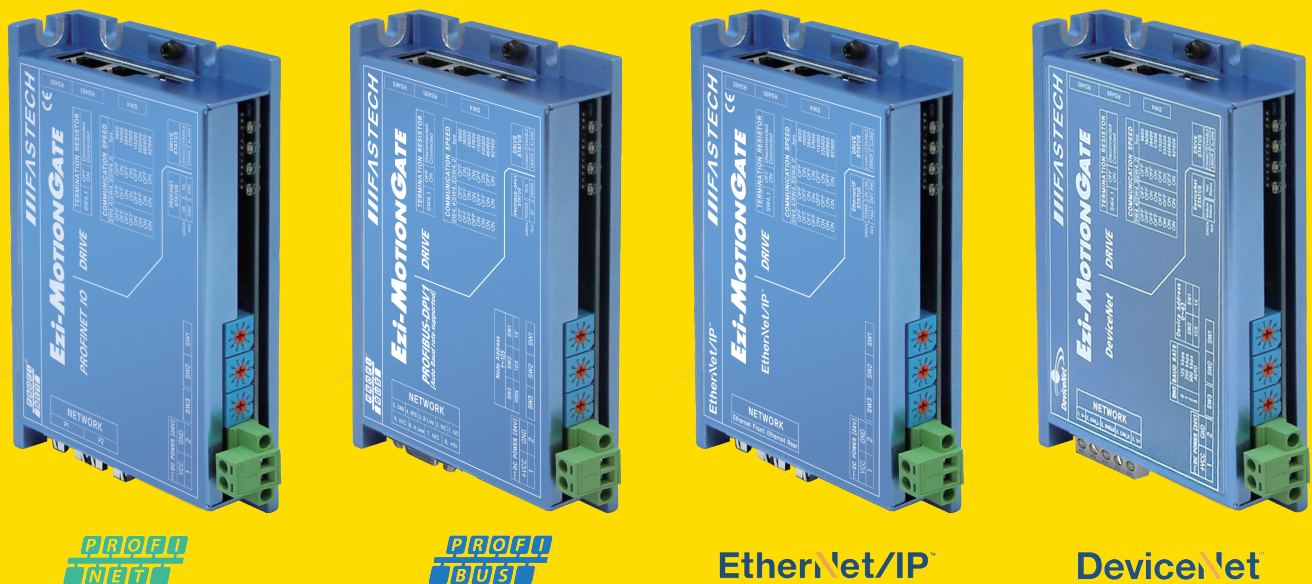


Ezi-MOTIONGATE[®]

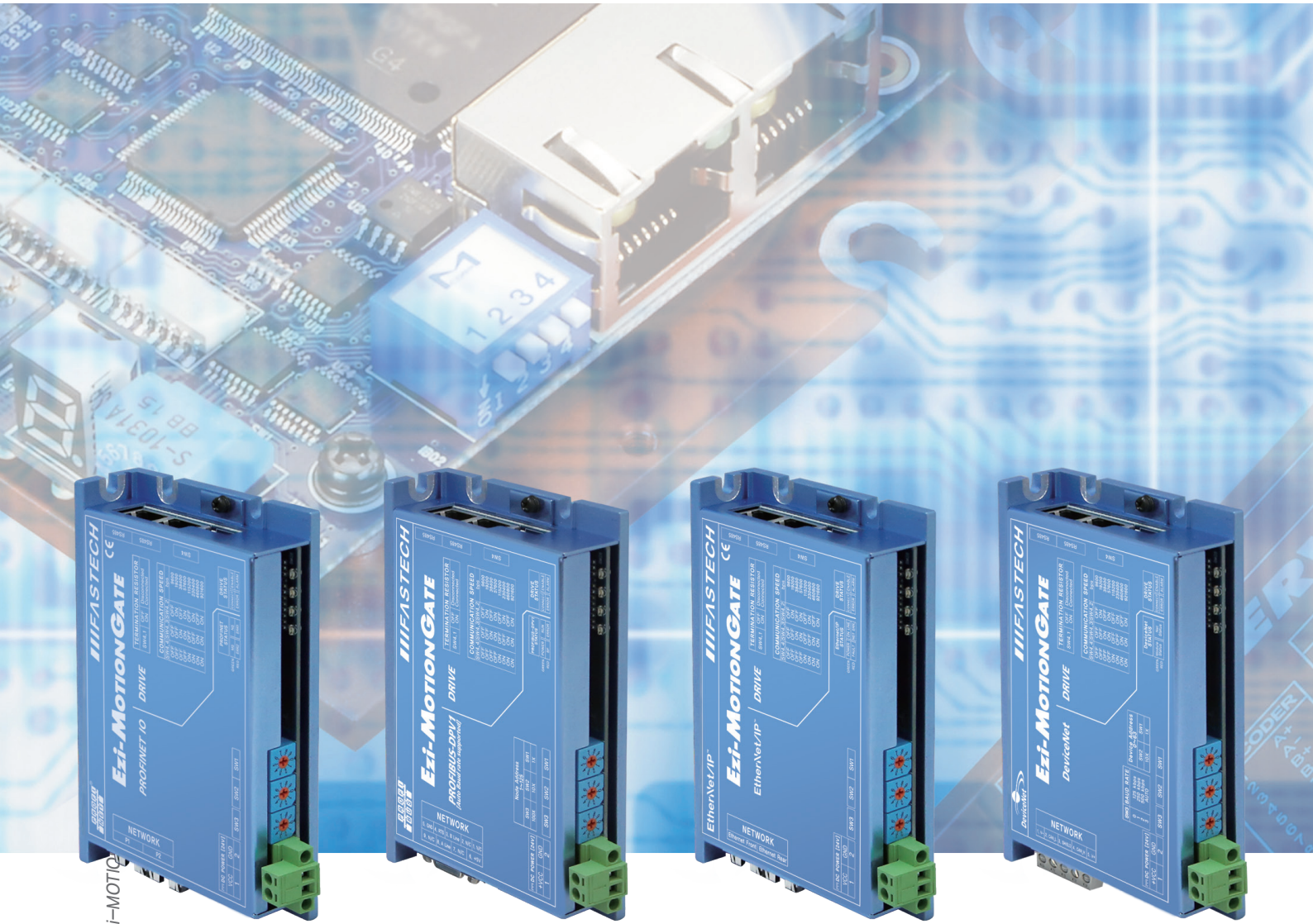
Gateway Solution for Ezi-SERVO

- Optimal Solution for I/O Data Exchange between Different Fieldbuses
- PROFINET, PROFIBUS, EtherNet/IP, DeviceNet Supported
- Max. 16 Axis Drive Connection per Network



FASTECH

Fast, Accurate, Smooth Motion



FASTTECH Ezi-MOTION



Fast, Accurate, Smooth Motion

Ezi-MOTIONGATE[®]

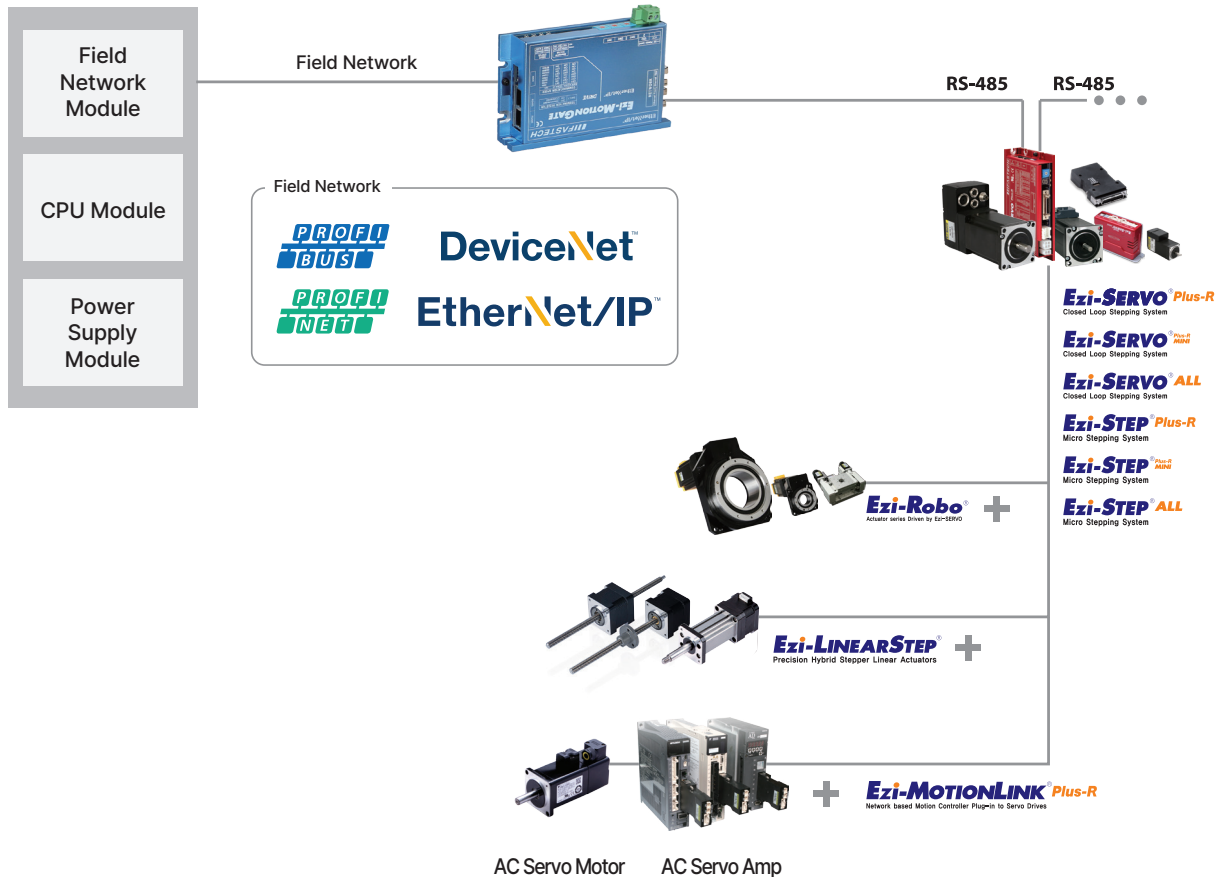
Gateway Solution for Ezi-SERVO



1 Gateway Solution for Various Networks

The Ezi-MOTIONGATE series is a gateway used to connect RS-485 network to various other field networks. Ezi-MOTIONGATE series supports PROFINET, PROFIBUS-DPV1, EtherNet/IP, and DeviceNet networks.* The slave connected to Ezi-MOTIONGATE plays a very important role in composing various actuator systems together with the Ezi-Robo series. By applying Ezi-MOTIONGATE, you can check motion commands, parameter settings, status information and alarm information through the master, and you can configure the system flexibly, so you can greatly shorten the machine development period.

* New products compatible with MECHATROLINK-II, MECHTROLINK-III and SERCOS III networks will be also released.



2

Multi-Axis Control Supported

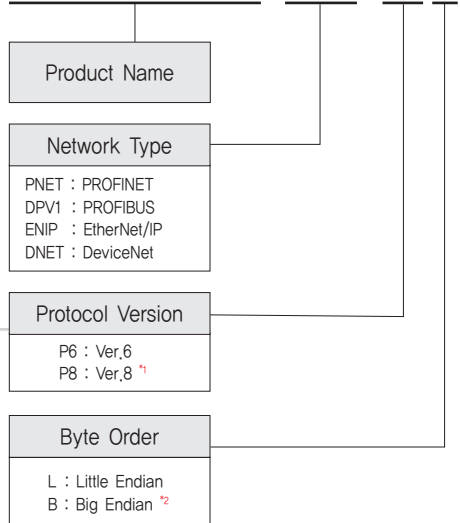
Ezi-MOTIONGATE enables easy and convenient multi-axis control.
The maximum number of axis available for each network is as follows.

- PROFINET : Max, 16 Axis
- PROFIBUS-DPV1 : Max, 9 Axis
- EtherNet/IP : Max, 16 Axis
- DeviceNet : Max, 16 Axis



Ezi-MOTIONGATE Part Numbering

Ezi-MOTIONGATE-PNET-P□□



Part Number

Part Number	Remarks
Ezi-MOTIONGATE-PNET-P6L	PROFINET Type
Ezi-MOTIONGATE-PNET-P6B	
Ezi-MOTIONGATE-PNET-P8L	
Ezi-MOTIONGATE-PNET-P8B	
Ezi-MOTIONGATE-DPV1-P6L	PROFIBUS-DPV1 Type
Ezi-MOTIONGATE-DPV1-P6B	
Ezi-MOTIONGATE-DPV1-P8L	
Ezi-MOTIONGATE-DPV1-P8B	
Ezi-MOTIONGATE-ENIP-P6L	EtherNet/IP Type
Ezi-MOTIONGATE-ENIP-P6B	
Ezi-MOTIONGATE-ENIP-P8L	
Ezi-MOTIONGATE-ENIP-P8B	
Ezi-MOTIONGATE-DNET-P6L	DeviceNet Type
Ezi-MOTIONGATE-DNET-P6B	
Ezi-MOTIONGATE-DNET-P8L	
Ezi-MOTIONGATE-DNET-P8B	

^{*1} : Ezi-SERVO ALL-ABS product uses Ver.8 protocol.
Therefore, when configuring the system with Ezi-SERVO ALL-ABS,
designate the protocol version as P8.

^{*2} : To use MOTIONGATE with SIEMENS PLC, the data type must be Big Endian.

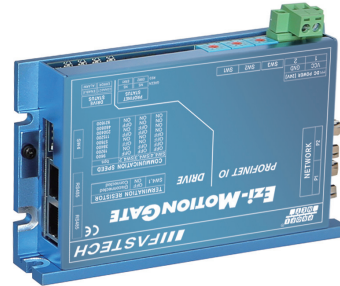
※ The default setting for PROFINET and PROFIBUS is Big Endian.

● Product Lineup [Ezi-MOTIONGATE Series]

Ezi-MOTIONGATE PROFINET



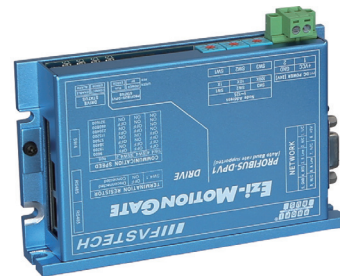
This product is a device that can integrate Siemens/Rockwell/Beckhoff PLC system and Ezi-MotionNetwork system consisting of Ezi-SERVO Plus-R, Ezi-STEP Plus-R, and Ezi-MOTIONLINK Plus-R into one using PROFINET network.



Ezi-MOTIONGATE PROFIBUS-DPV1



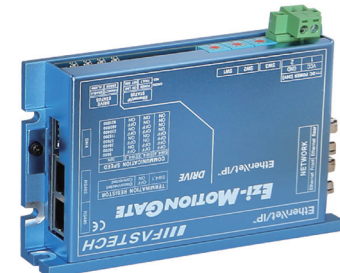
This product is a device that can integrate Siemens/Rockwell/Mitsubishi/LS PLC system and Ezi-MotionNetwork system consisting of Ezi-SERVO Plus-R, Ezi-STEP Plus-R, and Ezi-MOTIONLINK Plus-R into one using PROFIBUS network.



Ezi-MOTIONGATE EtherNet/IP



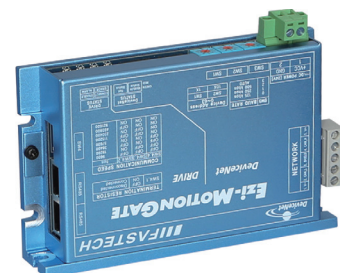
This product is a device that can integrate Rockwell/Mitsubishi/OMRON/LS PLC system and Ezi-MotionNetwork system consisting of Ezi-SERVO Plus-R, Ezi-STEP Plus-R, and Ezi-MOTIONLINK Plus-R into one using EtherNET/IP network.



Ezi-MOTIONGATE DeviceNet



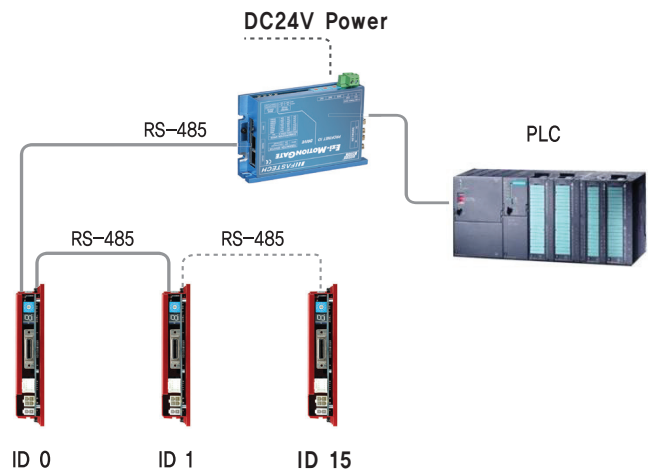
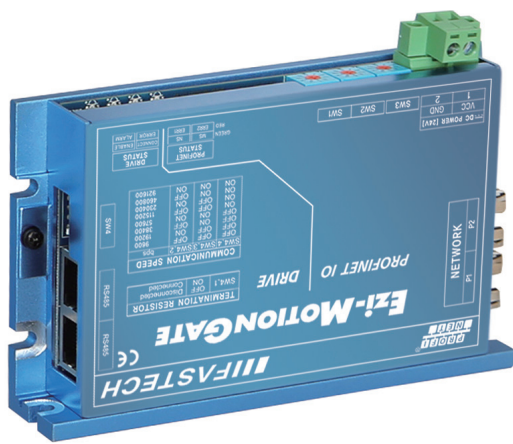
This product is a device that can integrate Rockwell/Mitsubishi/LS PLC system and Ezi-MotionNetwork system consisting of Ezi-SERVO Plus-R, Ezi-STEP Plus-R, and Ezi-MOTIONLINK Plus-R into one using DeviceNet network.



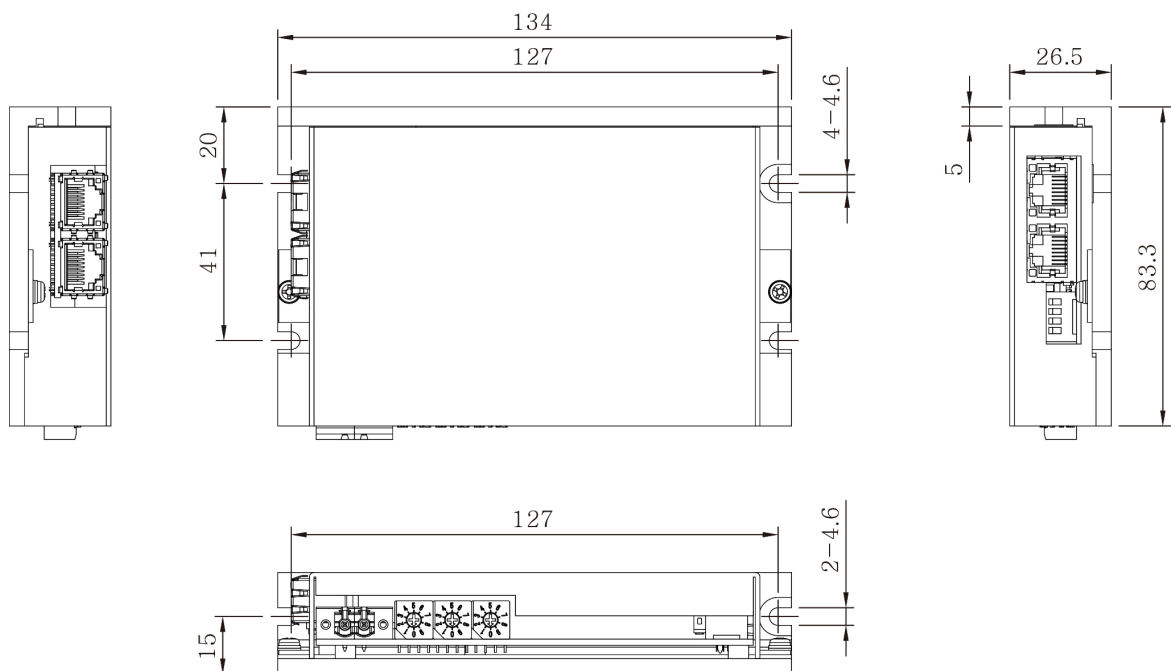
● Product Overview [Ezi-MOTIONGATE PROFINET]

Ezi-MOTIONGATE PROFINET can easily connect major PLCs around the world with FASTECH products using PROFINET network.

Applicable PLC Brands	Applicable Products
Siemens, Rockwell, Beckhoff	<ul style="list-style-type: none"> Ezi-SERVO Plus-R, Ezi-SERVO Plus-R MINI, Ezi-SERVO ALL Ezi-STEP Plus-R, Ezi-STEP Plus-R MINI, Ezi-STEP ALL Ezi-MOTIONLINK Plus-R

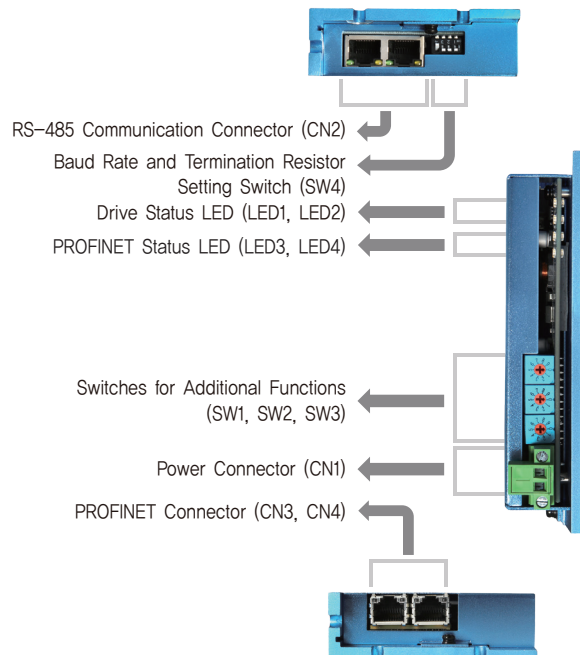


● Dimensions of Product [mm]

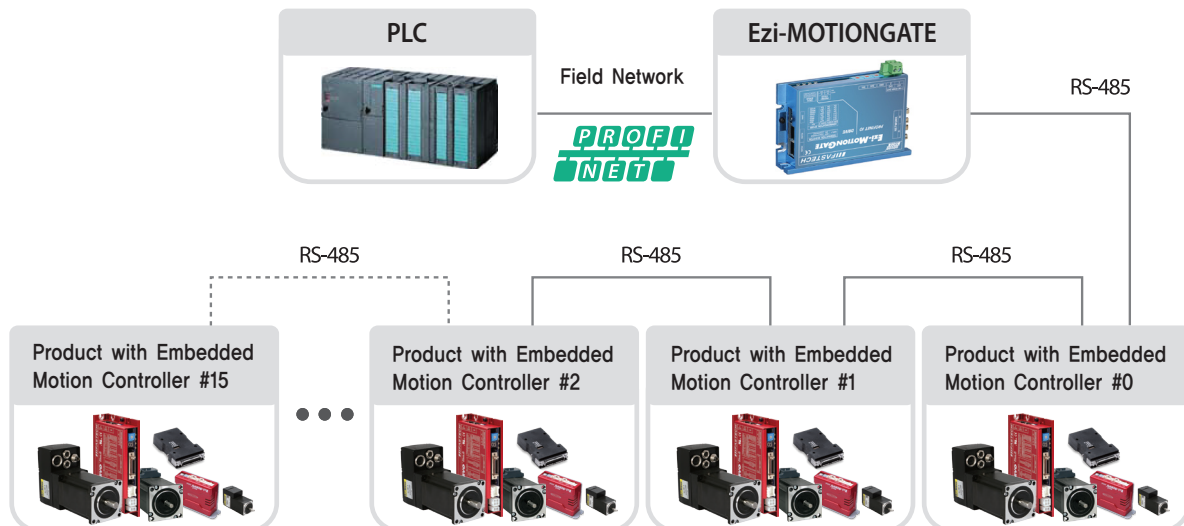


● Specifications of Product [Ezi-MOTIONGATE PROFINET]

Category	PROFINET	
Physical Layer	Ethernet – 100 base	
Station Type	Slave Device Station	
Max. Axis Connection	16 Axis	
Data Size	IN : 128 bytes (64 words) OUT : 128 bytes (64 words)	
PROFINET GSD Information	DeviceID : 0x64 Slot · Input – 1,,32 · Output – 33,,64	
Operating Condition	Temperature	· In Use : 0~55°C · In Storage : -20~70°C
	Humidity	· In Use : 35~85% RH (Non-Condensing) · In Storage : 10~90% RH (Non-Condensing)
	Vib. Resist.	0.5g
Function	Selection Switch	For Additional Functions
	LED Indication	Network Status, Drive Status, Servo ON Status, Alarm Status
Special Function	Jog Control	4-Speed Step, Speed Ratio
	Step Move Control	4-Step Distance



● System Configuration [Ezi-MOTIONGATE PROFINET]



1. Drive Status LED

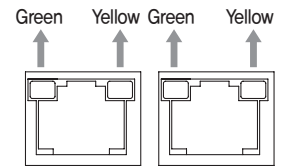
Name	Indication	Color	Description
LED1	ENABLE	Green	Operation Status of Ezi-MOTIONGATE
	ALARM	Red	Error Indication
LED2	CONNECT	Green	Drive Connection Status
	ERROR	Red	Error Indication

2. PROFINET Status LED

Name	Indication	Color	Description
LED3	NS	Green	Network Status
	ERR1	Red	Error Indication
LED4	NS	Green	Module Status
	ERR2	Red	Error Indication

3. PROFINET Connection Status LED

Name	Color	Status	Description
LINK/ Activity	Yellow	ON	Ethernet Link Connected
	Green	ON	Ethernet Link is set, but communication is not executed
	Green	Flickering	Normal Connection with Master

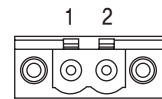


4. Switches for Additional Functions (SW1, SW2, SW3)

There are currently no configurable functions.

6. Power Connector(CN1)

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



5. Baud Rate and Termination Resistor Setting Switch(SW4)

Termination Resistor Setting Switch(SW4.1)

When using multiple drives, set a termination resistor for the drive installed at the end of the network for stable operation.

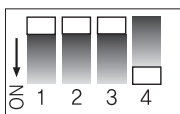
- SW4.1 ON : Termination resistor is set
- SW4.1 OFF : Termination resistor is not set

Baud Rate Setting Switch(SW4.2~SW4.4)

Baud rate is set by SW4.2~SW4.4 as follows.

SW4.1	SW4.2	SW4.3	SW4.4	Baud Rate [bps]
–	OFF	OFF	OFF	9,600
–	ON	OFF	OFF	19,200
–	OFF	ON	OFF	38,400
–	ON	ON	OFF	57,600
–	OFF	OFF	ON	115,200*1
–	ON	OFF	ON	230,400
–	OFF	ON	ON	460,800
–	ON	ON	ON	921,600

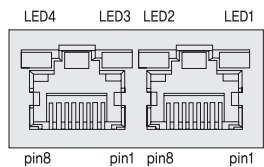
*1 : Default Value



— Baud Rate Setting Switch
— Termination Resistor Setting Switch

7. RS-485 Communication Connector(CN2)

No.	Function	No.	Function
1	GND	6	Data-
2	GND	7	GND
3	Data+	8	GND
4	GND	LED 1, 3	Receive Status
5	GND	LED 2, 4	Transmitt Status

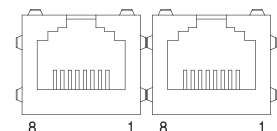


8. PROFINET Connector(CN3, CN4)

PROFINET network is compatible with Ethernet cables made of TIA/EIA-568-B (T568B).

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

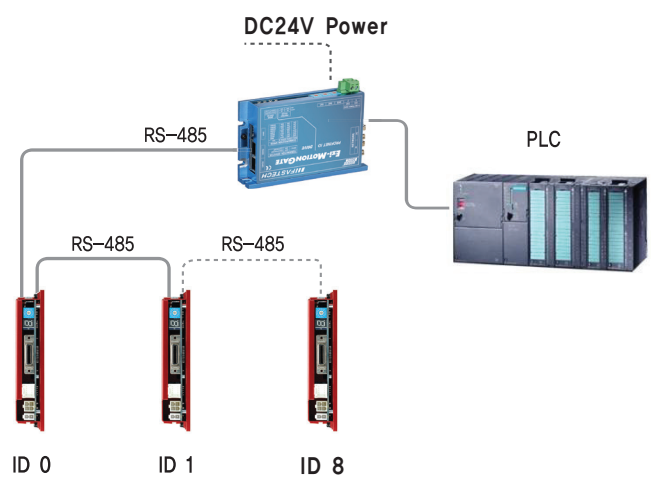
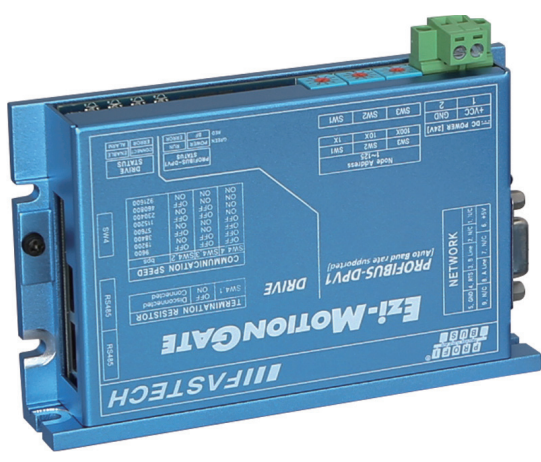
* Please use STP/FTP Cables with Category 5e or higher



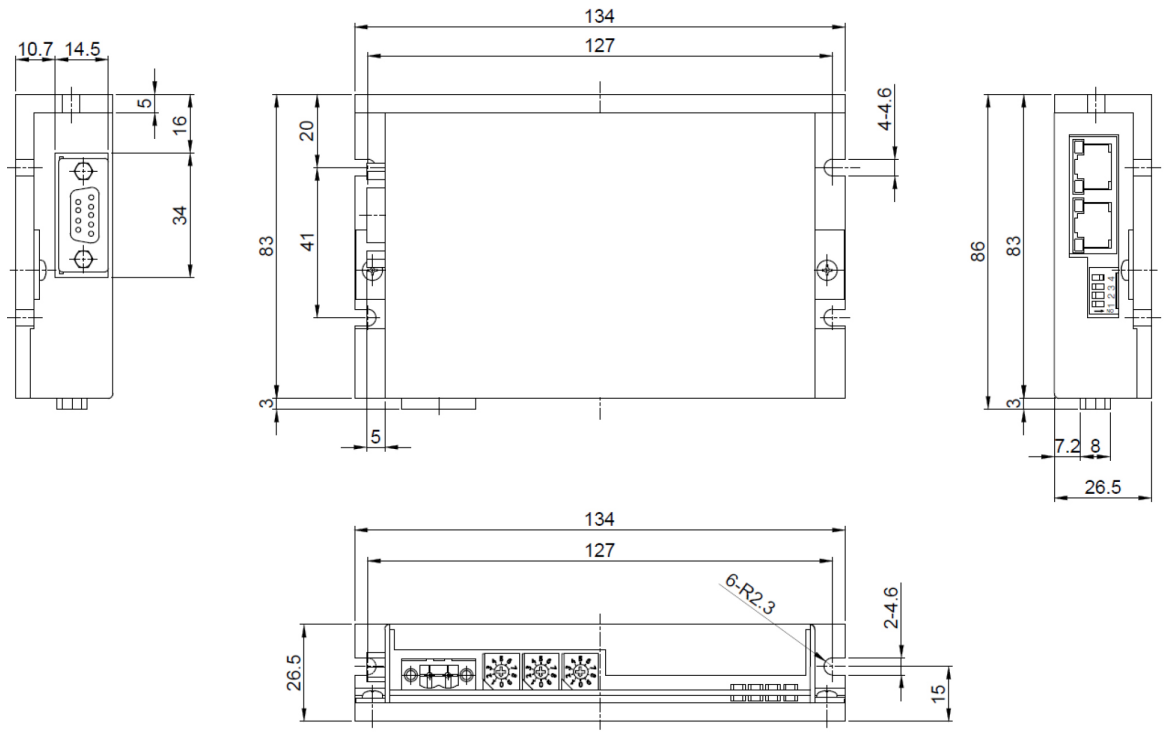
● Product Overview [Ezi-MOTIONGATE PROFIBUS-DPV1]

Ezi-MOTIONGATE PROFIBUS-DPV1 can easily connect major PLCs around the world with FASTECH products using PROFIBUS network.

Applicable PLC Brands	Applicable Products
Siemens, Rockwell, Mitsubishi, LS	<ul style="list-style-type: none"> • Ezi-SERVO Plus-R, Ezi-SERVO Plus-R MINI, Ezi-SERVO ALL • Ezi-STEP Plus-R, Ezi-STEP Plus-R MINI, Ezi-STEP ALL • Ezi-MOTIONLINK Plus-R

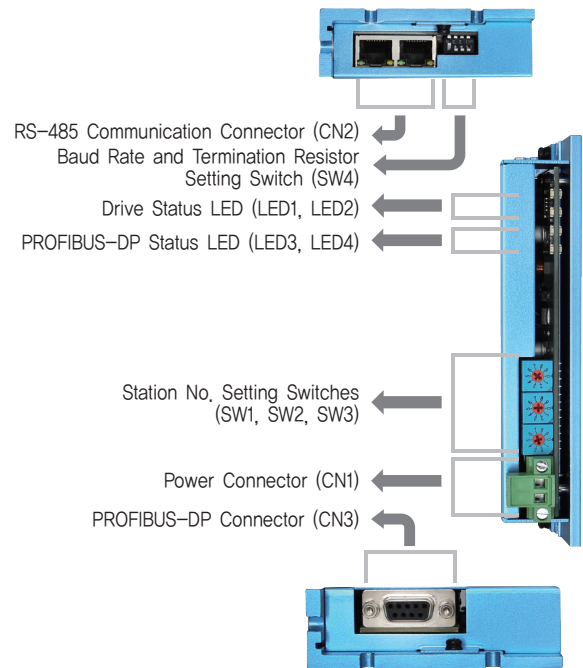


● Dimensions of Product [mm]

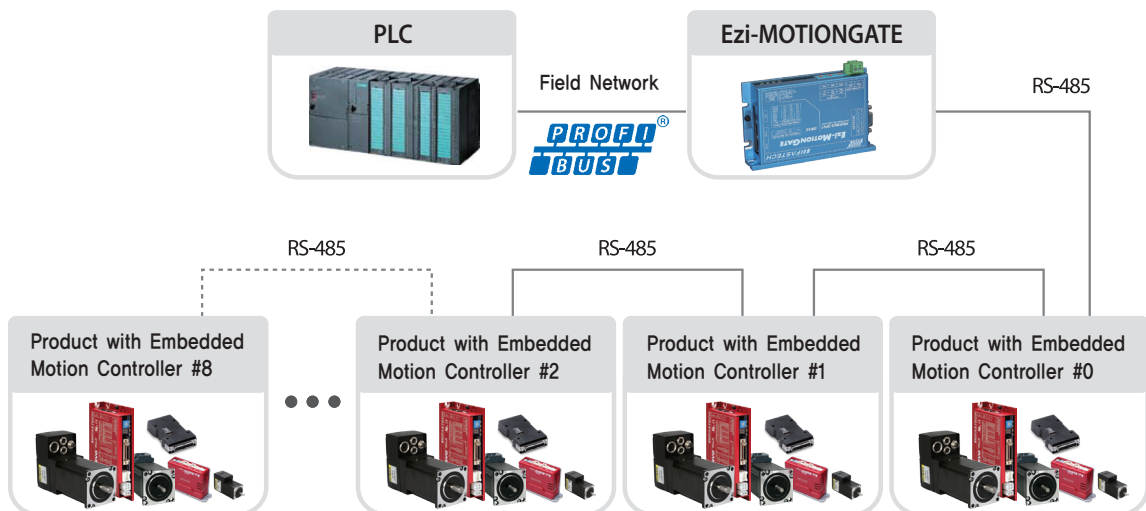


● Specifications of Product [Ezi-MOTIONGATE PROFIBUS-DPV1]

Category	PROFIBUS-DPV1	
Network Speed	9,6kbps / 19,2kbps / 93,75kbps / 187,5kbps / 0,5Mbps / 1,5Mbps / 12Mbps Auto Baud Rate Connection	
Station Type	Slave Device Station	
Max. Axis Connection	9 Axis	
Station Occupation (Output/Input)	72 bytes / 72 bytes (When 9 drives are connected)	
Max. MOTIONGATE Connection (PROFIBUS-DPV1)	125 Gateway	
Operating Condition	Temperature	· In Use : 0~55°C · In Storage : -20~70°C
	Humidity	· In Use : 35~85% RH (Non-Condensing) · In Storage : 10~90% RH (Non-Condensing)
	Vib. Resist.	0,5g
Function	Selection Switch	Network Station No. Setting
	LED Indication	Network Status, Drive Status, Servo ON Status, Alarm Status
Special Function	Jog Control	4-Speed Step, Speed Ratio
	Step Move Control	4-Step Distance



● System Configuration [Ezi-MOTIONGATE PROFIBUS-DPV1]



1. Drive Status LED

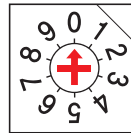
Name	Indication	Color	Description
LED1	ENABLE	Green	Operation Status of Ezi-MOTIONGATE
	ALARM	Red	Error Indication
LED2	CONNECT	Green	Drive Connection Status
	ERROR	Red	Error Indication

2. PROFIBUS-DP Status LED

Name	Indication	Color	Description
LED3	RUN	Green	Network Status
	ERROR	Red	Error Indication
LED4	POWER	Green	Network Connection Status and Power Status
	BF	Red	Waiting for Communication or Wrong Parameter Settings

3. Station No. Setting Switches(SW1, SW2, SW3)

Value (SW3)	ID No. X100 (Hundreds)	Value (SW2)	ID No. X10 (Tens)	Value (SW1)	ID No. X1 (Units)
0	000	0	00	0	0
1	100	1	10	1	1
2	----	2	20	2	2
3	----	3	30	3	3
4	----	4	40	4	4
5	----	5	50	5	5
6	----	6	60	6	6
7	----	7	70	7	7
8	----	8	80	8	8
9	----	9	90	9	9



4. Baud Rate and Termination Resistor Setting Switch(SW4)

Termination Resistor Setting Switch(SW4.1)

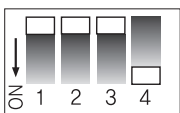
When using multiple drives, set a termination resistor for the drive installed at the end of the network for stable operation.

- SW4.1 ON : Termination resistor is set
- SW4.1 OFF : Termination resistor is not set

Baud Rate Setting Switch(SW4.2~SW4.4)

Baud rate is set by SW4.2~SW4.4 as follows.

SW4.1	SW4.2	SW4.3	SW4.4	Baud Rate [bps]
—	OFF	OFF	OFF	9,600
—	ON	OFF	OFF	19,200
—	OFF	ON	OFF	38,400
—	ON	ON	OFF	57,600
—	OFF	OFF	ON	115,200*1
—	ON	OFF	ON	230,400
—	OFF	ON	ON	460,800
—	ON	ON	ON	921,600

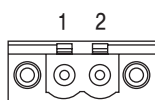


*1 : Default Value

— Baud Rate Setting Switch
— Termination Resistor Setting Switch

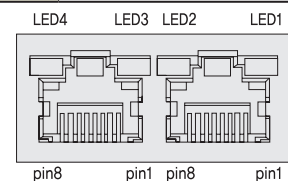
5. Power Connector(CN1)

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



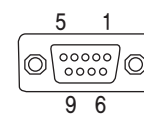
6. RS-485 Communication Connector(CN2)

No.	Function	No.	Function
1	GND	6	Data-
2	GND	7	GND
3	Data+	8	GND
4	GND	LED 1, 3	Receive Status
5	GND	LED 2, 4	Transmitt Status



7. PROFIBUS-DP Connector(CN3)

No.	Function
1	----
2	----
3	B Line
4	RTS
5	GND
6	5V
7	----
8	A Line
10	----

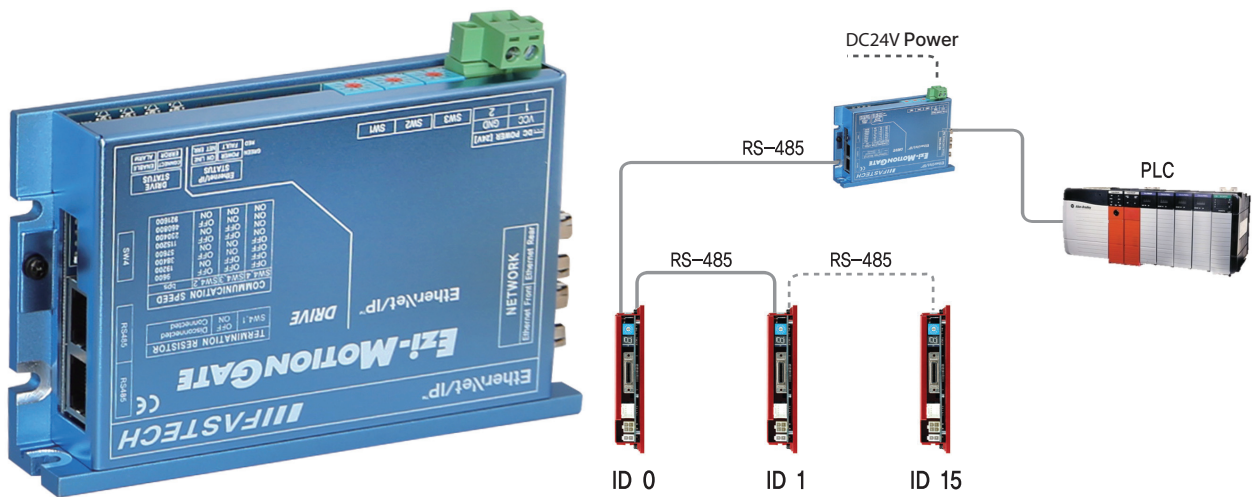


※ When connecting the PROFIBUS cable, use the dedicated DP cable connector.

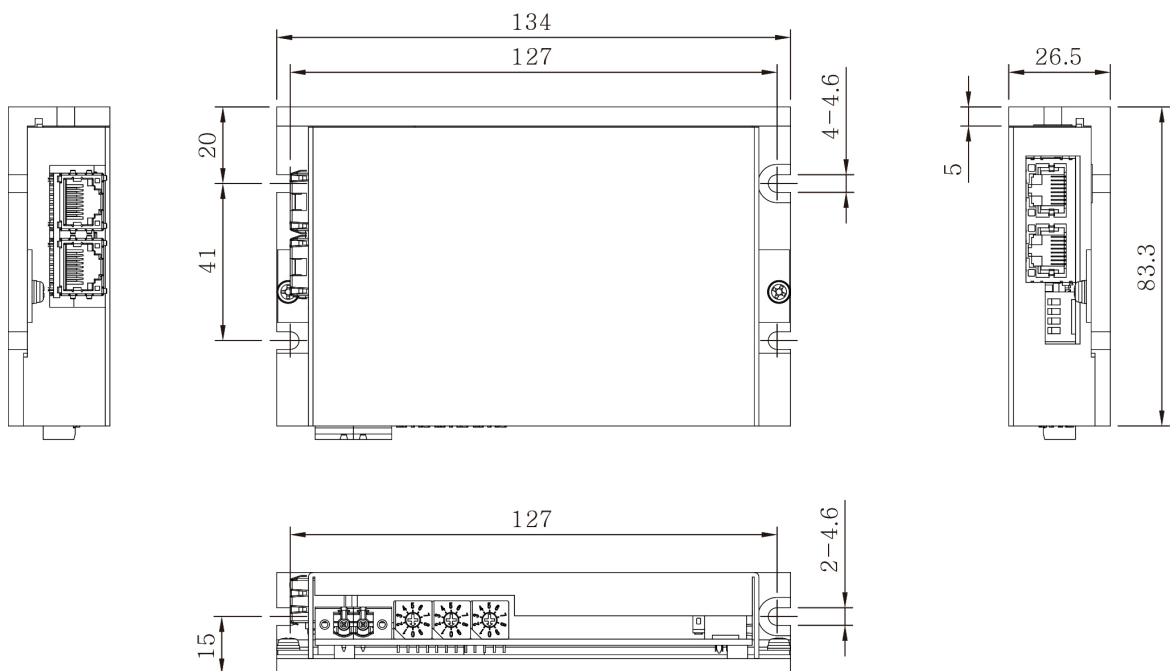
● Product Overview [Ezi-MOTIONGATE EtherNet/IP]

Ezi-MOTIONGATE EtherNET/IP can easily connect major PLCs around the world with FASTECH products using EtherNET/IP network.

Applicable PLC Brands	Applicable Products
Rockwell, Mitsubishi, OMRON, LS	<ul style="list-style-type: none"> Ezi-SERVO Plus-R, Ezi-SERVO Plus-R MINI, Ezi-SERVO ALL Ezi-STEP Plus-R, Ezi-STEP Plus-R MINI, Ezi-STEP ALL Ezi-MOTIONLINK Plus-R

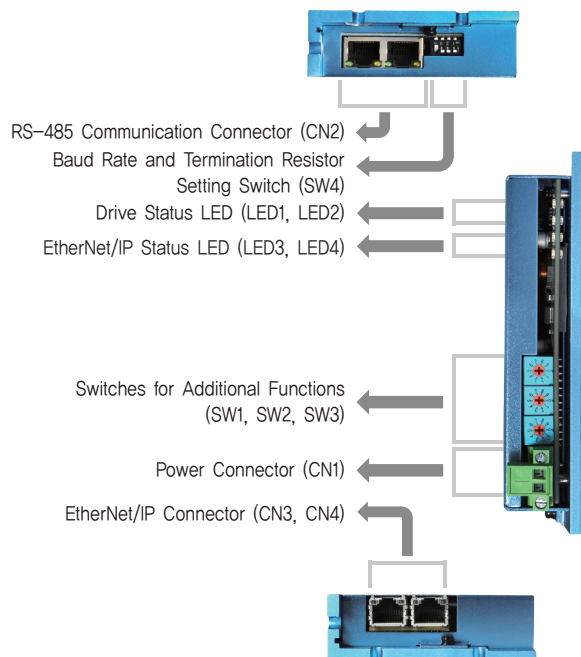


● Dimensions of Product [mm]

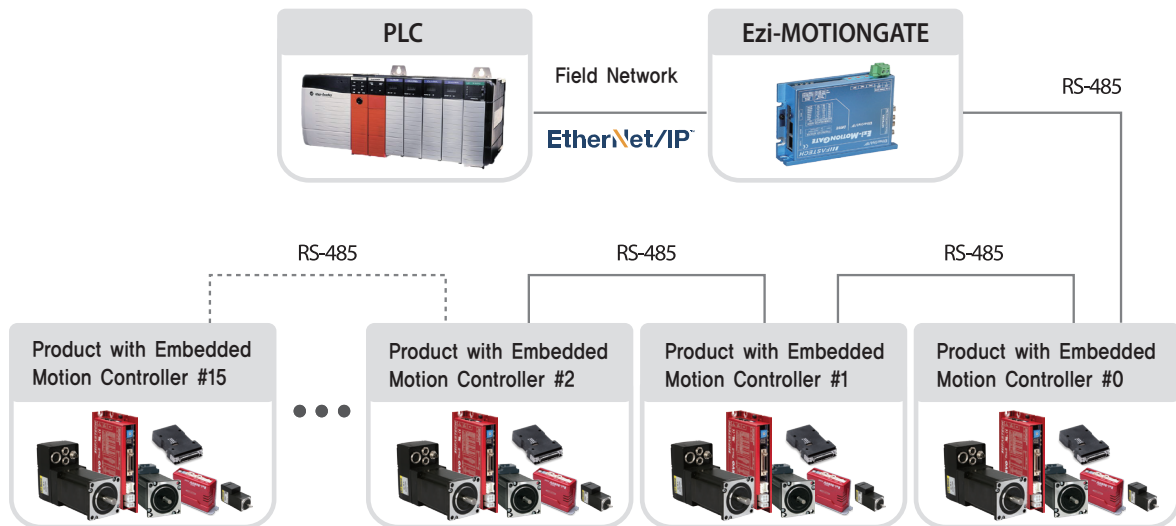


● Specifications of Product [Ezi-MOTIONGATE EtherNet/IP]

Category		EtherNet/IP
Physical Layer		Ethernet – 100 base
Station Type		Slave Device Station
Max. Axis Connection		16 Axis
Data Size		IN : 128 bytes (64 words) OUT : 128 bytes (64 words)
EtherNet/IP Information		Product Code : 501 Assembly Instance · Input – 100 · Output – 150
Operating Condition	Temperature	· In Use : 0~55°C · In Storage : -20~70°C
	Humidity	· In Use : 35~85% RH (Non-Condensing) · In Storage : 10~90% RH (Non-Condensing)
	Vib. Resist.	0.5g
Function	Selection Switch	For Additional Functions
	LED Indication	Network Status, Drive Status, Servo ON Status, Alarm Status
Special Function	Jog Control	4-Speed Step, Speed Ratio
	Step Move Control	4-Step Distance



● System Configuration [Ezi-MOTIONGATE EtherNet/IP]



1. Drive Status LED

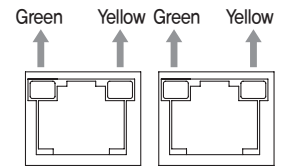
Name	Indication	Color	Description
LED1	ENABLE	Green	Operation Status of Ezi-MOTIONGATE
	ALARM	Red	Error Indication
LED2	CONNECT	Green	Drive Connection Status
	ERROR	Red	Error Indication

2. EtherNet/IP Status LED

Name	Indication	Color	Description
LED3	ON LINE	Green	Network Status
	NET ERR	Red	Error Indication
LED4	POWER	Green	Module Status
	FAULT	Red	Error Indication

3. EtherNet/IP Connection Status LED

Name	Color	Status	Description
LINK/ Activity	Green	ON	100Mbps Link Set
		Flickering	100Mbps Link Activated
	Yellow	ON	10Mbps Link Set
		Flickering	10Mbps Link Activated



4. Switches for Additional Functions (SW1, SW2, SW3)

There are currently no configurable functions.

5. Baud Rate and Termination Resistor Setting Switch(SW4)

Termination Resistor Setting Switch(SW4.1)

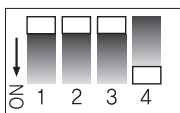
When using multiple drives, set a termination resistor for the drive installed at the end of the network for stable operation.

- SW4.1 ON : Termination resistor is set
- SW4.1 OFF : Termination resistor is not set

Baud Rate Setting Switch(SW4.2~SW4.4)

Baud rate is set by SW4.2~SW4.4 as follows.

SW4.1	SW4.2	SW4.3	SW4.4	Baud Rate [bps]
-	OFF	OFF	OFF	9,600
-	ON	OFF	OFF	19,200
-	OFF	ON	OFF	38,400
-	ON	ON	OFF	57,600
-	OFF	OFF	ON	115,200*1
-	ON	OFF	ON	230,400
-	OFF	ON	ON	460,800
-	ON	ON	ON	921,600

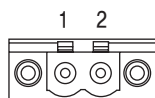


*1 : Default Value

↓ Baud Rate Setting Switch
 ↓ Termination Resistor Setting Switch

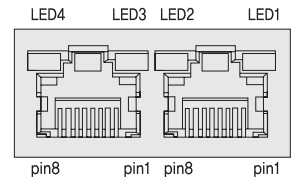
6. Power Connector(CN1)

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



7. RS-485 Communication Connector(CN2)

No.	Function	No.	Function
1	GND	6	Data-
2	GND	7	GND
3	Data+	8	GND
4	GND	LED 1, 3	Receive Status
5	GND	LED 2, 4	Receive Status

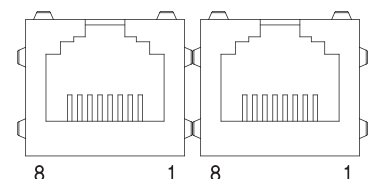


8. EtherNet/IP Connector(CN3, CN4)

EtherNet/IP network is compatible with Ethernet cables made of TIA/EIA-568-B (T568B).

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

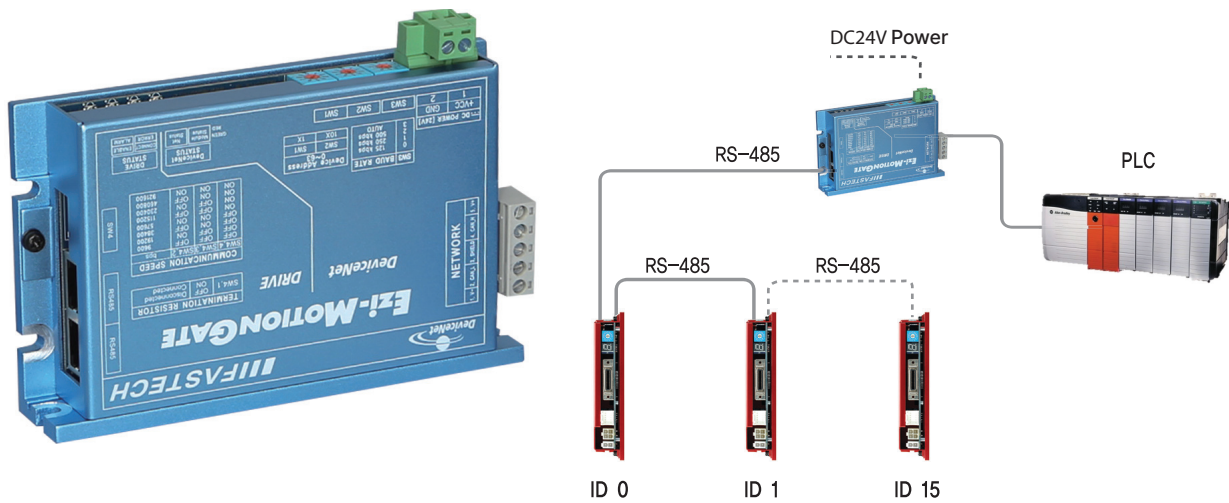
* Please use STP/FTP Cables with Category 5e or higher



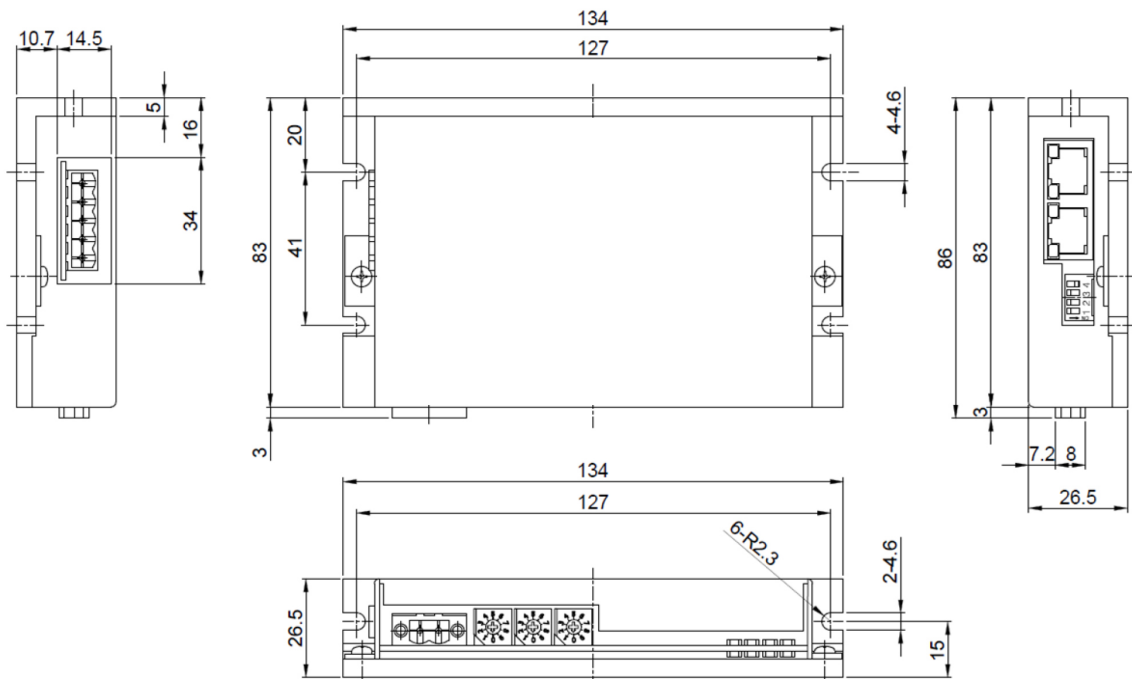
● Product Overview [Ezi-MOTIONGATE DeviceNet]

Ezi-MOTIONGATE DeviceNet can easily connect major PLCs around the world with FASTECH products using DeviceNet network.

Applicable PLC Brands	Applicable Products
Rockwell, Mitsubishi, LS	<ul style="list-style-type: none"> • Ezi-SERVO Plus-R, Ezi-SERVO Plus-R MINI, Ezi-SERVO ALL • Ezi-STEP Plus-R, Ezi-STEP Plus-R MINI, Ezi-STEP ALL • Ezi-MOTIONLINK Plus-R

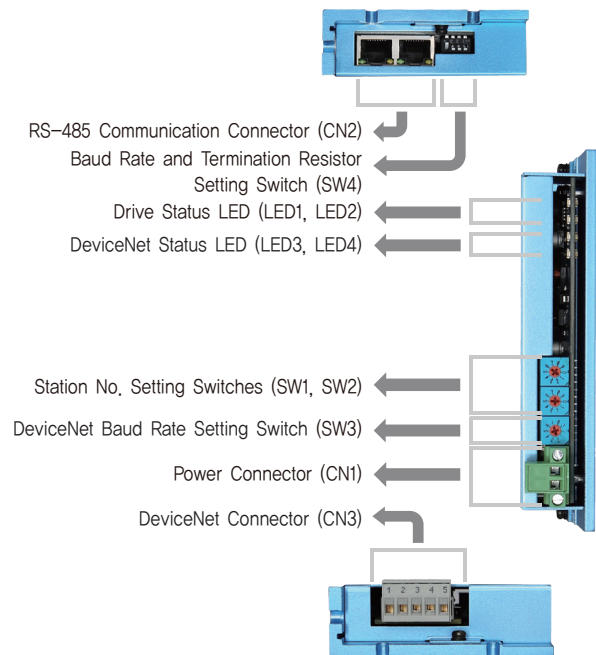


● Dimensions of Product [mm]

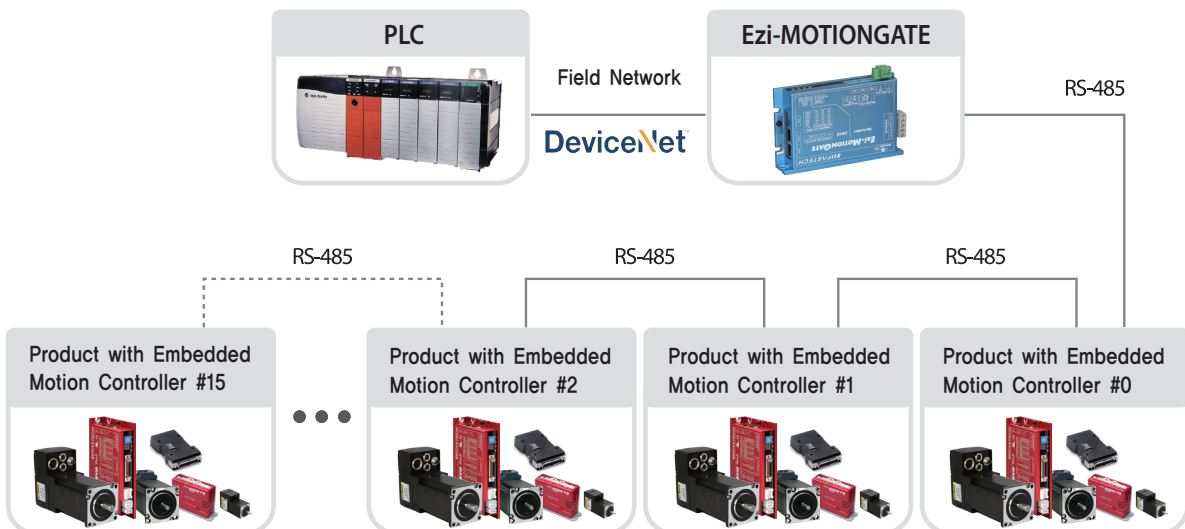


● Specifications of Product [Ezi-MOTIONGATE DeviceNet]

Category	DeviceNet	
Baud Rate	125kbps / 150kbps / 500kbps	
Station Type	Slave Device Station	
Max. Axis Connection	16 Axis	
Data Size	IN : 128 bytes (64 words) OUT : 128 bytes (64 words)	
Max. MOTIONGATE Connection (DeviceNet)	63 Gateway	
Operating Condition	Temperature	· In Use : 0~55°C · In Storage : -20~70°C
	Humidity	· In Use : 35~85% RH (Non-Condensing) · In Storage : 10~90% RH (Non-Condensing)
	Vib. Resist.	0,5g
Selection Switch	Selection Switch	Network Station No. Setting, Baud Rate Setting
	LED Indication	Network Status, Drive Status, Servo ON Status, Alarm Status
Special Function	Jog Control	4-Speed Step, Speed Ratio
	Step Move Control	4-Step Distance



● System Configuration [Ezi-MOTIONGATE DeviceNet]



1. Drive Status LED

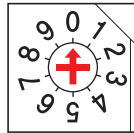
Name	Indication	Color	Description
LED1	ENABLE	Green	Operation Status of Ezi-MOTIONGATE
	ALARM	Red	Error Indication
LED2	CONNECT	Green	Drive Connection Status
	ERROR	Red	Error Indication

2. DeviceNet Status LED

Name	Indication	Color	Description
LED3	Net Status	Green	Network Status
		Red	Error Indication
LED4	Module Status	Green	Module Status
		Red	Error Indication

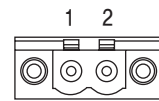
3. Station No. Setting Switches(SW1, SW2)

Value (SW2)	ID No. X10 (Tens)	Value (SW1)	ID No. X1 (Units)
0	00	0	0
1	10	1	1
2	20	2	2
3	30	3	3
4	40	4	4
5	50	5	5
6	60	6	6
7	----	7	7
8	----	8	8
9	----	9	9



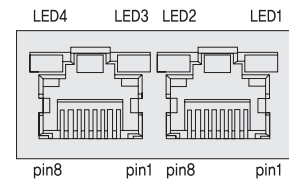
6. Power Connector(CN1)

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



7. RS-485 Communication Connector (CN2)

No.	Function	No.	Function
1	GND	6	Data-
2	GND	7	GND
3	Data+	8	GND
4	GND	LED 1, 3	Receive Status
5	GND	LED 2, 4	Transmitt Status



4. DeviceNet Baud Rate Setting Switch(SW3)

Value (SW3)	Baud Rate[kbps]
0	125
1	250
2	500
3	Auto Baud Rate
4~9	----

5. Baud Rate and Termination Resistor Setting Switch(SW4)

Termination Resistor Setting Switch(SW4.1)

When using multiple drives, set a termination resistor for the drive installed at the end of the network for stable operation.

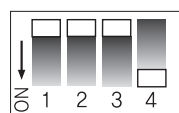
- SW4.1 ON : Termination resistor is set
- SW4.1 OFF : Termination resistor is not set

Baud Rate Setting Switch(SW4.2~SW4.4)

Baud rate is set by SW4.2~SW4.4 as follows.

SW4.1	SW4.2	SW4.3	SW4.4	Baud Rate [bps]
—	OFF	OFF	OFF	9,600
—	ON	OFF	OFF	19,200
—	OFF	ON	OFF	38,400
—	ON	ON	OFF	57,600
—	OFF	OFF	ON	115,200*1
—	ON	OFF	ON	230,400
—	OFF	ON	ON	460,800
—	ON	ON	ON	921,600

*1 : Default Value

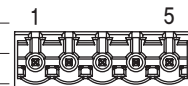


Baud Rate Setting Switch
Termination Resistor Setting Switch

8. DeviceNet Connector(CN3)

The power of Ezi-MOTIONGATE is used independently of the power of DeviceNet cable. Therefore, if power is connected only to the DeviceNet connector, Ezi-MOTIONGATE will not be turned ON. Also, if DeviceNet power is not connected to the network connector of Ezi-MOTIONGATE, it will not operate.

No.	Function	Color
1	GND	Black
2	CAN_L	Blue
3	DRAIN	Shield
4	CAN_H	White
5	24VDC	Red



※ Please use a dedicated DeviceNet cable.



Fast, Accurate, Smooth Motion

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