

Controller

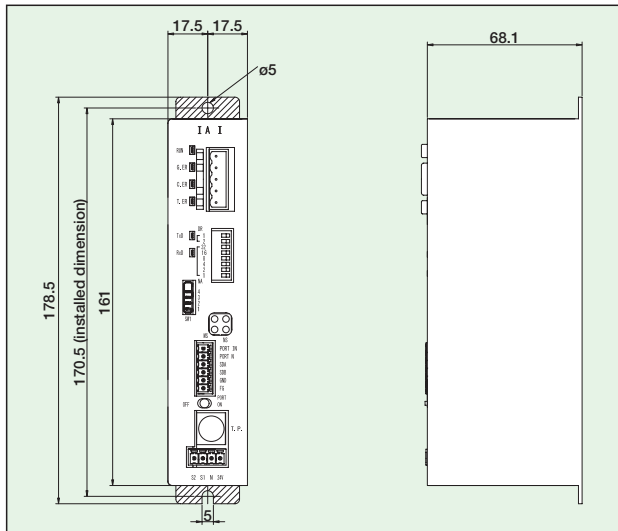
DeviceNet Gateway Unit

Model RCM-GW-DV

Operation Modes and Key Functions

Key functions	Position-number specification mode	Positioning-data specification mode	Simple direct/ position-number specification mode
Movement by position data specification	×	○	○
Direct speed & acceleration/deceleration specification	×	○	○
Push-motion operation	○	○	○
Current position read	×	○	○
Position number specification	○	×	○
Completed position number read	○	×	○
Various status signal read	○	○	○
Number of connectable axes	16	16	16
Maximum specifiable position data	Set as position data	999.99	999.99

External Dimensions



Specifications

Item	Specifications			
Power supply	DC24V ±10%			
Current consumption	300mA max.			
DeviceNet standard	Interface module certified under DeviceNet 2.0			
	Group 2 only server			
	Insulated node operating on network power supply			
Communication specifications	Master slave connection			
	Bit strobe			
	Polling			
Baud rate	500k/250k/125kbps (switched using DIP switches)			
	Baud rate	Maximum network length	Maximum branch length	Total branch length
	500kbps	100m	6m	39m
	250kbps	250m		78m
125kbps	500m	156m		
(Note) When a large-size DeviceNet cable is used.				
Number of occupied nodes	1 node			

*1 If you wish to use T-junction communication, refer to the operation manual for your master unit or PLC used.

*2 CRC: Cyclic Redundancy Check. A data error detection method widely used in synchronous transmission.

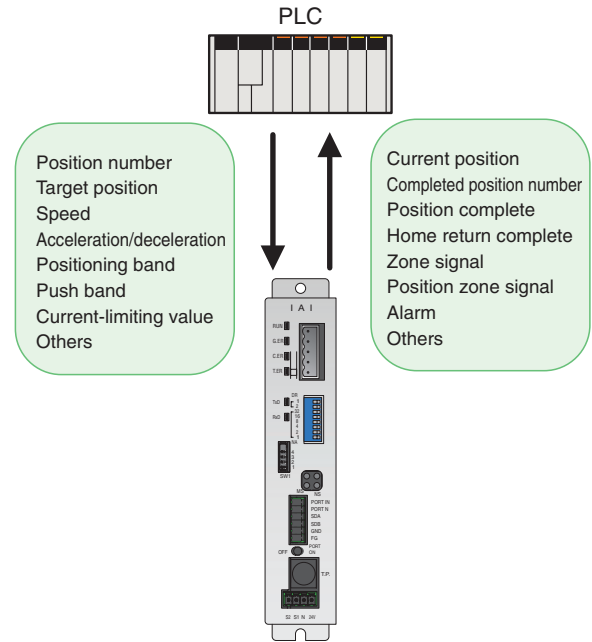
Item	Specifications	
SIO communication specifications	Transmission path configuration	IAI's original multi-drop differential communication
	Communication method	Half-duplex
	Synchronization method	Asynchronous
	Transmission path type	EIA RS485, 2 wires
	Baud rate	230.4kbps
	Error control method	No parity bit, CRC (*2)
Environmental conditions	Communication cable length	Total cable length 100m max.
	Number of connected units	Up to 16 axes
	Communication cable	2-pair twisted pair shield cable (Recommended: Taiyo Electric Wire & Cable HK-SB/20276xL 2PxAWG22)
	Ambient operating temperature	0~40°C
	Ambient operating humidity	85% RH or below (non-condensing)
	Operating ambience	Free from corrosive dust, flammable gases, oil mist or powder dust
Environmental conditions	Storage temperature	-10~65°C
	Storage humidity	90% RH or below (non-condensing)
	Vibration resistance	4.9m/s ² (0.5G)
	Protection class	IP20
Weight	480g or less	

Gateway Unit

The gateway unit is a conversion unit for connecting a ROBO Cylinder controller to a field network such as DeviceNet or CC-Link. Connect a gateway unit to your field network, and link the gateway unit and each controller via serial communication (RS485). Numerical data such as coordinates, speeds, accelerations and current values can be sent and received between the network master (PLC) and controller by means of I/O-level communication.

Features

1. Move the actuator by specifying positions from a PLC via network.
2. Perform push-motion operation via network.
3. Operate the actuator by directly sending the target position, speed, acceleration/deceleration and positioning band as numerical values from a PLC.
4. Read the current actuator position and various signals using a PLC.
5. Connectable to a maximum of 16 axes.



Functions

One of the following three operation modes can be selected.

(1) Position-number specification mode

Input target positions, speeds, accelerations/decelerations, positioning bands and other settings to the controller in advance as position data, and specify a desired position number via network, just like you do with PIO signals, to move the actuator. A maximum of 64 positioning points can be set. Various status signals can be read using a PLC.

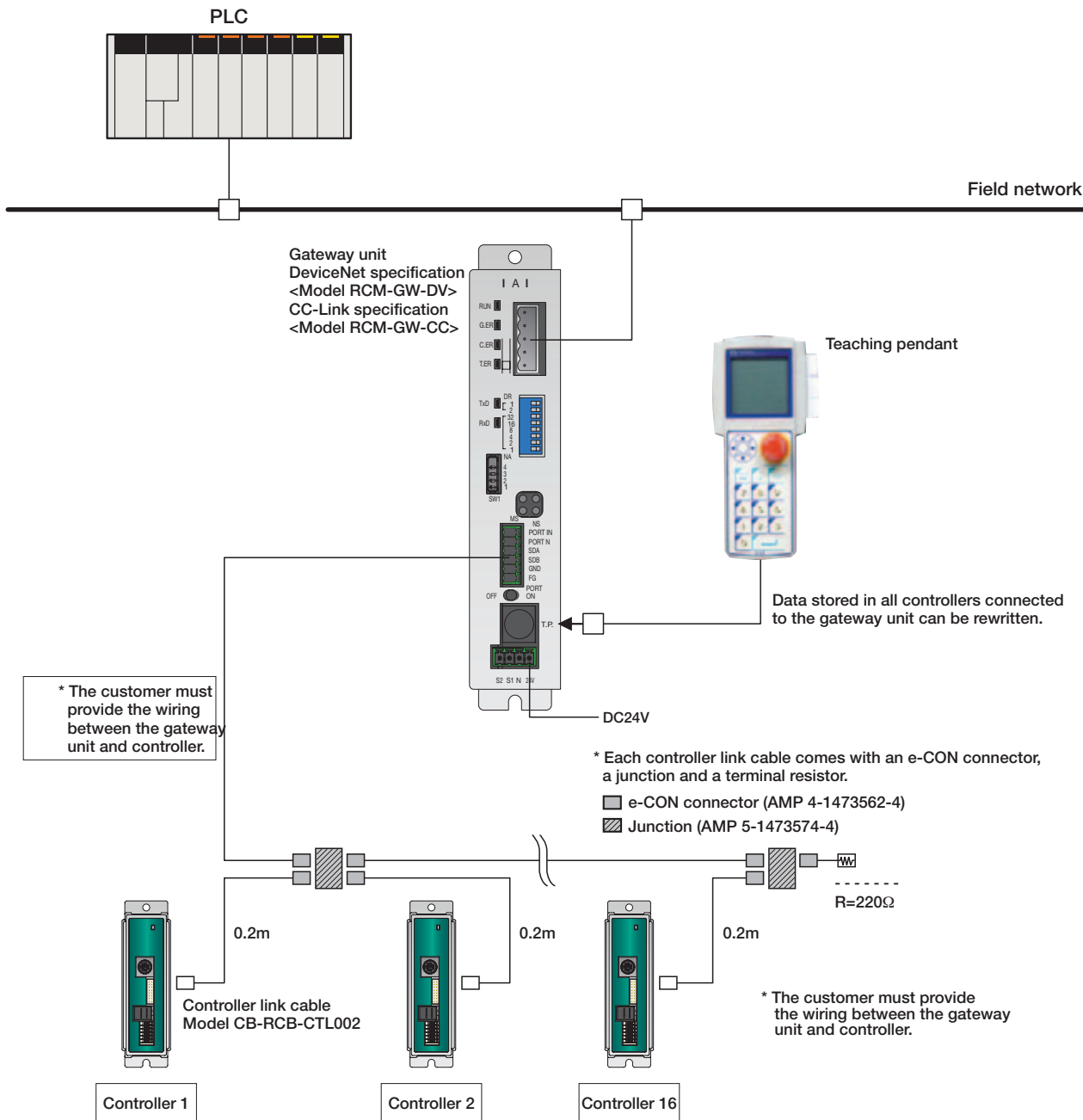
(2) Positioning-data specification mode

Specify a desired target position, speed, acceleration/deceleration, positioning band, push band, current-limiting value, etc., directly as numerical values to move the actuator or cause it to perform push-motion operation. Various status signals can be input/output and current position data read using a PLC.

(3) Simple direct/position-number specification mode

Call desired position data except for a target position (by specifying an applicable position number), and specify only a target position as a numerical value, to move the actuator. A maximum of 512 positioning points can be set.

System Configuration Diagram



* The customer must provide the wiring between the gateway unit and controller.

* Each controller link cable comes with an e-CON connector, a junction and a terminal resistor.
 ■ e-CON connector (AMP 4-1473562-4)
 ▨ Junction (AMP 5-1473574-4)

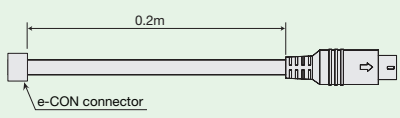
* The customer must provide the wiring between the gateway unit and controller.

Connectable Controllers ERC2 / PCON / ACON / SCON (*1)
 (*1) SCON will communicate at the I/O level when connected to the field network even if the gateway unit is not used. It is necessary to use the gateway unit when communicating positional data.

■ Controller link cable

(Comes with e-CON connector, junction and terminal resistor)

Model CB-RCB-CTL002



Color	Signal	No.	No.	Signal	Color
Yellow	SGA	1	1	SGA	Yellow
Orange	SGB	2	2	SGB	Orange
Blue	GND	3	3	+5V	
		4	4	ENBL	
			5	EMGA	
			6	+24V	
			7	GND	Blue
			8	EMGB	

- Controller - Integrated type
- Slider Type
- Rod Type
- Arm / Flat Type
- Gripper / Rotary Type
- Cleanroom Type
- Splash Proof Type
- Controller
- Controller Models
- Gateway unit
- PS-24
- ERC2
- PCON
- ACON
- SCON
- PSEL
- ASEL
- SSEL
- XSEL