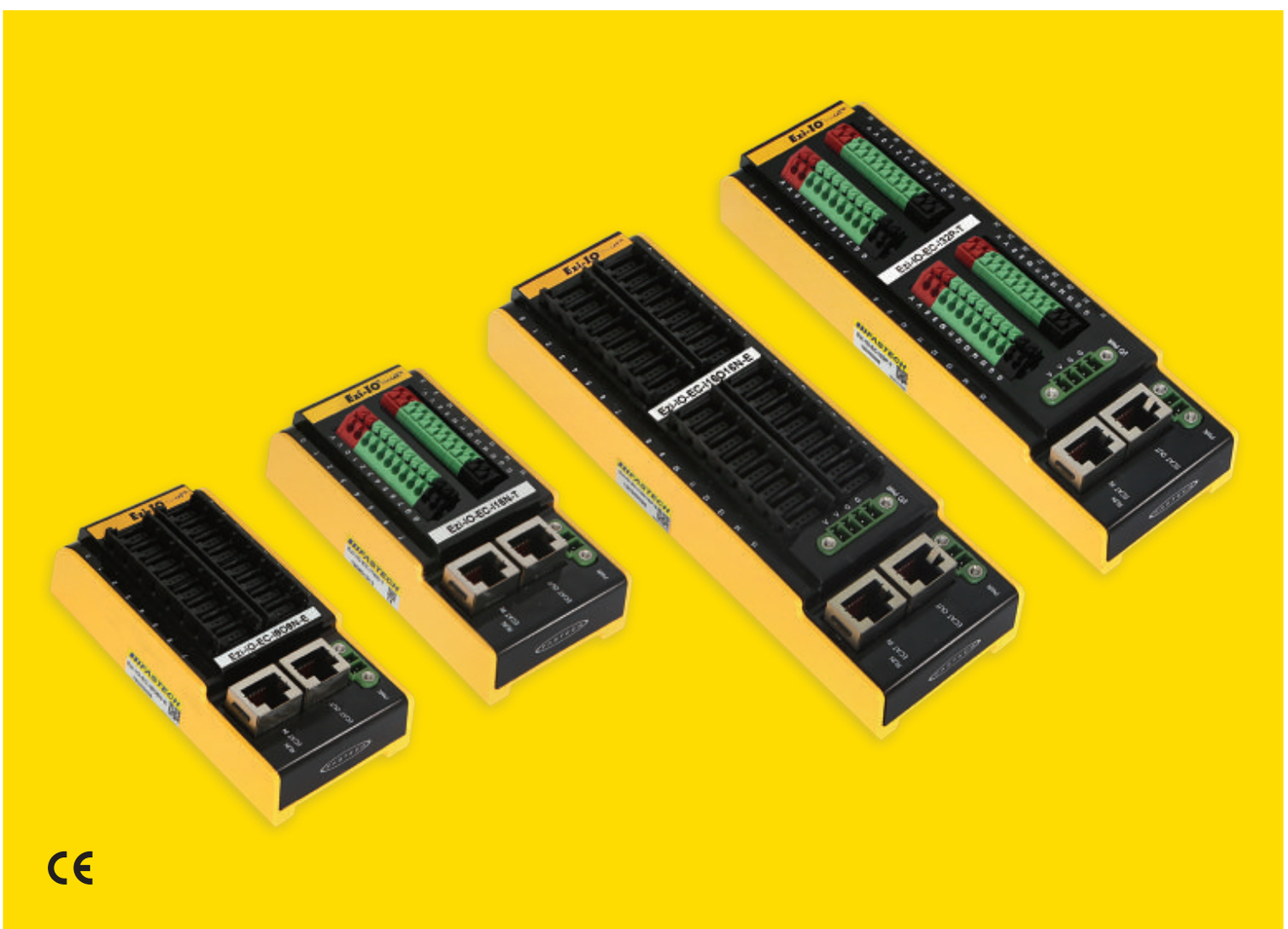
Ezi-IO®

Input/Output Module

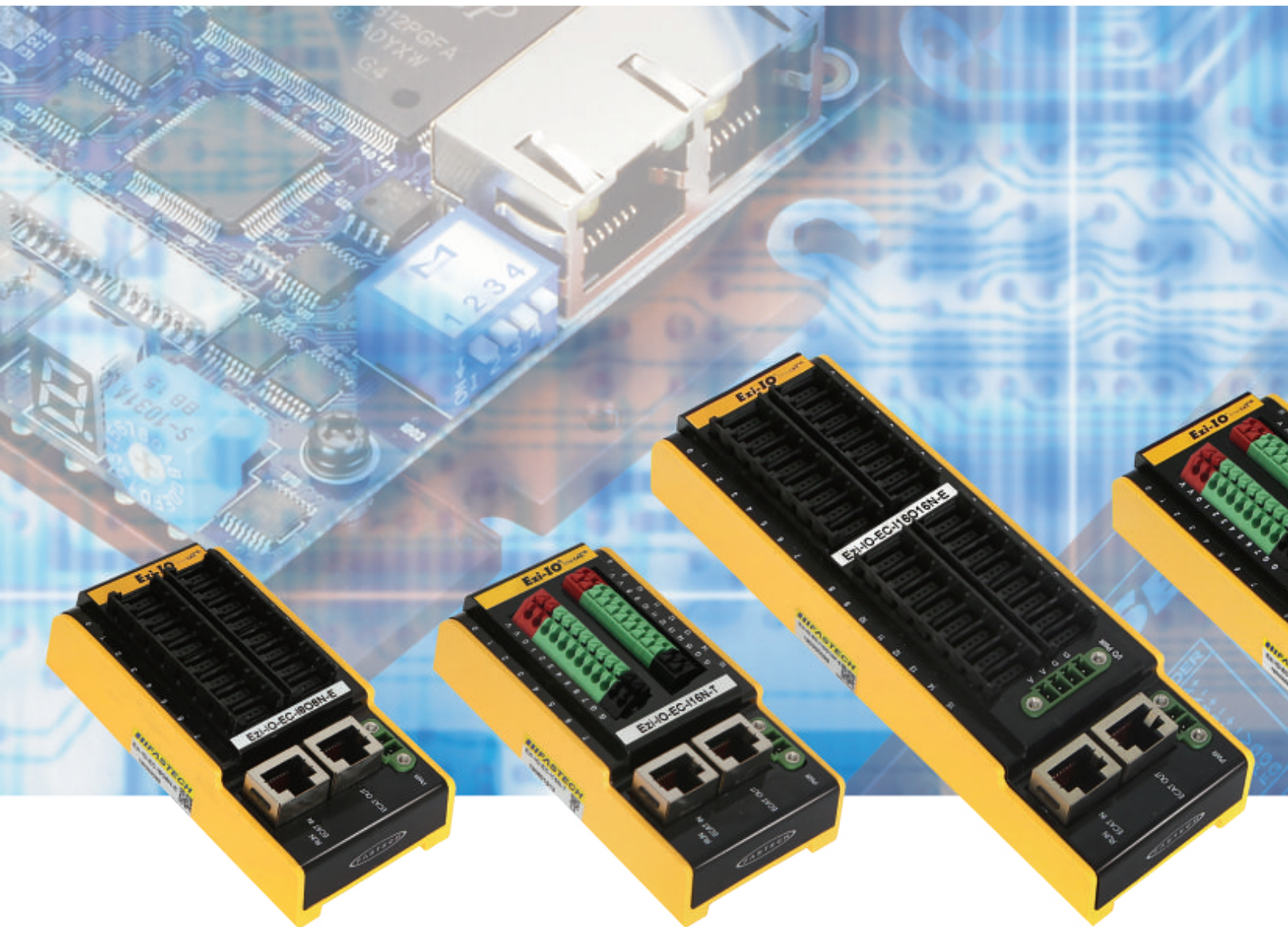
- EtherCAT based Digital I/O Module
- Simple and Easy Wiring
  (e-CON / Terminal Block type)
- Various 16CH & 32CH I/O Module
  (NPN / PNP type)
- Digital I/O Photocoupler Isolation

EtherCAT®



CE

FASTECH
Fast, Accurate, Smooth Motion

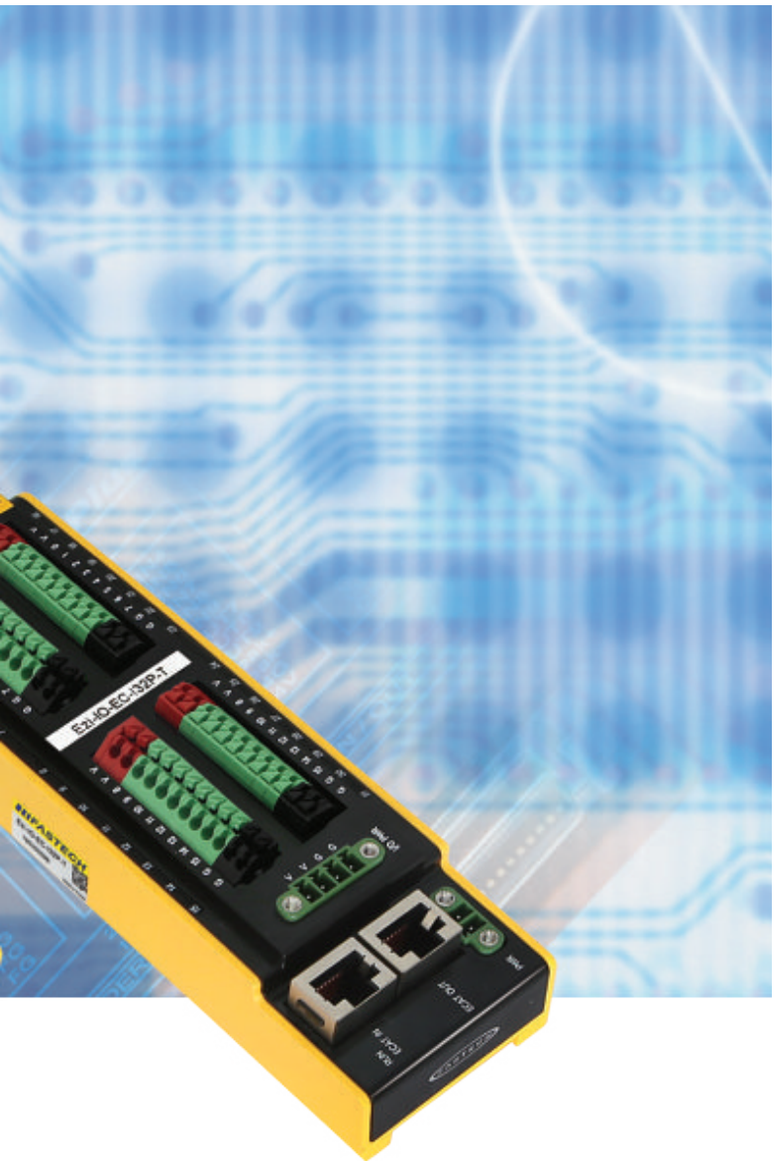


FASTECH

Fast, Accurate, Smooth Motion

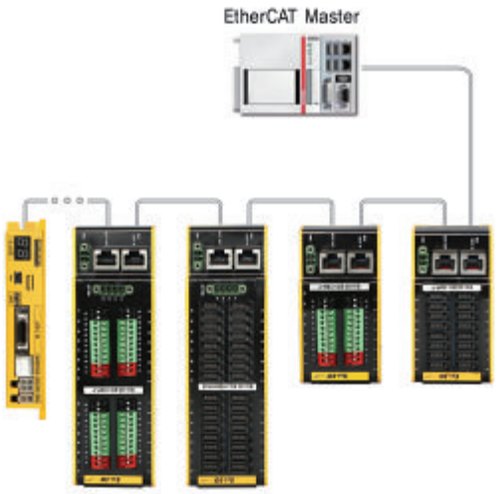
Ezi-IO® EtherCAT®

Input/Output Module



1 EtherCAT Based Digital I/O module

Ezi-IO EtherCAT is a Digital I/O module supporting EtherCAT, a fieldbus based on high speed Ethernet (100Mbps, Full-Duplex). EtherCAT enables fast data transfer with peripheral devices and supports connection of various devices without topology limitation.



2 Simple and Easy Wiring

Ezi-IO EtherCAT offers e-CON connector type and terminal block type products. The e-CON connector type makes it easy to attach and detach peripheral devices. The terminal block type allows easy wiring of peripheral devices in a one-touch method. Therefore peripherals can be easily and simply connected to the EtherCAT network for control.

3 Various 16CH & 32CH I/O module

Ezi-IO EtherCAT offers 16CH and 32CH products. 16CH types are provided with 16CH input, 16CH output, 8CH input + 8CH output products and 32CH types are provided with 32CH input, 32CH output, 16CH input + 16CH output. Ezi-IO EtherCAT offers NPN and PNP products to support various peripheral I/O methods.

4 Digital I/O Photocoupler Isolation

Ezi-IO EtherCAT is isolated with photocoupler for input and output, makes easy connection to peripherals without additional circuit. (32CH module only)

● Ezi-IO EtherCAT Part Numbering

Ezi-IO-EC-I16N-E-□

Product Name

Module Series Type

EC : EtherCAT

Input/Output Type

I16N	: 16CH IN / NPN
I16P	: 16CH IN / PNP
O16N	: 16CH OUT / NPN
O16P	: 16CH OUT / PNP
I8O8N	: 8CH IN & 8CH OUT / NPN
I8O8P	: 8CH IN & 8CH OUT / PNP
I32N	: 32CH IN / NPN
I32P	: 32CH IN / PNP
O32N	: 32CH OUT / NPN
O32P	: 32CH OUT / PNP
I16O16N	: 16CH IN & 16CH OUT / NPN
I16O16P	: 16CH IN & 16CH OUT / PNP

Connector Type

E : e-CON
T : Terminal Block

User Code

● Ezi-IO EtherCAT Part Number

Part Number	Series
Ezi-IO-EC-I16N-E	Ezi-IO-EC-■16□-E
Ezi-IO-EC-I16P-E	
Ezi-IO-EC-O16N-E	
Ezi-IO-EC-O16P-E	
Ezi-IO-EC-I8O8N-E	Ezi-IO-EC-I8O8□-E
Ezi-IO-EC-I8O8P-E	
Ezi-IO-EC-I16N-T	Ezi-IO-EC-■16□-T
Ezi-IO-EC-I16P-T	
Ezi-IO-EC-O16N-T	
Ezi-IO-EC-O16P-T	
Ezi-IO-EC-I8O8N-T	Ezi-IO-EC-I8O8□-T
Ezi-IO-EC-I8O8P-T	
Ezi-IO-EC-I32N-E	Ezi-IO-EC-■32□-E
Ezi-IO-EC-I32P-E	
Ezi-IO-EC-O32N-E	
Ezi-IO-EC-O32P-E	
Ezi-IO-EC-I16O16N-E	Ezi-IO-EC-I16O16□-E
Ezi-IO-EC-I16O16P-E	
Ezi-IO-EC-I32N-T	Ezi-IO-EC-■32□-T
Ezi-IO-EC-I32P-T	
Ezi-IO-EC-O32N-T	
Ezi-IO-EC-O32P-T	
Ezi-IO-EC-I16O16N-T	Ezi-IO-EC-I16O16□-T
Ezi-IO-EC-I16O16P-T	

* ■ : Input / Output Type
□ : NPN / PNP Type

● Specifications of Module

Model		Ezi-IO-EC-I16N-□	Ezi-IO-EC-I16P-□	Ezi-IO-EC-O16N-□	Ezi-IO-EC-O16P-□	Ezi-IO-EC-I8O8N-□	Ezi-IO-EC-I8O8P-□
Input Voltage		24VDC ±10%					
Current Consumption		Max. 150mA (Except I/O current)					
Operating Condition	Ambient Temperature	· In Use: 0~50℃ · In Storage: -20~70℃					
	Humidity	· In Use: 35~85% (Non-Condensing) · In Storage: 10~90% (Non-Condensing)					
	Vib. Resist.	0.5g					
Function	Input Signal	· 16CH Input (Photocoupler Input, NPN/PNP) · 24VDC · Max. 15mA/CH		-		· 8CH Input (Photocoupler Input, NPN/PNP) · 24VDC · Max. 15mA/CH	
	Output signal	-		· 16CH Output (FET Output, NPN/PNP) · 24VDC · Max. 200mA/CH		· 8CH Output (FET Output, NPN/PNP) · 24VDC · Max. 200mA/CH	
	Signal Isolation Method	No Isolation					
LED Display		· Power status (PWR) · EtherCAT Communication status (RUN) · EtherCAT Communication connection status (ECAT IN, ECAT OUT) · I/O status (0~15)				· Power status (PWR) · EtherCAT Communication status (RUN) · EtherCAT Communication connection status (ECAT IN, ECAT OUT) · I/O status (0~7/0~7)	
EtherCAT	Synchronization	Free RUN, SM Event					
	Bus Interface	2×RJ45 connector					
	Cable	STP (Shielded Twisted Pair) cable of category 5e or higher / Max. Length 100m					

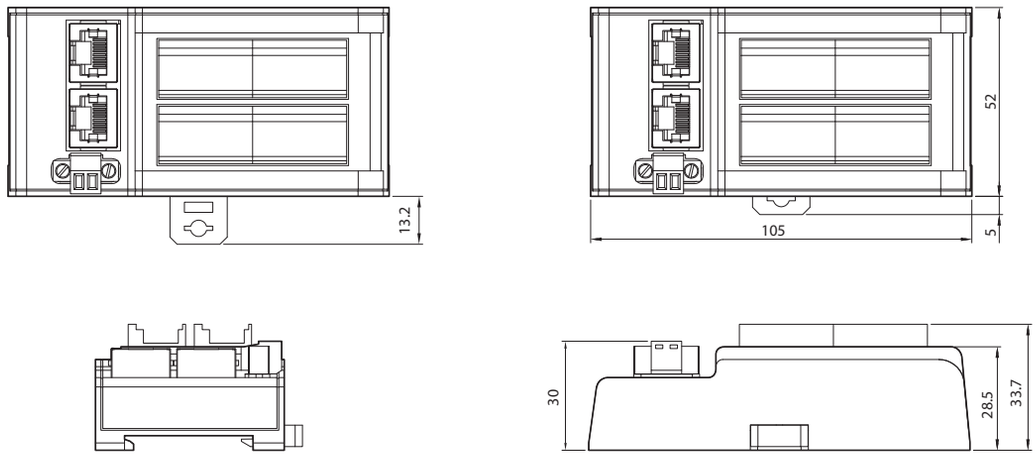
* □ : Connector Type

Model		Ezi-IO-EC-I32N-□	Ezi-IO-EC-I32P-□	Ezi-IO-EC-O32N-□	Ezi-IO-EC-O32P-□	Ezi-IO-EC-I16O16N-□	Ezi-IO-EC-I16O16P-□
Input Voltage		24VDC ±10%					
Current Consumption		Max. 300mA (Except I/O current)					
Operating Condition	Ambient Temperature	· In Use: 0~50℃ · In Storage: -20~70℃					
	Humidity	· In Use: 35~85% (Non-Condensing) · In Storage: 10~90% (Non-Condensing)					
	Vib. Resist.	0.5g					
Function	Input Signal	· 32CH Input (Photocoupler Input, NPN/PNP) · 24VDC · Max. 15mA/CH		-		· 16CH Input (Photocoupler Input, NPN/PNP) · 24VDC · Max. 15mA/CH	
	Output signal	-		· 32CH Output (FET Output, NPN/PNP) · 24VDC · Max. 200mA/CH		· 16CH Output (FET Output, NPN/PNP) · 24VDC · Max. 200mA/CH	
	Signal Isolation Method	Photocoupler Isolation					
LED Display		· Control Power status (PWR) · EtherCAT Communication status (RUN) · EtherCAT Communication connection status (ECAT IN, ECAT OUT) · I/O status (0~31)				· Control Power status (PWR) · EtherCAT Communication status (RUN) · EtherCAT Communication connection status (ECAT IN, ECAT OUT) · I/O status (0~15/0~15)	
EtherCAT	Synchronization	Free RUN, SM Event					
	Bus Interface	2×RJ45 connector					
	Cable	STP (Shielded Twisted Pair) cable of category 5e or higher / Max. Length 100m					

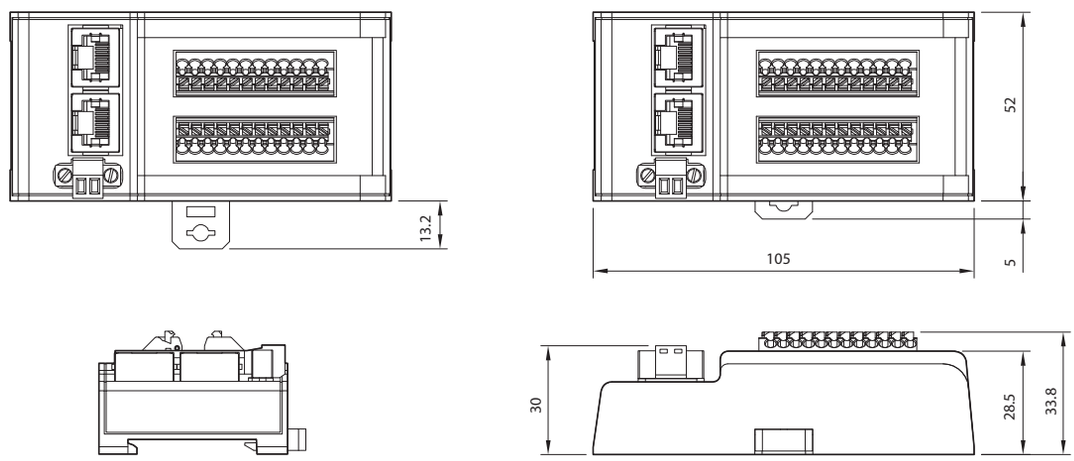
* □ : Connector Type

● Dimensions of Module [mm]

◆ Ezi-IO-EC-■16□-E / Ezi-IO-EC-I808□-E Series



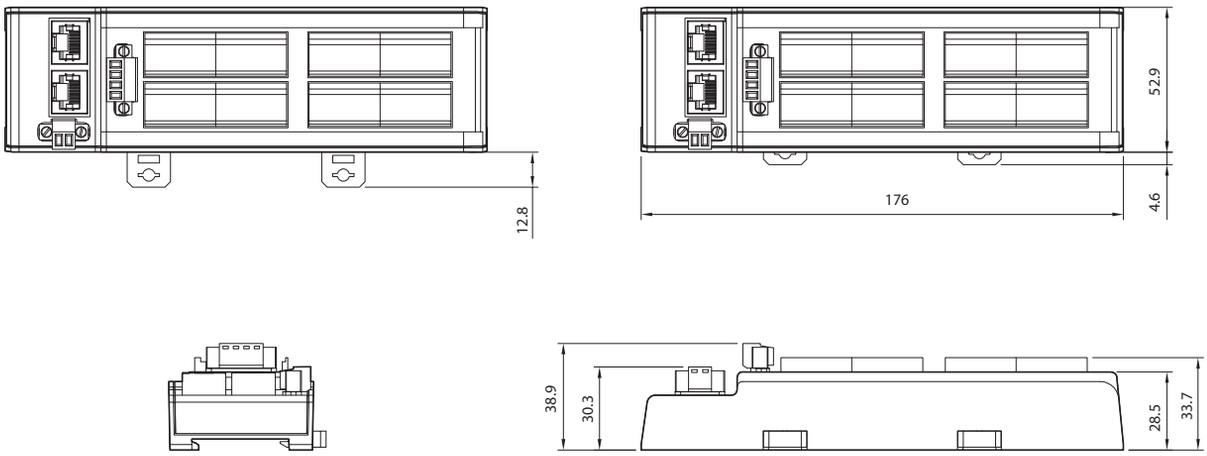
◆ Ezi-IO-EC-■16□-T / Ezi-IO-EC-I808□-T Series



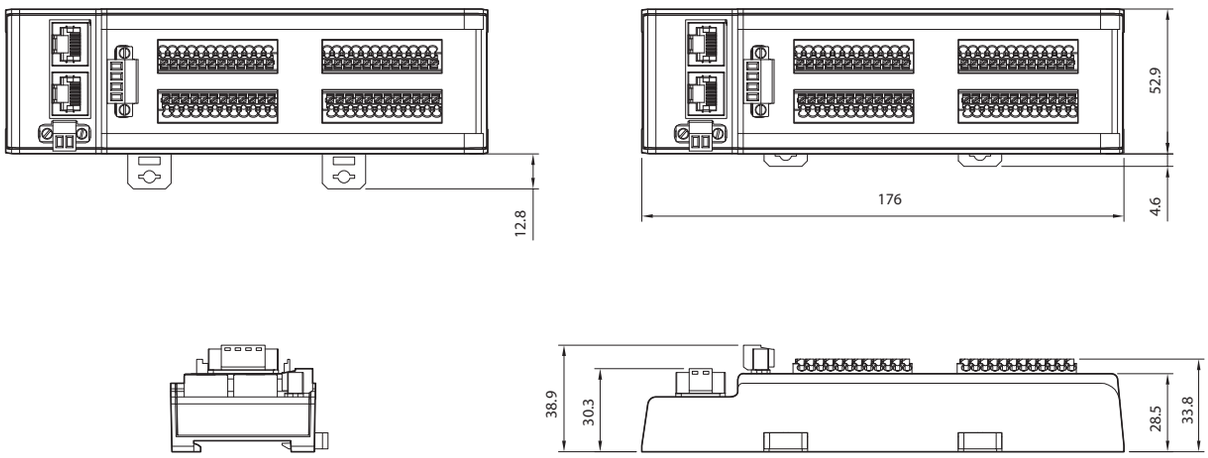
* ■ : Input / Output Type
  □ : NPN / PNP Type
* Can be installed on 35mm DIN Rail.

● Dimensions of Module [mm]

◆ Ezi-IO-EC-■32□-E / Ezi-IO-EC-I16O16□-E Series

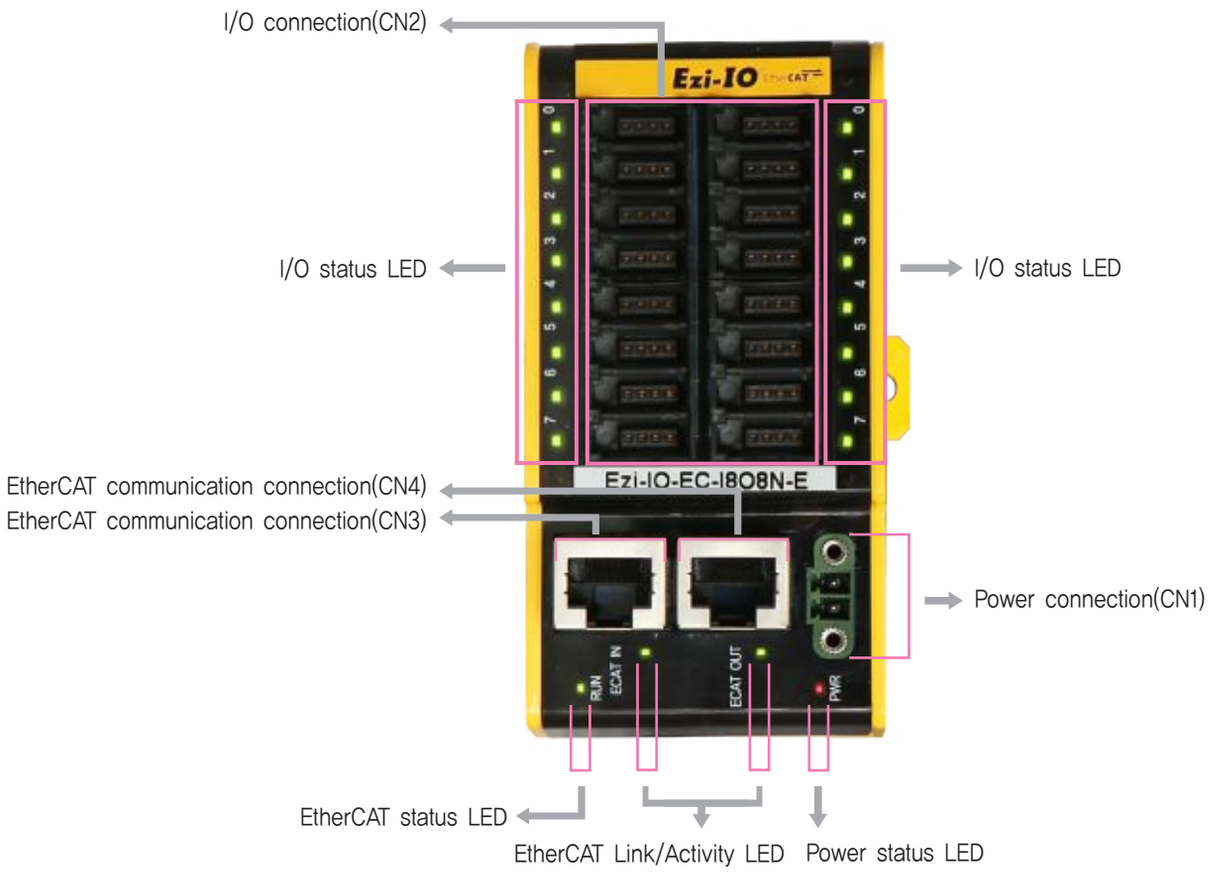


◆ Ezi-IO-EC-■32□-T / Ezi-IO-EC-I16O16□-T Series



* ■ : Input / Output Type
  □ : NPN / PNP Type
* Can be installed on 35mm DIN Rail.

● Settings and Operation [Ezi-IO-EC-■16□-E / Ezi-IO-EC-I8O8□-E Series]



1. Status LED

Indication	Color	Function	ON/OFF Condition
PWR	Red	Power input indication	Turn on when power is applied
RUN	Green	EtherCAT communication status indication	Turn on when EtherCAT Communication status is active
ECAT IN	Green	EtherCAT Link/Activity LED indication	Flashing when EtherCAT IN link active
ECAT OUT	Green	EtherCAT Link/Activity LED indication	Flashing when EtherCAT OUT link active
0~15 0~7/0~7	Green	I/O status indication	Input Module : Turn on when input signal is ON Output Module : Turn on when output signal is ON

2. Power Connector(CN1)

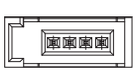
NO.	Function	I/O
1	24VDC	Input
2	GND	Input

1 2

* Be sure to supply power which is suitable for the load of I/O and control.

3. I/O Connector(CN2)

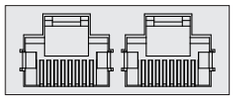
NO.	Function	I/O
1	24VDC	Output
2	NC	----
3	GND	Output
4	SIGNAL	I/O



1 2 3 4

4. EtherCAT Communication Connector(CN3, CN4)

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



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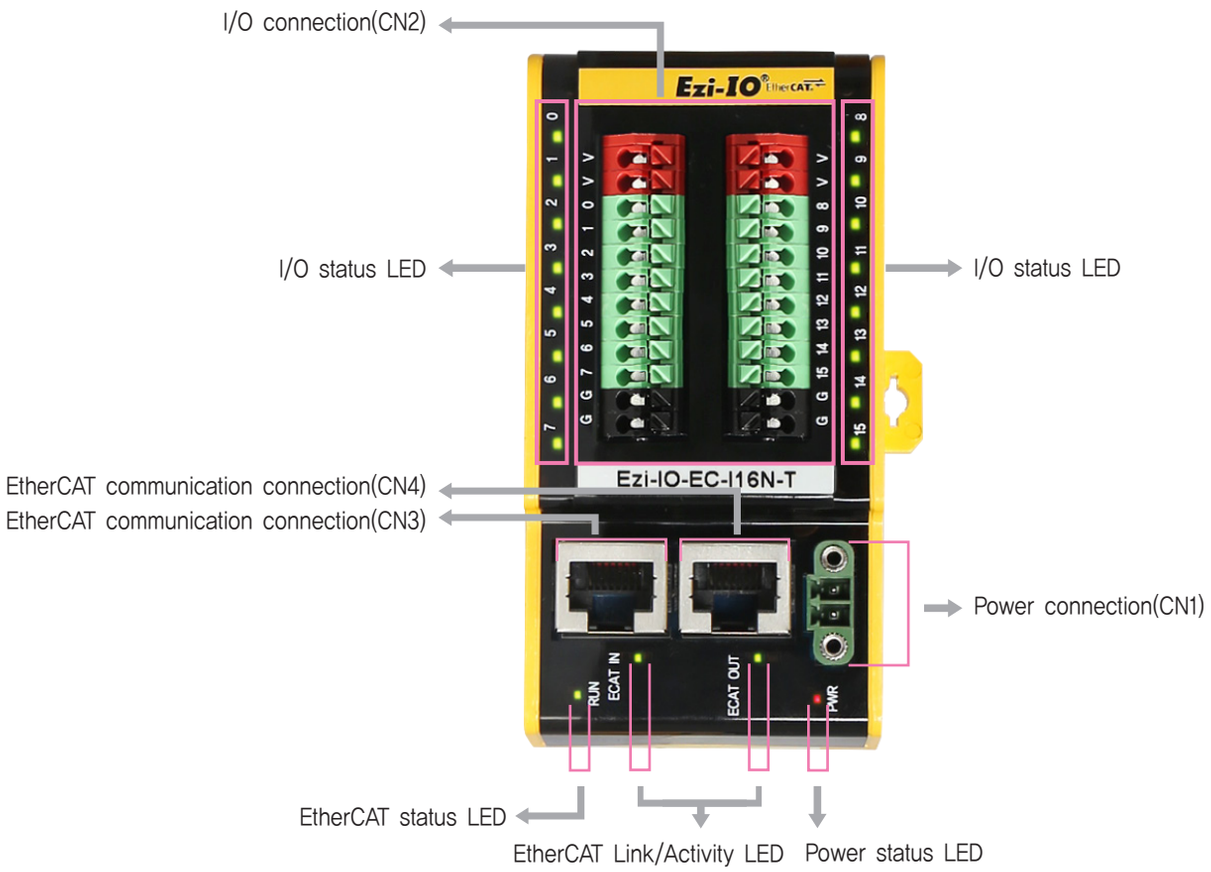
● Settings and Operation [Ezi-IO-EC-■16□-T / Ezi-IO-EC-I808□-T Series]



1. Status LED

Indication	Color	Function	ON/OFF Condition
PWR	Red	Power input indication	Turn on when power is applied
RUN	Green	EtherCAT communication status indication	Turn on when EtherCAT Communication status is active
ECAT IN	Green	EtherCAT Link/Activity LED indication	Flashing when EtherCAT IN link active
ECAT OUT	Green	EtherCAT Link/Activity LED indication	Flashing when EtherCAT OUT link active
0~15 0~7/0~7	Green	I/O status indication	Input Module : Turn on when input signal is ON Output Module : Turn on when output signal is ON

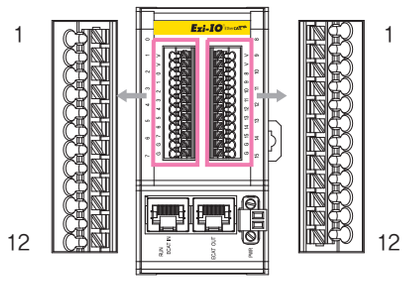
2. Power Connector(CN1)

NO.	Function	I/O
1	24VDC	Input
2	GND	Input

* Be sure to supply power which is suitable for the load of I/O and control.

3. I/O Connector(CN2)

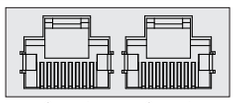
NO.	Function	I/O
1	24VDC	Output
2	24VDC	Output
3	SIGNAL	I/O
4	SIGNAL	I/O
5	SIGNAL	I/O
6	SIGNAL	I/O
7	SIGNAL	I/O
8	SIGNAL	I/O
9	SIGNAL	I/O
10	SIGNAL	I/O
11	GND	Output
12	GND	Output



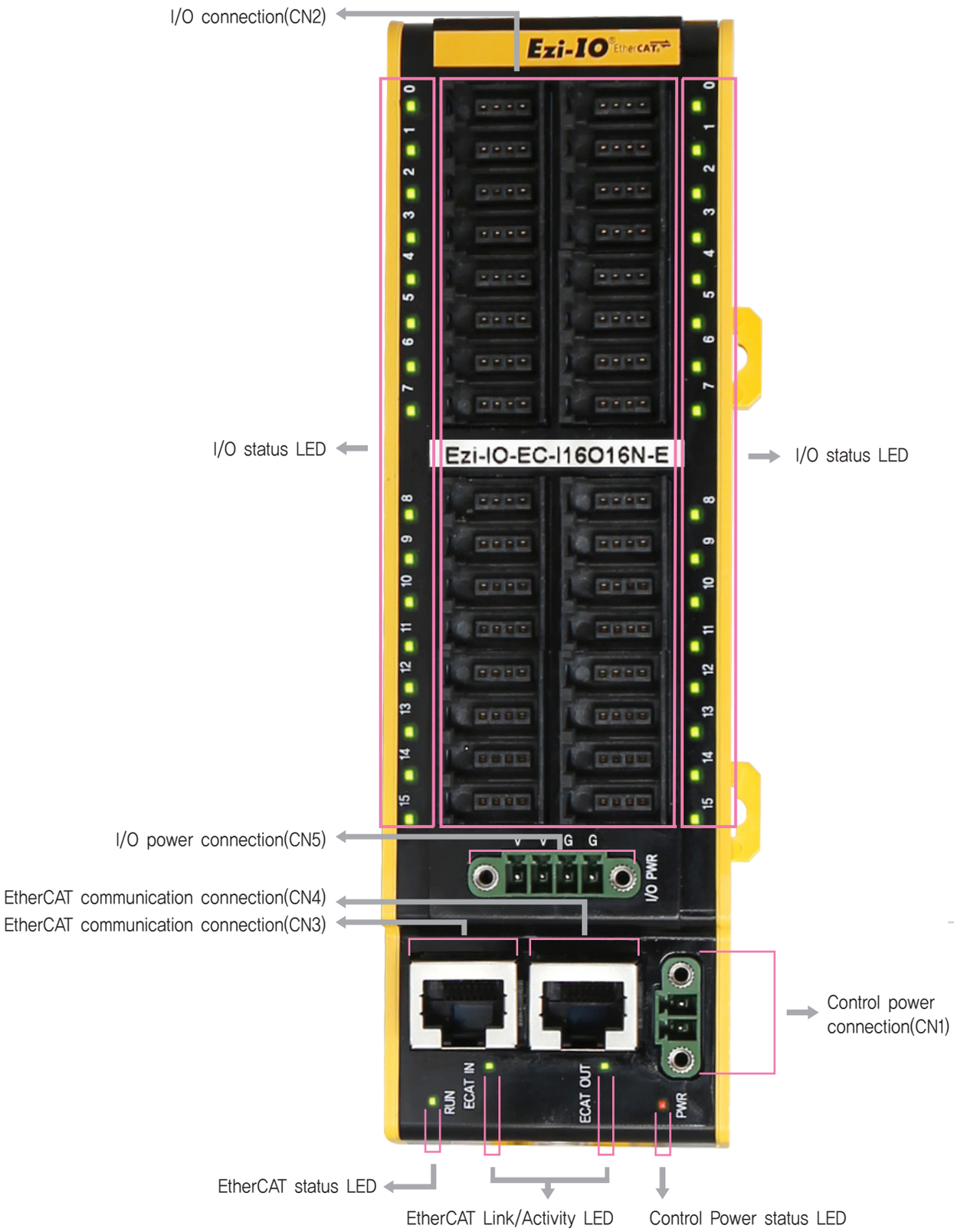
NO.	Function	I/O
1	24VDC	Output
2	24VDC	Output
3	SIGNAL	I/O
4	SIGNAL	I/O
5	SIGNAL	I/O
6	SIGNAL	I/O
7	SIGNAL	I/O
8	SIGNAL	I/O
9	SIGNAL	I/O
10	SIGNAL	I/O
11	GND	Output
12	GND	Output

4. EtherCAT Communication Connector(CN3, CN4)

NO.	Function	NO.	Function
1	TD+	6	RD−
2	TD−	7	-----
3	RD+	8	-----
4	----	Connector Hood	F.GND
5	----		



● Settings and Operation [Ezi-IO-EC-■32□-E / Ezi-IO-EC-I16O16□-E Series]



1. Status LED

Indication	Color	Function	ON/OFF Condition
PWR	Red	Control power input indication	Turn on when control power is applied
RUN	Green	EtherCAT communication status indication	Turn on when EtherCAT Communication status is active
ECAT IN	Green	EtherCAT Link/Activity LED indication	Flashing when EtherCAT IN link active
ECAT OUT	Green	EtherCAT Link/Activity LED indication	Flashing when EtherCAT OUT link active
0~31 0~15 / 0~15	Green	I/O status indication	Input Module : Turn on when input signal is ON Output Module : Turn on when output signal is ON

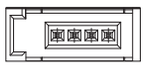
2. Control Power Connector(CN1)

NO.	Function	I/O
1	24VDC	Input
2	GND	Input

1 2

3. I/O Connector(CN2)

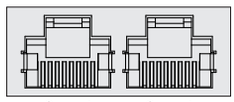
NO.	Function	I/O
1	EXT_24VDC	Output
2	NC	----
3	EXT_GND	Output
4	SIGNAL	I/O



1 2 3 4

4. EtherCAT Communication Connector(CN3, CN4)

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



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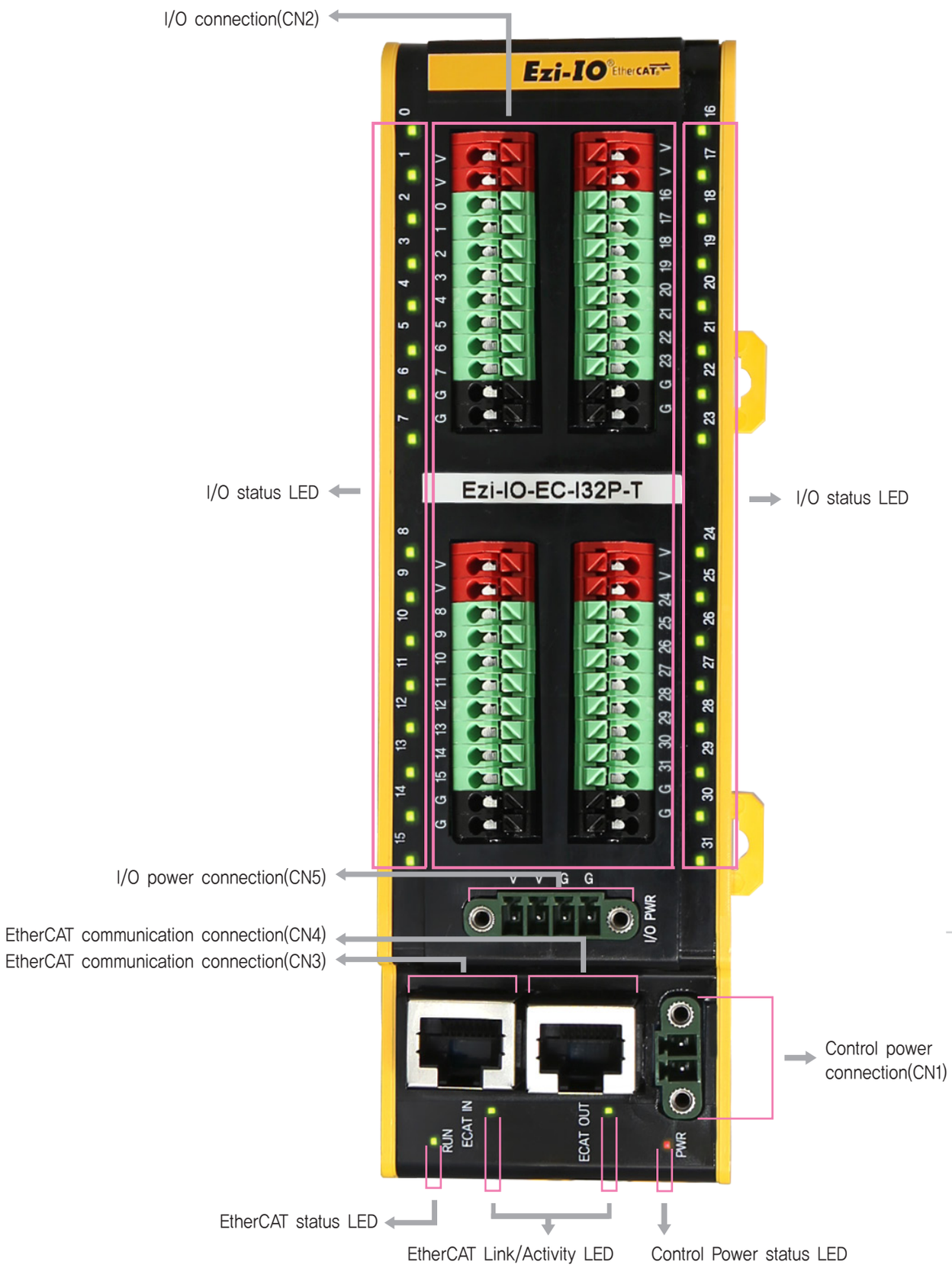
5. I/O Power Connector(CN5)

NO.	Function	I/O
1	EXT_24VDC	Input
2	EXT_24VDC	Input
3	EXT_GND	Input
4	EXT_GND	Input

1 2 3 4

* Be sure to supply a power source which is suitable for the load of I/O.

● Settings and Operation [Ezi-IO-EC-■32□-T / Ezi-IO-EC-I16O16□-T Series]



1. Status LED

Indication	Color	Function	ON/OFF Condition
PWR	Red	Control power input indication	Turn on when control power is applied
RUN	Green	EtherCAT communication status indication	Turn on when EtherCAT Communication status is active
ECAT IN	Green	EtherCAT Link/Activity LED indication	Flashing when EtherCAT IN link active
ECAT OUT	Green	EtherCAT Link/Activity LED indication	Flashing when EtherCAT OUT link active
0~31 0~15 / 0~15	Green	I/O status indication	Input Module : Turn on when input signal is ON Output Module : Turn on when output signal is ON

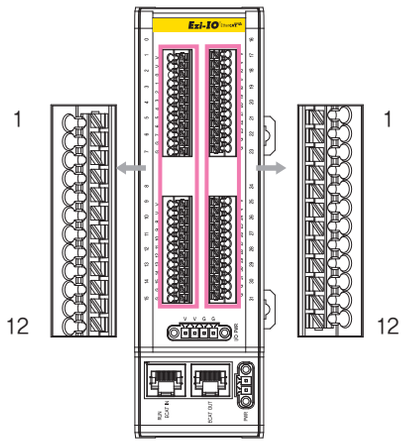
2. Control Power Connector(CN1)

NO.	Function	I/O
1	24VDC	Input
2	GND	Input

1 2

3. I/O Connector(CN2)

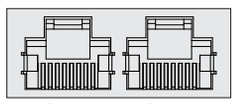
NO.	Function	I/O
1	EXT_24VDC	Output
2	EXT_24VDC	Output
3	SIGNAL	I/O
4	SIGNAL	I/O
5	SIGNAL	I/O
6	SIGNAL	I/O
7	SIGNAL	I/O
8	SIGNAL	I/O
9	SIGNAL	I/O
10	SIGNAL	I/O
11	EXT_GND	Output
12	EXT_GND	Output



NO.	Function	I/O
1	EXT_24VDC	Output
2	EXT_24VDC	Output
3	SIGNAL	I/O
4	SIGNAL	I/O
5	SIGNAL	I/O
6	SIGNAL	I/O
7	SIGNAL	I/O
8	SIGNAL	I/O
9	SIGNAL	I/O
10	SIGNAL	I/O
11	EXT_GND	Output
12	EXT_GND	Output

4. EtherCAT Communication Connector(CN3, CN4)

NO.	Function	NO.	Function
1	TD+	6	RD–
2	TD–	7	----
3	RD+	8	----
4	----	Connector Hood	F.GND
5	----		



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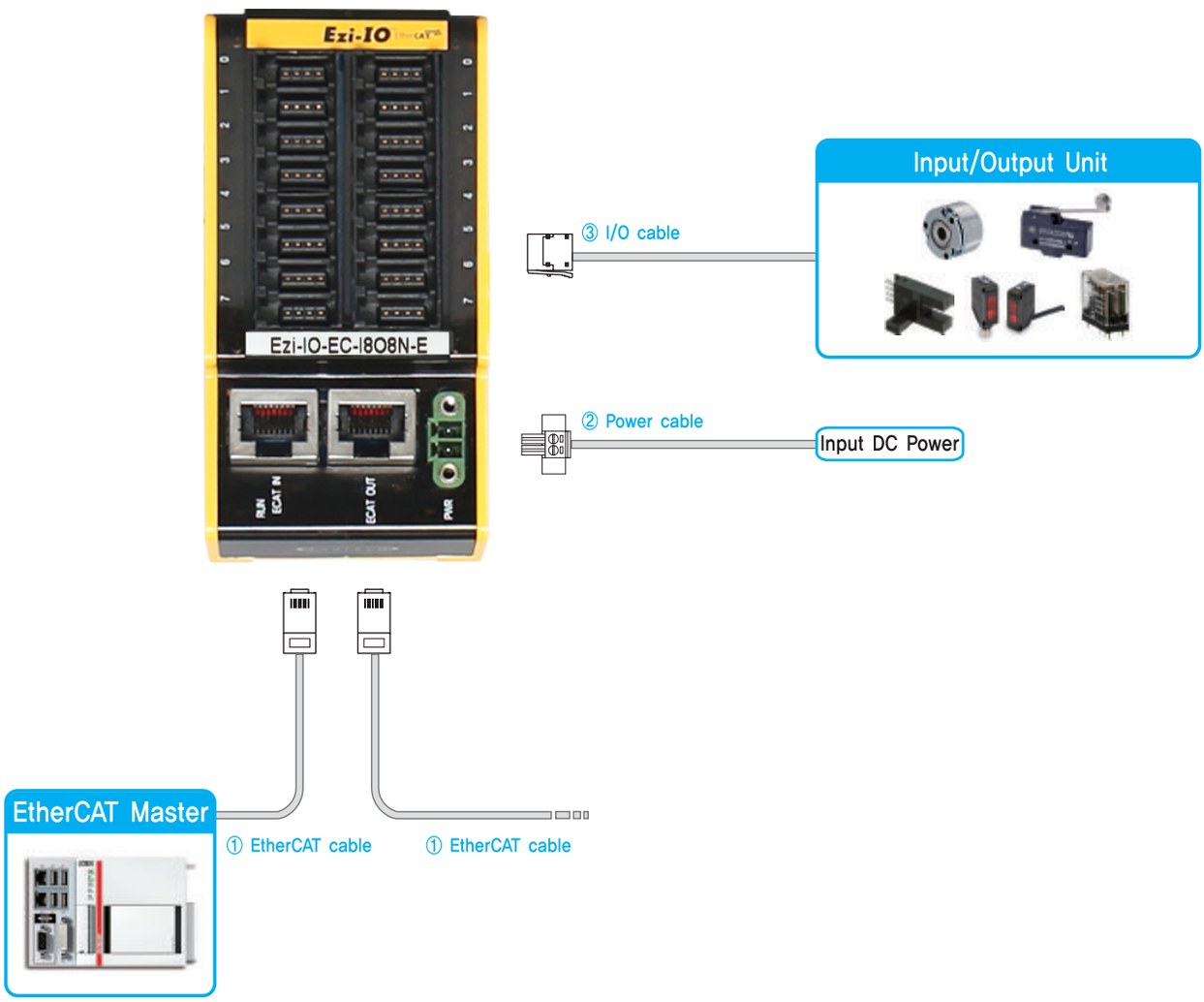
5. I/O Power Connector(CN5)

NO.	Function	I/O
1	EXT_24VDC	Input
2	EXT_24VDC	Input
3	EXT_GND	Input
4	EXT_GND	Input

1 2 3 4

* Be sure to supply a power source which is suitable for the load of I/O.

● System Configuration [Ezi-IO-EC-■16□-E / Ezi-IO-EC-I8O8□-E Series]



Type	I/O Cable	Power Cable	EtherCAT Cable
Length supplied	–	–	–
Max. Length	20m	2m	100m

1. Options

① EtherCAT Cable

STP (Shielded Twisted Pair) cable of category 5e or higher.

Item	Length [m]	Remark
CGNR-EC-□□□F	□□□	Normal cable

□ is for Cable Length. The unit is 1m and Max. 100m length.

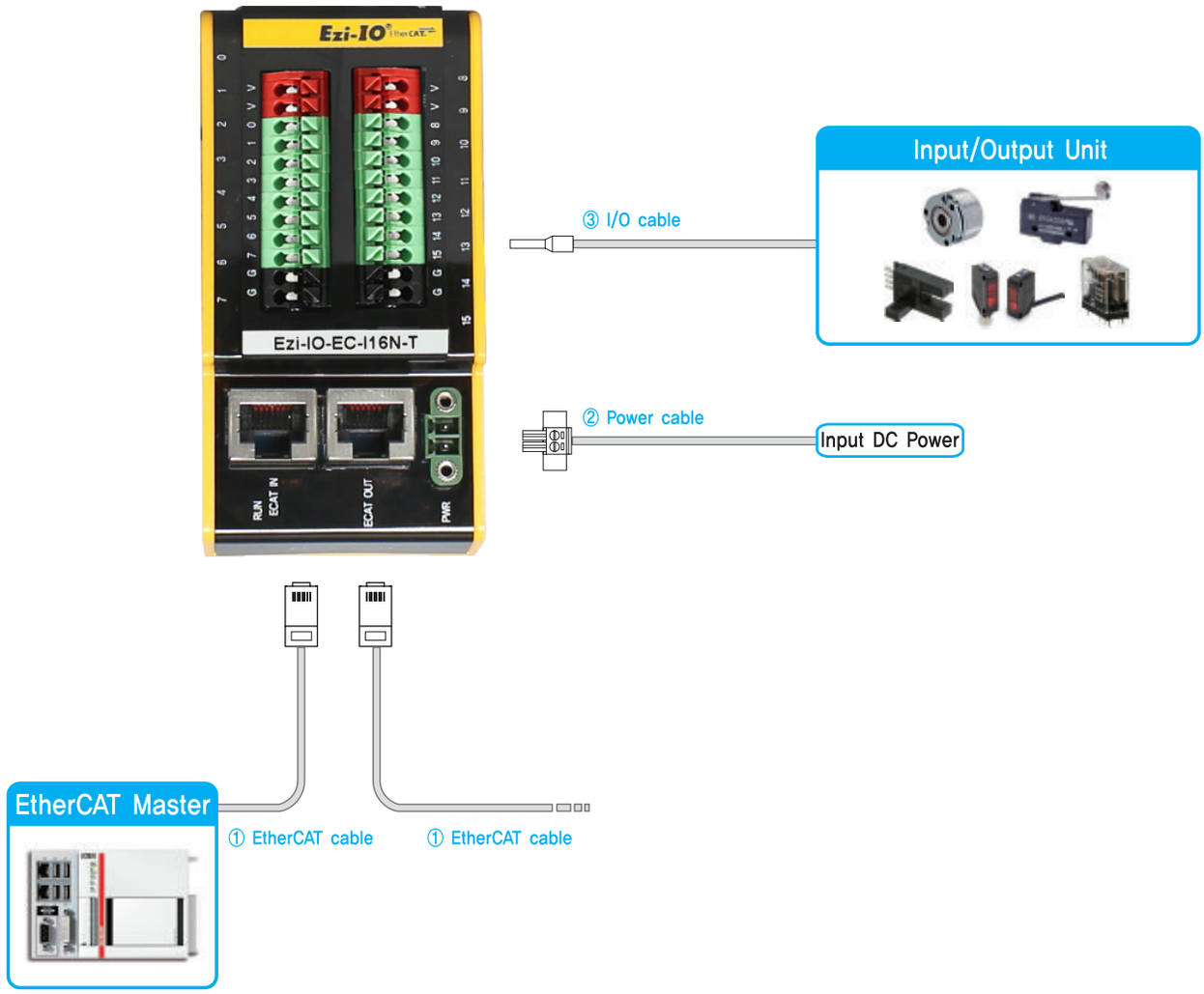
2. Connector Specifications

Connector specifications for cabling to module.

Purpose	Item	Part Number	Manufacturer
Power(CN1)	Terminal Block	MC421-38102	DECA
I/O(CN2)	e-CON Plug Connector	CNE-P04-YW	Autonics

※ Above connector is the most suitable product for the module applied. Another equivalent connector can be used.

● System Configuration [Ezi-IO-EC-■16□-T / Ezi-IO-EC-I808□-T Series]



Type	I/O Cable	Power Cable	EtherCAT Cable
Length supplied	–	–	–
Max. Length	20m	2m	100m

1. Options

① EtherCAT Cable

STP (Shielded Twisted Pair) cable of category 5e or higher.

Item	Length [m]	Remark
CGNR-EC-□□□F	□□□	Normal cable

□ is for Cable Length. The unit is 1m and Max. 100m length.

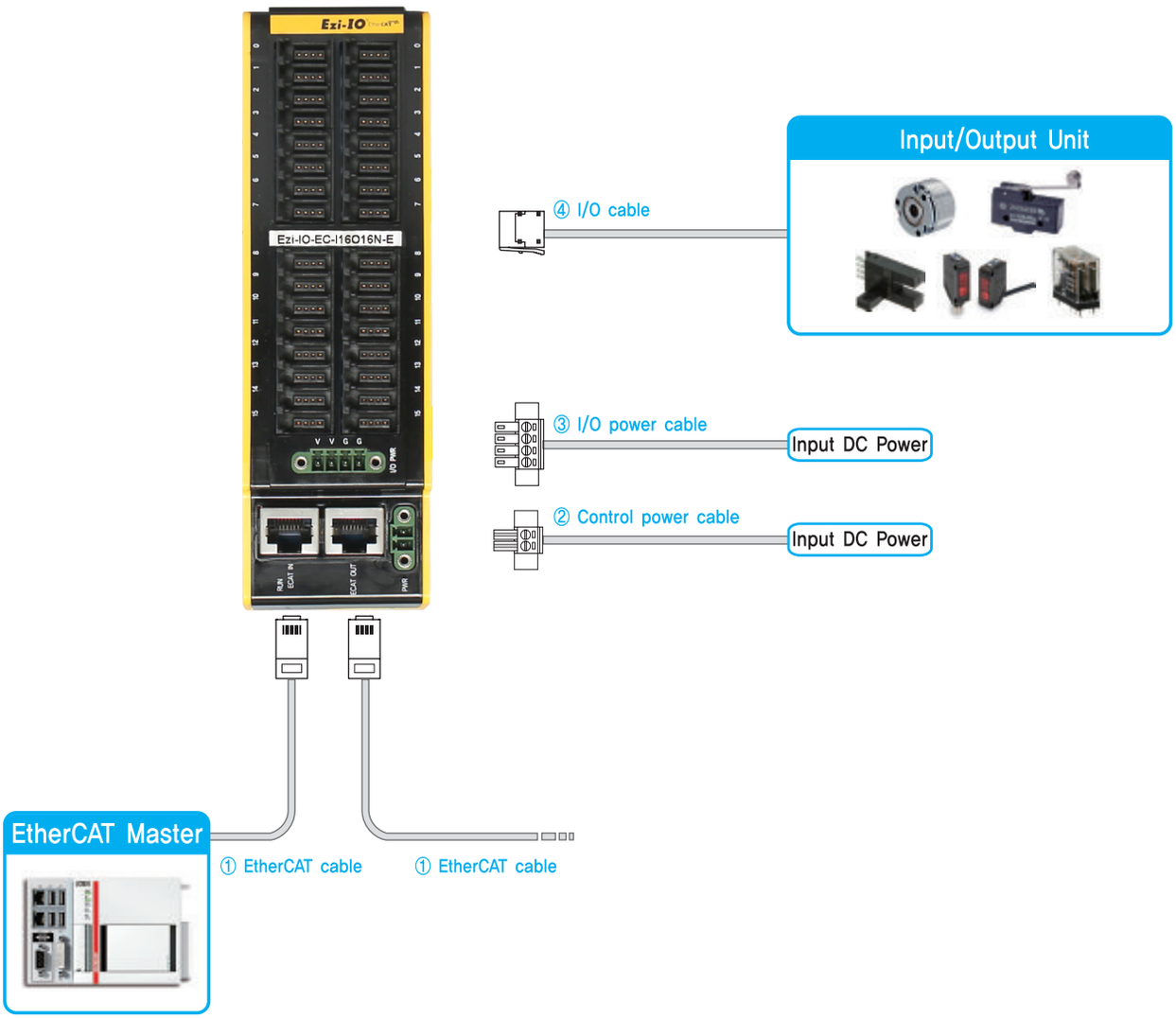
2. Connector Specifications

Connector specifications for cabling to module.

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

※ Above connector is the most suitable product for the module applied. Another equivalent connector can be used.

● System Configuration [Ezi-IO-EC-■32□-E / Ezi-IO-EC-I16O16□-E Series]



Type	I/O Cable	Control Power Cable	I/O Power Cable	EtherCAT Cable
Length supplied	–	–	–	–
Max. Length	20m	2m	2m	100m

1. Options

① EtherCAT Cable

STP (Shielded Twisted Pair) cable of category 5e or higher.

Item	Length [m]	Remark
CGNR-EC-□□□F	□□□	Normal cable

□ is for Cable Length. The unit is 1m and Max. 100m length.

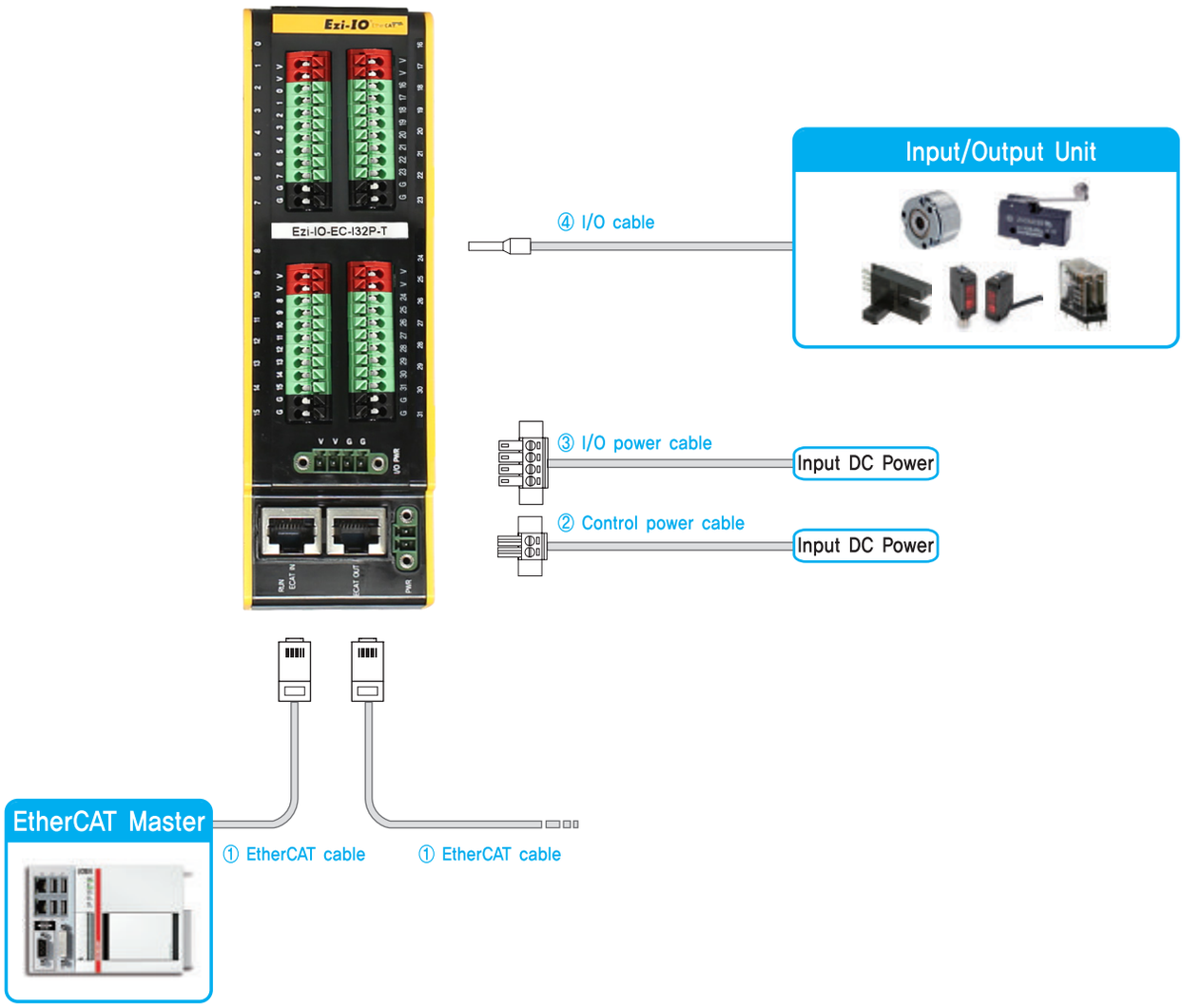
2. Connector Specifications

Connector specifications for cabling to module.

Purpose	Item	Part Number	Manufacturer
Control Power(CN1)	Terminal Block	MC421-38102	DECA
I/O Power(CN5)	Terminal Block	MC421-38104	DECA
I/O(CN2)	e-CON Plug Connector	CNE-P04-YW	Autonics

※ Above connector is the most suitable product for the module applied. Another equivalent connector can be used.

● System Configuration [Ezi-IO-EC-■32□-T / Ezi-IO-EC-I16O16□-T Series]



Type	I/O Cable	Control Power Cable	I/O Power Cable	EtherCAT Cable
Length supplied	–	–	–	–
Max. Length	20m	2m	2m	100m

1. Options

① EtherCAT Cable

STP (Shielded Twisted Pair) cable of category 5e or higher.

Item	Length [m]	Remark
CGNR-EC-□□□F	□□□	Normal cable

□ is for Cable Length. The unit is 1m and Max. 100m length.

2. Connector Specifications

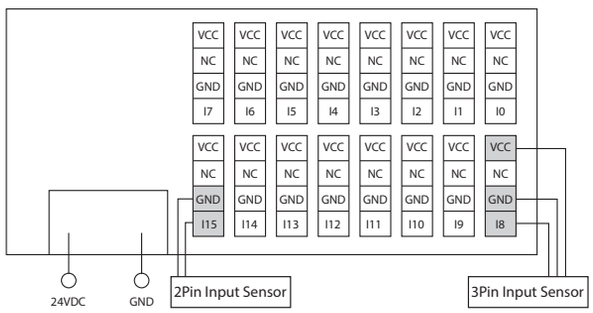
Connector specifications for cabling to module.

Purpose	Item	Part Number	Manufacturer
Control Power(CN1)	Terminal Block	MC421-38102	DECA
I/O Power(CN5)	Terminal Block	MC421-38104	DECA

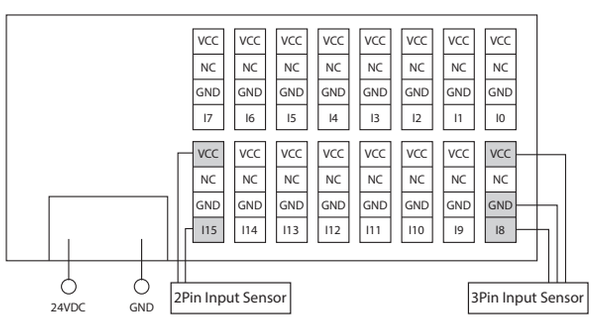
※ Above connector is the most suitable product for the module applied. Another equivalent connector can be used.

● External Wiring Diagram [Ezi-IO-EC-■16□-E / Ezi-IO-EC-I808□-E Series]

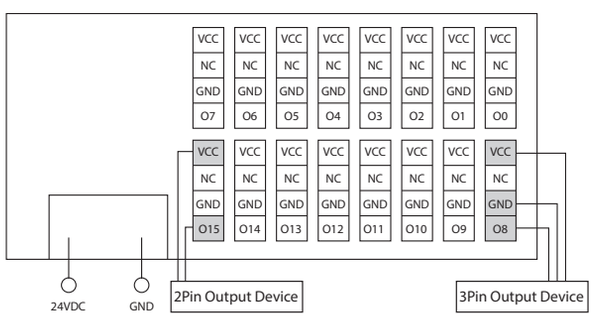
1 Ezi-IO-EC-I16N-E(NPN)



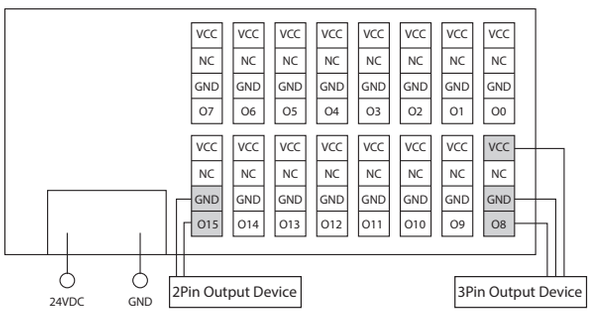
2 Ezi-IO-EC-I16P-E(PNP)



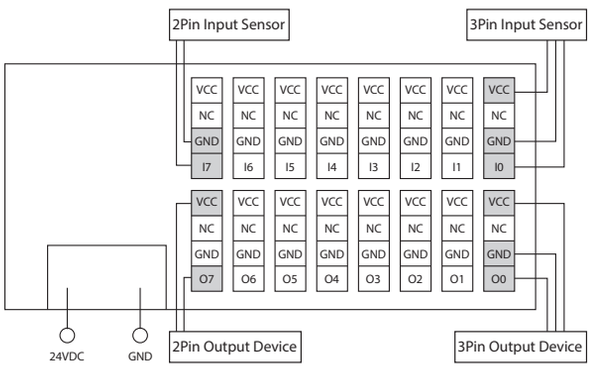
3 Ezi-IO-EC-O16N-E(NPN)



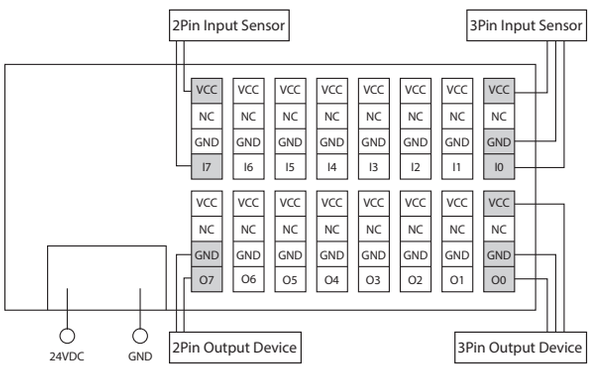
4 Ezi-IO-EC-O16P-E(PNP)



5 Ezi-IO-EC-I808N-E(NPN)



6 Ezi-IO-EC-I808P-E(PNP)

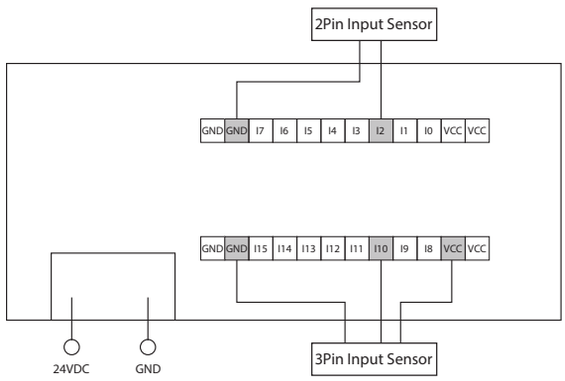


※ VCC is 24VDC output.

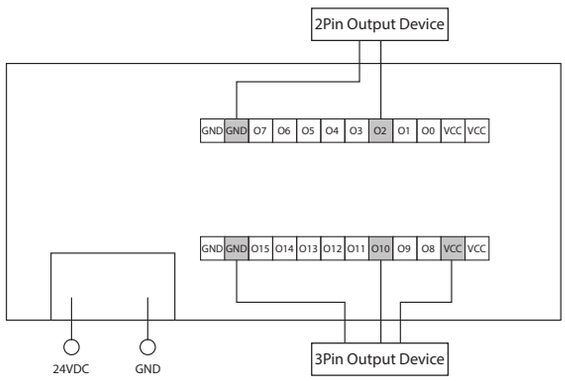
※ ex) · 2Pin Input Sensor : Limit Sensor, etc.
· 3Pin Input Sensor : Position Sensor, Photo Sensor, Proximity Sensor, etc.
· 2Pin Output Device : Brake, Solenoid, Photocoupler, etc.

● External Wiring Diagram [Ezi-IO-EC-■16□-T / Ezi-IO-EC-I8O8□-T Series]

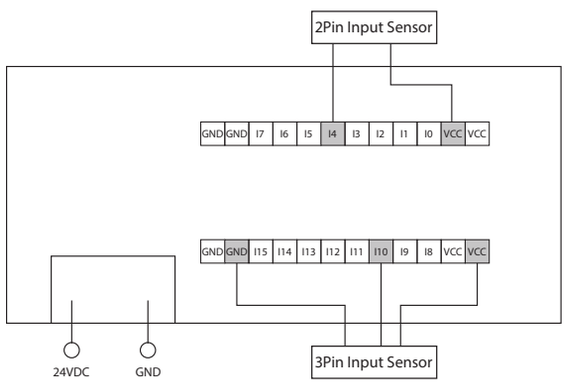
1 Ezi-IO-EC-I16N-T(NPN)



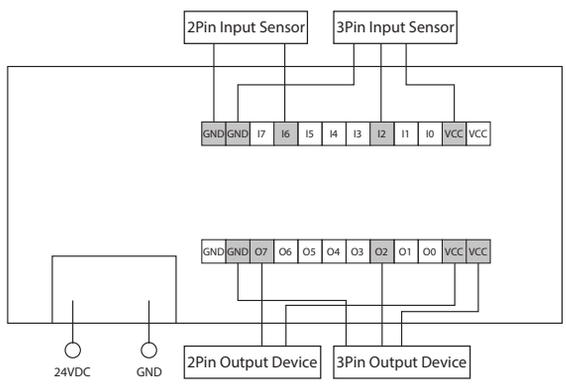
4 Ezi-IO-EC-O16P-T(PNP)



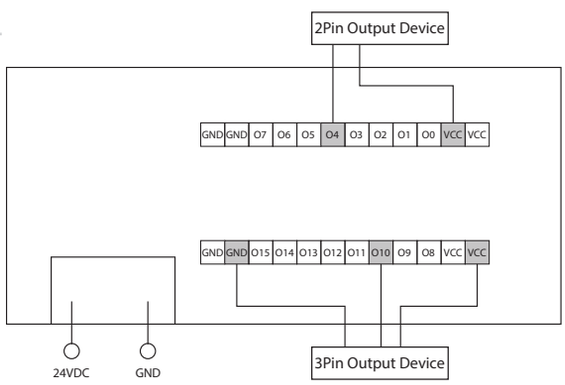
2 Ezi-IO-EC-I16P-T(PNP)



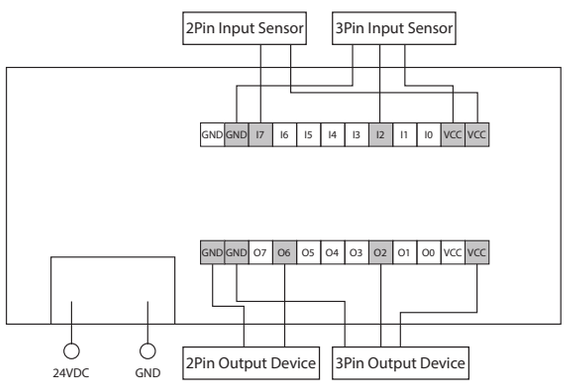
5 Ezi-IO-EC-I8O8N-T(NPN)



3 Ezi-IO-EC-O16N-T(NPN)



6 Ezi-IO-EC-I8O8P-T(PNP)

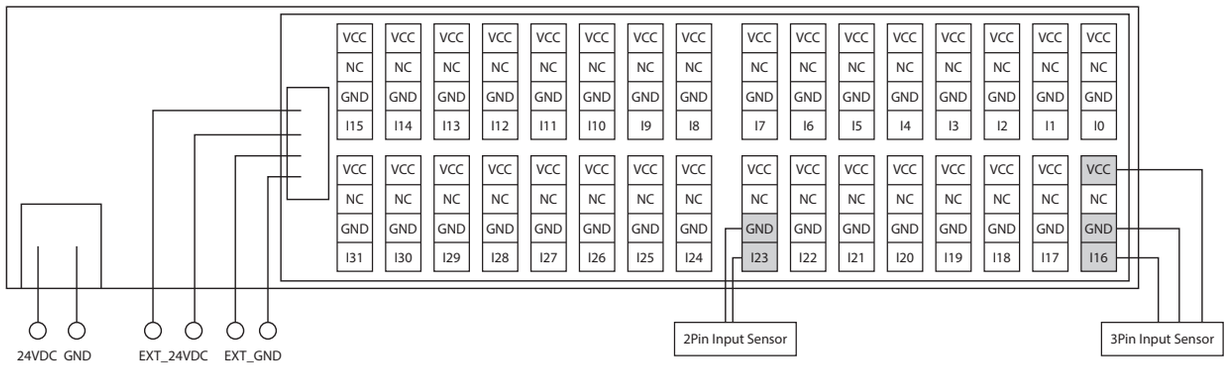


※ VCC is 24VDC output.

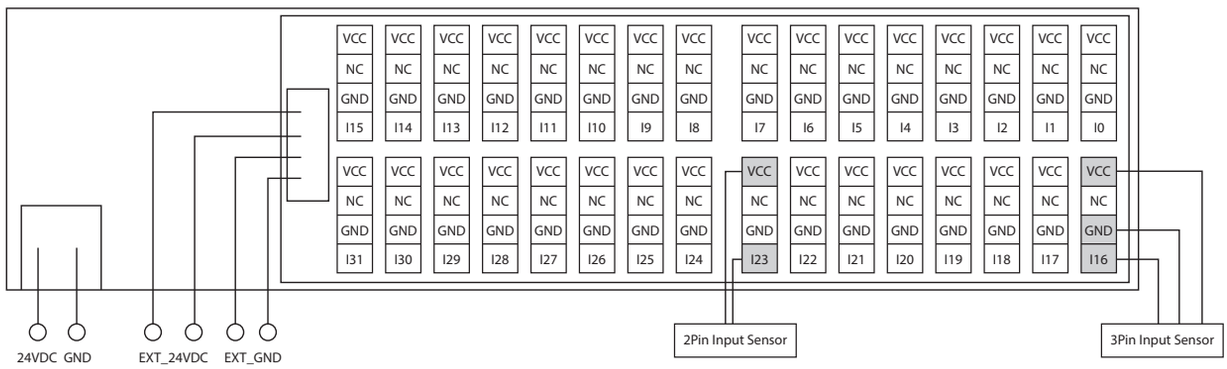
※ ex) · 2Pin Input Sensor : Limit Sensor, etc.
· 3Pin Input Sensor : Position Sensor, Photo Sensor, Proximity Sensor, etc.
· 2Pin Output Device : Brake, Solenoid, Photocoupler, etc.

● External Wiring Diagram [Ezi-IO-EC-■32□-E / Ezi-IO-EC-I16O16□-E Series]

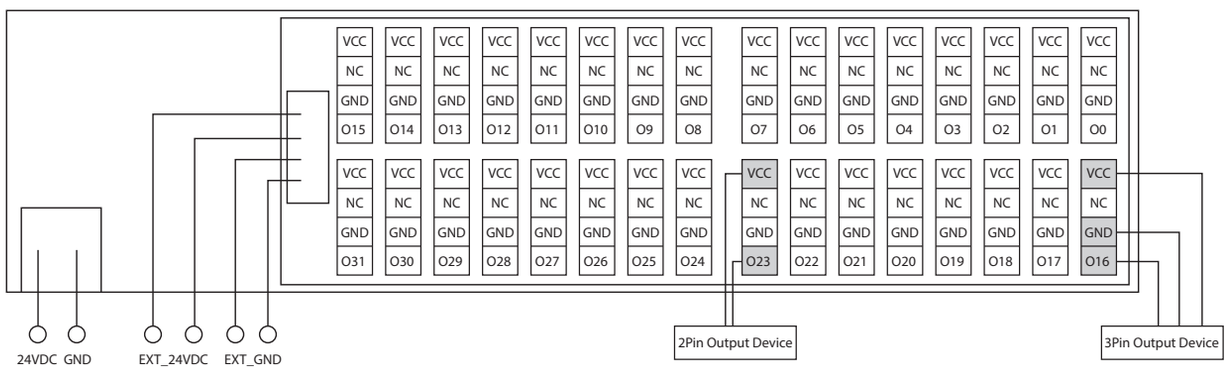
1 Ezi-IO-EC-I32N-E(NPN)



2 Ezi-IO-EC-I32P-E(PNP)



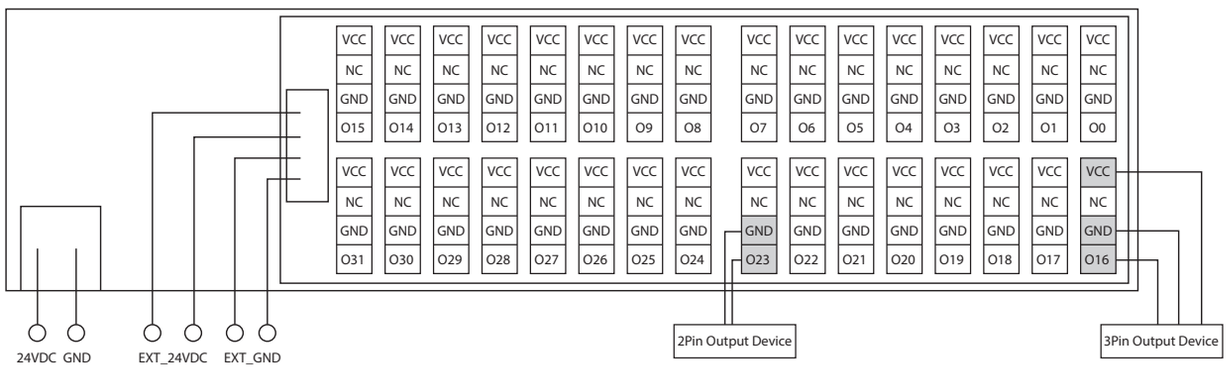
3 Ezi-IO-EC-O32N-E(NPN)



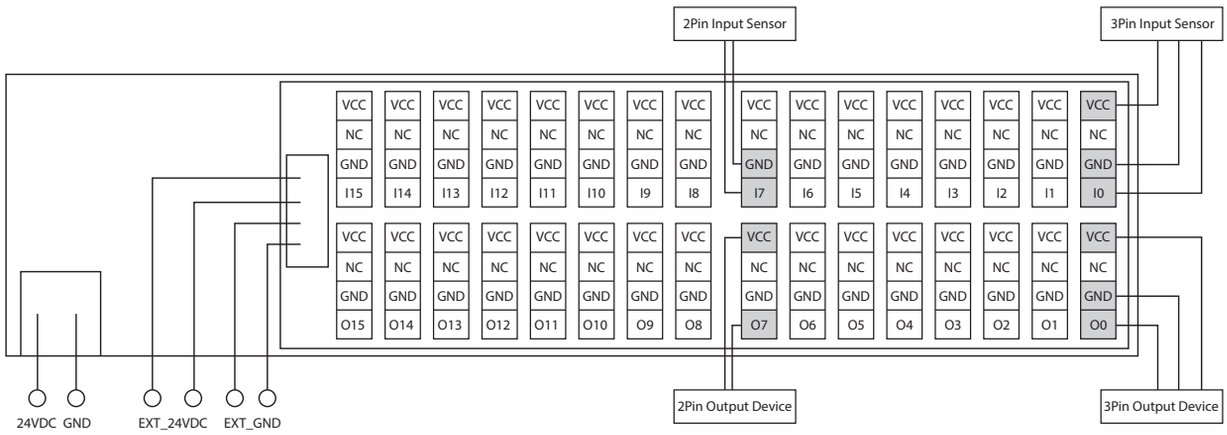
※ VCC is supplied from I/O Power Connector(CN5).
※ Be sure to supply power to I/O Power Connector(CN5) which is suitable for the load of I/O.
※ ex) · 2Pin Input Sensor : Limit Sensor, etc.
· 3Pin Input Sensor : Position Sensor, Photo Sensor, Proximity Sensor, etc.
· 2Pin Output Device : Brake, Solenoid, Photocoupler, etc.

● External Wiring Diagram [Ezi-IO-EC-■32□-E / Ezi-IO-EC-I16O16□-E Series]

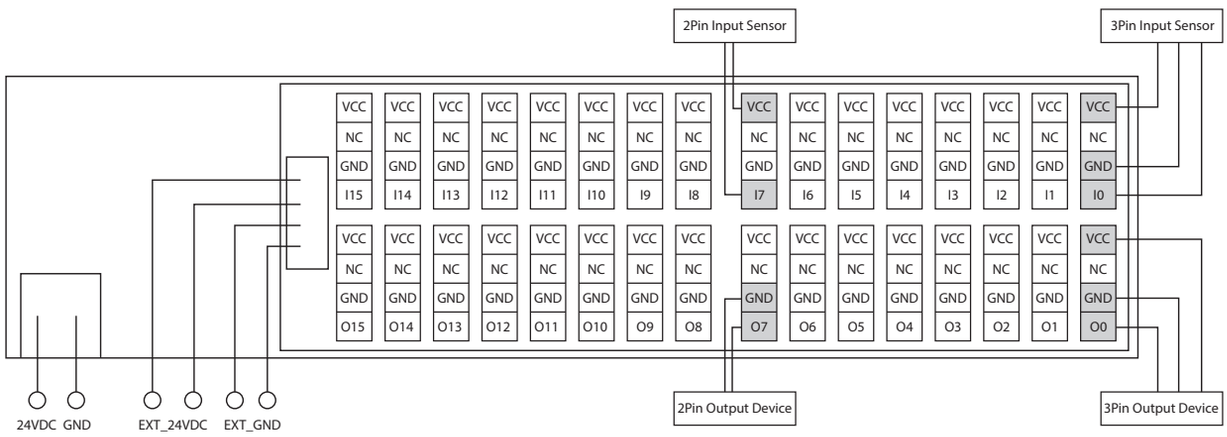
4 Ezi-IO-EC-O32P-E(PNP)



5 Ezi-IO-EC-I16O16N-E(NPN)



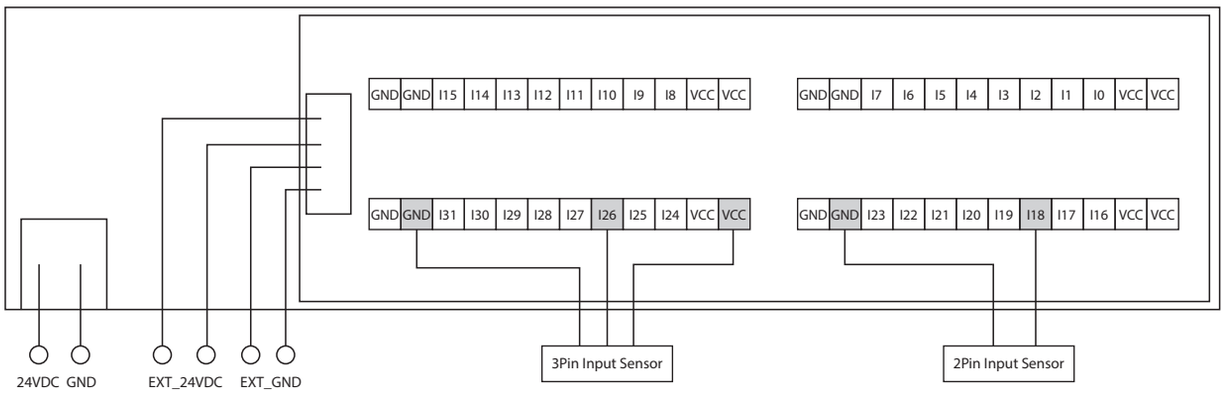
6 Ezi-IO-EC-I16O16P-E(PNP)



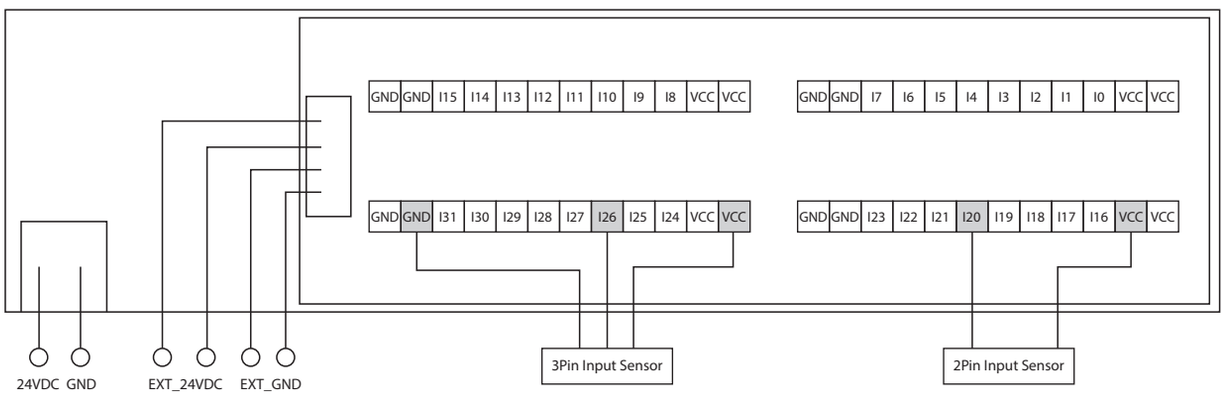
※ VCC is supplied from I/O Power Connector(CN5).
※ Be sure to supply power to I/O Power Connector(CN5) which is suitable for the load of I/O.
※ ex) · 2Pin Input Sensor : Limit Sensor, etc.
· 3Pin Input Sensor : Position Sensor, Photo Sensor, Proximity Sensor, etc.
· 2Pin Output Device : Brake, Solenoid, Photocoupler, etc.

● External Wiring Diagram [Ezi-IO-EC-■32□-T / Ezi-IO-EC-I16016□-T Series]

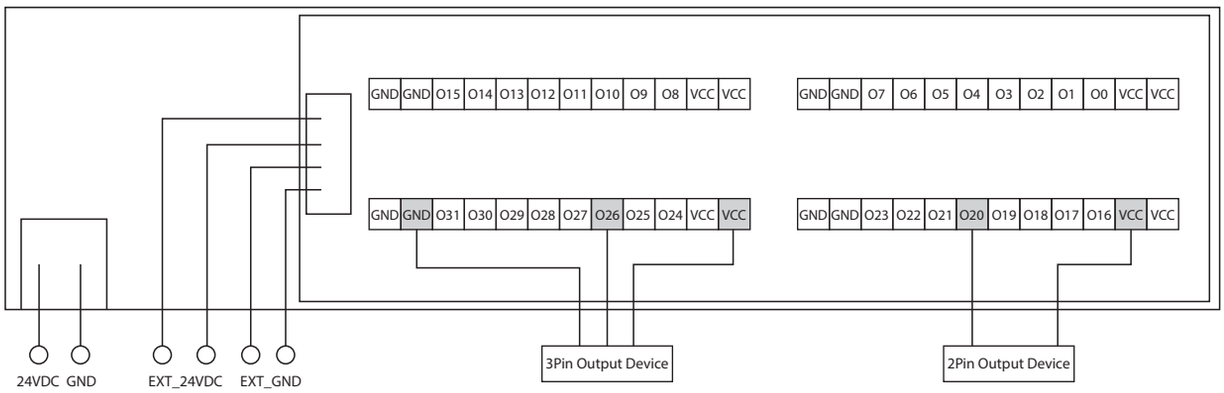
1 Ezi-IO-EC-I32N-T(NPN)



2 Ezi-IO-EC-I32P-T(PNP)



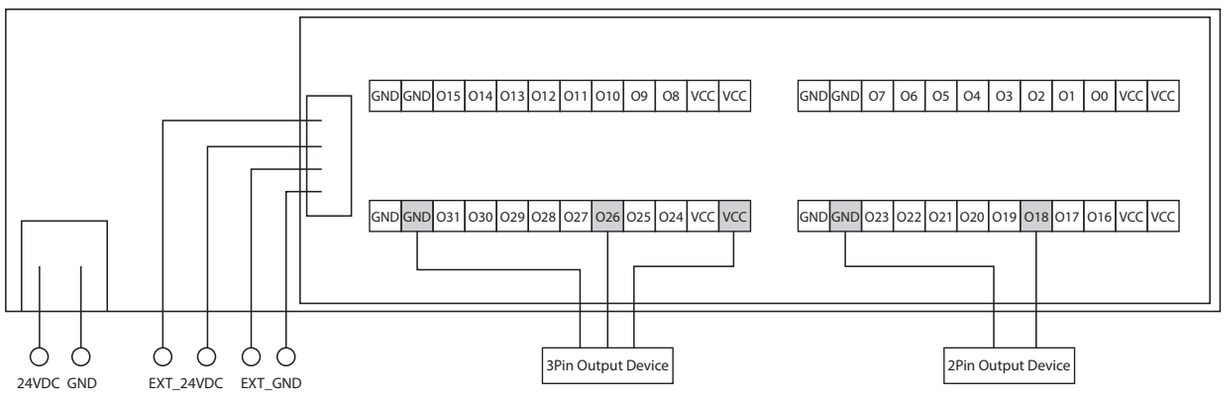
3 Ezi-IO-EC-O32N-T(NPN)



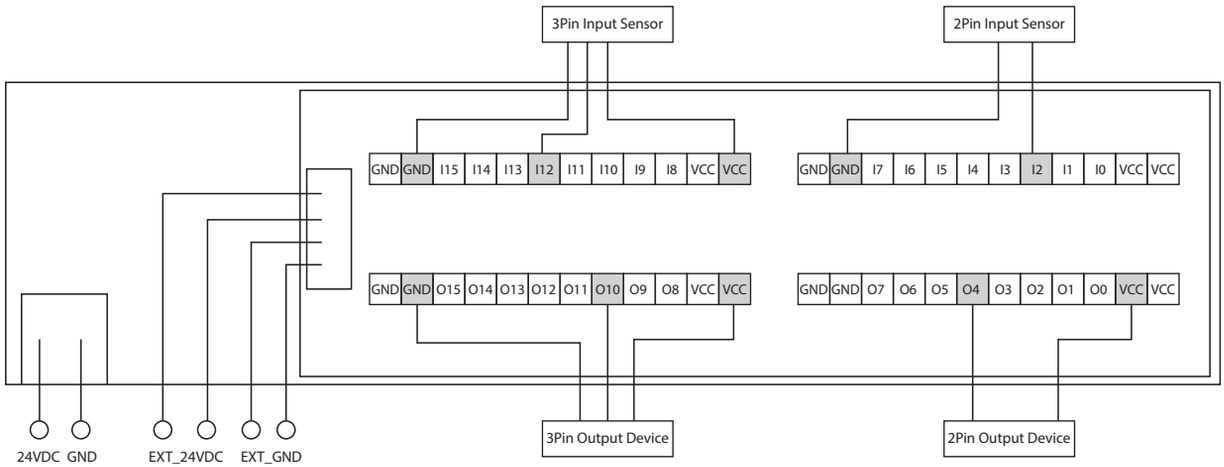
※ VCC is supplied from I/O Power Connector(CN5).
※ Be sure to supply power to I/O Power Connector(CN5) which is suitable for the load of I/O.
※ ex) · 2Pin Input Sensor : Limit Sensor, etc.
· 3Pin Input Sensor : Position Sensor, Photo Sensor, Proximity Sensor, etc.
· 2Pin Output Device : Brake, Solenoid, Photocoupler, etc.

● External Wiring Diagram [Ezi-IO-EC-■32□-T / Ezi-IO-EC-I16O16□-T Series]

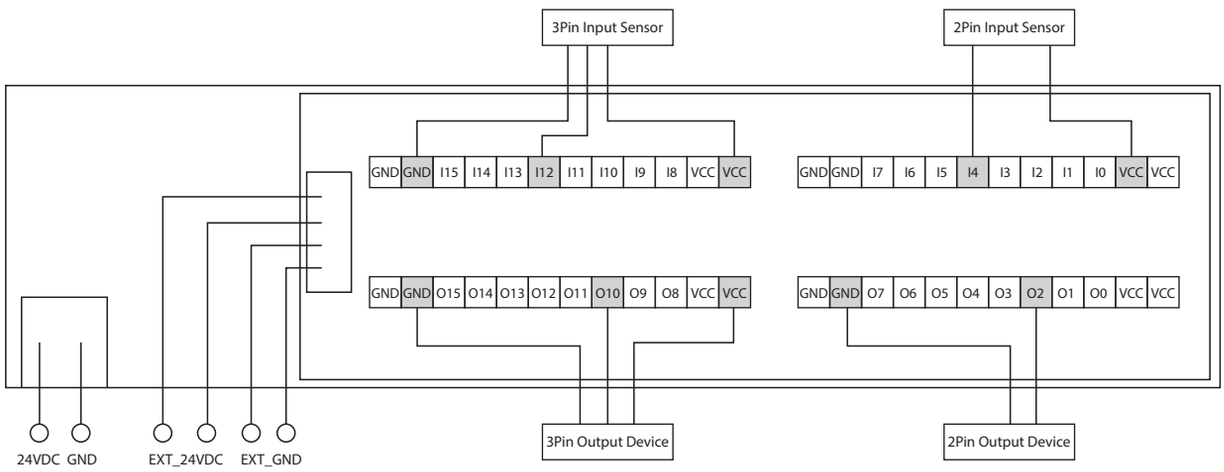
4 Ezi-IO-EC-O32P-T(PNP)



5 Ezi-IO-EC-I16O16N-T(NPN)



6 Ezi-IO-EC-I16O16P-T(PNP)

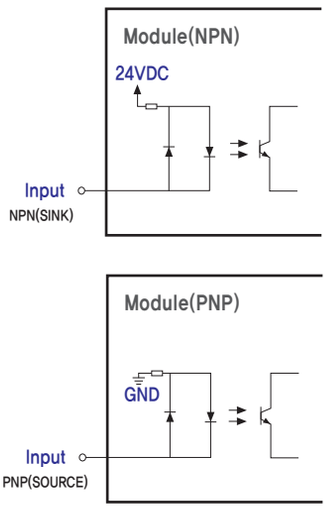


※ VCC is supplied from I/O Power Connector(CN5).
※ Be sure to supply power to I/O Power Connector(CN5) which is suitable for the load of I/O.
※ ex) · 2Pin Input Sensor : Limit Sensor, etc.
· 3Pin Input Sensor : Position Sensor, Photo Sensor, Proximity Sensor, etc.
· 2Pin Output Device : Brake, Solenoid, Photocoupler, etc.

Control Signal Input/Output Description

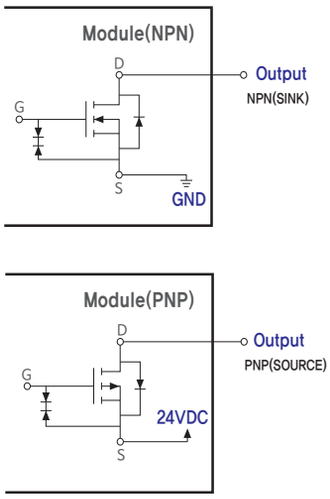
1 Input signal

The inputs of the Ezi-IO EtherCAT are all photocouplers. The signal shows the status of internal photocouplers [ON: conduction], [OFF: Non-conduction], not displaying the voltage levels of the signal.
Depending on the output method of peripheral devices, there are NPN(SINK) type or PNP(SOURCE) type module products. The input circuit for this is based on 24V and the input current is 15mA maximum for each channel.



2 Output signal

The outputs of the Ezi-IO EtherCAT are all transistors. Depending on the input method of peripheral devices, there are NPN(SINK) type or PNP(SOURCE) type module products. The output current is 200mA maximum per channel.



Remark (NPN / PNP / SINK / SOURCE)

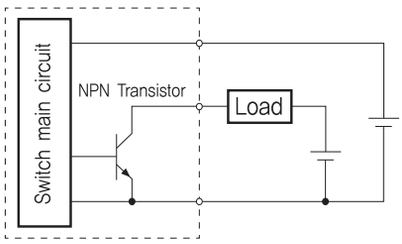


Fig1. NPN Out type interface

Fig1. shows example of NPN out interface.
When Transistor is on, Load current is flew into inside of NPN out which we call it as SINK type or NPN open collector type. Please connect (+) voltage into the load which connects output.

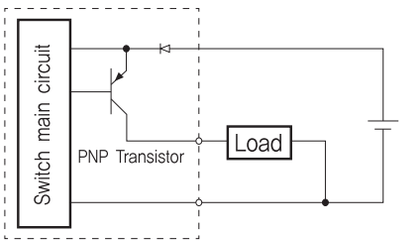


Fig2. PNP Out type interface

Fig2. shows example of PNP out interface.
When Transistor is on, Load current is flew out to outside load. We call it as SOURCE type or PNP open collector type. Please connect (-) voltage into other side of load which connects output.

MEMO

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