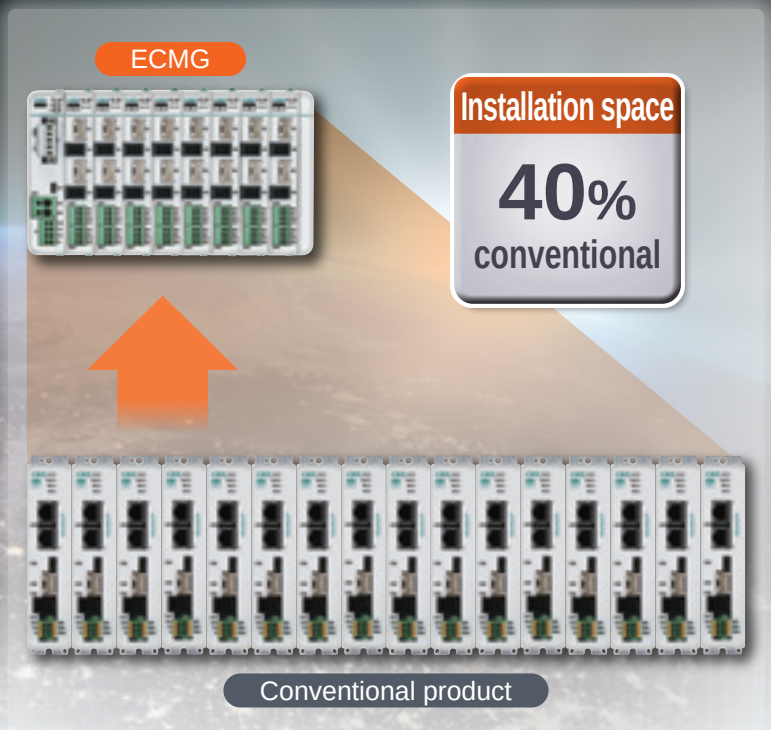
CKD

New Products

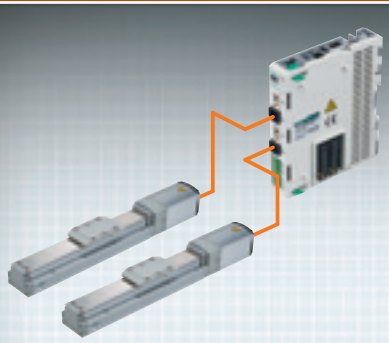
For Electric Actuator Multi-Axis Controller ECMG Series

Up to 16 axes can be connected Contributes to Space saving!

Up to 16 axes of actuators can be connected

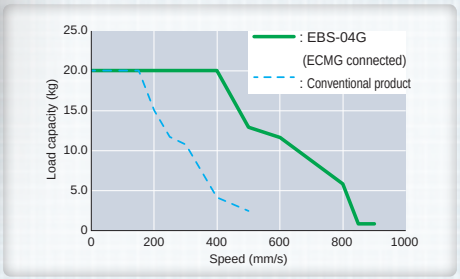


1 unit can be connected to 2 axes



Significantly improved basic performance

Max. payload 5 times or more
Max. speed up to 2 times

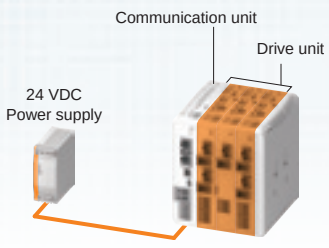


Supports 3 types of power supplies

Collective wiring

Reduced wiring hours

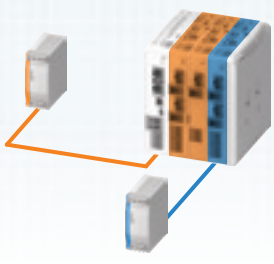
Batch power supplying the communication unit and each drive unit



Mixed wiring

Current value does not restrict number of axes

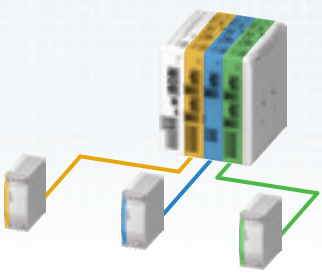
Only drive units with high current consumption are supplied with a separate power supply



Individual wiring

Current does not restrict number of axes, ensures high safety

Power to each drive unit is supplied directly



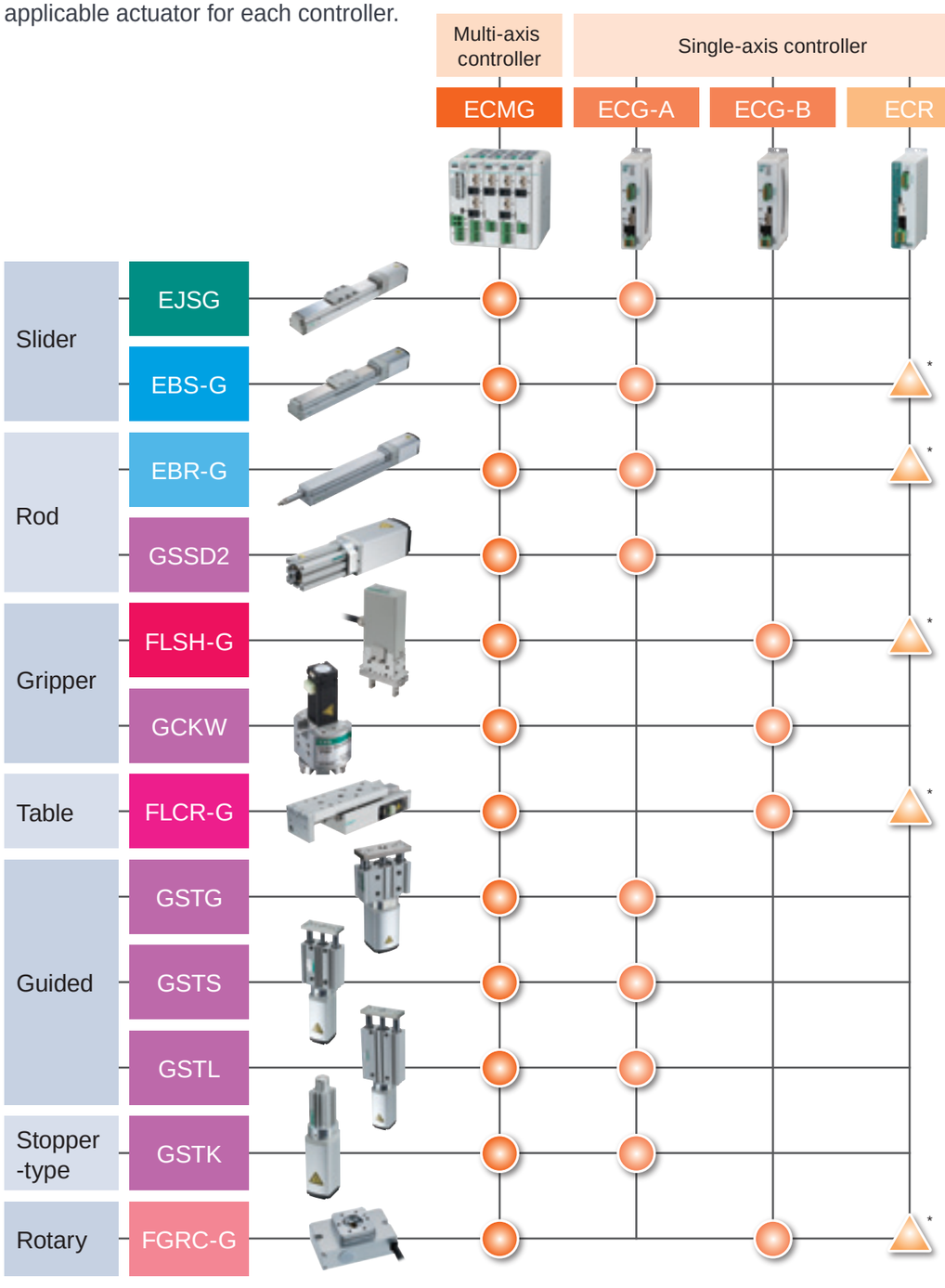
ROBODEX Pulse

CKD Corporation

CC-1570A 2

Stepper motor controller overview

CKD is available with a single-axis controller and multi-axis controller. Multi-axis controller has advantages when used with 3 or more axes of actuators. Refer to the table below for the applicable actuator for each controller.



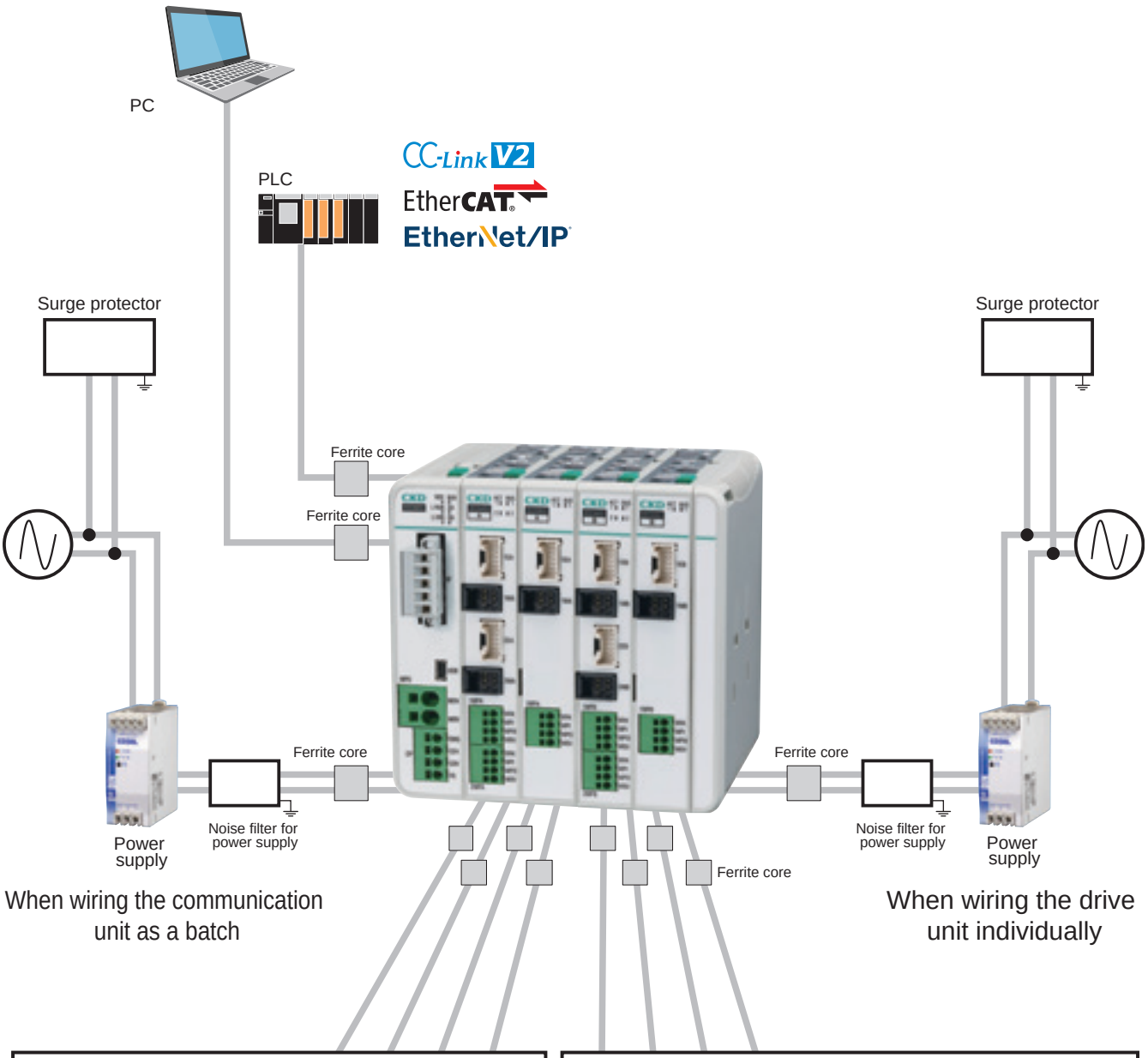
* Only EBS-M, EBR-M, FLSH, FLCR, and FGRC are connectable.
  Unable to connect to EBS-G, EBR-G, FLSH-G, FLCR-G, or FGRC-G.

Controller specifications / Functions list

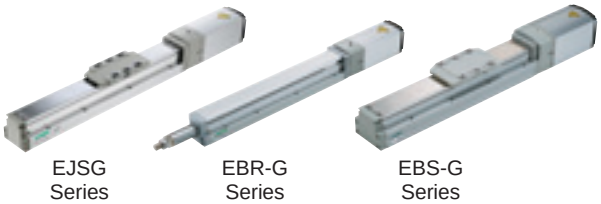
Descriptions		ECMG	ECG-A	ECG-B	ECR
Max. operating axes		16 axes	1 axis		
Power supply voltage		24 VDC ±10%			24 VDC ±10% 48 VDC ±10%
Supported motor sizes		□ 20 to □ 56	□ 35 to □ 56	□ 20 to □ 35	□ 20 to □ 56
Settings tool	Soft	S-Tools			
	Connection cable	USB cable (mini-B)			
Compatible encoder types		Battery-less absolute incremental		Incremental	Battery-less absolute incremental
Cooling method		Natural air cooling			
Insulation resistance		10 MΩ and over at 500 VDC			
Withstand voltage		500 VAC for 1 minute			
Operating ambient temperature		0 to 40°C			
Operating ambient humidity		35 to 80% RH no condensation			
Storage ambient temperature		-10 to 50°C			
Storage ambient humidity		35 to 80% RH no condensation			
Working atmosphere		No corrosive gas, explosive gas, or dust			
Degree of protection		IP20			
Dimensions*1 (DIN rail mount)	PIO specifications	-	W35×H146×D76	W38×H159×D100.5	W40×H161×D100.5
	Field network specification	W100×H130×D110	W35×H159×D100.5		
Weight*1 (DIN rail mount)	PIO specifications	-	Approx. 210 g	Approx. 340 g	Approx. 430 g
	Field network specification	Approx. 1120 g	Approx. 340 g	Approx. 340 g	Approx. 430 g
Corresponding law	CE Marking	○	○		○
	RoHS2	○	○		○
Interface	PIO	—	○		○
	IO-Link	—	○		○
	CC-Link	Ver.1.10, 2.00	Ver.1.10		Ver.1.10
	EtherCAT	○	○		○
	EtherNet/IP	○	○		—
Function	Positioning point count*2	64 points	64 points		512 points
	High load mode*3	○	—		—
	Calendar function	○	—		○
	Warning function	○	○		○

*1. ECG-A, ECG-B, and ECR are values when operating with 1 axis. The values for ECMG are with 6 axes operation (3 drive units).
*2. Positioning points per axis.
*3. Actuator is EBS-G and EBR-G only.

System configuration



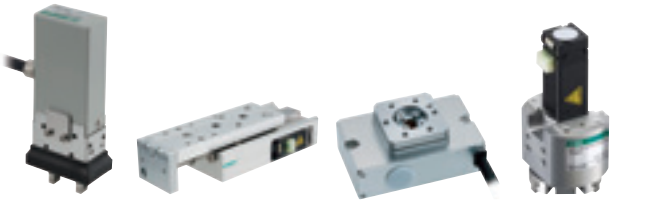
Drive unit A-type actuator



EJSG Series | EBR-G Series | EBS-G Series

G Series (Rod/Stopper/Guided)

Drive unit B-type actuator



FLSH-G Series | FLCR-G Series | FGRC-G Series | G Series (3-Finger Gripper)

Description of each unit

● Communication unit (ECMG-CNN*30-**D**)

Unit connected to a field network. Power supply and control power supply can be supplied to other units. Mount at the left end. Refer to page 3 for details.

● Drive unit (ECMG-DNN*30-**DNN)

Units that drive electric actuators. There are a unit with 1-axis connection to one drive unit and a unit with 2-axis connection. There are two drive unit types, A-type and B-type, and the actuators that can be connected are different. It is also possible to directly supply power to the drive unit. Up to eight drive units can be connected to one communication unit. Refer to page 9 for details.

● End unit (ECMG-PNNN30-EACNN)

This unit is used as the end of the multi-axis controller.
Install at right end. Attached with the communication unit.
Refer to page 3 for details.

* Set model No. is not available. The order is for each unit.

Communication unit

ECMG-C Series

Unit connected to field network

How to order

ECMG - C NN A 30 - CL D NN

Ⓐ Ⓑ Ⓒ Ⓓ

Ⓐ Unit type	
C	Communication unit

Ⓑ End unit	
A	Attached (standard end unit)
N	Not included

Ⓒ Interface specifications	
CL	CC-LINK
EC	EtherCAT
EN	EtherNet/IP

Ⓓ Attachment *1	
NN	None
1N	1-port communication connector for CC-Link
2 N	2-port communication connector for CC-Link

*1 When selecting EC or EN with the interface specifications, select from "NN", and when selecting CL, select from "1N" or "2N".

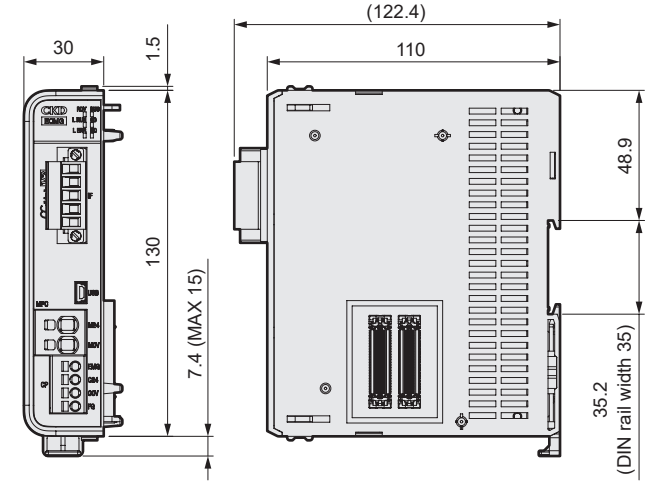
General specifications

Item		Descriptions						
Applicable actuators		EJSG/EBS-G/EBR-G/GSSD2/ GSTK/GSTG/GSTS/GSTL			FLSH-G/FLCR-G/FGRC-G/GCKW			
Applicable motor sizes		☐35	☐42	☐56	☐20	☐25	☐25L	☐35
Settings tool		PC setting software (S-Tools), connection cable: USB cable (mini-B)						
External interface	Field network specification	CC-Link, EtherCAT, EtherNet/IP						
Power supply voltage	Control power supply, power supply	24 VDC ±10%						
Current consumption	Control power supply (per unit)	0.4A or less						
	Power supply (per axis) *1	3.4A or less*2	4.2A or less*3	4.5A or less*4	0.5A or less	0.9A or less	1.6A or less	1.1A or less
Brake current consumption		0.4A or less						
Insulation resistance		10 MΩ and over at 500 VDC						
Withstand voltage		500 VAC for 1 minute						
Operating ambient temperature		0 to 40°C (no freezing)						
Operating ambient humidity		35 to 80% RH (no condensation)						
Storage ambient temperature		-10 to 50°C (no freezing)						
Storage ambient humidity		35 to 80% RH (no condensation)						
Working atmosphere		No corrosive gas, explosive gas, or dust						
Weight		Approx. 180 g						

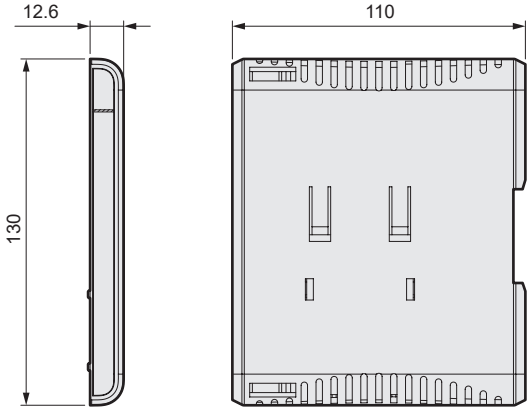
*1 For the power supply, when using the collective wiring method, the total must be 30 A or less.
*2 4.0A or less for EJSG and 1.8A or less for G Series (rod/stopper/guided).
* With 3G Series (rod/stopper/guided), 2.0A or less.
* For 4G Series (rod/stopper/guided), 3.1A or less.

Dimensions

● Communication unit



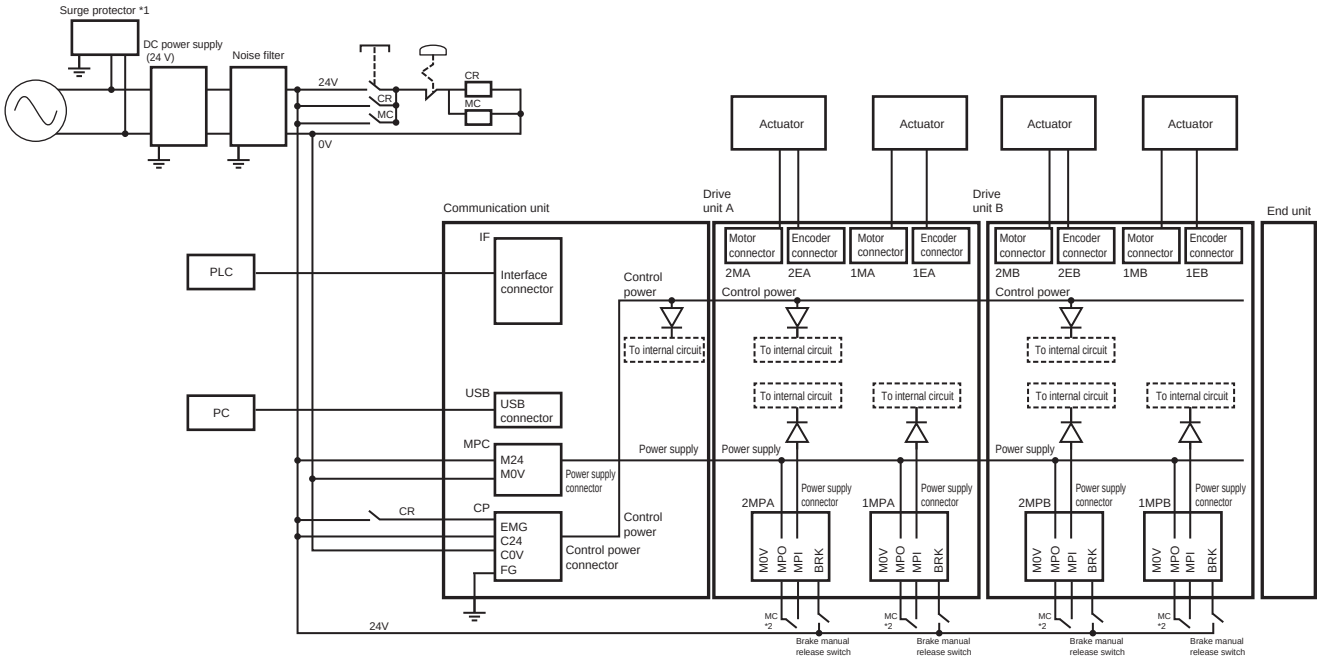
● End unit



*The dimensions is the same regardless of interface specifications. This figure shows CC-Link specifications.

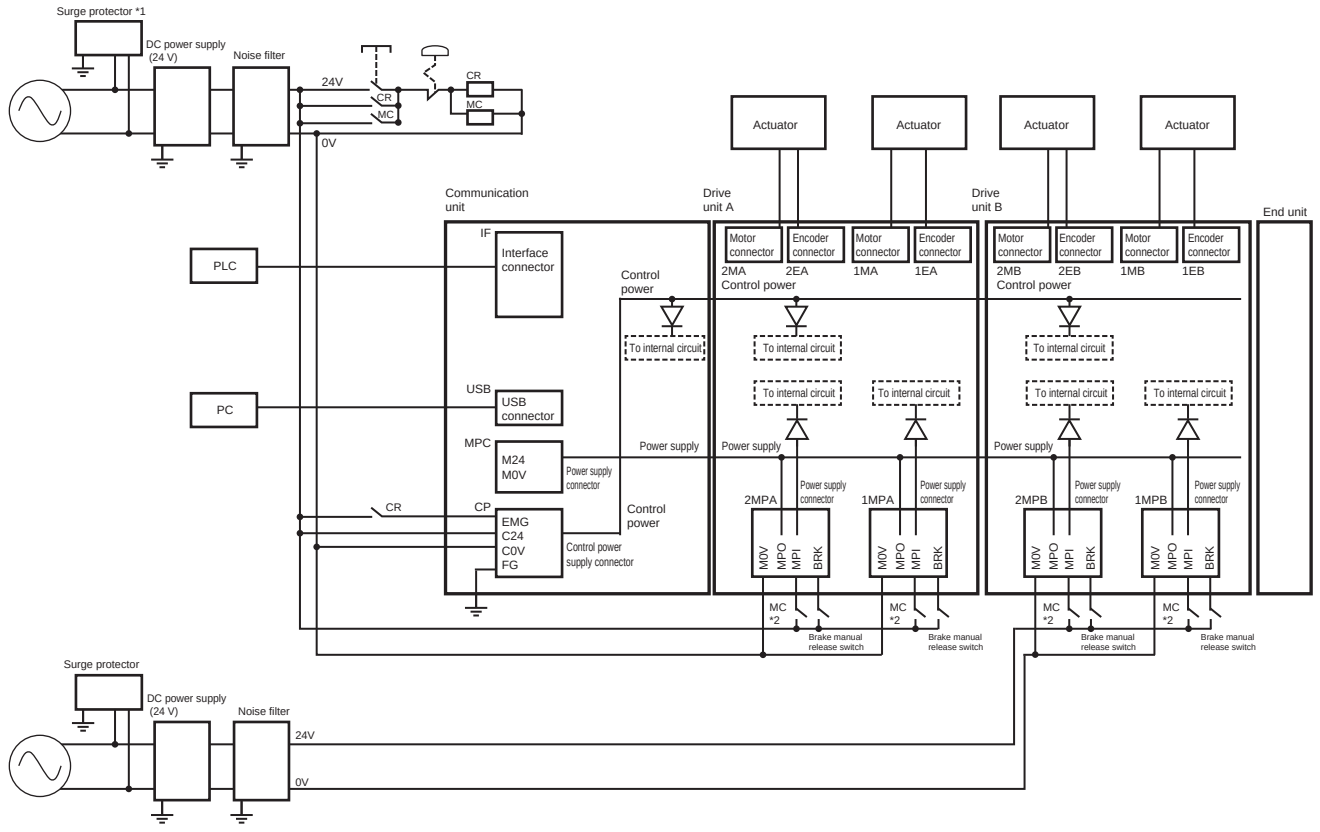
Connection diagram

[Collective wiring method]



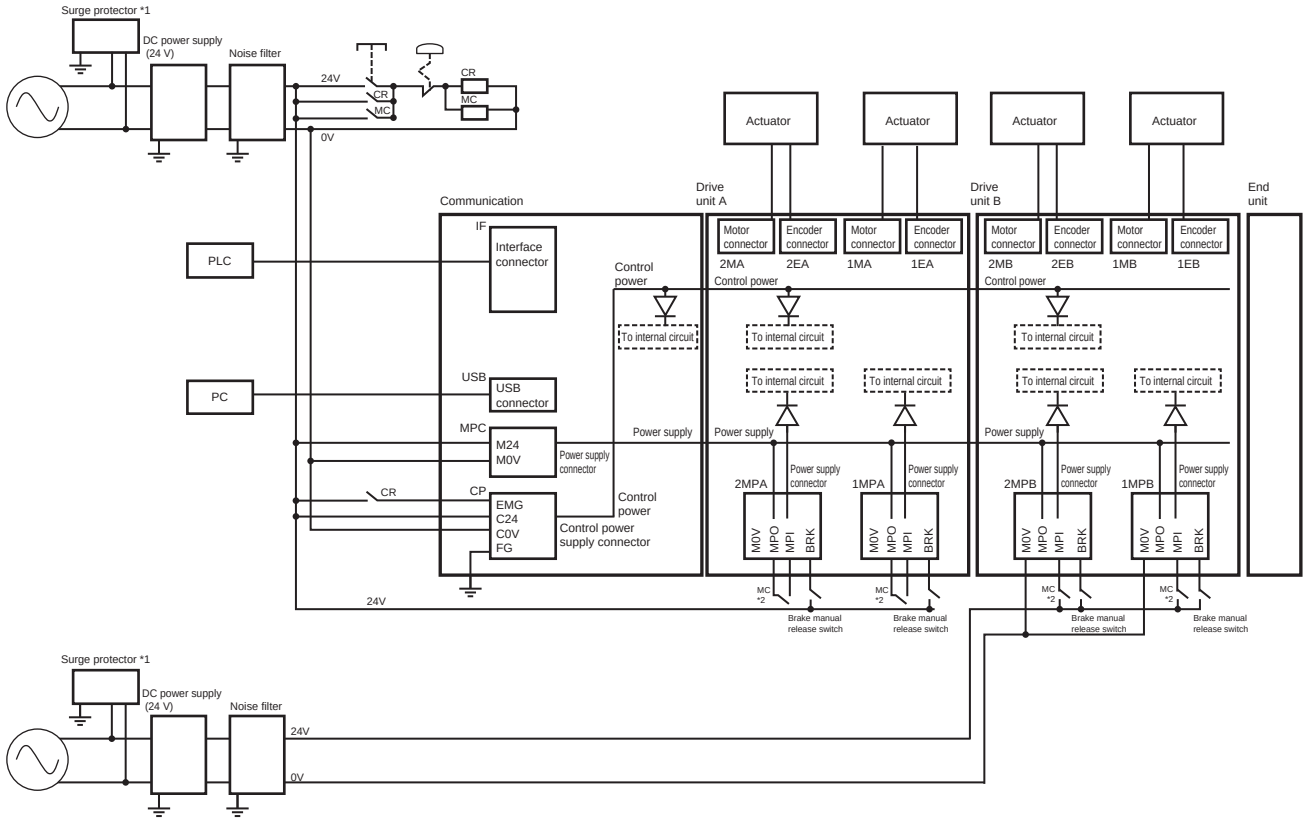
*1 A surge protector is required to comply with the CE marking. The controller must be installed in the control panel. Refer to the instruction manual for details on installation and wiring.
*2 If the motor drive source must be shut OFF for safety category compatibility, connect a contact such as an electromagnetic switch between the MPI and MPO terminals. (At shipment, MPI-MPO is connected by jumper wires.)

[Individual wiring method]



*1 A surge protector is required to comply with the CE marking. The controller must be installed in the control panel. Refer to the instruction manual for details on installation and wiring.
*2 If the motor drive source must be shut OFF for safety category compatibility, connect a contact such as an electromagnetic switch between the MPI and MPO terminals. (At shipment, the jumper wires connect MPI-MPO to each other.)

[Mixed wiring method]



*1 A surge protector is required to comply with the CE marking. The controller must be installed in the control panel. Refer to the instruction manual for details on installation and wiring.

*2 If it is necessary to cut OFF the motor drive source for safety category measures, connect contacts such as an electromagnetic switch between the MPI and MPO terminals for collective wiring, and between the power supply and MPI terminals for individual wiring. (At shipment, the jumper wires connect MPI-MPO to each other.)

Max. connectable axes by operation mode

Field network	Operation mode			
	PIO	Simple direct value	Standard direct value	Full direct value
CC-LINK	16 axes	16 axes	16 axes	10 axes
EtherCAT	16 axes	16 axes	16 axes	10 axes
EtherNet/IP	16 axes	16 axes	16 axes	10 axes

Description of field network operation modes

Operation mode	Overview
PIO	Point operation can be used and signal assignment of input/output can be changed in the operation mode (PIO). However, you cannot select a direct value operation that sets the operating conditions for operation directly from the PLC. You can also read and write point data and parameters, but the monitoring function cannot be used. Refer to the table below for details.
Simple direct value	Switching the direct travel selection signal enables a target position to be arbitrarily be set by the PLC or 64-point operation. The selected direct travel operation method can then be used. You can read and write point data and parameters, and use the monitoring function with restrictions. Refer to the table below for details.
Standard direct value	Switching the direct travel selection signal enables operating conditions to be arbitrarily be set by the PLC with restrictions or 64-point operations. The selected direct travel operation method can then be used. You can read and write point data and parameters, and use the monitoring function. Refer to the table below for details.
Full direct value	Switching the direct travel selection signal enables operating conditions to be arbitrarily be set by the PLC or 64-point operation. The selected direct travel operation method can then be used. You can read and write point data and parameters, and use the monitoring function. Refer to the table below for details.

Operation mode		PIO	Simple direct value	Standard direct value	Full direct value
Reading/writing of point data		Available	Available	Available	Available
Parameter reading/writing		Available	Available	Available	Available
Direct value travel selection *1		Cannot be selected	Available	Available	Available
Positioning numbers		64	Unlimited	Unlimited	Unlimited
Direct value travel Item *2	Target position	-	○	○	○
	Positioning width	-	-	○	○
	Speed	-	-	○	○
	Acceleration	-	-	○	○
	Deceleration	-	-	○	○
	Pressing rate	-	-	○	○
	Pressing distance	-	-	△	○
	Pressing speed	-	-	○	○
	Gain magnification	-	-	*4	○
	Position designation	-	-	○	○
	Operation	-	-	○	○
	Stop method	-	-	○	○
	Acceleration/deceleration	-	-	○	○
Monitor Item *3	Position	-	○	○	○
	Speed	-	▲	○	○
	Current	-	▲	○	○
	Alarm code	-	▲	○	○

*1: If direct value travel is not selected, operation will be performed with the value set in the point data. This enables up to 64 positioning points.
*2: ○ indicates the operation item as set by the PLC. (-) indicates operation with the value set by the point data.
△ operates with the values set in the common parameters.
*3: ○ indicates the items that can be monitored. (-) indicates Items that cannot be monitored. ▲ indicates that only one item can be monitored by selecting from ▲.
*4: Gain magnification is ineffective.

CC-Link specifications

[Communication specifications]

Item	Specifications
CC-Link version	Ver.1.10, Ver.2.00
Station	Remote device station
Remote station No.	1 to 64 (set by parameter setting)
Remote I/O (RX, RY)	128 points each (fixed regardless of operation mode)
Remote register (RWr, RWw)	Sum of the number of words corresponding to the operation mode for each axis (128 words each) PIO mode: 2 words each Simple direct value mode: 4 words each Standard direct value mode: 8 words each Full direct value mode: 12 words each
Number of occupied stations *1	1 to 4 (set by parameter setting) ver.1.10 4 stations occupied remote I/O: up to 128 points each *2 Remote registers up to 16 words each ver.2.00 1 station occupied remote I/O: up to 128 points each Remote register: up to 32 words each 2 stations occupied remote I/O: up to 384 points each Remote register: up to 64 words each 3 stations occupied remote I/O: up to 640 points each Remote register: up to 96 words each 4 stations occupied remote I/O: up to 896 points each Remote register: up to 128 words each
Communication speed	10M / 5M / 2.5M / 625k / 156kbps (Set by parameter setting)
Extended cyclic setting	ver.1.10- ver.2.00 1/2/4/8 times
Connection cable	CC-Link Ver.1.10 compliant cable (3-conductor twisted pair cable with shield)
Monitor function	Position, speed, current, alarm

*1 The max. remote output points and max. remote register word numbers during occupied station number selection are listed.
*2 Select 4 stations for use with ver.1.10.

Cyclic data from master

Device No.		Full direct value mode Signal name
RYn	0 to A	-
	B	Communication unit alarm reset
	C to F	-
RY(n+1)	0 to F	-
RY(n+2)	0 to F	Writing data
RY(n+3)	0 to F	
RY(n+4)	0 to F	Data number
RY(n+5)	0 to F	
RY(n+6)	0 to 3	-
	4	Data request
	5	Data R/W selection
	6 to 7	-
	8 to F	Specifying data R/W targets
RY(n+7)	0 to F	-

Device No.		Full direct value mode Signal name
RWw0	0 to 5	Point number selection bit 0 to 5
	6	Point travel start
	7	JOG/INCH (-) travel start
	8	JOG/INCH (+) travel start
	9	Origin return start
	A	Servo ON
	B	Alarm reset
	C	Stop#
	D	Direct value travel selection
	E	INCH selection
	F	-
RWw1	0 to F	Mode (direct value travel)
RWw2	0 to F	Position (direct value travel)
RWw3	0 to F	
RWw4	0 to F	Positioning width (direct value travel)
RWw5	0 to F	Speed (direct value travel)
RWw6	0 to 7	Acceleration (direct value travel)
	8 to F	Deceleration (direct value travel)
RWw7	0 to 7	Pressing ratio (direct value travel)
	8 to F	Pressing speed (direct value travel)
RWw8	0 to F	Pressing distance (direct value travel)
RWw9	0 to F	
RWwA	0 to F	Gain magnification (direct value travel)
RWwB	0 to F	-

Cyclic data from controller

Device No.		Full direct value mode Signal name
RXn	0	Temperature error (warning)
	1	Communication status 1 between units
	2	Communication status 2 between units
	3 to 7	-
	8	Communication unit status
	9 to A	-
	B	Communication unit alarm state
	C to F	-
RX(n+1)	0 to F	Axis link status
RX(n+2)	0 to F	Read data
RX(n+3)	0 to F	
RX(n+4)	0 to F	Data (alarm)
RX(n+5)	0 to F	
RX(n+6)	0 to 3	Data response
	4	Data complete
	5	Data write status
	6 to F	-
RX(n+7)	0 to F	-

Device No.		Full direct value mode Signal name
RWr0	0 to 5	Point travel confirmation bit 0 to 5
	6	Point travel complete
	7	Selectable output 1
	8	Selectable output 2
	9	Origin return complete
	A	Servo ON state
	B	Alarm#
	C	Operation preparation complete
	D	Direct value travel status
	E	-
	F	-
RWr1	0 to F	-
RWr2	0 to F	Position (monitor value)
RWr3	0 to F	
RWr4	0 to F	Speed (monitor value)
RWr5	0 to F	Current (monitor value)
RWr6	0 to F	-
RWr7	0 to F	Alarm code (monitor value)
RWr8	0 to F	-
RWr9	0 to F	-
RWrA	0 to F	-
RWrB	0 to F	-

* The single-axis signal configuration is shown. The device No. is determined by the number of axes to be operated, so refer to the instruction manual for details.
* Refer to the instruction manual for other operation modes.
* # indicates a negative logic signal.

EtherCAT specifications

[Communication specifications]

Item	Specifications
Communication speed	100Mbps (fast Ethernet, full duplex)
Process data	Variable PDO mapping
Max. PDO data length	RxPDO:272 bytes TxPDO:272 bytes
Station alias	0 - 65535 (Set by a parameter)
Connection cable	EtherCAT compliant cable (CAT5e or higher twisted pair cable (double shield with aluminum tape and braid) is recommended.)
Node address	Automatic allocation by master
Monitor function	Position, speed, current, alarm

Cyclic data from master

INDEX	Sub INDEX	bit	Full direct value mode Signal name
0 x 2001	0 x 01	0 to 10	-
		11	Communication unit alarm reset
		12 to 31	-
	0 x 02	0 to 31	Writing data
	0 x 03	0 to 31	Data number
	0 x 04	0 to 3	-
		4	Data request
		5	Data R/W selection
		6 to 7	-
		8 to 15	Specifying data R/W targets
		16 to 31	-
0 x 2003	0 x 01	0 to 5	Point number selection bit 0 to 5
		6	Point travel start
		7	JOG/INCH (-) travel start
		8	JOG/INCH (+) travel start
		9	Origin return start
		10	Servo ON
		11	Alarm reset
		12	Stop#
		13	Direct value travel selection
		14	INCH selection
		15	-
		16 to 31	Mode (direct value travel)
	0 x 02	0 to 31	Position (direct value travel)
	0 x 03	0 to 15	Positioning width (direct value travel)
		16 to 31	Speed (direct value travel)
	0 x 04	0 to 7	Acceleration (direct value travel)
		8 to 15	Deceleration (direct value travel)
		16 to 23	Pressing ratio (direct value travel)
		24 to 31	Pressing speed (direct value travel)
	0 x 05	0 to 31	Pressing distance (direct value travel)
	0 x 06	0 to 15	Gain magnification (direct value travel)
		16 to 31	-

Cyclic data from controller

INDEX	Sub INDEX	bit	Full direct value mode Signal name
0 x 2005	0 x 01	0	Temperature error (warning)
		1	Communication status 1 between units
		2	Communication status 2 between units
		3 to 7	-
		8	Communication unit status
		9	-
		10	-
		11	Communication unit alarm state
		12 to 15	-
		16 to 31	Axis link status
	0 x 02	0 to 31	Read data
	0 x 03	0 to 31	Data (alarm)
	0 x 04	0 to 3	Data response
		4	Data complete
		5	Data write status
		6 to 31	-
0 x 2007	0 x 01	0 to 5	Point travel confirmation bit 0 to 5
		6	Point travel complete
		7	Selectable output 1
		8	Selectable output 2
		9	Origin return complete
		10	Servo ON state
		11	Alarm#
		12	Operation preparation complete
		13	Direct value travel status
		14 to 31	-
	0 x 02	0 to 31	Position (monitor value)
	0 x 03	0 to 15	Speed (monitor value)
		16 to 31	Current (monitor value)
	0 x 04	0 to 15	-
		16 to 31	Alarm code (monitor value)
	0 x 05	16 to 31	-
	0 x 06	16 to 31	-

* The single-axis signal configuration is shown. As Index and Sub Index are determined according to the number of axes to be operated, refer to the instruction manual for details.
* Refer to the instruction manual for other operation modes.
* # indicates a negative logic signal.

EtherNet/IP specifications

[Communication specifications]

Item	Specifications
Communication protocol	EtherNet/IP
Communication speed	Automatic setting (100 Mbps/10 Mbps, full duplex/half duplex)
Occupied bytes	Input: 272 bytes Output: 272 bytes
IP address	Setting with parameters (0.0.0.0 to 255.255.255.255) Via DHCP server (arbitrary address)
RPI (Packet interval)	4ms to 10000ms
Connection cable	EtherNet/IP compliant cable (CAT5e or higher twisted pair cable (double shield with aluminum tape and braid) is recommended.)
Monitor function	Position, speed, current, alarm

Cyclic data from master

Byte	bit	Full direct value mode Signal name
0	0 to 7	-
1	0 to 2	-
	3	Communication unit alarm reset
	4 to 7	-
2 to 3	0 to 7	-
4 to 5	0 to 7	Writing data
6 to 7	0 to 7	
8 to 9	0 to 7	Data number
10 to 11	0 to 7	
12	0 to 3	-
	4	Data request
	5	Data R/W selection
	6 to 7	-
13	0 to 7	Specifying data R/W targets
14 to 15	0 to 7	-
16	0 to 5	Point number selection bit 0 to 5
	6	Point travel start
	7	JOG/INCH (-) travel start
17	0	JOG/INCH (+) travel start
	1	Origin return start
	2	Servo ON
	3	Alarm reset
	4	Stop#
	5	Direct value travel selection
	6	INCH selection
	7	-
18 to 19	0 to 7	Mode (direct value travel)
20 to 21	0 to 7	Position (direct value travel)
22 to 23	0 to 7	
24 to 25	0 to 7	Positioning width (direct value travel)
26 to 27	0 to 7	Speed (direct value travel)
28	0 to 7	Acceleration (direct value travel)
29	0 to 7	Deceleration (direct value travel)
30	0 to 7	Pressing ratio (direct value travel)
31	0 to 7	Pressing speed (direct value travel)
32 to 33	0 to 7	Pressing distance (direct value travel)
34 to 35	0 to 7	
36 to 37	0 to 7	Gain magnification (direct value travel)
38 to 39	0 to 7	-

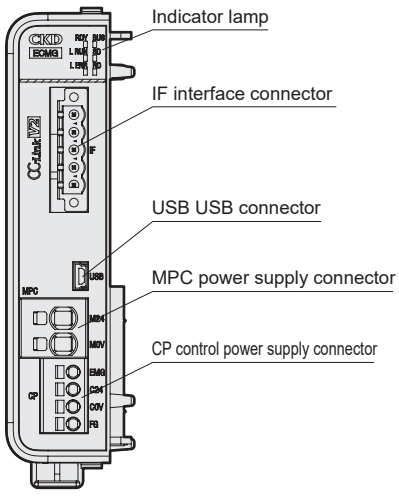
Cyclic data from controller

Byte	bit	Full direct value mode Signal name
0	0	Temperature error (warning)
	1	Communication status 1 between units
	2	Communication status 2 between units
	3 to 7	-
1	0	Communication unit status
	1 to 2	-
	3	Communication unit alarm state
	4 to 7	-
2 to 3	0 to 7	Axis link status
4 to 5	0 to 7	Read data
6 to 7	0 to 7	
8 to 9	0 to 7	Data (alarm)
10 to 11	0 to 7	
12	0 to 3	Data response
	4	Data complete
	5	Data write status
	6 to 7	-
13	0 to 7	-
14 to 15	0 to 7	-
16	0 to 5	Point travel confirmation bit 0 to 5
	6	Point travel complete
	7	Selectable output 1
17	0	Selectable output 2
	1	Origin return complete
	2	Servo ON state
	3	Alarm#
	4	Operation preparation complete
	5	Direct value travel status
	6 to 7	-
18 to 19	0 to 7	-
20 to 21	0 to 7	Position (monitor value)
22 to 23	0 to 7	
24 to 25	0 to 7	Speed (monitor value)
26 to 27	0 to 7	Current (monitor value)
28 to 29	0 to 7	-
30 to 31	0 to 7	Alarm code (monitor value)
32 to 39	0 to 7	-

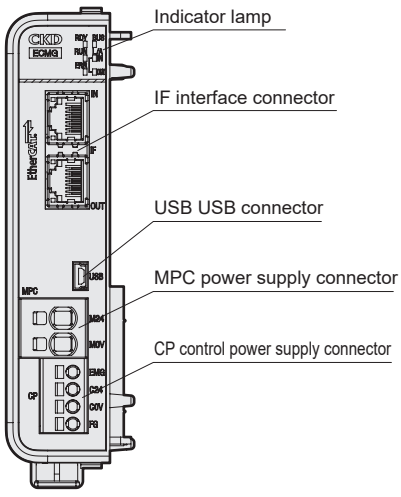
* The single-axis signal configuration is shown. The number of bytes is determined by the number of axes to be operated, so refer to the instruction manual for details.
* Refer to the instruction manual for other operation modes.
* # indicates a negative logic signal.

[Panel description]

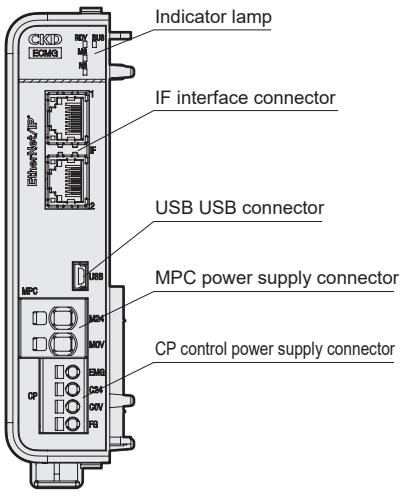
CC-LINK



EtherCAT



EtherNet/IP



●Accessories

Part name		
1-port communication connector for CC-Link	MSTB2,5/5-STF-5,08ABGYAU	PHOENIX CONTACT
2-port communication connector for CC-Link	TFKC2,5/5-STF-5,08AU	PHOENIX CONTACT

Drive unit

ECMG-D Series

A unit that drives an electric actuator

How to order

● A-type

ECMG - D NNR30 - A2 DNN

Ⓐ Unit type

D	Drive unit

Ⓑ Drive unit specifications *1

A1	A-type 1 axis
A2	A-type 2 axes

● B-type

ECMG - D NNN30 - B2 DNN

Ⓐ Unit type

D	Drive unit

Ⓑ Drive unit specifications *1

B1	B-type 1 axis
B2	B-type 2 axes

*1 Supported actuators differ depending on the drive unit specifications.
Refer to the table below for details.

Actuator \ Controller	ECMG		ECG-A	ECG-B	ECR
	A-type	B-type			
EBS-M					●
EBR-M					●
EBS-G	●		●		
EBR-G	●		●		
EJSG	●		●		
FLSH					●
FLCR					●
FGRC					●
FLSH-G		●		●	
FLCR-G		●		●	
FGRC-G		●		●	
GSSD2	●		●		
GSTK	●		●		
GSTG	●		●		
GSTS	●		●		
GSTL	●		●		
GCKW		●		●	

General specifications

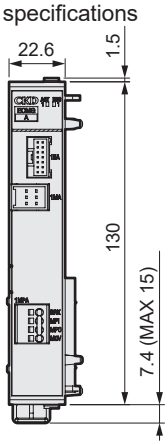
Item		Descriptions						
Drive unit specifications		A-type 1 axis/2 axes			B-type 1 axis/2 axes			
Applicable actuators		EJSG/EBS-G/EBR-G/GSSD2/GSTK/GSTG/GSTS/GSTL			FLSH-G/FLCR-G/FGRC-G/GCKW			
Applicable motor sizes		□35	□42	□56	□20	□25	□25L	□35
Configuration tool, external interface		By communication unit						
Power supply voltage	Power supply	24 VDC ±10%						
Current consumption	Power supply (per axis)*1	3.4A or less *2	4.2A or less *3	4.5A or less *4	0.5A or less	0.9A or less	1.6A or less	1.1A or less
Brake current consumption		0.4A or less						
Insulation resistance		10 MΩ and over at 500 VDC						
Withstand voltage		500 VAC for 1 minute						
Operating ambient temperature		0 to 40°C (no freezing)						
Operating ambient humidity		35 to 80% RH (no condensation)						
Storage ambient temperature		-10 to 50°C (no freezing)						
Storage ambient humidity		35 to 80% RH (no condensation)						
Working atmosphere		No corrosive gas, explosive gas, or dust						
Degree of protection		IP20						
Weight		Approx. 295 g						

* Synchronous control and circular interpolation are not supported.
*1 For the power supply, when using the collective wiring method, the total must be 30 A or less.
*2 4.0A or less for EJSG and 1.8A or less for G Series (rod/stopper/guided).
* With 3G Series (rod/stopper/guided), 2.0A or less.
* For 4G Series (rod/stopper/guided), 3.1A or less.

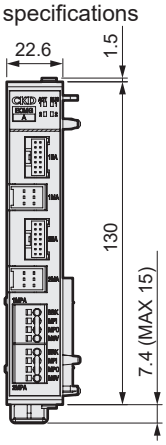
Dimensions

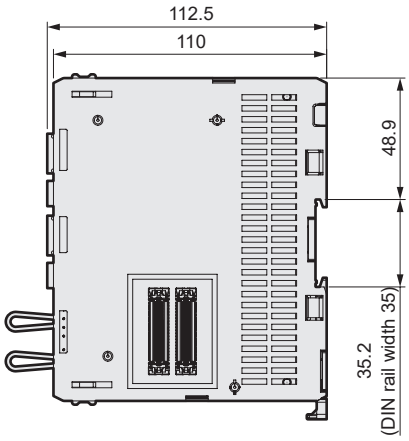
● Drive unit

1-axis specifications



2-axis specifications

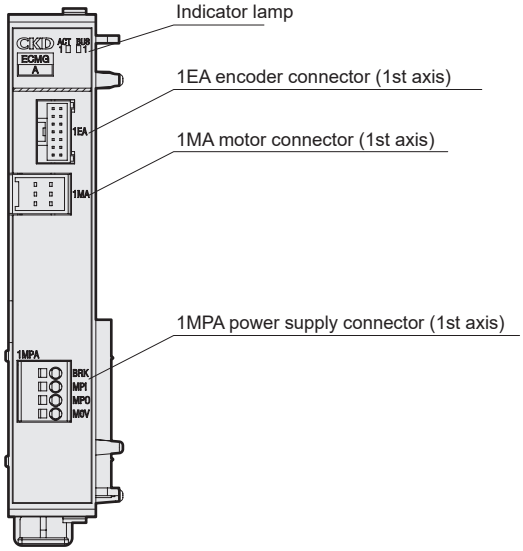




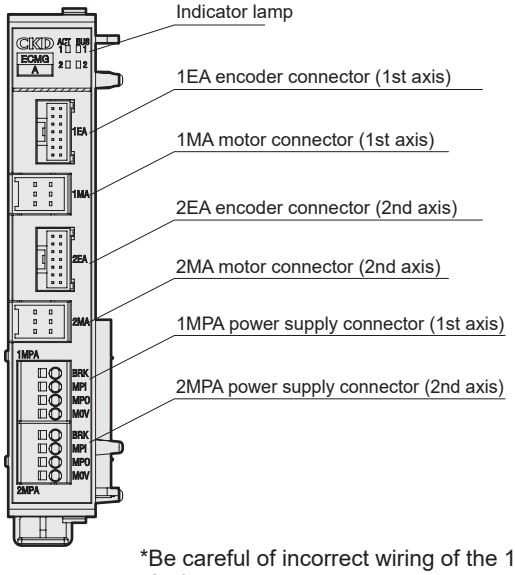
*The dimensions of A- and B-types are the same.

[Panel description]

A-type 1 axis

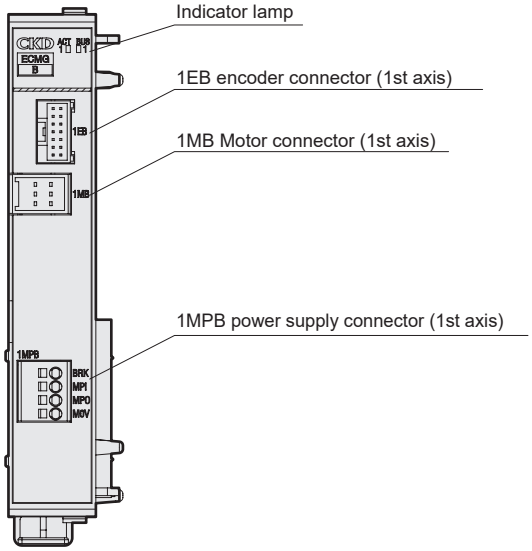


A-type 2 axes

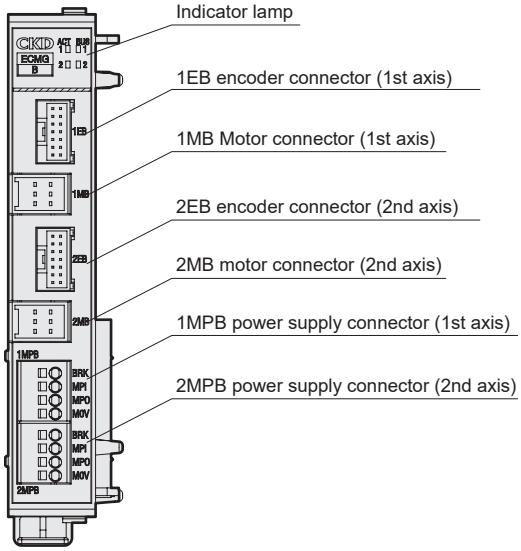


*Be careful of incorrect wiring of the 1st and 2nd axes.

B-type 1 axis



B-type 2 axes



*Be careful of incorrect wiring of the 1st and 2nd axes.

ECMG-DNN*30-A relay cable

Motor cable (fixed/movable)

*Actuator type also available

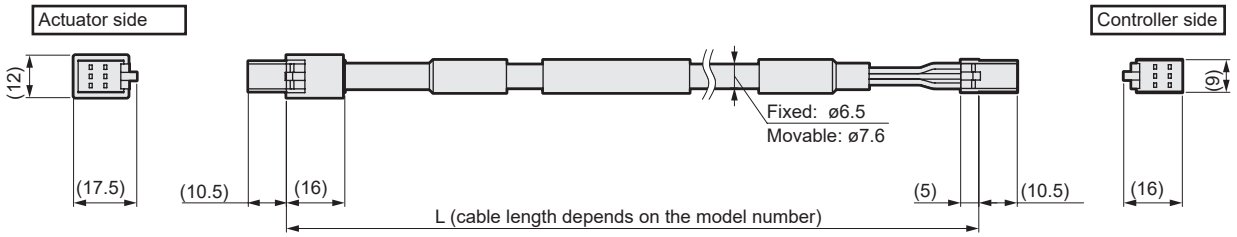
EA-CBLM 4 - S 01

Ⓐ Applicable actuators	
4	EJSG, EJSG-FP1, EJSG-C, EBS-G, EBR-G, GSSD2, GSTK, GSTG, GSTS, GSTL
5	EJSG-P4, EJSG-G

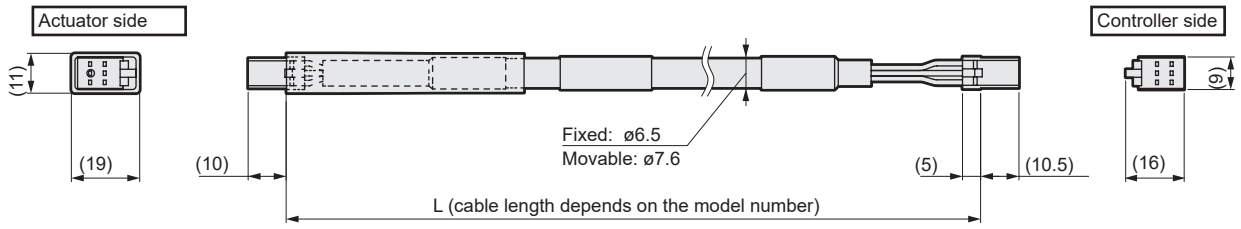
Ⓑ Cable type	
S	Fixed cable
R	Movable cable

Ⓒ Cable length	
01	1 m
03	3 m
05	5 m
10	10 m

● EA-CBLM4



● EA-CBLM5



*Use all cables with a bending radius of 51mm or more.

Encoder cable (fixed/movable)

*Actuator type also available

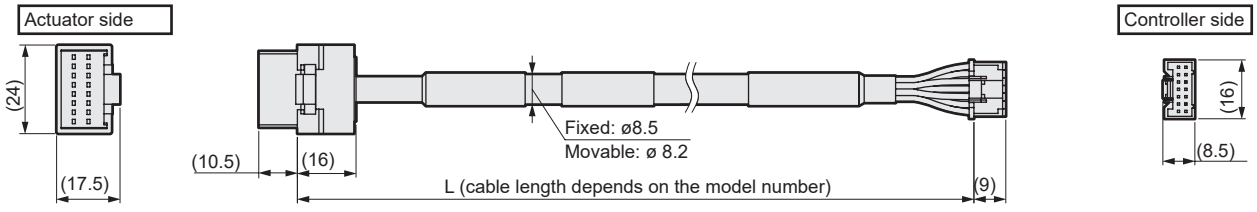
EA-CBLE 4 - S 01

Ⓐ Applicable actuators	
4	EJSG, EJSG-FP1, EJSG-C, EBS-G, EBR-G, GSSD2, GSTK, GSTG, GSTS, GSTL
5	EJSG-P4, EJSG-G

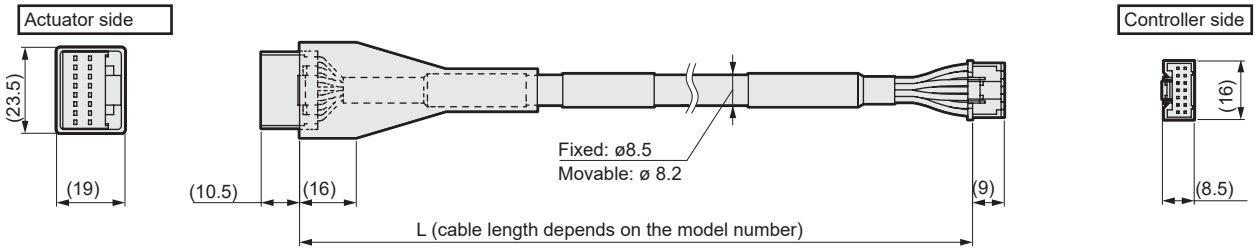
Ⓑ Cable type	
S	Fixed cable
R	Movable cable

Ⓒ Cable length	
01	1 m
03	3 m
05	5 m
10	10 m

● EA-CBLE4



● EA-CBLE5

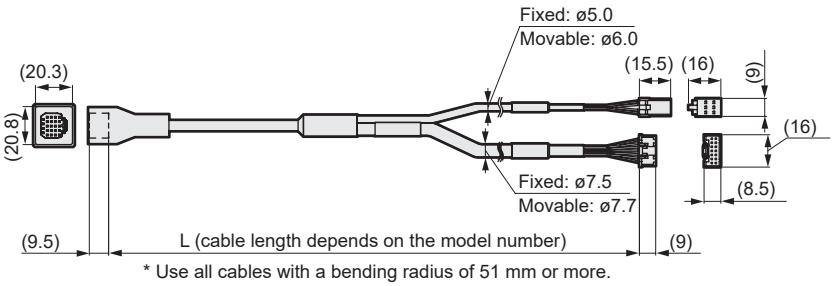


*Use all cables with a bending radius of 51mm or more.

ECMG-DNN*30-B relay cable

Motor encoder relay cable (fixed/movable)

*Actuator type also available



* Use all cables with a bending radius of 51 mm or more.

EA-CBLME4 - S 01
A B C

Ⓐ Applicable actuators	
4	FLSH-G, FLCR-G, FGRC-G, GCKW

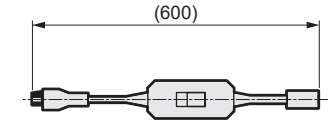
Ⓑ Cable type	
S	Fixed cable
R	Movable cable

Ⓒ Cable length	
01	1 m
03	3 m
05	5 m
10	10 m

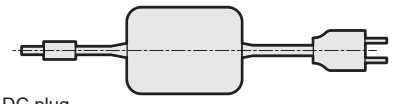
Brake release unit

FLCR Brake release unit

EA-BRK-UNIT



Customer-provided: AC-DC adapter



DC plug
ø5.5x2.1
Polarity: Center plus

AC-DC adapter specifications
Rated output voltage: 18 to 24 VDC
Rated output current: 0.35A or more

Related parts

End unit

ECMG-PNNN30-EACNN

* Refer to page 3 for dimensions.

Recommended parts

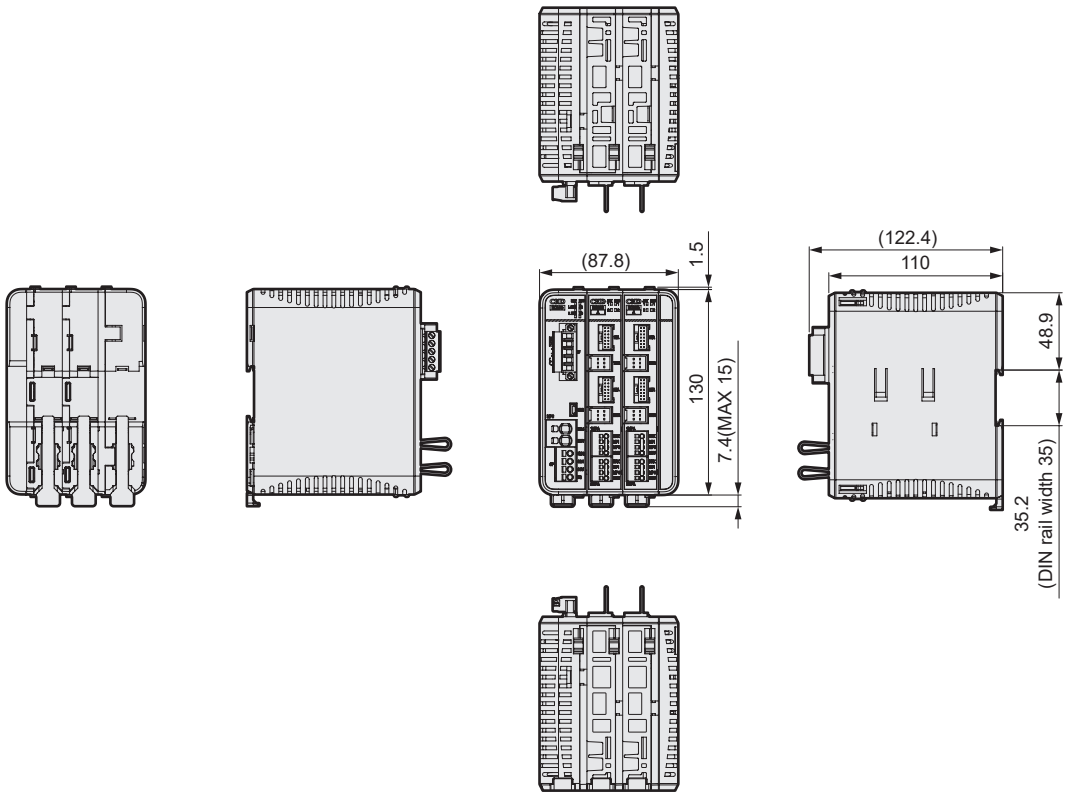
Recommended power supply

Manufacturer	Model No. *1	Manufacturer model No.	Input voltage	Rated current *2	Output peak current *2, *3	Parallel connection	DIN rail Compatible
TDK Lambda Co., Ltd.	–	HWS300P-24	AC85-264V	12.5A	42A *4	x	x
	–	HWS600P-24	AC85-264V	25A	83A *4	○ *6	x
COSEL Co., Ltd.	EA-PWR-KHNA240F-24-N2	KHNA240F-24-N2	AC85-264V	10A	15A	x	x
	EA-PWR-KHNA240F-24	KHNA240F-24	AC85-264V	10A	15A	x	○
	–	AEA600F-24-N	AC85-264V	17.5A *5	52.5A *5	○	x
	–	AEA1000F-24-N	AC85-264V	30.0A *5	100.0A *5	○	x
OMRON Corporation	–	S8VK-S24024	AC85-264V	10A	15A	○ *6	○
	–	S8VK-S48024	AC85-264V	20A	30A	○ *6	○

*1 Available from CKD. Products with - (hyphen) cannot be purchased from CKD. Contact the manufacturer for details.
*2 Output power may require derating depending on the power installation method, ambient temperature, input voltage, etc.
Refer to the manufacturer's website for details on the power supply usage conditions.
*3 Pay attention to use restrictions due to peak current such as DUTY restrictions. Refer to the manufacturer's website for details.
*4 Current at 200 VAC input.
*5 230 VAC, current at natural air cooling.
*6 Up to two units can be connected in parallel

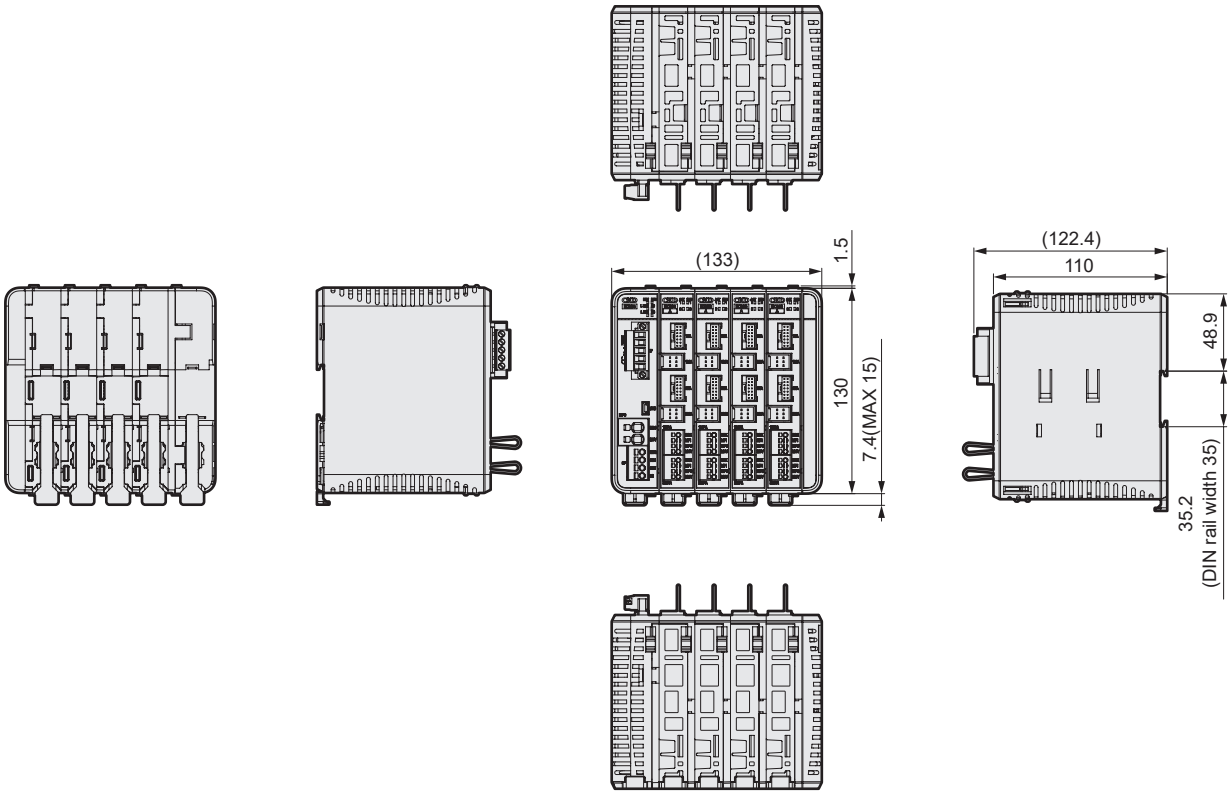
ECMG combination dimensions example

[Connecting two drive units]



*The communication unit is the same regardless of interface specifications and dimensions. This figure shows CC-Link specifications. (1-port CC-Link communication connector is installed)

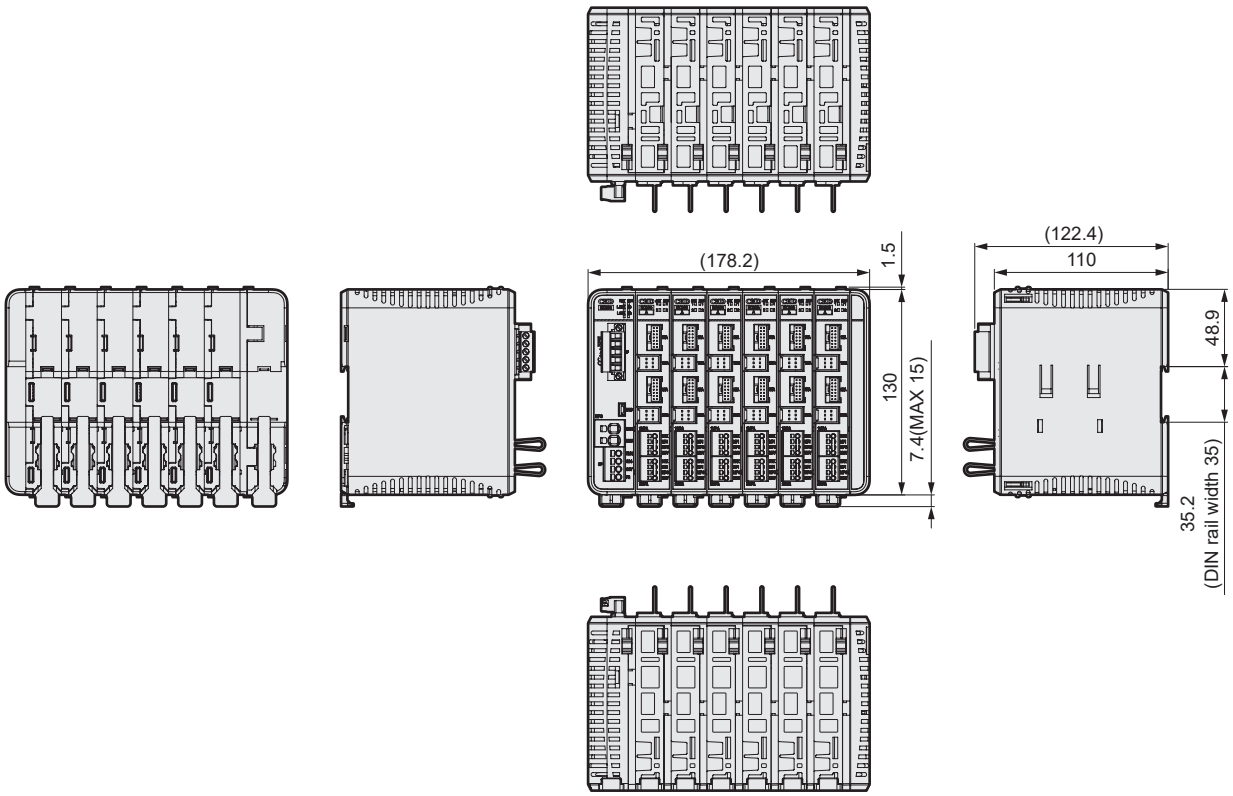
[Connecting 4 drive units]



*The communication unit is the same regardless of interface specifications and dimensions. This figure shows CC-Link specifications. (1-port CC-Link communication connector is installed)

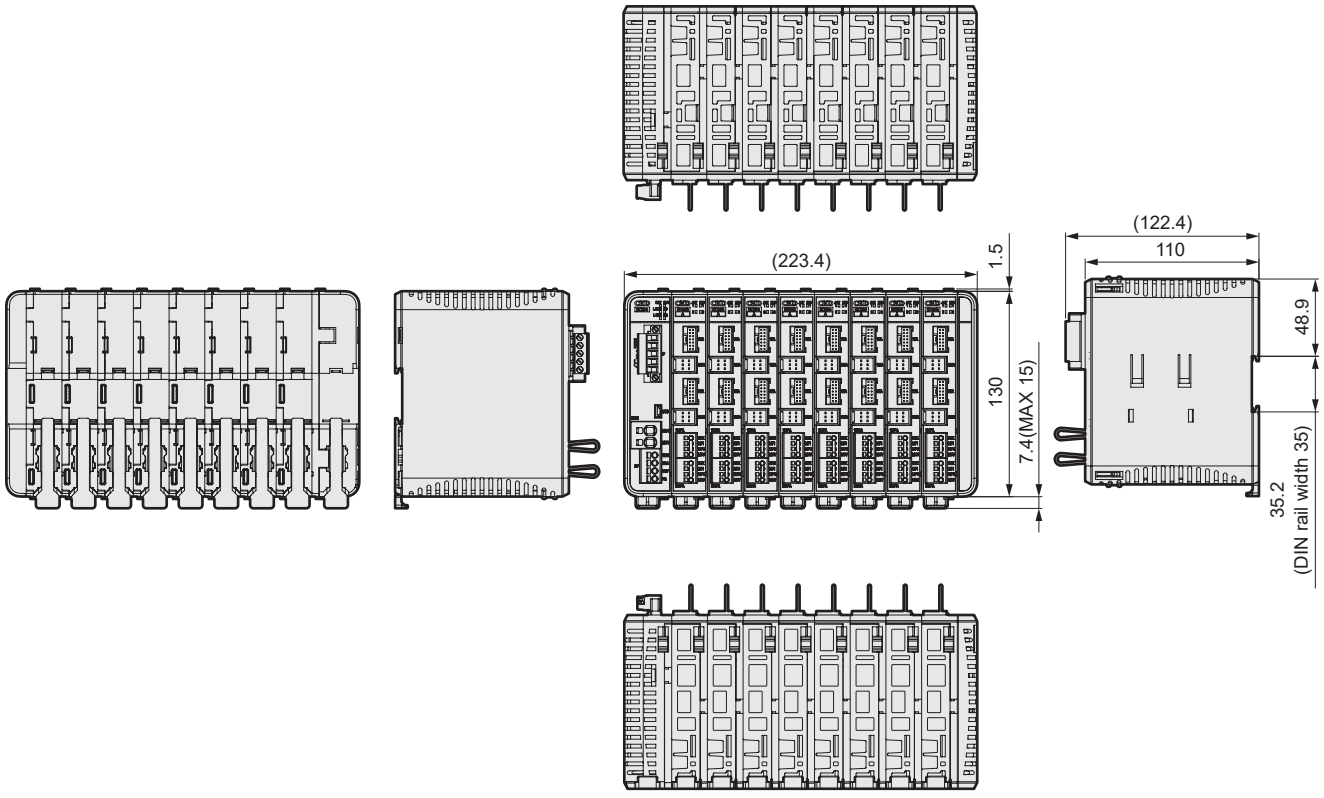
ECMG combination dimensions example

[Connecting 6 drive units]



*The communication unit is the same regardless of interface specifications and dimensions.
This figure shows CC-Link specifications. (1-port CC-Link communication connector is installed)

[Eight drive units connected]



*The communication unit is the same regardless of interface specifications and dimensions.
This figure shows CC-Link specifications. (1-port CC-Link communication connector is installed)

Model selection

STEP 1 Selecting the interface

Select the communication unit interface from CC-Link, EtherCAT, or EtherNet/IP.

Interface type	Communication unit model No.
CC-Link V2	ECMG-CNN*30-CLD**
EtherCAT	ECMG-CNN*30-ECDNN
EtherNet/IP	ECMG-CNN*30-ENDNN

STEP 2 Actuator/Drive unit selection

Select a drive unit with up to 8 units for the selected actuator. (Refer to page 9)

Actuator model	Drive unit	
	No. of actuator connection axes	Model No.
EJSG/EBS-G/EBR-G GSSD2/GSTK/GSTG/ GSTS/GSTL	2-axis specifications	ECMG-DNNR30-A2DNN
	1-axis specifications	ECMG-DNNR30-A1DNN
FLSH-G/FLCR-G/FGRC-G/ GCKW	2-axis specifications	ECMG-DNNN30-B2DNN
	1-axis specifications	ECMG-DNNN30-B1DNN

STEP 3 Check the current consumption (Omit this STEP when using individual wiring for the drive unit.)

●When supplying power from the communication unit by the collective wiring method, the total power consumption current of the following drive units must be 30A or less.
When using the brake, add the brake current (0.4A).

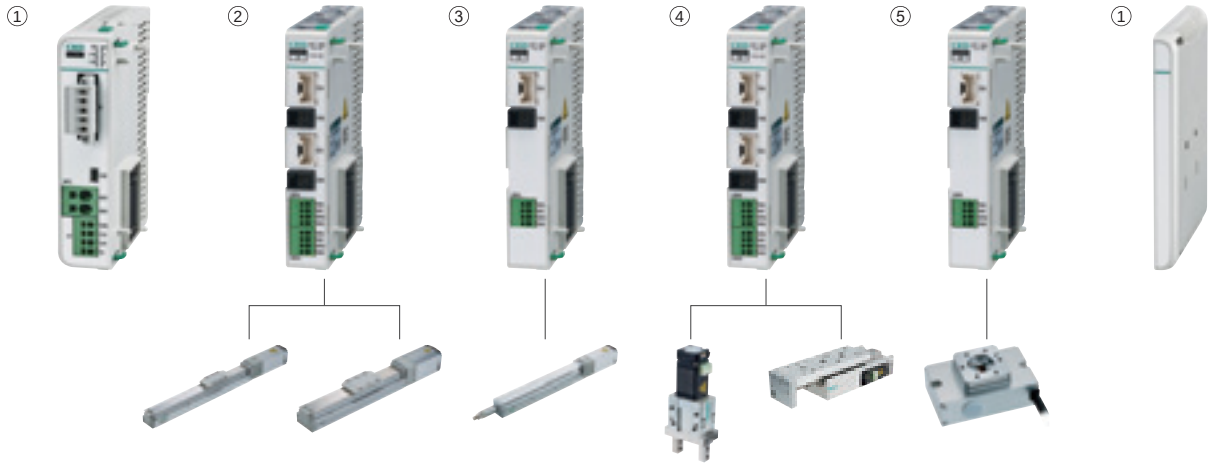
• Drive unit power Current consumption per 1 axis of power supply

Model	Size	Motor size	Current	Model	Size	Motor size	Current	Model	Size	Motor size	Current
EJSG EBS-G EBR-G	04	□35	3.4A *1	FLCR-G	16	□20	0.5A	GSSD2/GSTK/ GSTG/GSTS/ GSTL	20	□35	1.8A
	05	□42	4.2A		20	□25	0.9A		32	□42	2.0A
	08	□56	4.5A		25	□25L	1.6A		50	□56	3.1A
FLSH-G	16	□20	0.3A	FGRC-G	10	□20	0.3A	GCKW	16	□20	0.3A
	20	□25	0.5A		30	□25	0.7A		20	□25	0.5A
	25	□25L	0.6A		50	□35	1.1A		25	□35	0.6A

*1 For EJSG, it will be 4.0A.

Model selection

Selection example



Power supply capacity	3.4A	4.5A	4.2A	0.3A	0.9A	0.7A

Total power supply current 3.4A + 4.5A + 4.2A + 0.3A + 0.9A + 0.7A = 14.0A

Total 14.0A (total power supply current for the batch wiring method) ≤ 30 A....OK

STEP 4 Power capacity check

●For control power supply, 0.4A or less per unit (excluding end unit), unit No.The max. control current is x 0.4A. Select the power supply so that the rating of the applicable power supply is not exceeded at the maximum control current.

• Control power supply max. current

Unit	Specifications	Model No.	Current
Communication Unit	CC-LINK	ECMG-CNN*30-CLD**	0.4A
	EtherCAT	ECMG-CNN*30-ECDNN	0.4A
	EtherNet/IP	ECMG-CNN*30-ENDNN	0.4A
Drive Unit	A-type 2 axes	ECMG-DNNR30-A2DNN	0.4A
	A-type 1 axis	ECMG-DNNR30-A1DNN	0.4A
	B-type 2 axes	ECMG-DNNN30-B2DNN	0.4A
	B-type 1 axis	ECMG-DNNN30-B1DNN	0.4A

Control power supply current example
: When drive unit A-type 4-axis Communication unit + drive unit A-type 2 axes x 2 units
0.4 A x 3 unit = 1.2A or less

When A-type 11 axes of drive unit Communication unit + A-type 2 axes of drive unit x 5 units + A-type 1 axis of drive unit
0.4A x 7 unit = 2.8A or less

●For the power supply applied to the power supply, select the power supply so that the following drive unit power supply maximum current does not exceed the rating of the applicable power supply. Or, select a power supply compatible with output peak current. Refer to page 12 for recommended power supply. When using the brake, add the brake current (0.4A).

• Drive unit Power supply Max. current per axis

Model	Size	Motor size	Current	Model	Size	Motor size	Current	Model	Size	Motor size	Current
EJSG EBS-G EBR-G	04	□35	12.4A	FLCR-G	16	□20	1.0A	GSSD2/GSTK/ GSTG/GSTS/ GSTL	20	□35	5.7A
	05	□42	12.2A		20	□25	1.5A		32	□42	7.5A
	08	□56	12.5A		25	□25L	2.8A		50	□56	4.7A
FLSH-G	16	□20	0.4A	FGRC-G	10	□20	0.5A	GCKW	16	□20	0.4A
	20	□25	0.7A		30	□25	0.9A		20	□25	0.7A
	25	□25L	0.8A		50	□35	1.5A		25	□35	0.8A

*The max. instantaneous current for the drive unit power supply above is the max. current under specified conditions in the specifications. It varies depending on the actuator, lead, motor mounting direction, motor installation direction, acceleration/deceleration, speed, etc. Contact CKD for details.
*Depending on the working environment and conditions, it may be necessary to wait for the actuator to stop. Contact CKD if the stop time will be 1.0 s or less.

EJSG, EJSG-G Technical data

● Table of Payload by Speed and Acceleration/Deceleration

[When installed horizontally]

■EJSG-04,EJSG-04-G

Screw lead 6 (kg)

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
7	20.0	20.0	20.0	16.7	20.0	20.0	20.0	16.7
50	20.0	20.0	20.0	16.7	20.0	20.0	20.0	16.7
100	20.0	20.0	20.0	16.7	20.0	20.0	20.0	16.7
150	20.0	20.0	18.3	15.0	20.0	20.0	18.3	15.0
200	20.0	20.0	15.0	14.2	20.0	20.0	15.0	14.2
250	20.0	20.0	15.0	12.1	20.0	20.0	15.0	12.1
300	20.0	20.0	15.0	12.1	20.0	20.0	15.0	11.7
350	20.0	20.0	13.3	12.1	20.0	20.0	13.3	11.3
375	20.0	20.0	13.3	9.2	15.8	15.8	13.3	9.2
400	20.0	20.0	13.3	9.2				
450	11.7	11.7	11.7	8.3				

Screw lead 12

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
15	15.0	15.0	14.2	5.4	15.0	15.0	14.2	5.4
100	15.0	15.0	14.2	5.4	15.0	15.0	14.2	5.4
200	15.0	10.0	8.3	5.4	15.0	10.0	8.3	5.4
300	15.0	10.0	8.3	5.4	15.0	10.0	8.3	5.4
400	15.0	10.0	8.3	5.4	15.0	10.0	8.3	5.4
500	12.9	10.0	8.3	5.4	11.7	10.0	8.3	5.4
600	11.7	9.2	7.5	5.4	0.8	0.8	0.8	
700	11.7	8.3	5.8	5.4				
800	5.8	5.8	5.8	2.5				
850	2.9	2.5	2.5	1.7				
900	2.1	1.7	1.7	0.8				

■EJSG-05,EJSG-05-G

Screw lead 5

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
50	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
100	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
150	40.0	40.0	40.0	30.4	40.0	40.0	40.0	23.3
200	40.0	40.0	40.0	30.4	40.0	40.0	32.5	18.3
250	40.0	40.0	33.3	20.4	40.0	40.0	25.8	13.3
300	40.0	40.0	24.2	13.8	19.2	19.2	19.2	
325	40.0	35.8	24.2	9.2	19.2	19.2	16.7	
350	40.0	35.8	24.2	9.2				
375	20.0	20.0	20.0	7.9				

Screw lead 10

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
12	27.5	25.0	23.3	22.9	27.5	25.0	23.3	22.9
100	27.5	25.0	23.3	22.9	27.5	25.0	23.3	22.9
200	27.5	25.0	18.3	14.2	27.5	20.0	18.3	14.2
300	27.5	25.0	18.3	12.9	27.5	20.0	18.3	12.9
400	27.5	25.0	18.3	12.9	27.5	20.0	18.3	12.9
500	20.4	20.4	18.3	10.8	20.4	17.5	15.0	10.8
600	15.0	15.0	15.0	6.3	15.0	13.3	13.3	6.3
635	6.7	6.7	6.7	3.3	4.6	4.6	4.6	3.3
700	6.7	6.7	6.7	3.3				
750	2.9	2.9	2.9	2.9				

Screw lead 20

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
25	18.3	11.7	10.0	8.3	18.3	11.7	10.0	8.3
100	18.3	11.7	10.0	8.3	18.3	11.7	10.0	8.3
200	18.3	11.7	10.0	6.7	15.0	11.7	10.0	6.7
300	15.0	11.7	8.3	6.3	15.0	11.7	8.3	6.3
400	15.0	11.7	8.3	6.3	15.0	11.7	8.3	6.3
500	13.3	10.0	8.3	6.3	13.3	10.0	8.3	6.3
600	13.3	10.0	8.3	6.3	13.3	10.0	8.3	6.3
700	11.3	8.3	6.7	5.0	11.3	8.3	6.7	5.0
800	11.3	7.5	6.7	4.2	11.3	7.5	6.7	4.2
900	10.0	7.5	6.7	4.2	10.0	7.5	6.7	4.2
1000	6.3	6.3	5.0	2.9	6.3	6.3	5.0	2.5
1100	6.3	4.2	2.5	1.7	6.3	4.2	2.5	1.7
1120	2.1	2.1	2.1	1.7	1.3	1.3	1.3	

■EJSG-08,EJSG-08-G

Screw lead 5

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
6	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
50	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
100	80.0	80.0	80.0	80.0	80.0	80.0	80.0	40.0
150	80.0	80.0	80.0	50.0	80.0	16.7	16.7	8.8
200	80.0	80.0	80.0	18.3	80.0	16.7	16.7	
230	18.3	18.3	18.3					

Screw lead 10

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
12	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
50	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
100	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
150	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
200	70.0	70.0	70.0	40.0	70.0	70.0	70.0	40.0
250	70.0	70.0	43.3	40.0	70.0	68.3	43.3	40.0
300	70.0	61.7	43.3	15.0	70.0	61.7	43.3	15.0
350	43.3	43.3	43.3	3.8	43.3	43.3	40.0	3.8
400	40.0	40.0	29.2		40.0	40.0	25.0	
430	12.5	12.5	12.5		12.5	12.5	12.5	

Screw lead 20

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
25	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
100	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
200	30.0	30.0	26.7	26.7	30.0	30.0	26.7	26.7
300	30.0	26.7	26.7	24.2	30.0	26.7	26.7	24.2
400	30.0	26.7	26.7	24.2	30.0	26.7	26.7	16.3
500	30.0	26.7	26.7	16.7	30.0	26.7	26.7	15.8
600	22.9	22.5	22.5	13.8	16.7	16.7	16.7	9.6
700	22.5	22.5	22.5	12.5	16.7	16.7	16.7	9.2
800	5.4	5.0	5.0	2.5	3.8	3.3	3.3	1.7

EJSG, EJSG-G Technical data

[When installed vertically]

■EJSG-04,EJSG-04-G

Screw lead 6 (kg)

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
7	9.2	9.2	9.2	9.2
50	9.2	9.2	9.2	9.2
100	9.2	9.2	9.2	9.2
150	9.2	9.2	9.2	9.2
200	9.2	9.2	8.3	8.3
250	7.1	6.7	5.8	5.8
300	5.4	4.2	4.6	4.2
350	2.5	1.7	2.5	1.7
375	1.7		0.8	
400	1.7			

Screw lead 12

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
15	3.3	3.3	3.3	3.3
50	3.3	3.3	3.3	3.3
100	3.3	3.3	3.3	3.3
150	3.3	3.3	3.3	3.3
200	3.3	3.3	3.3	3.3
250	3.3	3.3	3.3	3.3
300	3.3	3.3	3.3	3.3
350	3.3	3.3	3.3	3.3
400	3.3	3.3	2.1	2.1
450	3.3	3.3	2.1	2.1
500	3.3	3.3	0.8	0.8
600	2.5	2.5		
800	0.8	0.8		

■EJSG-05,EJSG-05-G

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
6	14.2	14.2	10.0	10.0
50	14.2	14.2	10.0	10.0
100	14.2	14.2	10.0	10.0
150	13.3	13.3	10.0	10.0
200	10.0	10.0	10.0	10.0
250	10.0	10.0	7.5	5.8
300	6.3	6.3	3.8	1.7
325	2.9	2.9	0.8	
350	2.9	2.9		
375	1.3	1.3		

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
12	7.1	7.1	3.3	3.3
100	7.1	7.1	3.3	3.3
200	7.1	7.1	3.3	3.3
300	7.1	7.1	3.3	3.3
400	4.6	3.8	3.3	2.9
500	2.5	1.7	2.5	1.7
600	1.7	0.8	0.8	0.8
650	0.8			

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
25	2.5	2.5	0.8	0.8
100	2.5	2.5	0.8	0.8
200	2.5	2.5	0.8	0.8
300	2.5	2.5	0.8	0.8
400	2.5	2.5	0.8	0.8
500	1.3	1.3	0.8	0.8
600	1.3	1.3	0.8	0.8
700	1.3	1.3	0.8	0.8
800	1.3	1.3	0.8	0.8
900	0.8	0.8	0.8	0.8
1000	0.4			

■EJSG-08,EJSG-08-G

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
6	43.3	43.3	33.3	33.3
50	43.3	43.3	33.3	33.3
100	16.7	16.7	16.7	16.7
150	16.7	16.7	8.3	8.3
200	5.0	5.0	3.3	3.3
230	0.8			

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
12	28.3	28.3	21.7	21.7
50	28.3	28.3	21.7	21.7
100	24.2	12.1	21.7	12.1
150	22.5	12.1	20.8	12.1
200	14.2	12.1	12.5	12.1
250	13.3	12.1	12.1	11.7
300	5.4	2.1	5.4	2.1
350	5.4	2.1	5.0	2.1
400	2.1	2.1	0.8	

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
25	3.3	3.3	3.3	3.3
100	3.3	3.3	3.3	3.3
200	3.3	3.3	3.3	3.3
300	3.3	3.3	3.3	3.3
400	3.3	3.3	3.3	3.3
500	3.3	3.3	3.3	3.3
600	2.5	2.5	1.7	1.7
700	0.8	0.8		

●Stroke and max. speed

Model No.	Motor Mounting direction	Screw lead (mm)	Stroke [mm] and max. speed [mm/s]													
			50-450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
EJSG-04E EJSG-04E-G	Straight	6	450	400	340	290	250	220	190	170						
		12	900	800	680	580	500	440	390	340						
EJSG-04R/D/L EJSG-04R/D/L-G	Left/Right/ Bottom	6	375		340	290	250	220	190	170						
		12	600			580	500	440	390	340						
EJSG-05E EJSG-05E-G	Straight	5	375	360	300	260	225	200	175	150						
		10	750	720	615	525	455	400	355	315						
		20	1120			1050	910	800	710	630						
EJSG-05R/D/L EJSG-05R/D/L-G	Left/Right/ Bottom	5	350		300	260	225	200	175	150						
		10	635		615	525	455	400	355	315						
		20	1120			1050	910	800	710	630						
EJSG-08E EJSG-08E-G	Straight	5	230						220	200	175	160	145	130	120	110
		10	430							400	355	320	290	260	240	220
		20	800								710	640	580	530	480	440
EJSG-08R/D/L EJSG-08R/D/L-G	Left/Right/ Bottom	5	200								175	160	145	130	120	110
		10	430							400	355	320	290	260	240	220
		20	800								710	640	580	530	480	440

* This data is at acceleration/deceleration 0.3G.
* The maximum pressing force is the same as that of the ECG controller.

EJSG-C, EJSG-P4, EJSG-FP1 Technical Data

● Table of Payload by Speed and Acceleration/Deceleration

[When installed horizontally]

■EJSG-04-C, EJSG-04-P4, EJSG-04-FP1

Screw lead 6 (kg)

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
7	20.0	20.0	20.0	16.7	20.0	20.0	20.0	16.7
50	20.0	20.0	20.0	16.7	20.0	20.0	20.0	16.7
100	20.0	20.0	20.0	16.7	20.0	20.0	20.0	16.7
150	20.0	20.0	18.3	15.0	20.0	20.0	20.0	15.0
200	20.0	20.0	15.0	14.2	20.0	20.0	15.0	14.2
250	20.0	20.0	15.0	12.1	20.0	20.0	15.0	12.1
300	20.0	20.0	15.0	12.1	20.0	20.0	15.0	11.7
350	20.0	20.0	13.3	12.1				
360	20.0	20.0	13.3	9.2				

Screw lead 12

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
15	15.0	15.0	14.2	5.4	15.0	15.0	14.2	5.4
100	15.0	15.0	14.2	5.4	15.0	15.0	14.2	5.4
200	15.0	10.0	8.3	5.4	15.0	10.0	8.3	5.4
300	15.0	10.0	8.3	5.4	15.0	10.0	8.3	5.4
400	15.0	10.0	8.3	5.4	15.0	10.0	8.3	5.4
480	12.9	10.0	8.3	5.4	11.7	10.0	8.3	5.4
500	12.9	10.0	8.3	5.4				
600	11.7	9.2	7.5	5.4				
700	11.7	8.3	5.8	5.4				
720	5.8	5.8	5.8	2.5				

■EJSG-05-C, EJSG-05-P4, EJSG-05-FP1

Screw lead 5

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
50	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
100	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
150	40.0	40.0	40.0	30.4	40.0	40.0	40.0	23.3
200	40.0	40.0	40.0	30.4	40.0	40.0	32.5	18.3
250	40.0	40.0	33.3	20.4	40.0	40.0	25.8	13.3
280	40.0	40.0	24.2	13.8	19.2	19.2	19.2	
300	40.0	40.0	24.2	13.8				

Screw lead 10

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
12	27.5	25.0	23.3	22.9	27.5	27.5	27.5	27.5
100	27.5	25.0	23.3	22.9	27.5	26.7	27.5	27.5
200	27.5	25.0	18.3	14.2	27.5	20.0	20.0	15.8
300	27.5	25.0	18.3	12.9	27.5	20.0	20.0	15.4
400	27.5	25.0	18.3	12.9	27.5	20.0	20.0	14.2
500	20.4	20.4	18.3	10.8	20.4	17.5	15.0	10.8
505	15.0	15.0	15.0	6.3	15.0	13.3	13.3	6.3
600	15.0	15.0	15.0	6.3				

Screw lead 20

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
25	18.3	11.7	10.0	8.3	18.3	12.5	11.7	8.3
100	18.3	11.7	10.0	8.3	18.3	12.5	11.7	8.3
200	18.3	11.7	10.0	6.7	15.0	11.7	11.7	7.5
300	15.0	11.7	8.3	6.3	15.0	11.7	11.7	7.5
400	15.0	11.7	8.3	6.3	15.0	11.7	11.7	7.5
500	13.3	10.0	8.3	6.3	15.0	11.7	11.7	7.5
600	13.3	10.0	8.3	6.3	13.3	11.7	11.7	7.5
700	11.3	8.3	6.7	5.0	13.3	11.7	11.7	7.5
800	11.3	7.5	6.7	4.2	11.3	11.3	11.3	4.2
895	10.0	7.5	6.7	4.2	11.3	11.3	11.3	4.2

■EJSG-08-C, EJSG-08-P4, EJSG-08-FP1

Screw lead 5

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
6	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
50	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
100	80.0	80.0	80.0	80.0	80.0	80.0	80.0	40.0
150	80.0	80.0	80.0	50.0	80.0	16.7	16.7	8.8
160	80.0	80.0	80.0	18.3	80.0	16.7	16.7	
180	80.0	80.0	80.0	18.3				

Screw lead 10

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
12	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
50	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
100	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
150	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
200	70.0	70.0	70.0	40.0	70.0	70.0	70.0	40.0
250	70.0	70.0	43.3	40.0	70.0	68.3	60.8	40.0
300	70.0	61.7	43.3	15.0	70.0	68.3	60.8	15.0
340	43.3	61.7	43.3	3.8	43.3	43.3	40.0	3.8

Screw lead 20

Speed (mm/s)	Straight				Left/Right/Bottom			
	Acceleration/Deceleration (G)							
	0.3	0.5	0.7	1.0	0.3	0.5	0.7	1.0
25	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
100	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
200	30.0	30.0	26.7	26.7	30.0	30.0	30.0	26.7
300	30.0	26.7	26.7	24.2	30.0	30.0	30.0	26.7
400	30.0	26.7	26.7	24.2	30.0	30.0	30.0	16.3
500	30.0	26.7	26.7	16.7	30.0	30.0	30.0	15.8
600	22.9	22.5	22.5	13.8	16.7	16.7	16.7	9.6
640	22.5	22.5	22.5	12.5	16.7	16.7	16.7	9.2

EJSG-C, EJSG-P4, EJSG-FP1 Technical Data

[When installed vertically]

■EJSG-04-C, EJSG-04-P4, EJSG-04-FP1

Screw lead 6 (kg)

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
7	9.2	9.2	9.2	9.2
50	9.2	9.2	9.2	9.2
100	9.2	9.2	9.2	9.2
150	9.2	9.2	9.2	9.2
200	9.2	9.2	8.3	8.3
250	7.1	6.7	5.8	5.8
300	5.4	4.2	4.6	4.2
350	2.5	1.7		
360	1.7			

Screw lead 12

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
15	3.3	3.3	3.3	3.3
50	3.3	3.3	3.3	3.3
100	3.3	3.3	3.3	3.3
150	3.3	3.3	3.3	3.3
200	3.3	3.3	3.3	3.3
250	3.3	3.3	3.3	3.3
300	3.3	3.3	3.3	3.3
350	3.3	3.3	3.3	3.3
400	3.3	3.3	2.1	2.1
450	3.3	3.3	2.1	2.1
480	3.3	3.3	0.8	0.8
500	3.3	3.3		
600	2.5	2.5		
720	0.8	0.8		

■EJSG-05-C, EJSG-05-P4, EJSG-05-FP1

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
6	14.2	14.2	10.0	10.0
50	14.2	14.2	10.0	10.0
100	14.2	14.2	10.0	10.0
150	13.3	13.3	10.0	10.0
200	10.0	10.0	10.0	10.0
250	10.0	10.0	7.5	5.8
280	6.3	6.3	3.8	1.7
300	6.3	6.3		

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
12	7.1	7.1	3.3	3.3
100	7.1	7.1	3.3	3.3
200	7.1	7.1	3.3	3.3
300	7.1	7.1	3.3	3.3
400	4.6	3.8	3.3	2.9
500	2.5	1.7	2.5	1.7
505	1.7	0.8	0.8	0.8
600	1.7	0.8		

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
25	2.5	2.5	0.8	0.8
100	2.5	2.5	0.8	0.8
200	2.5	2.5	0.8	0.8
300	2.5	2.5	0.8	0.8
400	2.5	2.5	0.8	0.8
500	1.3	1.3	0.8	0.8
600	1.3	1.3	0.8	0.8
700	1.3	1.3	0.8	0.8
800	1.3	1.3	0.8	0.8
895	0.8	0.8	0.8	0.8

■EJSG-08-C, EJSG-08-P4, EJSG-08-FP1

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
6	43.3	43.3	33.3	33.3
50	43.3	43.3	33.3	33.3
100	16.7	16.7	16.7	16.7
150	16.7	16.7	8.3	8.3
160	5.0	5.0	3.3	3.3
180	5.0	5.0		

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
12	28.3	28.3	21.7	21.7
50	28.3	28.3	21.7	21.7
100	24.2	12.1	21.7	12.1
150	22.5	12.1	20.8	12.1
200	14.2	12.1	12.5	12.1
250	13.3	12.1	12.1	11.7
300	5.4	2.1	5.4	2.1
340	5.4	2.1	5.0	2.1

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
25	3.3	3.3	3.3	3.3
100	3.3	3.3	3.3	3.3
200	3.3	3.3	3.3	3.3
300	3.3	3.3	3.3	3.3
400	3.3	3.3	3.3	3.3
500	3.3	3.3	3.3	3.3
600	2.5	2.5	1.7	1.7
640	0.8	0.8		

●Stroke and max. speed

Model No.	Motor Mounting direction	Screw lead (mm)	Stroke [mm] and max. speed [mm/s]													
			50-450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
EJSG-04E-C EJSG-04E-P4 EJSG-04E-FP1	Straight	6	360		340	290	250	220	190	170						
		12	720		680	580	500	440	390	340						
EJSG-04R/D/L-C EJSG-04R/D/L-P4 EJSG-04R/D/L-FP1	Left/Right/ Bottom	6	300			290	250	220	190	170						
		12	480					440	390	340						
EJSG-05E-C EJSG-05E-P4 EJSG-05E-FP1	Straight	5	300			260	225	200	175	150						
		10	600			525	455	400	355	315						
		20	895					800	710	630						
EJSG-05R/D/L-C EJSG-05R/D/L-P4 EJSG-05R/D/L-FP1	Left/Right/ Bottom	5	280			260	225	200	175	150						
		10	505				455	400	355	315						
		20	895					800	710	630						
EJSG-08E-C EJSG-08E-P4 EJSG-08E-FP1	Straight	5	180								175	160	145	130	120	110
		10	340									320	290	260	240	220
		20	640										580	530	480	440
EJSG-08R/D/L-C EJSG-08R/D/L-P4 EJSG-08R/D/L-FP1	Left/Right/ Bottom	5	160										145	130	120	110
		10	340									320	290	260	240	220
		20	640										580	530	480	440

* This data is at acceleration/deceleration 0.3G.
* The maximum pressing force is the same as that of the ECG controller.

EBS-G Technical data

● Table of Payload by Speed and Acceleration/Deceleration

[When installed horizontally]

■EBS-04G

Screw lead 6 (kg)

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	20.0	16.7	20.0	16.7
50	20.0	16.7	20.0	16.7
100	20.0	16.7	20.0	16.7
150	20.0	15.0	20.0	15.0
200	20.0	14.2	20.0	14.2
250	20.0	12.1	20.0	12.1
300	20.0	12.1	20.0	11.7
350	20.0	12.1	20.0	11.3
375	20.0	9.2	15.8	9.2
400	20.0	9.2		
450	11.7	8.3		

Screw lead 12

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	15.0	5.4	15.0	5.4
100	15.0	5.4	15.0	5.4
200	15.0	5.4	15.0	5.4
300	15.0	5.4	15.0	5.4
400	15.0	5.4	15.0	5.4
500	12.9	5.4	11.7	5.4
600	11.7	5.4	0.8	
800	5.8	2.5		
850	2.9	1.7		
900	2.1	0.8		

■EBS-05G

Screw lead 2

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.7	0.3	0.7
0	45.0	45.0	45.0	45.0
25	45.0	45.0	45.0	45.0
50	45.0	45.0	45.0	45.0
75	45.0	45.0	45.0	39.2
100	45.0	45.0	45.0	3.3
130	45.0		31.3	

■EBS-05G

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	40.0	40.0	40.0	40.0
50	40.0	40.0	40.0	40.0
100	40.0	40.0	40.0	40.0
150	40.0	30.4	40.0	23.3
200	40.0	30.4	40.0	18.3
250	40.0	20.4	40.0	13.3
300	40.0	13.8	19.2	
325	40.0	9.2	19.2	
350	40.0	9.2		
375	20.0	7.9		

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	27.5	22.9	27.5	22.9
100	27.5	22.9	27.5	22.9
200	27.5	14.2	27.5	14.2
300	27.5	12.9	27.5	12.9
400	27.5	12.9	27.5	12.9
500	20.4	10.8	20.4	10.8
600	15.0	6.3	15.0	6.3
635	6.7	3.3	4.6	3.3
700	6.7	3.3		
750	2.9	2.9		

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	18.3	8.3	18.3	8.3
100	18.3	8.3	18.3	8.3
200	18.3	6.7	15.0	6.7
400	15.0	6.3	15.0	6.3
600	13.3	6.3	13.3	6.3
800	11.3	4.2	11.3	4.2
1000	6.3	2.9	6.3	2.5
1120	2.1	1.7	1.3	

■EBS-08G

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	80.0	80.0	80.0	80.0
50	80.0	80.0	80.0	80.0
100	80.0	80.0	80.0	40.0
150	80.0	50.0	80.0	8.8
200	80.0	18.3	80.0	
230	18.3			

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	70.0	70.0	70.0	70.0
100	70.0	70.0	70.0	70.0
200	70.0	40.0	70.0	40.0
300	70.0	15.0	70.0	15.0
350	43.3	3.8	43.3	3.8
400	40.0		40.0	
430	12.5		12.5	

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	30.0	30.0	30.0	30.0
100	30.0	30.0	30.0	30.0
200	30.0	26.7	30.0	26.7
400	30.0	24.2	30.0	16.3
600	22.9	13.8	16.7	9.6
800	5.4	2.5	3.8	1.7

[When installed vertically]

■EBS-04G

Screw lead 6 (kg)

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	9.2	9.2	9.2	9.2
50	9.2	9.2	9.2	9.2
100	9.2	9.2	9.2	9.2
150	9.2	9.2	9.2	9.2
200	9.2	9.2	8.3	8.3
250	7.1	6.7	5.8	5.8
300	5.4	4.2	4.6	4.2
350	2.5	1.7	2.5	1.7
375	1.7		0.8	
400	1.7			

Screw lead 12

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	3.3	3.3	3.3	3.3
100	3.3	3.3	3.3	3.3
200	3.3	3.3	3.3	3.3
300	3.3	3.3	3.3	3.3
400	3.3	3.3	2.1	2.1
500	3.3	3.3	0.8	0.8
600	2.5	2.5		
800	0.8	0.8		

■EBS-05G

Screw lead 2

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	18.3	18.3	18.3	18.3
25	18.3	18.3	18.3	18.3
50	18.3	18.3	18.3	18.3
75	18.3	18.3	18.3	18.3
100	14.2	7.9	14.2	7.9
120	4.2			
130	4.2			

EBS-G Technical data

■EBS-05G

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	14.2	14.2	10.0	10.0
50	14.2	14.2	10.0	10.0
100	14.2	14.2	10.0	10.0
150	13.3	13.3	10.0	10.0
200	10.0	10.0	10.0	10.0
250	10.0	10.0	7.5	5.8
300	6.3	6.3	3.8	1.7
325	2.9	2.9	0.8	
350	2.9	2.9		
375	1.3	1.3		

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	7.1	7.1	3.3	3.3
100	7.1	7.1	3.3	3.3
200	7.1	7.1	3.3	3.3
300	7.1	7.1	3.3	3.3
400	4.6	3.8	3.3	2.9
500	2.5	1.7	2.5	1.7
600	1.7	0.8	0.8	0.8
650	0.8			

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	2.5	2.5	0.8	0.8
200	2.5	2.5	0.8	0.8
400	2.5	2.5	0.8	0.8
500	1.3	1.3	0.8	0.8
700	1.3	1.3	0.8	0.8
900	0.8	0.8	0.8	0.8
1000	0.4			

■EBS-08G

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	43.3	43.3	33.3	33.3
50	43.3	43.3	33.3	33.3
100	16.7	16.7	16.7	16.7
150	16.7	16.7	8.3	8.3
200	5.0	5.0	3.3	3.3
230	0.8			

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	28.3	28.3	21.7	21.7
50	28.3	28.3	21.7	21.7
100	24.2	12.1	21.7	12.1
200	14.2	12.1	12.5	12.1
300	5.4	2.1	5.4	2.1
400	2.1	2.1	0.8	

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	3.3	3.3	3.3	3.3
200	3.3	3.3	3.3	3.3
400	3.3	3.3	3.3	3.3
600	2.5	2.5	1.7	1.7
700	0.8	0.8		

●Stroke and max. speed

Model No.	Motor Mounting direction	Screw lead (mm)	Stroke [mm] and max. speed [mm/s]													
			50-450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
EBS-04GE	Straight	6	450	400												
		12	900	850												
EBS-04GR/D/L	Left/Right/ Bottom	6	375													
		12	600													
EBS-05GE	Straight	2	130		120		105	95	80	70						
		5	375		310		270	235	200	185						
		10	750		625		540	475	415	370						
		20	1120				1080	950	830	740						
EBS-05GR/D/L	Left/Right/ Bottom	2	130		120		105	95	80	70						
		5	350		310		270	235	200	185						
		10	635		625		540	475	415	370						
		20	1120				1080	950	830	740						
EBS-08GE	Straight	5	230							220	200	180	135	120	110	100
		10	430								410	370	270	240	225	200
		20	800									740	540	490	450	410
EBS-08GR/D/L	Left/Right/ Bottom	5	200									180	135	120	110	100
		10	430								410	370	270	240	225	200
		20	800									740	540	490	450	410

* This data is at acceleration/deceleration of 0.3G.

* The maximum pressing force is the same as that of the ECG controller.

EBR-G Technical data

● Table of Payload by Speed and Acceleration/Deceleration

[When installed horizontally]

■EBR-04G

Screw lead 6 (kg)

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	40.0	30.0	40.0	30.0
50	40.0	30.0	40.0	30.0
100	40.0	30.0	40.0	17.9
150	40.0	16.7	40.0	15.0
200	40.0	12.5	32.1	11.3
250	40.0	12.5	26.7	11.3
300	30.8	12.5	15.0	11.3
350	17.5	12.1	2.1	
400	2.5	2.5		

Screw lead 12

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	12.5	9.6	12.5	10.0
100	12.5	9.6	12.5	9.2
200	12.5	7.1	11.7	5.0
300	9.2	5.4	8.3	5.0
400	9.2	5.4	8.3	5.0
500	7.9	2.5	6.7	2.5
600	5.4		0.4	
700	2.5			

■EBR-05G

Screw lead 2

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	80.0	80.0	80.0	80.0
25	80.0	80.0	80.0	80.0
50	80.0	80.0	80.0	80.0
75	80.0	80.0	80.0	80.0
100	80.0	80.0	80.0	80.0
130	80.0	80.0	80.0	80.0

■EBR-05G

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	60.0	60.0	60.0	60.0
50	60.0	60.0	60.0	60.0
100	60.0	60.0	60.0	43.3
150	60.0	42.5	60.0	26.7
200	60.0	25.8	51.7	18.3
250	38.3	21.7	38.3	15.0
300	32.5	14.6	32.5	14.6
350	30.0	9.2	23.8	9.2
375	21.7	5.0	15.8	5.0

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	41.7	20.0	38.3	15.0
100	41.7	20.0	38.3	15.0
200	41.7	11.7	31.7	11.7
300	33.3	11.7	31.7	11.7
400	32.1	11.7	21.7	11.7
500	20.0	10.0	14.2	10.0
600	11.7	5.8	5.8	2.5
650	6.7	1.7	0.4	
700	6.7	1.7		
750	3.8	0.4		

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	11.7	8.3	11.7	7.5
100	11.7	8.3	11.7	7.5
300	11.7	8.3	11.7	6.7
500	11.7	6.7	11.7	6.7
600	11.7	6.7	11.7	6.7
800	6.7	4.6	6.7	3.3
1000	1.7	0.8	1.7	0.8

■EBR-08G

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	80.0	80.0	80.0	80.0
50	80.0	80.0	80.0	80.0
100	80.0	80.0	80.0	16.7
150	80.0	31.7	80.0	16.7
180	38.3	14.6	38.3	5.0
200	38.3	14.6	38.3	
230	38.3		6.7	
250	38.3			

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	70.0	55.0	70.0	55.0
100	70.0	55.0	70.0	55.0
200	70.0	39.2	69.6	39.2
300	55.0	23.8	43.8	23.8
400	25.8	15.0	23.8	15.0
450	3.3	3.3	3.3	3.3
470	1.7	1.3		

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	1.0	0.3	1.0
0	35.0	34.2	35.0	25.8
150	35.0	34.2	35.0	25.8
300	35.0	26.7	35.0	20.8
450	27.1	16.7	20.0	11.7
600	9.6	6.3	5.0	5.0
700	2.9	1.3	0.4	
750	0.8			

[When installed vertically]

■EBR-04G

Screw lead 6 (kg)

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	10.0	10.0	10.0	10.0
50	10.0	10.0	10.0	10.0
100	10.0	10.0	10.0	10.0
150	8.3	8.3	8.3	8.3
200	7.5	7.5	7.1	5.8
250	5.4	5.0	3.3	3.3
300	3.8	2.5	1.3	1.3
350	1.7	0.8		

Screw lead 12

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	2.9	2.9	2.9	2.9
100	2.9	2.9	2.9	2.9
200	2.9	2.9	2.9	2.9
300	2.9	2.9	0.8	0.8
400	2.9	2.9	0.8	0.8
500	1.3	1.3	0.4	0.4
600	0.4			

■EBR-05G

Screw lead 2

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	23.3	23.3	23.3	23.3
20	23.3	23.3	23.3	23.3
40	23.3	23.3	23.3	23.3
60	23.3	23.3	23.3	23.3
80	23.3	23.3	23.3	23.3
100	17.9	16.7	17.9	16.7
110	10.0	10.0	10.0	10.0
130	2.1	2.1	2.1	2.1

EBR-G Technical data

■EBR-05G

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	14.2	14.2	14.2	14.2
50	14.2	14.2	14.2	14.2
100	14.2	14.2	14.2	14.2
150	12.1	12.1	12.1	12.1
200	7.9	7.9	7.9	7.9
250	7.1	7.1	7.1	7.1
300	6.7	6.3	5.0	5.0
350	2.5	2.5	1.7	1.7
375	1.7	1.3	0.4	0.4

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	7.1	7.1	6.7	6.7
100	7.1	7.1	6.7	6.7
200	7.1	7.1	6.7	6.7
300	6.7	6.7	6.7	6.7
400	5.0	5.0	4.2	3.8
500	3.3	2.9	2.1	1.7
600	1.7	1.7	0.4	

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	2.9	2.1	1.7	1.7
200	2.9	2.1	1.7	1.7
400	2.9	2.1	1.7	1.7
600	2.9	2.1	1.7	1.7
800	1.3	0.4	0.4	

■EBR-08G

Screw lead 5

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	55.0	55.0	55.0	55.0
25	55.0	55.0	55.0	55.0
50	47.5	46.7	41.3	40.8
100	30.8	30.0	24.2	24.2
150	17.9	17.1	7.1	7.1
200	5.8	5.8	2.9	
250	0.4			

Screw lead 10

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	23.3	23.3	20.0	20.0
50	23.3	23.3	20.0	20.0
100	21.3	21.3	20.0	20.0
200	13.3	13.3	9.6	9.2
300	7.5	6.7	4.2	4.2
350	4.2	2.9	1.7	0.4
400	2.1	1.3		

Screw lead 20

Speed (mm/s)	Straight		Left/Right/Bottom	
	Acceleration/Deceleration (G)			
	0.3	0.5	0.3	0.5
0	10.0	10.0	9.2	9.2
100	10.0	10.0	9.2	9.2
200	9.2	9.2	9.2	9.2
400	5.0	4.2	4.6	4.2
500	2.5	2.5	2.1	0.8
600	0.8		0.4	

●Stroke and max. speed

Model No.	Motor Mounting direction	Screw lead (mm)	Stroke [mm] and max. speed [mm/s]										
			50-200	250	300	350	400	450	500	550	600	650	700
EBR-04GE	Straight	6	400	300	250								
		12	700	600	490								
EBR-04GR/D/L	Left/Right/ Bottom	6	350	300	250								
		12	600		490								
EBR-05GE	Straight	2	130		85								
		5	375	330	210								
		10	750	650	420								
		20	1000	800									
EBR-05GR/D/L	Left/Right/ Bottom	2	130		85								
		5	375	330	210								
		10	650		420								
		20	1000	800									
EBR-08GE	Straight	5	250	230	200								
		10	470	450	400								
		20	750	600									
EBR-08GR/D/L	Left/Right/ Bottom	5	230		200								
		10	450		400								
		20	700	600									

* This data is at acceleration/deceleration of 0.3G.

* The maximum pressing force is the same as that of the ECG controller.

Safety Precautions

Always read this section before use.

When designing equipment using electric actuators, the manufacturer is obligated to ensure that the safety of the mechanism and the electrically controlled system are secured.
It is important to select, use, handle and maintain CKD products appropriately to ensure their safe usage.
Observe warnings and precautions to ensure device safety.
Check that device safety is ensured and a safe device is manufactured.

WARNING

1 This product is designed and manufactured as a general industrial machine part.
It must be handled by an operator having sufficient knowledge and experience in handling.

2 Use the product within specifications range.

This product must be used within its stated specifications. It must not be modified or machined additionally.
This product is intended for use as a device or part for general-purpose industrial machinery. It is not intended for use outdoors (except for outdoor type) or for use under the following conditions or environment.
(Note that this product can be used under the following conditions only when CKD is consulted prior to use and the customer consents to CKD product specifications. The customer must provide safety measures to avoid risks in the event of problems.)

❶ Use for special applications which require the safety, including nuclear energy, railways, aircrafts, marine vessels, vehicles, medicinal devices, devices or applications coming into contact with beverages or foodstuffs, amusement devices, emergency operations (cutoff circuits, opening etc.) circuits, press machines, brake circuits, or safety devices or applications.
❷ Use for applications where life or assets could be adversely affected and special safety measures are required.

3 Observe organization standards and regulations, etc. related to the safety of device design.

4 Never remove devices before confirming safety.

❶ Inspect and service on the machine and devices after confirming safety of the entire system related to this product.
❷ Note that there may be hot or charged sections even after operation is stopped.
❸ When inspecting or maintaining device, be sure to shut down the power supply of the equipment and the relevant power supply, using caution to avoid electric shock.

5 Observe instruction manual and precautions attached the product surely to prevent accidents.

❶ The product could operate unexpectedly during teaching operation or trial operation. Be especially careful not to touch the actuator. If operating the product from a position where the shaft body cannot be seen, be sure to first confirm that the safety is secured even if the actuator moves.

6 Observe precautions to prevent electric shock.

❶ Do not touch the heat sink, cement friction, or motor inside the controller.
These will heat up, and could cause burns. Wait an appropriate amount of time prior to performing inspections or other tasks.
A high voltage is applied until the electrical load stored in the internal capacitors is discharged after the power is turned OFF.
Do not touch for around three minutes after the power OFF.
❷ Make sure to turn the switch on the controller power supply source OFF, before maintenances and inspections.
There is a danger of high voltage electric shocks.
❸ Do not attach or remove connector, while the power is on. Otherwise, this may cause malfunction, failure, or electric shock.

7 Install an overcurrent protector.

The wiring to the driver should be in accordance with JIS B 9960-1:2019 (IEC 60204-1:2016) Safety of Machinery - Electrical Equipment of Machines - Part 1: General Requirements. Install an overcurrent protector (a circuit breaker or circuit protector for wiring) on the main power, control power, and I/O power.

(Reference: JIS B 9960-1 7.2.1 General description)
If there is a possibility the circuit current may exceed the rated value of the component or the allowable current of the conductor, an overcurrent protection must be provided. The details of the ratings or set values to be selected shall be provided in 7.2.10.

8 Observe precautions below to prevent accidents.

■ The precautions are ranked as "DANGER", "WARNING" and "CAUTION" in this section.

DANGER: When a dangerous situation may occur if handling is mistaken leading to fatal or serious injuries, and when there is a high degree of emergency to a warning.

WARNING: When a dangerous situation may occur if handling is mistaken leading to fatal or serious injuries.

CAUTION: When a dangerous situation may occur if handling is mistaken leading to minor injuries or physical damage.

Note that some items described as "CAUTION" may lead to serious results depending on the situation.
Every item provides important information and must be observed.

Warranty

1 Warranty period

The product specified herein is warranted for one (1) year from the date of delivery to the location specified by the customer.

2 Warranty coverage

If the product specified herein fails for reasons attributable to CKD within the warranty period specified above, CKD will promptly provide a replacement for the faulty product or a part thereof or repair the faulty product at one of CKD's facilities free of charge.

However, following failures are excluded from this warranty:

1) Failure caused by handling or use of the product under conditions and in environments not conforming to those stated in the catalog, the Specifications, or the Instruction Manual.
2) Failure caused by use of the product exceeding its durability (cycles, distance, time, etc.) or caused by consumable parts.
3) Failure not caused by the product.
4) Failure caused by use not intended for the product.
5) Failure caused by modifications/alterations or repairs not carried out by CKD.
6) Failure caused by reasons unforeseen at the level of technology available at the time of delivery.
7) Failure caused by acts of nature and disasters beyond control of CKD.

The warranty stated herein covers only the delivered product itself. Any loss or damage induced by failure of the delivered product is excluded from this warranty.

Note: For details on the durability and consumable parts, contact your nearest CKD sales office.

3 Compatibility confirmation

The customer is responsible for confirming the compatibility of CKD products with the customer's systems, machines and equipment.

4 Range of service

The delivered product price does not include engineer dispatch service fees. Separate fees will be charged in the following cases.

(1) Instruction of installation and adjustment, and presence on test operation
(2) Maintenance and inspection, adjustment, and repair
(3) Technical instructions and technical education (operation, program, wiring method, safety education, etc.)

Precautions for export

Products and related technologies in this catalog
Those of the products and related technologies in this catalog which are subject to US Export Administration Regulations
(EAR) are marked on the product page as "Product subject to the EAR (EAR99) or (EAR99 and 3A991)". For export or provision of products or related technologies subject to EAR regulations, we request that the US Export Administration Regulations (EAR) be observed appropriately.

Safety Precautions

Be sure to read this section before use.

Common precautions: Multi-Axis Controller for electric actuator ECMG Series

Design/Selection

1. Common

⚠ DANGER

- Do not use in places where dangerous goods such as ignitable substances, inflammable substances or explosives are present.
  There is a possibility of ignition, combustion or explosion.
- Ensure that the product is free of water droplets and oil droplets.
  Failure to do so may cause fire or malfunction.
- When mounting the product, be sure to hold and fix it securely (including workpieces).
  If the product falls, is knocked over, or experiences malfunction, it may lead to injury. As a rule, fix the product using all mounting holes.
- Use a DC stabilized power supply (24 VDC±10%) for power and control.
  Connecting directly to the AC power supply may cause fire, explosion, damage, etc.
- Use only 24 VDC power supply.
  Using a 48 V power supply may breakdown the controller.

⚠ WARNING

- Install indoors with low humidity.
  There is a risk of electric leakage or fire accidents in places exposed to rainwater or where there is high humidity (humidity of 80% or more, condensation). Oil drops and oil mist are also strictly prohibited. Use in such an environment could lead to damage or operation failure.
- Make sure that the product is D-type grounded (ground resistance of 100 Ω or less).
  If electrical leakage occurs, it may lead to electric shock or malfunction.
- Use and store in accordance with the working/storage temperatures and where there is no condensation.
  (Storage temperature: -10°C to 50°C, storage humidity: 35% to 80%, operating ambient temperature: 0°C to 40°C (10°C to 40°C for EBS-G and EBR-G) 35% to 80% of operating humidity) Product abnormal stop or service life may decrease. Ventilate in locations where heat may build up.
- Do not use this product in a location where the ambient temperature could suddenly change and cause dew to condense.
- Install in a location free from direct sunlight, dust, and corrosive gas/explosive gas/inflammable gas/combustibles, and away from heat sources. Chemical resistance of this product has not been taken into account.
  Failure to comply may lead to damage, explosion, or combustion.
- Use and store in locations free from strong electromagnetic waves, ultraviolet rays, or radiation.
  Otherwise, malfunction or damage may result.
- Do not operate in places where vibration and impact are common.

⚠ CAUTION

- Specify the maintenance conditions in the equipment instruction manual.
  The product's functionality may drop too low to maintain an appropriate safety level depending on usage conditions, working environment and maintenance status. With correct maintenance, the product functions can be used to the fullest.
- The product is manufactured in conformity with the related standards. Never disassemble or modify the product.
- The customer is responsible for confirming the compatibility of CKD products with the customer's systems, machines and equipment.
- Set up the wiring so as not to apply inductive noise.
  Avoid locations where large currents or strong magnetic fields are generated. Do not use the same wiring (with multi-conductor cables) as any large motor power lines other than that of this product. Do not use the same wiring as inverter power supplies used for robots, etc. Apply a frame ground for the power supply and insert the filter to the output part.
- Do not use this product in an environment where strong magnetic fields are generated.
  This could cause improper operation.
- Be sure to separate the power supply of the output of this product and the power supply of inductive loads that generate surges, such as solenoid valves and relays.
  If the power supply is shared, surge current may flow into the output and cause damage. If a separate power supply cannot be used, connect the surge absorber directly to all inductive loads in parallel.
- Select a power supply which provides ample capacity based on the number of installed products.
  Malfunction may occur if there is no margin for the capacity.
  Control power: Select so that the output rated current of the applicable power supply is 0.4 A × units or more. (Excluding end unit)
  Power supply: Select so that the output rated current or output peak current of the applicable power supply is equal to or more than the power supply maximum current (refer to page 16).
- A fixed cable cannot be used in applications where it is repeatedly bent. Use a movable cable in places where it is repeatedly bent.
- Secure the fixed cable so that it does not easily move. Use cables with a bending radius of 51 mm or more.
- For UL compliance, use a Class 2 power supply unit conforming to UL1310 for the combination DC power supply.
- Actuators EBS-G/EBR-G purchased before the release of this ECMG controller will not be supported.

Mounting, Installation and Adjustment

1. Common

⚠ DANGER

- The wiring should be in accordance with JIS B 9960-1: 2019 Safety of Machinery - Electrical Equipment of Machines - Part 1: General Requirements. Install an overcurrent protector (a circuit protector or a shutoff mechanism for wiring) for the primary side of the power supply.

- Do not operate the unit with wet hands.
  It may lead to electric shock.

- To prevent a frame ground (FG) of a personal computer from being grounded when the personal computer is connected.
  When using the controller with positive grounding, connecting the controller and peripheral equipment to the PC with a USB cable risks short-circuiting the DC power supply.

- To prevent a potential difference between C0V and M0V of a communication unit and M0V of a drive unit.
  C0V and M0V are not insulated, so parts may be damaged if a potential difference occurs.

⚠ WARNING

- Precision parts are built in, so laying the product on its side or applying vibration or impact during transportation are strictly prohibited.
  This may cause damage to the parts.

- Do not step onto the packaging or place objects on it.

- Avoid condensation, freezing, etc., and maintain ambient temperatures of -10 to 50°C and ambient humidity of 35 to 80% RH during transportation and shipping.
  Failure to do so may cause damage to the product.

- Mount the product on incombustible materials. Direct attachment or mounting to or near flammable materials may cause fire.
  There is a risk of burns.

- Do not step onto the product or place objects on it.
  This may result in falling, knocking the product over, injury due to falling, product damage and/or malfunctions due therein, etc.

- Take measures to prevent bodily injury or machine damage even in the event of a power outage.
  There is a risk of unexpected accidents.

- If the product generates abnormal heat, smoke or odor, turn OFF the power immediately.
  Otherwise, product may result in damage or fire.

- Wire the product securely while confirming with this catalog and the instruction manual and ensuring that there is no miswiring or loose connectors. Check wiring insulation.
  Due to contact with other circuits, ground faults and insulation failure between terminals, overcurrent may flow into the product and damage it. This could lead to malfunction or fire.

- Be sure to insulate unused wires.
  This may cause malfunction, failure, or electric shock.

- Do not damage the cable, snag it, apply excessive stress to it, or place heavy objects on it.
  Otherwise, poor conduction or electric shock may occur.

- Be sure to perform a safety check of the component's operating range before supplying power to the product. If the product LEDs do not light up when the power supply is turned ON, immediately turn the power OFF.
  Inadvertently supplying power can cause electric shock or injury.

⚠ CAUTION

- Regarding installing, setting up, and/or adjusting the actuator, read through the instruction manual and operate correctly.

- When installing the product, be sure to secure space for maintenance work.
  Otherwise, it may not be possible to conduct inspection and maintenance, leading to stoppage or damage of the device or injury during operation.

- Do not hold the product's movable parts or cables during transportation and installation.
  This may lead to injury or disconnection.

- When carrying the product, support it from the bottom.

- When transporting and mounting the product, ensure operator safety by supporting the product with a lift or other supporting tools, or working in pairs or more.

- Do not install in places where large vibration or impact is transmitted.
  It may lead to malfunction.

- When performing electric welding on the equipment to which the product is mounted, remove all F.G. (frame ground) wire connections to the product.
  If electric welding is performed with the F.G. connection attached, the product may be damaged by welding current, excessively high voltage during welding, or surge voltage. When installing the product, be sure to secure space for maintenance work.

■ Do not disassemble or modify the product.
This may cause injury, accident, malfunction or failure.

■ Do not bend the fixing cable repeatedly.
If the cable needs to be repeatedly bent, use a movable cable.

■ Fix the fixed cable so that it does not easily move. Use cables with a bending radius of 51 mm or more.
Because the bending radius does not apply to bending of the connector part, we recommend fixing near the connector.

■ Avoid use in locations exposed to ultraviolet rays or with atmospheres of corrosive gas or salt.
Otherwise, degradation of performance, abnormal operation or deterioration in strength due to rust may result.

■ Make sure to use the dedicated cable for connecting between the actuator and controller.
Mistakenly connecting another component may cause malfunction or failure.

■ When wiring, do not apply excessive force to the connectors.

■ Do not push hard on the controller case.

■ Use a cable less than 10 m to connect the IF connector.

■ Install the controller so that the exhaust port faces up and down and the power supply connector of the front panel faces down. Consider natural convection as the heat dissipation space, and secure a space of 50 mm or more in both the top and bottom surfaces.

■ Check that foreign matter, such as screws, does not enter from the opening of the product.
This may cause product damage or fire.

Use/Maintenance

1. Common

⚠ DANGER

■ Do not operate the unit with wet hands.
It may lead to electric shock.

⚠ WARNING

■ Wiring work and inspection should be done by a specialized technician.

■ When performing maintenance, inspection and repair, stop the power supply to this product.
Caution people in the vicinity that a third party should not turn ON the power inadvertently.

■ Do not attach or detach wiring or connectors with the power supply ON.
This may cause malfunction, failure, or electric shock.

■ For wiring work and inspection, check the voltage with a tester after more than 5 minutes have elapsed since turning OFF the power.
It may lead to electric shock.

■ Mount the product before wiring.
It may lead to electric shock.

■ Make sure that the diameter of the wire used for the power cable can tolerate up to the sum of the motor section max. instantaneous current according to the actuator used.
Otherwise, heat generation or damage during operation may be caused.

■ Do not connect the product's communication connector to other components.
Doing so may cause failure or damage.

■ Turn OFF the power supply in the event of a power failure. When the power is restored, the product may move unexpectedly and cause accidents.

■ Do not touch the product with hands or body during operation or immediately after stopping.
This may cause burns.

■ Do not step onto the product or place objects on it.
This may result in falling, knocking the product over, injury due to falling, product damage, malfunctions due thereto, etc.

■ Take measures to prevent bodily injury or machine damage even in the event of a power breakdown.
There is a risk of unexpected accidents.

■ If the product generates abnormal heat, smoke or odor, turn OFF the power immediately.
Otherwise, product may result in damage or fire.

■ Stop operation immediately when abnormal noise or major vibration occurs.
Otherwise, product damage or abnormal operation may result.

⚠ CAUTION

■ Do not put fingers or objects into the opening of the product.
This may cause product damage or injury.

■ Do not disassemble or modify the product.
This may cause injury, accident, malfunction or failure.

■ When disposing of the product, comply with laws pertaining to waste treatment and cleaning. Consign it to a specialized waste disposal company for processing.

■ The circuit board inside the product has capacitors connected between the circuits and the metal body to prevent damage due to static electricity. Avoid withstand voltage and insulation resistance tests on equipment with this product installed. If tests are done, the product will be damaged. If necessary for the equipment, remove the product before doing the test.

■ If the actuator and controller combination is changed, be sure to confirm the programs and parameters prior to operation.
Otherwise, there is a risk of unexpected accidents.

■ Frequently turning the power ON/OFF can cause damage to the elements inside the controller.
Repeatedly energizing and shutting OFF the power can shorten the life of capacitors and other components. In addition, if there is no more than a one-second interval between the power being cut OFF and the power being turned ON again, the product may be damaged by the surge voltage.

■ Do not operate in excess of the maximum load capacity.
The elements inside the controller may overheat and be damaged.

■ If heat could leak due to heat generated from components in the area, install a fan on the control panel, etc., to maintain an ambient temperature of 0 to 40°C.
This may cause burns or fire.

Related products ECMG compatible actuators

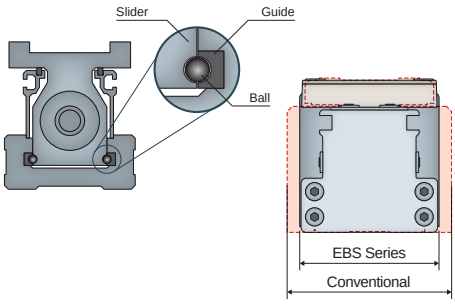
●Slider

EJSG/EBS-G

Main specifications

- □35 to □56 Stepper motor equipped
- Max. load capacity: Horizontal 80kg
  Vertical: 43.3 kg
- Max. speed 1120 mm/s
- Maximum acceleration/deceleration 1 G
  Max. stroke 1100 mm

Compact body with high rigidity
Smaller equipment footprint



		Conventional	EJSG-05
Body width		64 mm	54 mm
Static allow-able moment	MP	25.7 N·m	103 N·m
	MY	25.7 N·m	103 N·m
	MR	58 N·m	144 N·m

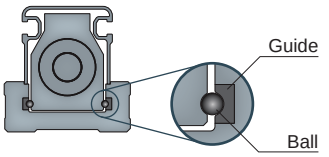
● Rod with built-in guide

EBR-G

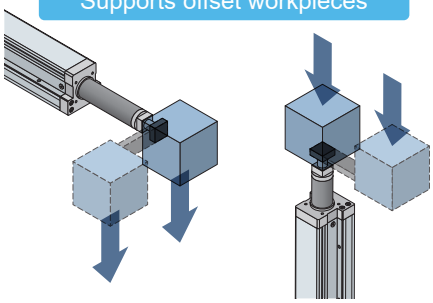
Main specifications

- □35 to □56 Stepper motor equipped
- Max. load capacity: Horizontal 80kg
  Vertical: 55 kg
- Max. speed 1000 mm/s
- Maximum acceleration/deceleration 1 G
  Max. stroke 700 mm

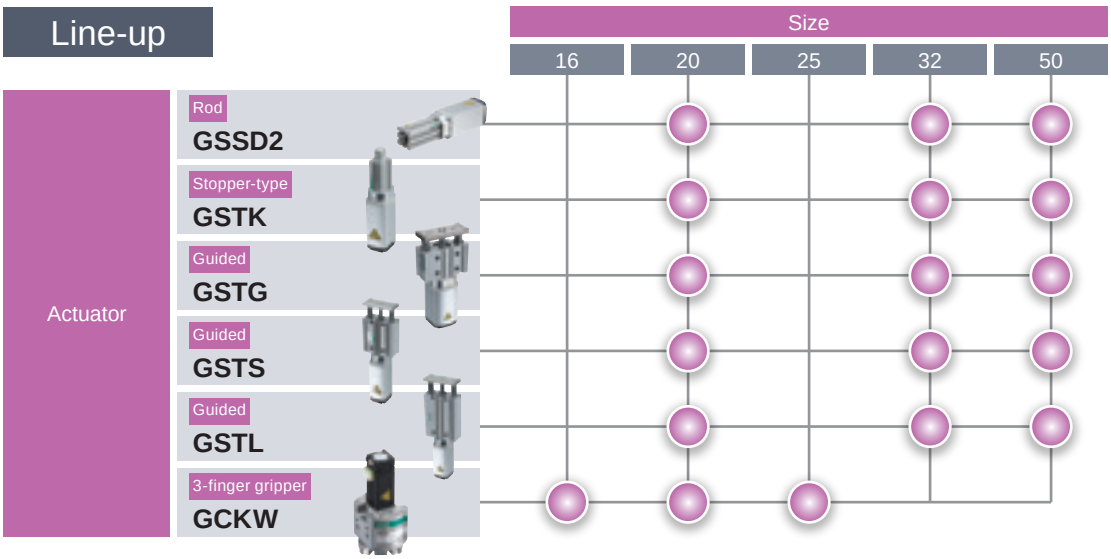
Built-in guide, no need for an additional guide



Supports offset workpieces



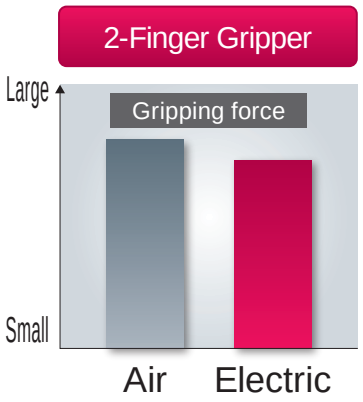
● The same body as Air Components enable high rigidity for the G Series.



● 2-Finger Gripper
FLSH-G

Main specifications
- □ 20 to □ 25L stepping motor equipped
- Max. gripping force: 65 N/finger
- Max. stroke: 22 mm (one side 11 mm)
- With optional rubber cover: Finger shape

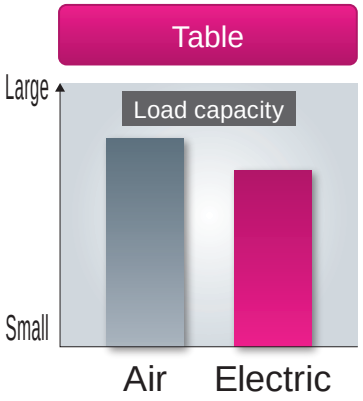
Compatible mounting with Air Components
Achieves equivalent capabilities



●Table
FLCR-G

Main specifications
- □ 20 to □ 25L stepping motor equipped
- Max. load capacity: Horizontal 11 kg
  Vertical: 8.5 kg
- Max. speed 300 mm/s
- Max. stroke 100 mm
- Option With brake

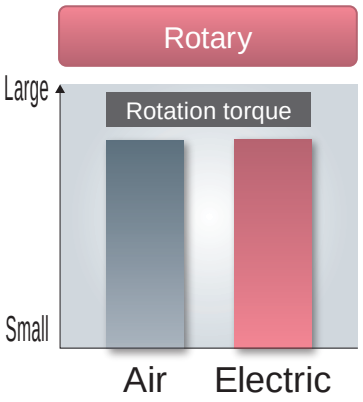
Dimensional compatibility with Air Components
Achieved equivalent capabilities



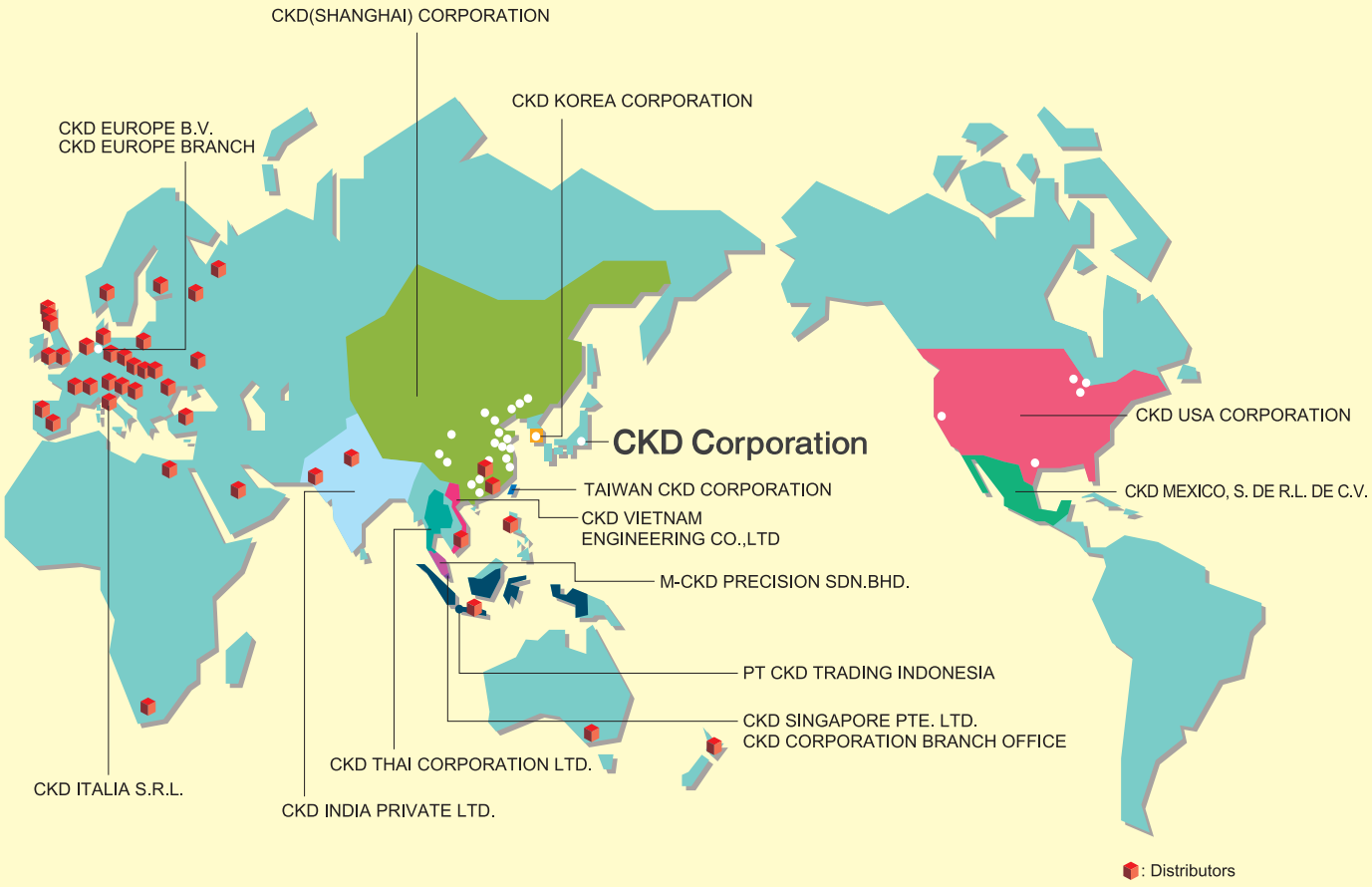
●Rotary
FGRC-G

Main specifications
- □ 20 to □ 35 stepping motor equipped
- Max. output torque: 4.66 N·m
- Max. allowable moment of inertia: 0.0297 kg·m^2
- Max. speed: 200 deg/s

More compact than Air Components
Achieved equivalent capabilities



WORLD-NETWORK



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Revision details
- Added compatible actuator (G Series)

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