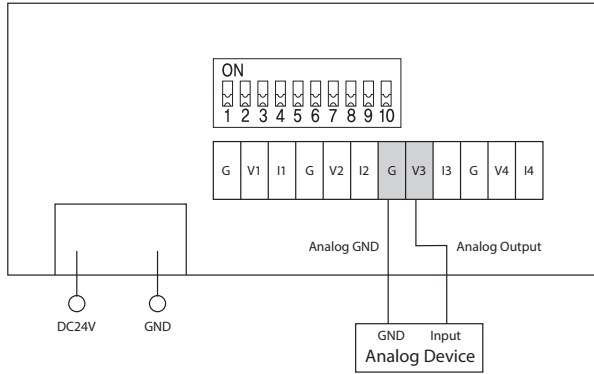
● Ethernet Cable

Purpose	Part Number	Length [m]	Remarks
Ethernet Connection (CN3, CN4)	CGNR-EC-001F	1	· STP(Shielded Twisted Pair) Cable · Category 5e or higher · Maximum Length: 100m · Normal Cable
	CGNR-EC-002F	2	
	CGNR-EC-003F	3	
	CGNR-EC-005F	5	

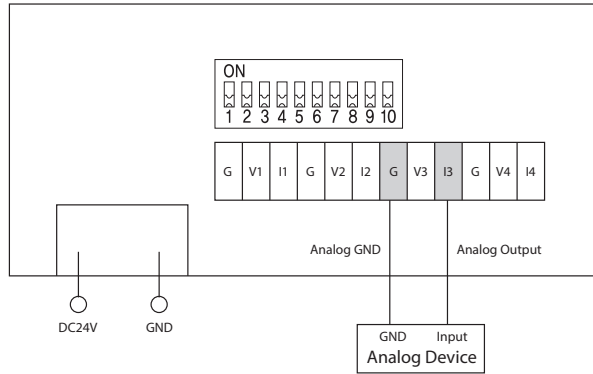
※ If you need cables with length(in units of 1m) not listed on the table or robot cables, please contact FASTECH for more information.

External Wiring Diagram [Ezi-IO-EN-DA04-T]

1 Voltage Output Mode



2 Current Output Mode



MEMO

MEMO



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