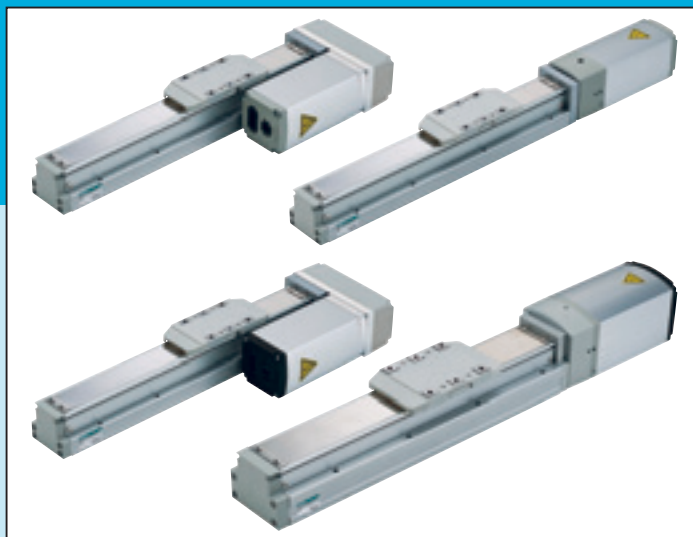


EBS-M/G

Electric actuator
Motor specifications

Slider



CONTENTS

Product introduction	Intro Page
Series variation	2
● Specifications/How to order/Dimensions	
· EBS-04*	6
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⚠ Safety precautions	116
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EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

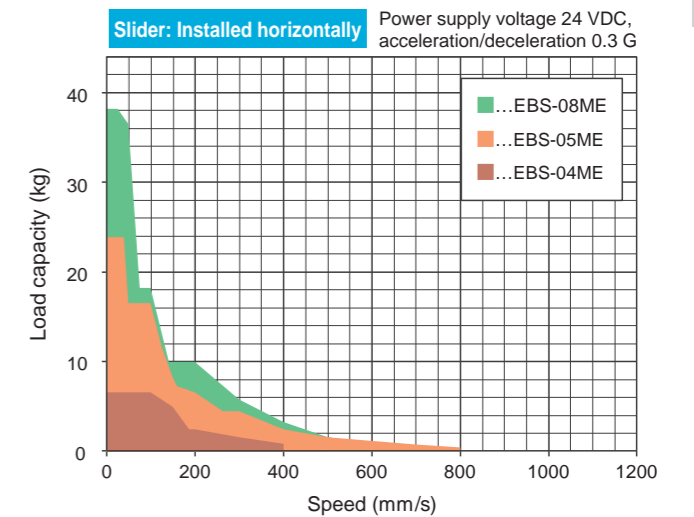
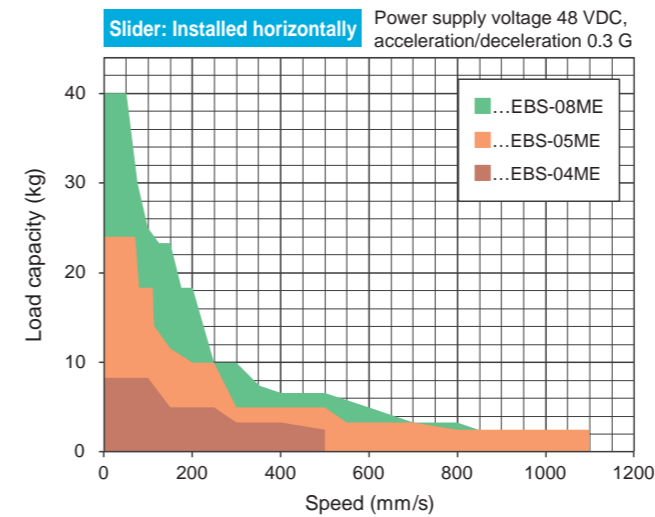
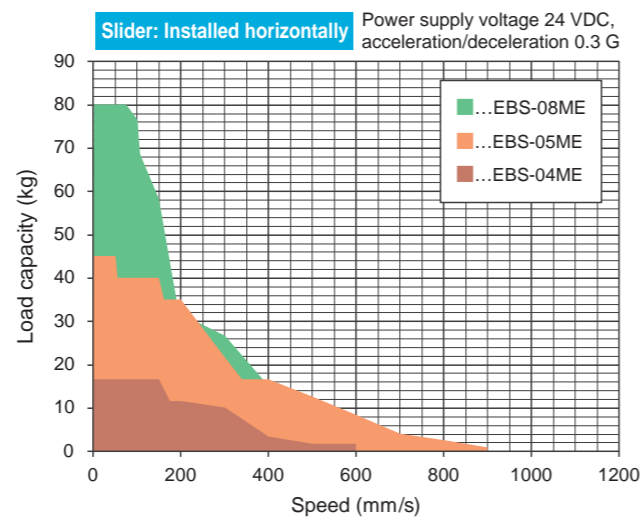
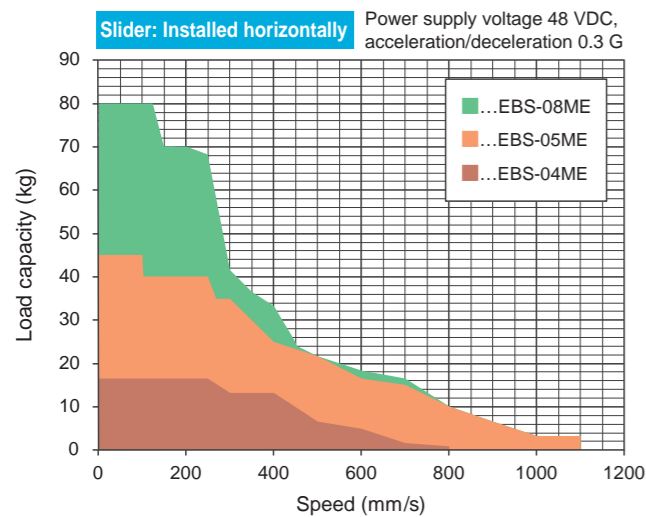
ECG-A
(Controller)

Safety
precautions

Series variation

Controller	Actuator model No.	Motor size	Motor mounting direction	Body width (mm)	Screw lead (mm)	Max. load capacity (kg)		Max. pressing force (N)	Stroke (mm) and max. speed (mm/s)																Page								
						Horizontal	Vertical		50 mm	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800		850	900	950	1000	1050	1100	1150	1200
									400 mm/s																								
EBS (With motor)	EBS-04ME-06	□35	Straight	44	6	16.6	8.3	177	400 mm/s																6								
	EBS-04ME-12				12	13.3	3.3	89	800																								
	EBS-04MR/D/L-06				Left/Right/Bottom	6	16.6	8.3	177	400																							
	EBS-04MR/D/L-12					12	13.3	3.3	89	700																							
EBR (With motor)	EBS-05ME-02	□42	Straight	54	2	45	24	385	130					120	105	95	80	70											16				
	EBS-05ME-05				5	40	16.6	250	300					270	235	200	185																
	EBS-05ME-10				10	35	8.3	121	700					625	540	475	415	370															
	EBS-05ME-20				20	16.6	4.5	44	1100					1080	950	830	740																
ECR (Controller)	EBS-05MR/D/L-02	□42	Left/Right/Bottom	54	2	45	24	385	130					120	105	95	80	70											20				
	EBS-05MR/D/L-05				5	40	16.6	250	300					270	235	200	185																
	EBS-05MR/D/L-10				10	35	8.3	121	600					540	475	415	370																
	EBS-05MR/D/L-20				20	16.6	4.5	44	1100					1080	950	830	740																
ECG-A (Controller)	EBS-08ME-05	□56	Straight	82	5	80	40	970	250					220					200	180	135	120	110	100						26			
	EBS-08ME-10				10	70	18.3	477	550					510					450	410	370	270	240	225	200								
	EBS-08ME-20				20	43.3	10	250	1100					1000					910	820	740	540	490	450	410								
	EBS-08MR/D/L-05		Left/Right/Bottom		5	80	40	970	225					220					200	180	135	120	110	100						30			
	EBS-08MR/D/L-10				10	70	18.3	477	550					510					450	410	370	270	240	225	200								
	EBS-08MR/D/L-20				20	43.3	8.3	250	1000					910					820	740	540	490	450	410									

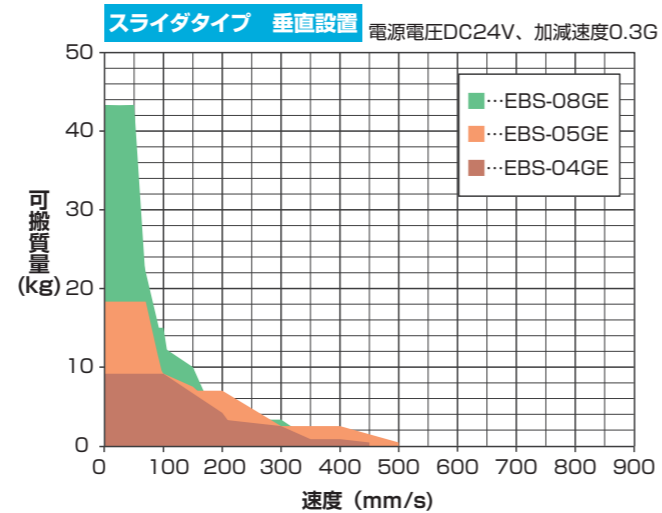
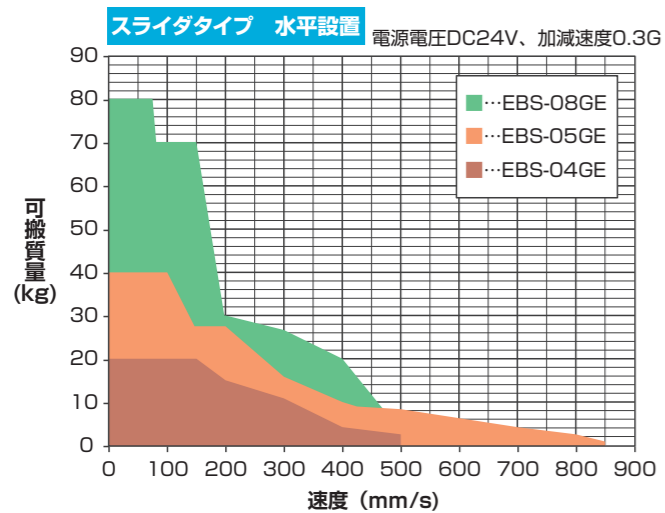
* This data is at power supply voltage 48 VDC and acceleration/deceleration 0.3 G.
* The load capacity when wall mounted is the same as for horizontal installation.

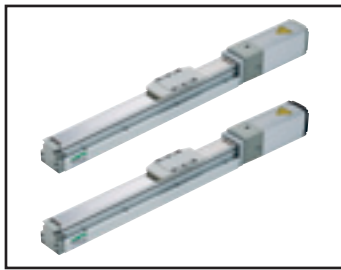


Series variation

Controller	Actuator model No.	Motor size	Motor mounting direction	Body width (mm)	Screw lead (mm)	Max. load capacity (kg)		Max. pressing force (N)	Stroke (mm) and max. speed (mm/s)																Page									
						Horizontal	Vertical		50 mm	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800		850	900	950	1000	1050	1100	1150	1200	
									320 mm/s																									
EBS (With motor)	EBS-04GE-06	□35	Straight	44	6	20.0	9.2	155	320 mm/s																6									
	EBS-04GE-12				12	15.0	3.3	77	500																									
	EBS-04GR/D/L-06				6	20.0	9.2	155	250																									
	EBS-04GR/D/L-12				12	11.7	3.3	77	400																									
EBR (With motor)	EBS-05GE-02	□42	Straight	54	2	45.0	18.3	550	120				105				95				80				70				16					
	EBS-05GE-05				5	40.0	14.0	220	290				270				235				200				185									
	EBS-05GE-10				10	27.5	7.0	110	500				475				415				370													
	EBS-05GE-20				20	18.3	2.5	55	850				830				740																	
	EBS-05GR/D/L-02				2	45.0	18.3	550	100				95				80				70													
	EBS-05GR/D/L-05				5	40.0	10.0	220	250				235				200				185													
	EBS-05GR/D/L-10				10	27.5	3.3	110	400				370																					
	EBS-05GR/D/L-20				20	18.3	0.8	55	700																									
ECR (Controller)	EBS-05GR/D/L-02	□42	Left/Right/Bottom	54	2	45.0	18.3	550	100				95				80				70				20									
	EBS-05GR/D/L-05				5	40.0	10.0	220	250				235				200				185													
	EBS-05GR/D/L-10				10	27.5	3.3	110	400				370																					
	EBS-05GR/D/L-20				20	18.3	0.8	55	700																									
	ECG-A (Controller)				EBS-08GE-05	□56	Straight	82	5	80.0	43.3	965	150				135				120					110				100				26
					EBS-08GE-10				10	70.0	28.3	482	250				240				225					200								
					EBS-08GE-20				20	30.0	3.3	241	500				490				450					410								
					EBS-08GR/D/L-05				5	80.0	33.3	965	125				120				110					100								
EBS-08GR/D/L-10		10	70.0	18.3	482				250				240				225				200													
EBS-08GR/D/L-20		20	30.0	3.3	241				400																									
ECG Series		EBS-08GR/D/L-05	□56	Left/Right/Bottom	82				5	80.0	33.3	965	125				120				110				100				30					
		EBS-08GR/D/L-10							10	70.0	18.3	482	250				240				225				200									
	EBS-08GR/D/L-20	20				30.0	3.3	241	400																									

* This data is at power supply voltage 24 VDC and acceleration/deceleration 0.3 G.
 * The load capacity when wall mounted is the same as for horizontal installation.





Electric actuator Slider EBS-04*E

Straight motor mounting

35 stepper motor



How to order

EBS - 04 M E - 06 0300 N A N - C S03

A Body size	E Stroke length	H Relay cable *3
04 Body width 44 mm	0050 to 0500 50 mm (In 50 mm increments) 500 mm	N00 None
B Applicable controller *1	F Brake *2	S01 Fixing cable 1 m
M ECR	N None	S03 Fixing cable 3 m
G ECG	B Yes	S05 Fixing cable 5 m
C Motor mounting direction	G Encoder *1	S10 Fixing cable 10 m
E Straight mounting	A Battery-less absolute encoder (for ECR)	R01 Movable cable 1 m
D Screw lead	B Battery-less absolute encoder (for ECG)	R03 Movable cable 3 m
06 6 mm	C Incremental encoder (for ECG)	R05 Movable cable 5 m
12 12 mm		R10 Movable cable 10 m

- *1 Select the controller from page 93 or page 105. Select encoder "A" when an ECR controller is selected and "B" or "C" when an ECG controller is selected.
- *2 Select "Yes" for vertical use.
- *3 Refer to page 103 for ECR and page 116 for ECG relay cable dimensions.

Product subject to the EAR (EAR99)

Specifications

[EBS-04M (applicable controller ECR)]

Motor	<input type="checkbox"/> 35 stepper motor	
Encoder type	Battery-less absolute encoder	
Drive method	Ball screw \varnothing 10	
Stroke length mm	50 to 500	
Thread lead mm	6	12
Max. load capacity kg *1*2	Horizontal 16.6 (16.6)	Vertical 13.3 (11.6)
	Horizontal 8.3 (6.6)	Vertical 3.3 (2.5)
Operation speed range*3*4 mm/s	7 to 400 (200)	15 to 800 (600)
Maximum pressing force N	177	89
Press operation speed range mm/s	5 to 25	5 to 30
Repeatability mm	\pm 0.01	
Lost motion mm	0.1 or less	
Static allowable moment N·m	MP:62 MY:62 MR:92	
Motor power supply voltage	24 VDC \pm 10% or 48 VDC \pm 10%	
Motor section max. instantaneous current A	4.0	
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC \pm 10%
	Power consumption W	7
	Holding force N	126 63

[EBS-04G (applicable controller ECG)]

Motor	<input type="checkbox"/> 35 stepper motor	
Encoder type	Battery-less absolute encoder Incremental encoder	
Drive method	Ball screw \varnothing 10	
Stroke length mm	50 to 500	
Thread lead mm	6	12
Max. load capacity kg *1	Horizontal 20.0	Vertical 15.0
	Horizontal 9.2	Vertical 3.3
Operation speed range*2 mm/s	7 to 320	15 to 500
Maximum pressing force N	155	77
Press operation speed range mm/s	5 to 20	5 to 20
Repeatability mm	\pm 0.01	
Lost motion mm	0.1 or less	
Static allowable moment N·m	MP:62 MY:62 MR:92	
Motor power supply voltage	24 VDC \pm 10%	
Motor section max. instantaneous current A	2.4	
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC \pm 10%
	Power consumption W	6.1
	Holding force N	140 70

- *1 The values in () are at 24 VDC.
- *2 Load capacity varies according to acceleration/deceleration and speed. Refer to page 42 for details.
- *3 The maximum speed values in () are at 24 VDC.
- *4 The maximum speed may decrease depending on the conditions.

- *1 Load capacity varies according to acceleration/deceleration and speed. Refer to page 44 for details.
- *2 The maximum speed may decrease depending on the conditions.

[Common specifications]

Insulation resistance	10M Ω , 500 VDC
Withstand voltage	500 VAC for 1 minute
Operating ambient temperature, humidity *	0 to 40 °C (no freezing) 35 to 80% RH (no condensation)
Storage ambient temperature, humidity	-10 to 50 °C (no freezing) 35 to 80% RH (no condensation)
Atmosphere	No corrosive gas, explosive gas, or dust
Degree of protection	IP40

* The operating ambient temperature of EBS-**G is 10°C to 40°C.

Stroke and max. speed

[EBS-04M (applicable controller ECR)]

Thread lead	Power supply voltage	Stroke length
		50 to 500
6	48 VDC	400
	24 VDC	200
12	48 VDC	800
	24 VDC	600

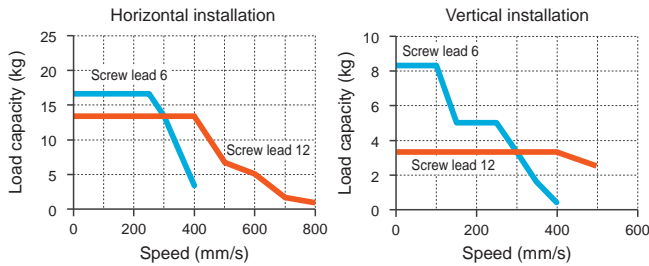
[EBS-04G (applicable controller ECG)]

Thread lead	Power supply voltage	Stroke length
		50 to 500
6	24 VDC	320
12	24 VDC	500

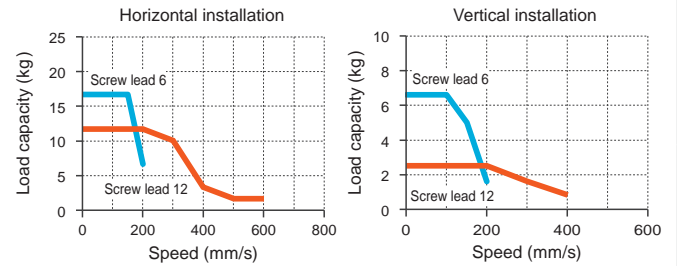
Speed and load capacity

[EBS-04M (applicable controller ECR)]

· At 48 VDC

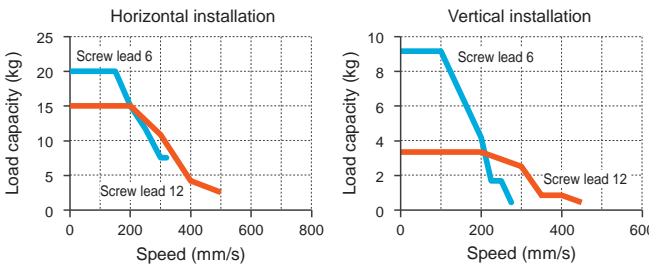


· At 24 VDC



[EBS-04G (applicable controller ECG)]

· At 24 VDC



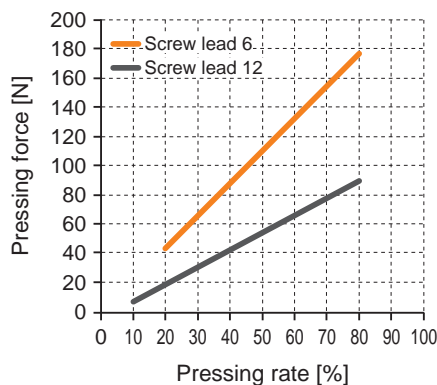
* Incorrectly applying a 48 VDC power supply could result in damage.

* At acceleration of 0.3 G.

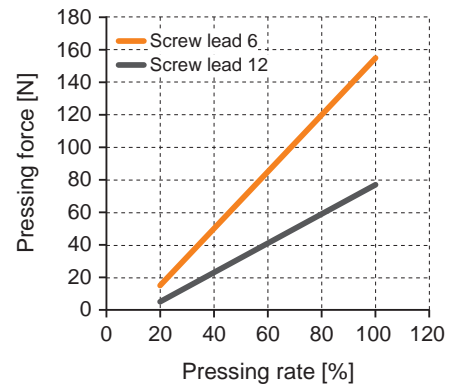
* Confirm each of the pages listed below for details.
ECR: Page 42
ECG: Page 44

Pressing force

[EBS-04M (applicable controller ECR)]



[EBS-04G (applicable controller ECG)]



* The above pressing force is a reference value. Variation may occur according to conditions such as pressing speed.

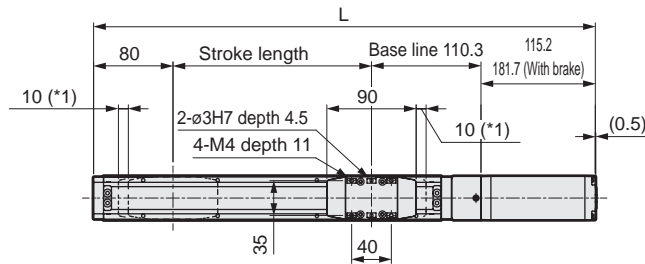
EBS-04*E

Dimensions: Straight motor mounting

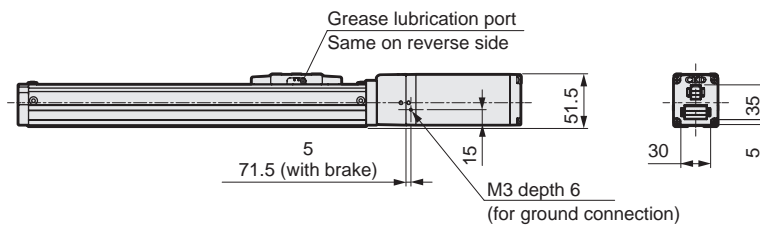
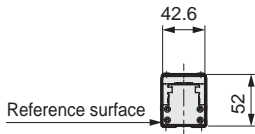
● EBS-04*E

EBS
(With motor)

*1 Operating range to the mechanical stopper

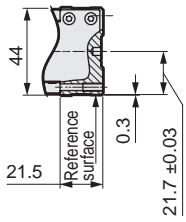


EBR
(With motor)

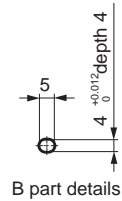
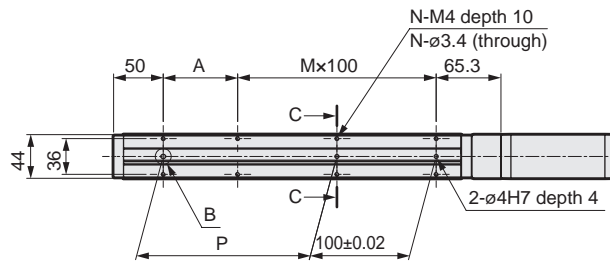


ECR
(Controller)

ECG-A
(Controller)



C-C cross-section (detail)



B part details

Safety
precautions

Stroke code		0050	0100	0150	0200	0250	0300	0350	0400	0450	0500
Stroke length (mm)		50	100	150	200	250	300	350	400	450	500
L	Without brake	355.5	405.5	455.5	505.5	555.5	605.5	655.5	705.5	755.5	805.5
	With brake	422	472	522	572	622	672	722	772	822	872
A		25	75	25	75	25	75	25	75	25	75
M		1	1	2	2	3	3	4	4	5	5
N		6	6	8	8	10	10	12	12	14	14
P		25	75	125	175	225	275	325	375	425	475
Weight (kg)	Without brake	1.5	1.6	1.8	1.9	2.0	2.2	2.3	2.4	2.6	2.7
	With brake	2.0	2.1	2.3	2.4	2.5	2.7	2.8	2.9	3.1	3.2

Notes

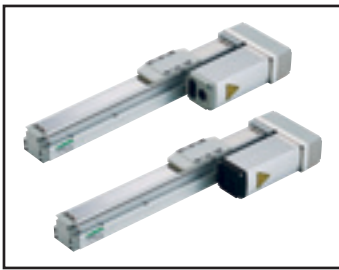
EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

ECG-A
(Controller)

Safety
precautions



Electric actuator Slider EBS-04**

Motor side mounting (left, right, bottom)

35 stepper motor



How to order

EBS - 04 M R - 06 0300 N A N - C S03

A Body size	B Applicable controller *1	C Motor mounting direction *2	D Screw lead	E Stroke length *2	F Brake *3	G Encoder *1	H Relay cable *4
04 Body width 44 mm	M ECR G ECG	R Right mounting D Bottom mounting L Left mounting	06 6 mm 12 12 mm	0050 to 0500 50 mm (In 50 mm increments) 500 mm	N None B Yes	A Battery-less absolute encoder (for ECR) B Battery-less absolute encoder (for ECG) C Incremental encoder (for ECG)	N00 None S01 Fixing cable 1 m S03 Fixing cable 3 m S05 Fixing cable 5 m S10 Fixing cable 10 m R01 Movable cable 1 m R03 Movable cable 3 m R05 Movable cable 5 m R10 Movable cable 10 m

*1 Select the controller from page 93 or page 105.

Select encoder "A" when an ECR controller is selected and "B" or "C" when an ECG controller is selected.

*2 If "D" is selected for the motor mounting direction, select a stroke length from "0250 (250 mm)" to "0500 (500 mm)".

*3 Select "Yes" for vertical use.

*4 Refer to page 103 for ECR and page 116 for ECG relay cable dimensions.

Product subject to the EAR (EAR99)

Specifications

[EBS-04M (applicable controller ECR)]

Motor	<input type="checkbox"/> 35 stepper motor	
Encoder type	Battery-less absolute encoder	
Drive method	Ball screw \varnothing 10	
Stroke length	mm 50 to 500	
Thread lead	mm 6	mm 12
Max. load capacity *1*2	kg Horizontal 16.6 (16.6)	kg Vertical 13.3 (11.6)
	kg Horizontal 8.3 (6.6)	kg Vertical 3.3 (2.5)
Operation speed range*3*4	mm/s 7 to 400 (200)	mm/s 15 to 700 (500)
Maximum pressing force N	177	89
Press operation speed range	mm/s 5 to 25	mm/s 5 to 30
Repeatability	mm \pm 0.01	
Lost motion	mm 0.1 or less	
Static allowable moment	N·m MP: 62, MY: 62, MR: 92	
Motor power supply voltage	24 VDC \pm 10% or 48 VDC \pm 10%	
Motor section max. instantaneous current	A 4.0	
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC \pm 10%
	Power consumption	W 7
	Holding force	N 126 63

*1 The values in () are at 24 VDC.

*2 Load capacity varies according to acceleration/deceleration and speed. Refer to page 42 for details.

*3 The maximum speed values in () are at 24 VDC.

*4 The maximum speed may decrease depending on the conditions.

[Common specifications]

Insulation resistance	10M Ω , 500 VDC
Withstand voltage	500 VAC for 1 minute
Operating ambient temperature, humidity *	0 to 40 °C (no freezing) 35 to 80% RH (no condensation)
Storage ambient temperature, humidity	-10 to 50 °C (no freezing) 35 to 80% RH (no condensation)
Atmosphere	No corrosive gas, explosive gas, or dust
Degree of protection	IP40

[EBS-04G (applicable controller ECG)]

Motor	<input type="checkbox"/> 35 stepper motor	
Encoder type	Battery-less absolute encoder Incremental encoder	
Drive method	Ball screw \varnothing 10	
Stroke length	mm 50 to 500	
Thread lead	mm 6	mm 12
Max. load capacity *1	kg Horizontal 20.0	kg Vertical 11.7
	kg Horizontal 9.2	kg Vertical 3.3
Operation speed range*2	mm/s 7 to 250	mm/s 15 to 400
Maximum pressing force N	155	77
Press operation speed range	mm/s 5 to 20	mm/s 5 to 20
Repeatability	mm \pm 0.01	
Lost motion	mm 0.1 or less	
Static allowable moment	N·m MP: 62, MY: 62, MR: 92	
Motor power supply voltage	24 VDC \pm 10%	
Motor section max. instantaneous current	A 2.4	
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC \pm 10%
	Power consumption	W 6.1
	Holding force	N 140 70

*1 Load capacity varies according to acceleration/deceleration and speed. Refer to page 44 for details.

*2 The maximum speed may decrease depending on the conditions.

* The operating ambient temperature of EBS-**G is 10°C to 40°C.

Stroke and max. speed

[EBS-04M (applicable controller ECR)]

Thread lead	Power supply voltage	Stroke length
		(mm/s)
6	48 VDC	50 to 500
	24 VDC	50 to 500
12	48 VDC	50 to 500
	24 VDC	50 to 500

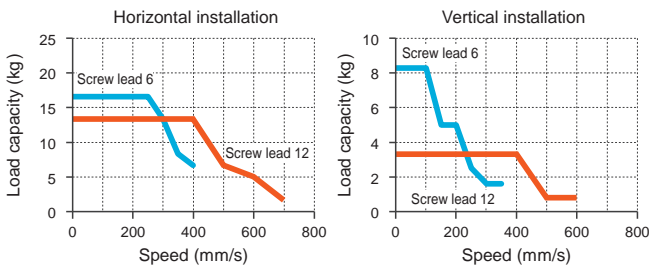
[EBS-04G (applicable controller ECG)]

Thread lead	Power supply voltage	Stroke length
		(mm/s)
6	24 VDC	50 to 500
12	24 VDC	50 to 500

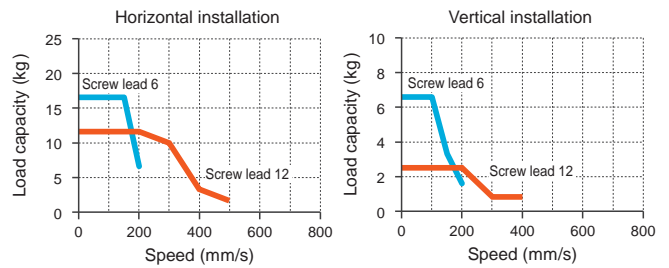
Speed and load capacity

[EBS-04M (applicable controller ECR)]

· At 48 VDC

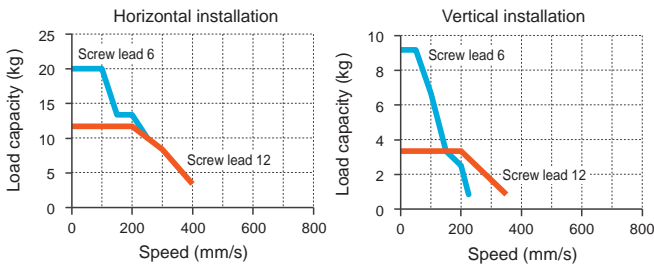


· At 24 VDC



[EBS-04G (applicable controller ECG)]

· At 24 VDC



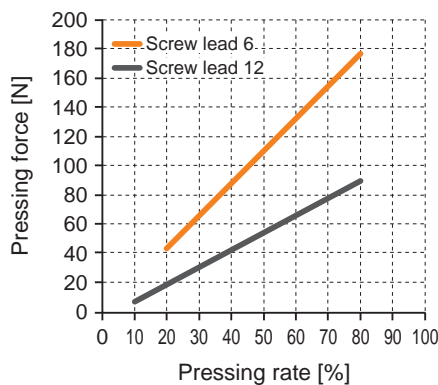
* Incorrectly applying a 48 VDC power supply could result in damage.

* At acceleration of 0.3 G.

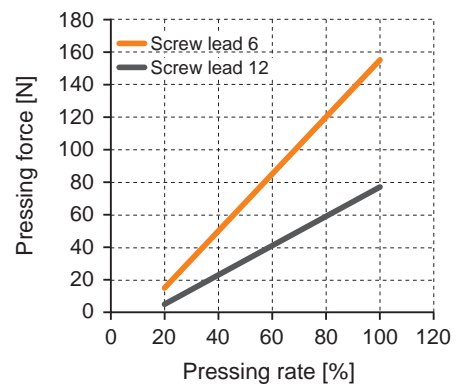
* Confirm each of the pages listed below for details.
ECR: Page 42
ECG: Page 44

Pressing force

[EBS-04M (applicable controller ECR)]



[EBS-04G (applicable controller ECG)]



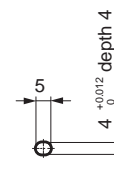
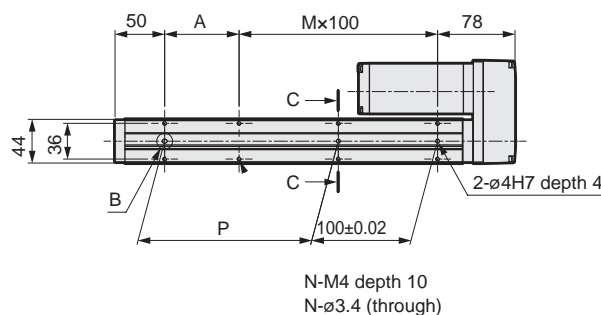
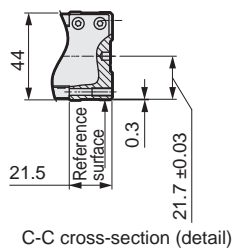
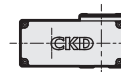
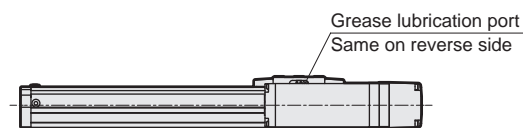
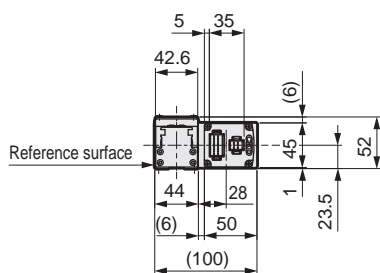
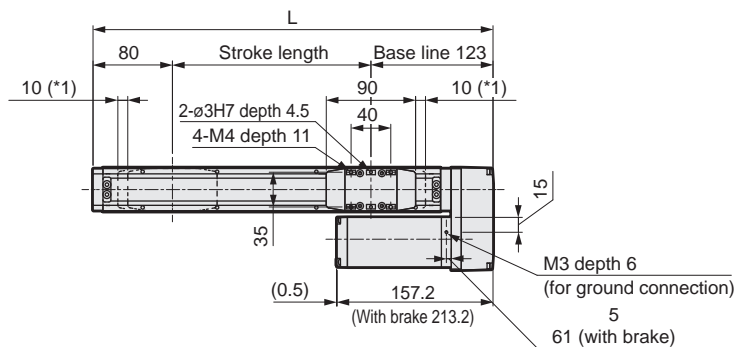
* The above pressing force is a reference value. Variation may occur according to conditions such as pressing speed.

EBS-04**

Dimensions: Motor right-side mounting

● EBS-04*R

*1 Operating range to the mechanical stopper



B part details

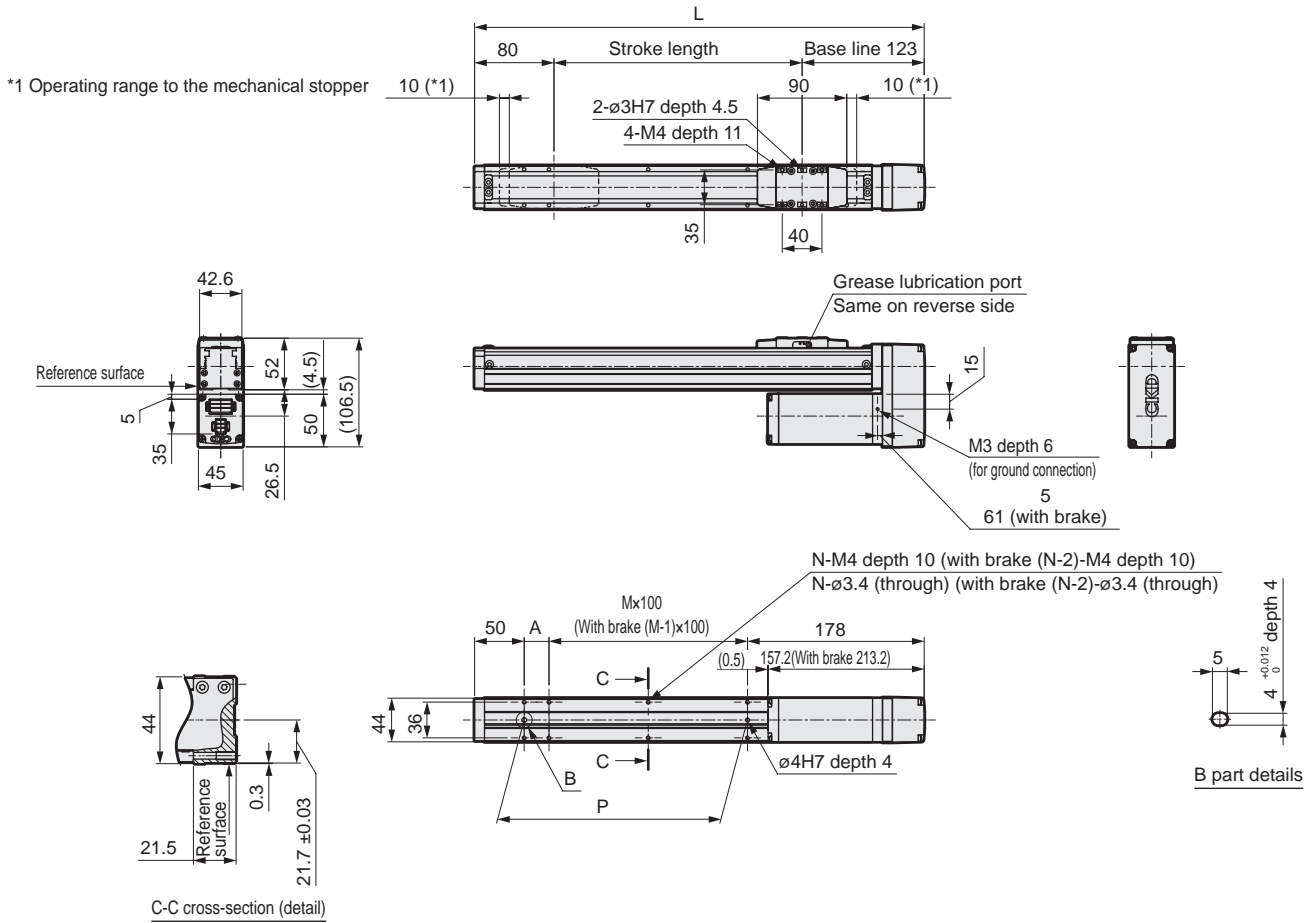
N-M4 depth 10
N-ø3.4 (through)

Stroke code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500
L	253	303	353	403	453	503	553	603	653	703
A	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5
N	6	6	8	8	10	10	12	12	14	14
P	25	75	125	175	225	275	325	375	425	475
Weight (kg)	Without brake	1.7	1.9	2.0	2.2	2.4	2.6	2.7	2.9	3.1
	With brake	2.2	2.4	2.5	2.7	2.9	3.1	3.2	3.4	3.6

Safety precautions

Dimensions: Motor bottom mounting

● EBS-04*D



Stroke code	0250	0300	0350	0400	0450	0500	
Stroke length (mm)	250	300	350	400	450	500	
L	453	503	553	603	653	703	
A	25	75	25	75	25	75	
M	2	2	3	3	4	4	
N	8	8	10	10	12	12	
P	225	275	325	375	425	475	
Weight (kg)	Without brake	2.4	2.6	2.7	2.9	3.1	3.3
	With brake	2.9	3.1	3.2	3.4	3.6	3.8

EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

ECG-A
(Controller)

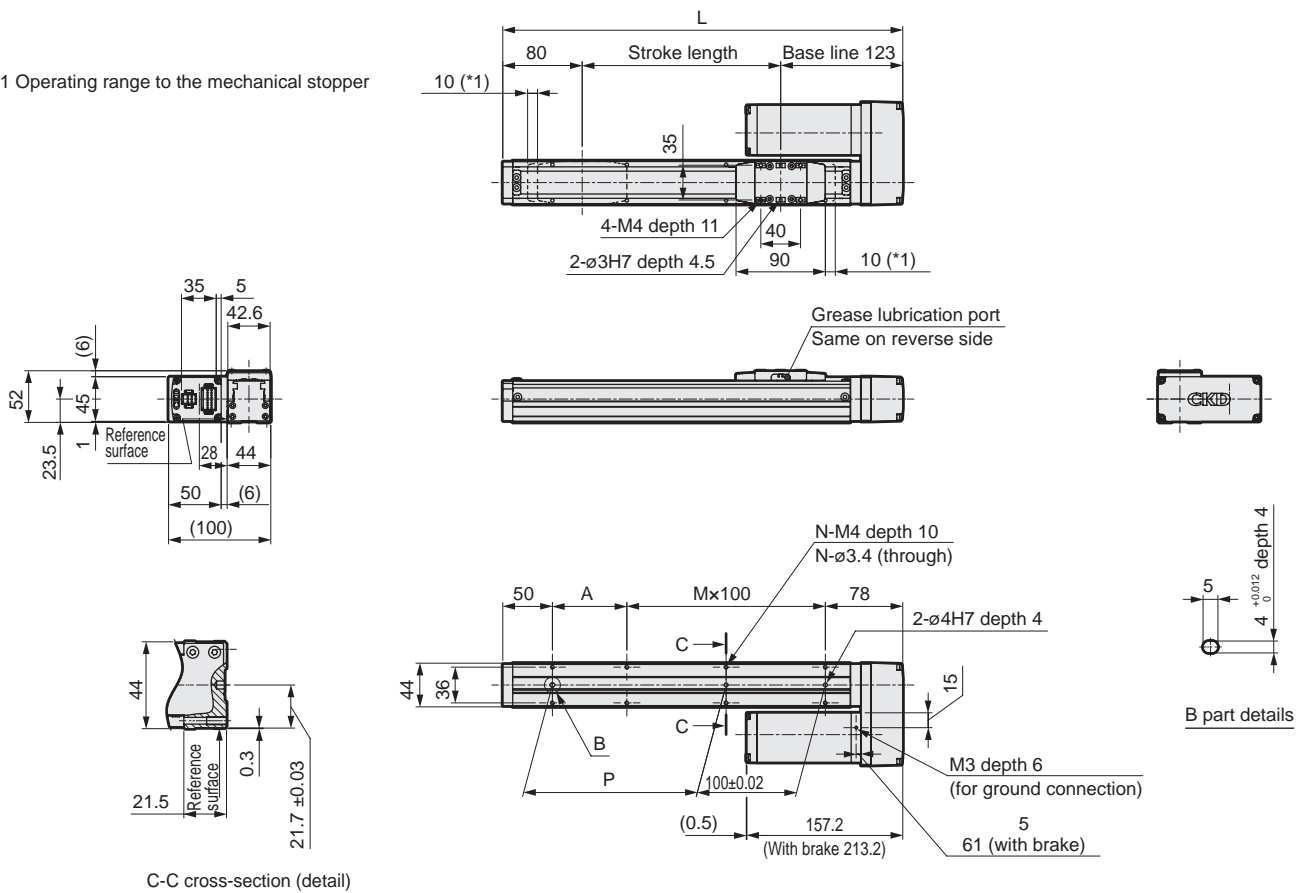
Safety
precautions

EBS-04**

Dimensions: Motor left-side mounting

● EBS-04*L

*1 Operating range to the mechanical stopper



Stroke code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	
L	253	303	353	403	453	503	553	603	653	703	
A	25	75	25	75	25	75	25	75	25	75	
M	1	1	2	2	3	3	4	4	5	5	
N	6	6	8	8	10	10	12	12	14	14	
P	25	75	125	175	225	275	325	375	425	475	
Weight (kg)	Without brake	1.7	1.9	2.0	2.2	2.4	2.6	2.7	2.9	3.1	3.3
	With brake	2.2	2.4	2.5	2.7	2.9	3.1	3.2	3.4	3.6	3.8

Notes

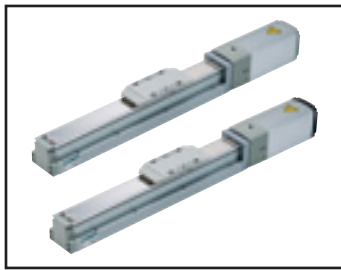
EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

ECG-A
(Controller)

Safety
precautions



Electric actuator Slider EBS-05*E

Straight motor mounting

42 Stepper motor



How to order

EBS - **05** **M** **E** - **05** **0300** **N** **A** **N - C** **S03**

A Body size

05	Body width 54mm
-----------	-----------------

B Applicable controller *1

M	ECR
G	ECG

C Motor mounting direction

E	Straight mounting
----------	-------------------

D Screw lead

02	2 mm
05	5 mm
10	10 mm
20	20 mm

E Stroke length

0050 to 0800	50 mm (In 50 mm increments) 800 mm
---------------------	------------------------------------

F Brake *2

N	None
B	Yes

G Encoder *1

A	Battery-less absolute encoder (for ECR)
B	Battery-less absolute encoder (for ECG)
C	Incremental encoder (For ECG)

H Relay cable *3

N00	None
S01	Fixing cable 1 m
S03	Fixing cable 3 m
S05	Fixing cable 5 m
S10	Fixing cable 10 m
R01	Movable cable 1 m
R03	Movable cable 3 m
R05	Movable cable 5 m
R10	Movable cable 10 m

*1 Select the controller from pages 93 and 105.

Select encoder "A" when an ECR controller is selected and "B" or "C" when an ECG controller is selected.

*2 Select "Yes" for vertical use.

*3 For Dimensions of the relay cable, refer to page 103 for ECR and page 116 for ECG.

EAR-compliant product (EAR99-embedded product)

Specifications

[EBS-05M (applicable controller ECR)]

Motor	<input type="checkbox"/> 42 Stepper motor				
Encoder type	Battery-less absolute encoder				
Drive method	Ball screw ϕ 12				
Stroke length mm	50 to 800				
Thread lead mm	2	5	10	20	
Max. load capacity kg *1 *2	Horizontal	45 (45)	40 (40)	35 (35)	16.6 (16.6)
	Vertical	24 (24)	16.6 (16.6)	8.3 (8.3)	4.5 (4.5)
Operation speed range *3 *4 mm/s	2 to 130	6 to 300 (250)	12 to 700 (600)	25 to 1100 (900)	
	385	250	121	44	
Press operation speed range mm/s	5 to 25	5 to 25	5 to 30	5 to 30	
Repeatability mm	\pm 0.01				
Lost motion mm	0.1 or less				
Static allowable moment N·m	MP:103 MY:103 MR:144				
Motor power supply voltage	24 VDC \pm 10% or 48 VDC \pm 10%				
Motor section max. instantaneous current A	5.2				
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC \pm 10%			
	Power consumption W	7			
	Holding force N	471	188	94	47

*1 The values in () are at 24 VDC.

*2 Load capacity varies according to acceleration/deceleration and speed. Refer to page 42 for details.

*3 The maximum speed values in () are at 24 VDC.

*4 The maximum speed may decrease depending on the conditions.

[EBS-05G (applicable controller ECG)]

Motor	<input type="checkbox"/> 42 Stepper motor				
Encoder type	Battery-less absolute encoder/incremental encoder				
Drive method	Ball screw ϕ 12				
Stroke length mm	50 to 800				
Thread lead mm	2	5	10	20	
Max. load capacity kg *1	Horizontal	45.0	40.0	27.5	18.3
	Vertical	18.3	14.0	7.0	2.5
Operation speed range*2 mm/s	2 to 120	6 to 290	12 to 500	25 to 850	
Maximum pressing force N	550	220	110	55	
Press operation speed range mm/s	5 to 20	5 to 20	5 to 20	5 to 20	
Repeatability mm	\pm 0.01				
Lost motion mm	0.1 or less				
Static allowable moment N·m	MP:103 MY:103 MR:144				
Motor power supply voltage	24 VDC \pm 10%				
Motor section max. instantaneous current A	2.7				
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC \pm 10%			
	Power consumption W	6.1			
	Holding force N	420	168	84	42

*1 Load capacity varies according to acceleration/deceleration and speed. Refer to page 44 for details.

*2 The maximum speed may decrease depending on the conditions.

[Common specifications]

Insulation resistance	10M Ω , 500 VDC
Withstand voltage	500 VAC for 1 minute
Operating ambient temperature, humidity *	0 to 40 °C (no freezing) 35 to 80% RH (no condensation)
Storage ambient temperature, humidity	-10 to 50 °C (no freezing) 35 to 80% RH (no condensation)
Atmosphere	No corrosive gas, explosive gas, or dust
Degree of protection	IP40

* The operating ambient temperature of EBS-**G is 10°C to 40°C.

Stroke and max. speed

[EBS-05M (applicable controller ECR)]

(mm/s)

Thread lead	Power supply voltage	Stroke length						
		50 to 500	550	600	650	700	750	800
2	48 VDC	130	120	120	105	95	80	70
	24 VDC	70	70	70	70	70	70	70
5	48 VDC	300	300	300	270	235	200	185
	24 VDC	250	250	250	250	235	200	185
10	48 VDC	700	625	625	540	475	415	370
	24 VDC	600	600	600	540	475	415	370
20	48 VDC	1100	1100	1100	1080	950	830	740
	24 VDC	900	900	900	900	900	830	740

[EBS-05G (applicable controller ECG)]

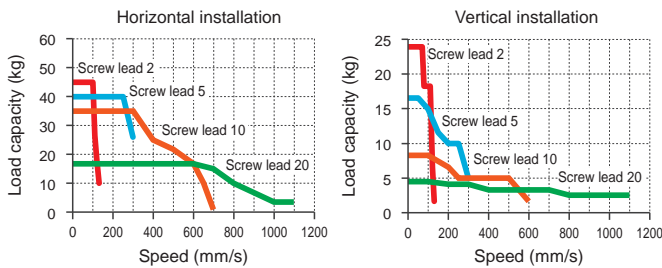
(mm/s)

Thread lead	Power supply voltage	Stroke length				
		50 to 600	650	700	750	800
2	24 VDC	120	105	95	80	70
5	24 VDC	290	270	235	200	185
10	24 VDC	500	500	475	415	370
20	24 VDC	850	850	850	850	740

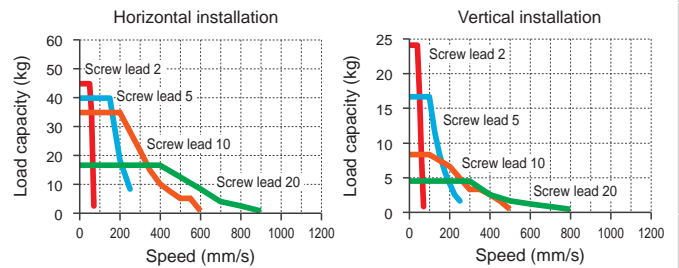
Speed and load capacity

[EBS-05M (applicable controller ECR)]

· At 48 VDC

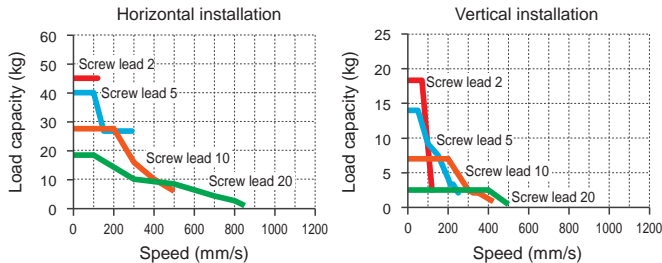


· At 24 VDC



[EBS-05G (applicable controller ECG)]

· At 24 VDC



* Incorrectly applying a 48 VDC power supply could result in damage.

* At acceleration of 0.3 G.

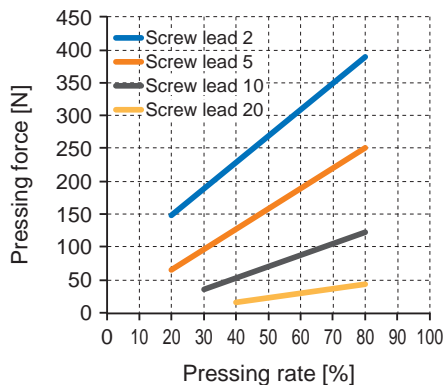
* Confirm each of the pages listed below for details.

ECR: Page 42

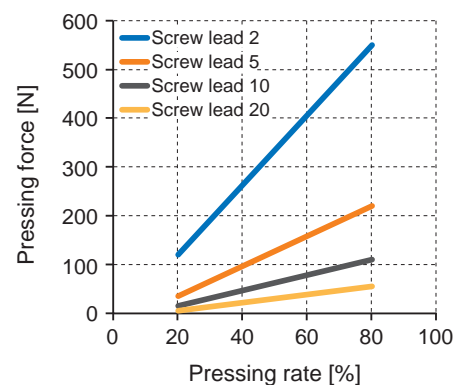
ECG: Page 44

Pressing force

[EBS-05M (applicable controller ECR)]



[EBS-05G (applicable controller ECG)]



* The above pressing force is a reference value. Variation may occur according to conditions such as pressing speed.

EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

ECG-A
(Controller)

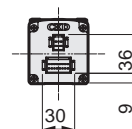
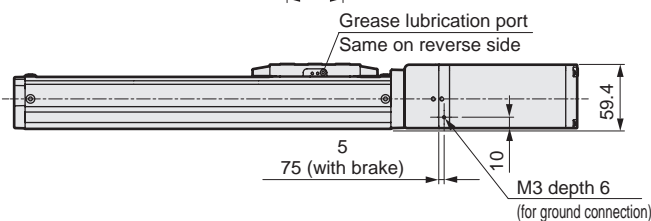
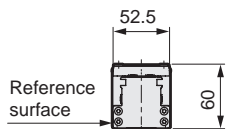
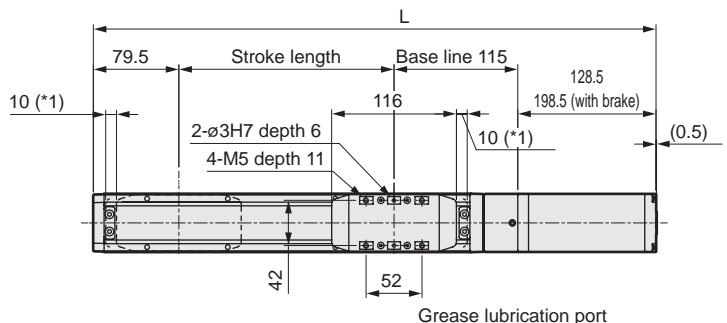
Safety
precautions

EBS-05* E

Dimensions: Straight motor mounting

● EBS-05*E

*1 Operating range to the mechanical stopper

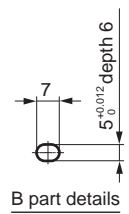
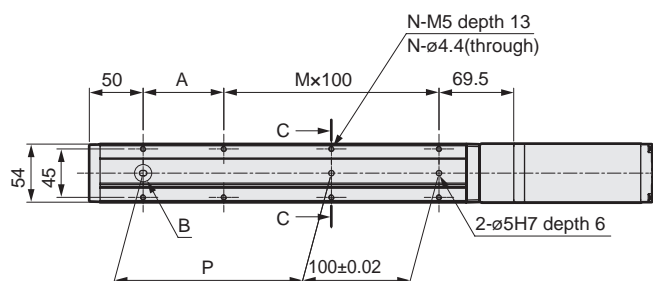
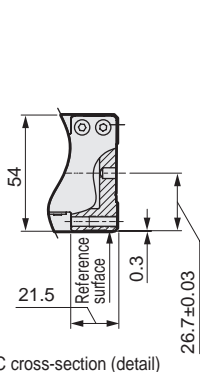


EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

ECG-A
(Controller)



Stroke code		0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700	0750	0800
Stroke length (mm)		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	Without brake	373	423	473	523	573	623	673	723	773	823	873	923	973	1023	1073	1123
	With brake	443	493	543	593	643	693	743	793	843	893	943	993	1043	1093	1143	1193
A		25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75
M		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
N		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
P		25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775
Weight (kg)	Without brake	2.8	2.9	3.1	3.2	3.4	3.5	3.7	3.8	4.0	4.1	4.2	4.4	4.5	4.7	4.8	5.0
	With brake	3.5	3.6	3.8	3.9	4.1	4.2	4.4	4.5	4.7	4.8	4.9	5.1	5.2	5.4	5.5	5.7

Safety
precautions

Notes

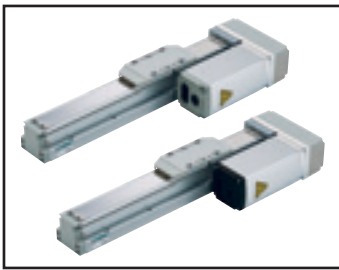
EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

ECG-A
(Controller)

Safety
precautions



Electric actuator Slider EBS-05**

Motor side mounting (left, right, bottom)

42 Stepper motor



How to order

EBS - 05 M R - 05 0300 N A N - C S03

A Body size 05 Body width 54 mm	E Stroke length *2 0050 to 0800 50 mm (In 50 mm increments) 800 mm	G Encoder *1 A Battery-less absolute encoder (for ECR) B Battery-less absolute encoder (for ECG) C Incremental encoder (for ECG)	H Relay cable *4 N00 None S01 Fixing cable 1 m S03 Fixing cable 3 m S05 Fixing cable 5 m S10 Fixing cable 10 m R01 Movable cable 1 m R03 Movable cable 3 m R05 Movable cable 5 m R10 Movable cable 10 m
B Applicable controller *1 M ECR G ECG	F Brake *3 N None B Yes		
C Motor mounting direction *2 R Right mounting D Bottom mounting L Left mounting	D Screw lead 02 2 mm 05 5 mm 10 10 mm 20 20 mm		

*1 Select the controller from page 93 or page 105.
Select encoder "A" when an ECR controller is selected and "B" or "C" when an ECG controller is selected.
*2 If "D" is selected for the motor mounting direction, select a stroke length from "0250 (250 mm)" to "0800 (800 mm)".
*3 Select "Yes" for vertical use.
*4 Refer to page 103 for ECR and page 116 for ECG relay cable dimensions.

Product subject to the EAR (EAR99)

Specifications

[EBS-05M (applicable controller ECR)]

Motor	<input type="checkbox"/> 42 Stepper motor				
Encoder type	Battery-less absolute encoder				
Drive method	Ball screw ø12				
Stroke length mm	50 to 800				
Thread lead mm	2	5	10	20	
Max. load capacity kg *1 *2	Horizontal	45 (45)	40 (40)	35 (35)	16.6 (16.6)
	Vertical	24 (24)	16.6 (16.6)	8.3 (8.3)	4.5 (4.5)
Operation speed range *3 *4 mm/s	2 to 130 (70)	6 to 300 (250)	12 to 600 (500)	25 to 1100 (900)	
Maximum pressing force N	385	250	121	44	
Press operation speed range mm/s	5 to 25	5 to 25	5 to 30	5 to 30	
Repeatability mm	±0.01				
Lost motion mm	0.1 or less				
Static allowable moment N·m	MP: 103, MY: 103, MR: 144				
Motor power supply voltage	24 VDC ±10% or 48 VDC ±10%				
Motor section max. instantaneous current A	5.2				
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC ±10%			
	Power consumption W	7			
	Holding force N	471	188	94	47

*1 The values in () are at 24 VDC.

*2 Load capacity varies according to acceleration/deceleration and speed. Refer to page 42 for details.

*3 The maximum speed values in () are at 24 VDC.

*4 The maximum speed may decrease depending on the conditions.

[EBS-05G (applicable controller ECG)]

Motor	<input type="checkbox"/> 42 Stepper motor				
Encoder type	Battery-less absolute encoder/ incremental encoder				
Drive method	Ball screw ø12				
Stroke length mm	50 to 800				
Thread lead mm	2	5	10	20	
Max. load capacity kg *1	Horizontal	45.0	40.0	27.5	18.3
	Vertical	18.3	10.0	3.3	0.8
Operation speed range*2 mm/s	2 to 100	6 to 250	12 to 400	25 to 700	
Maximum pressing force N	550	220	110	55	
Press operation speed range mm/s	5 to 20	5 to 20	5 to 20	5 to 20	
Repeatability mm	±0.01				
Lost motion mm	0.1 or less				
Static allowable moment N·m	MP: 103, MY: 103, MR: 144				
Motor power supply voltage	24 VDC ±10%				
Motor section max. instantaneous current A	2.7				
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC ±10%			
	Power consumption W	6.1			
	Holding force N	420	168	84	42

*1 Load capacity varies according to acceleration/deceleration and speed. Refer to page 44 for details.

*2 The maximum speed may decrease depending on the conditions.

[Common specifications]

Insulation resistance	10MΩ, 500 VDC
Withstand voltage	500 VAC for 1 minute
Operating ambient temperature, humidity *	0 to 40 °C (no freezing) 35 to 80% RH (no condensation)
Storage ambient temperature, humidity	-10 to 50 °C (no freezing) 35 to 80% RH (no condensation)
Atmosphere	No corrosive gas, explosive gas, or dust
Degree of protection	IP40

*The operating ambient temperature of EBS-**G is 10°C to 40°C.

Stroke and max. speed

[EBS-05M (applicable controller ECR)]

(mm/s)

Thread lead	Power supply voltage	Stroke length						
		50 to 500	550	600	650	700	750	800
2	48 VDC	130	120	120	105	95	80	70
	24 VDC	70	70	70	70	70	70	70
5	48 VDC	300	300	300	270	235	200	185
	24 VDC	250	250	250	250	235	200	185
10	48 VDC	600	600	600	540	475	415	370
	24 VDC	500	500	500	500	475	415	370
20	48 VDC	1100	1100	1100	1080	950	830	740
	24 VDC	900	900	900	900	900	830	740

[EBS-05G (applicable controller ECG)]

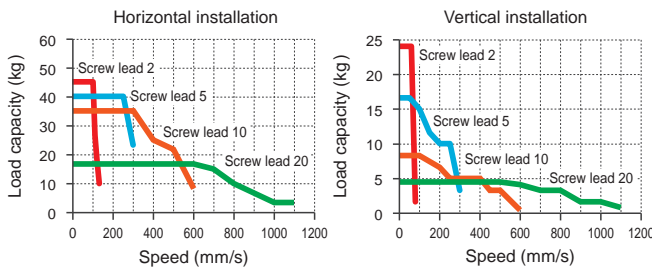
(mm/s)

Thread lead	Power supply voltage	Stroke length			
		50 to 650	700	750	800
2	24 VDC	100	95	80	70
5	24 VDC	250	235	200	185
10	24 VDC	400	400	400	370
20	24 VDC	700	700	700	700

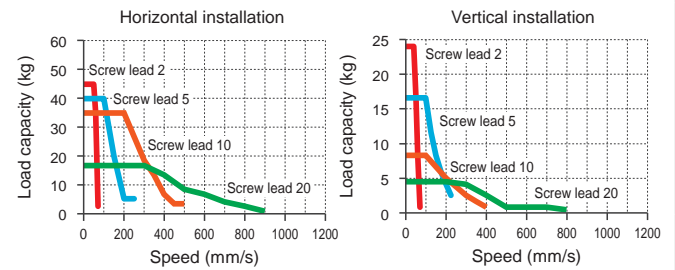
Speed and load capacity

[EBS-05M (applicable controller ECR)]

· At 48 VDC

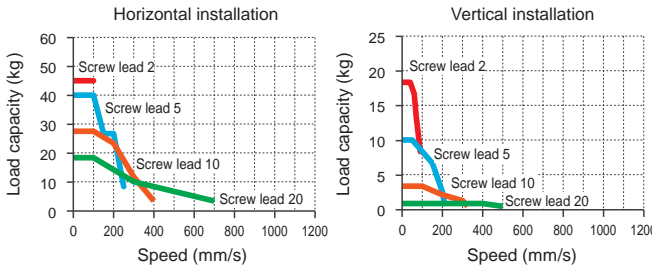


· At 24 VDC



[EBS-05G (applicable controller ECG)]

· At 24 VDC



* At acceleration of 0.3 G.

* Confirm each of the pages listed below for details.

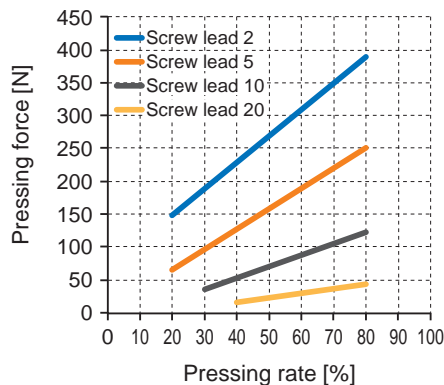
ECR: Page 42

ECG: Page 44

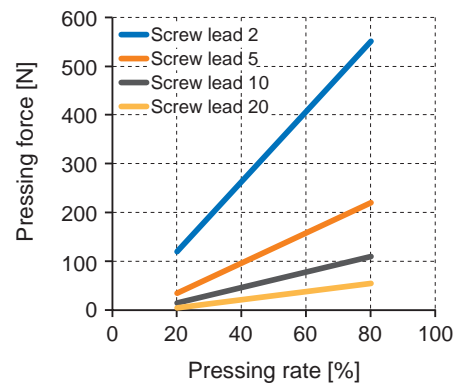
* Incorrectly applying a 48 VDC power supply could result in damage.

Pressing force

[EBS-05M (applicable controller ECR)]



[EBS-05G (applicable controller ECG)]



* The above pressing force is a reference value. Variation may occur according to conditions such as pressing speed.

EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

ECG-A
(Controller)

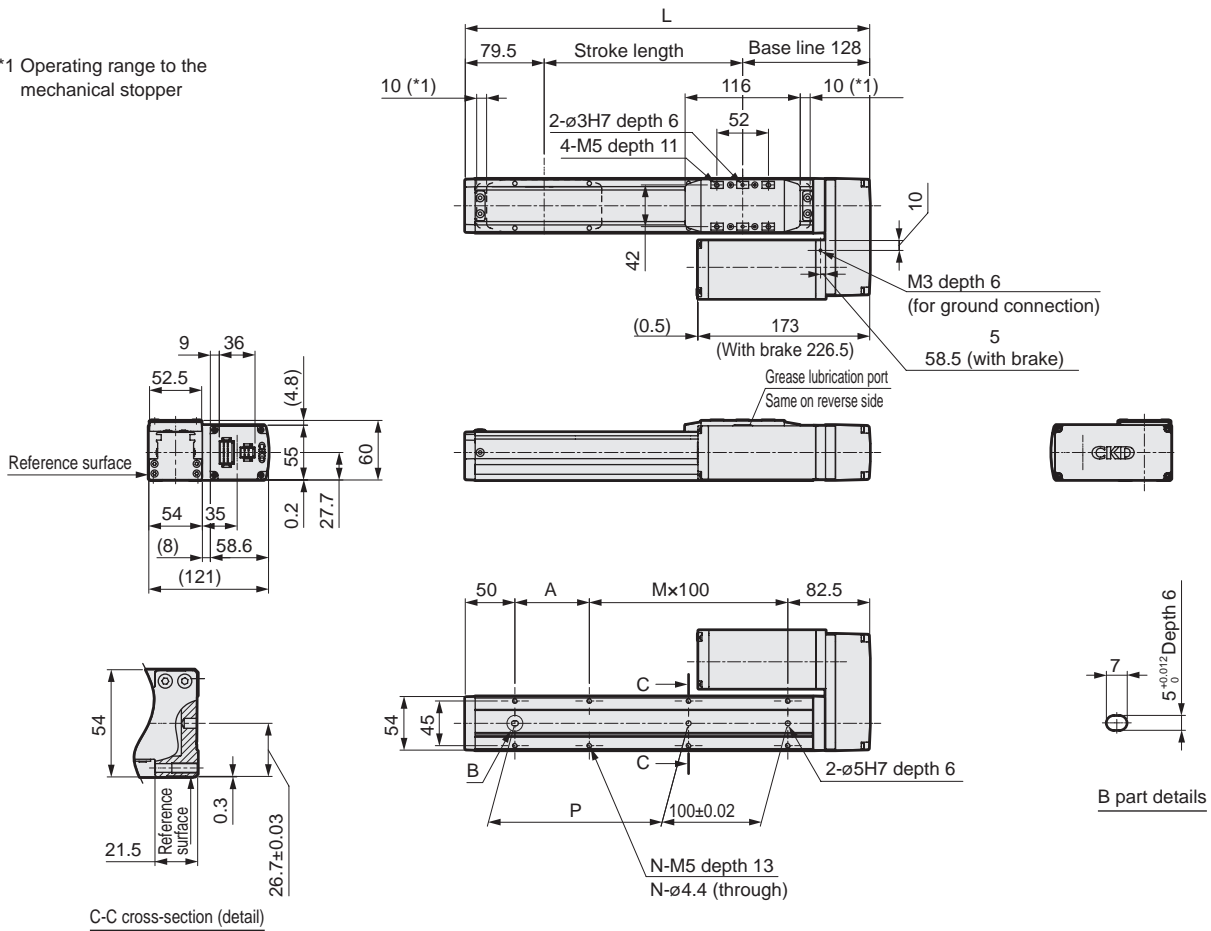
Safety
precautions

EBS-05**

Dimensions: Motor right-side mounting

● EBS-05*R

*1 Operating range to the mechanical stopper



C-C cross-section (detail)

B part details

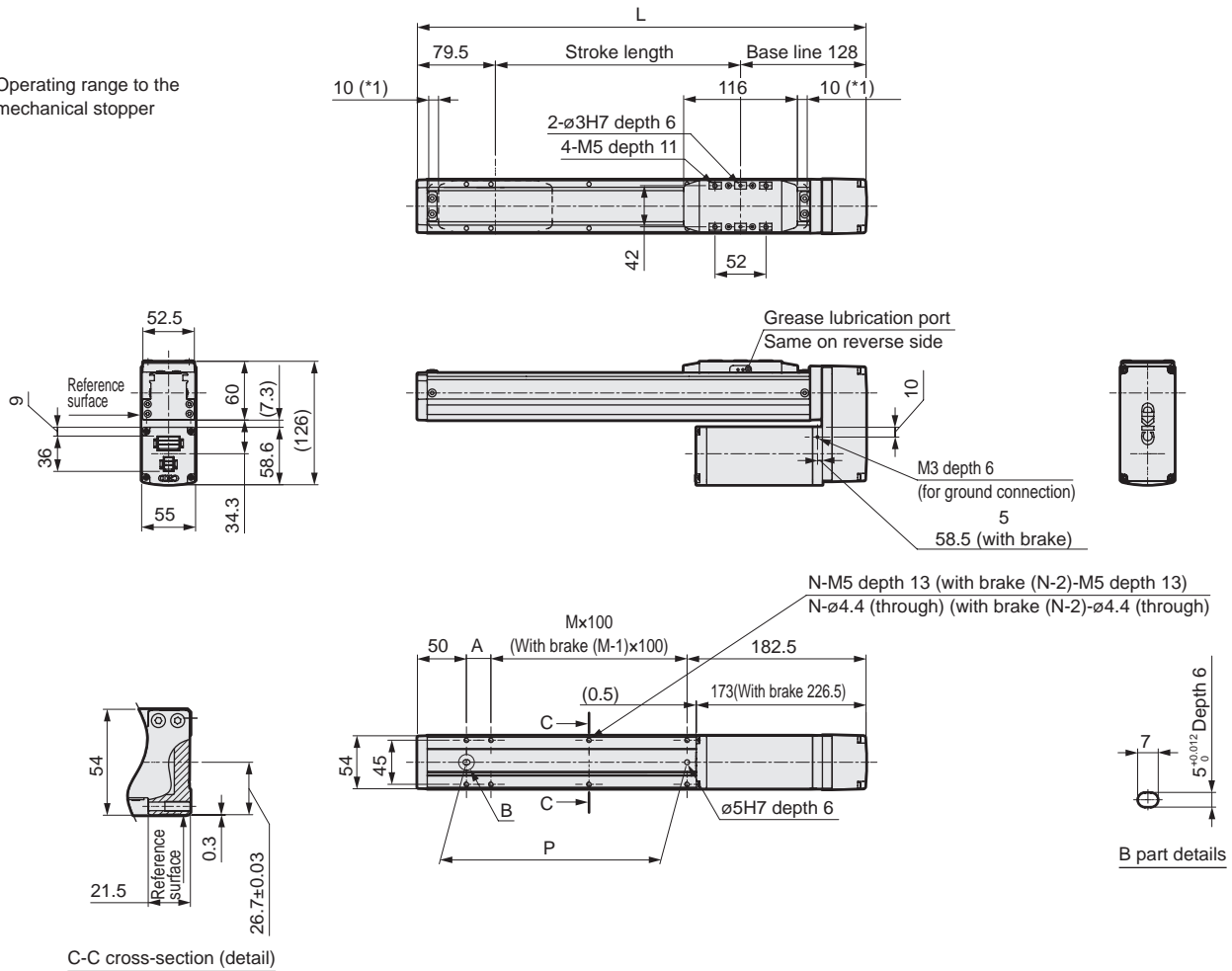
Safety precautions

Stroke code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700	0750	0800	
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
L	257.5	307.5	357.5	407.5	457.5	507.5	557.5	607.5	657.5	707.5	757.5	807.5	857.5	907.5	957.5	1007.5	
A	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	
P	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775	
Weight (kg)	Without brake	2.7	2.8	3.0	3.1	3.4	3.5	3.6	3.8	3.9	4.0	4.2	4.3	4.5	4.6	4.7	5.1
	With brake	3.4	3.5	3.7	3.8	4.1	4.2	4.3	4.5	4.6	4.7	4.9	5.0	5.2	5.3	5.4	5.8

Dimensions: Motor bottom mounting

● EBS-05*D

*1 Operating range to the mechanical stopper



Stroke code	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700	0750	0800
Stroke length (mm)	250	300	350	400	450	500	550	600	650	700	750	800
L	457.5	507.5	557.5	607.5	657.5	707.5	757.5	807.5	857.5	907.5	957.5	1007.5
A	25	75	25	75	25	75	25	75	25	75	25	75
M	2	2	3	3	4	4	5	5	6	6	7	7
N	8	8	10	10	12	12	14	14	16	16	18	18
P	225	275	325	375	425	475	525	575	625	675	725	775
Weight (kg)	Without brake	3.4	3.5	3.6	3.8	3.9	4.0	4.2	4.3	4.5	4.6	5.1
	With brake	4.1	4.2	4.3	4.5	4.6	4.7	4.9	5.0	5.2	5.3	5.8

EBS (With motor)
 EBR (With motor)
 ECR (Controller)
 ECG-A (Controller)
 Safety precautions

EBS-05**

Dimensions: Motor left-side mounting

● EBS-05*L

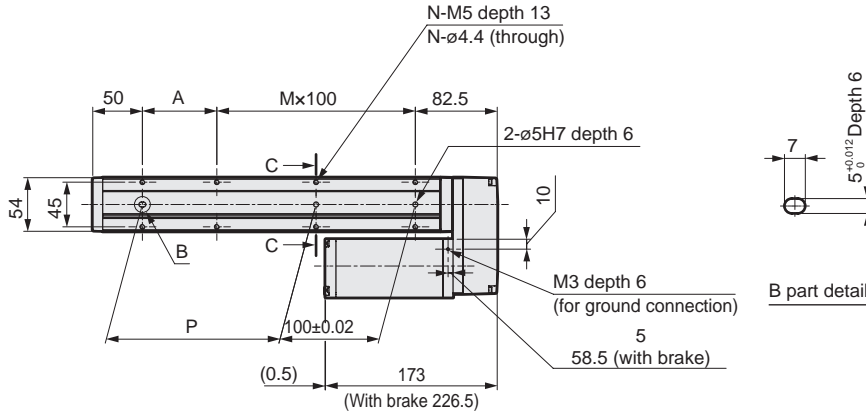
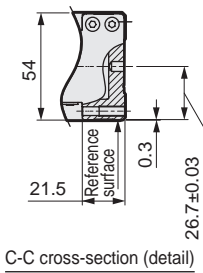
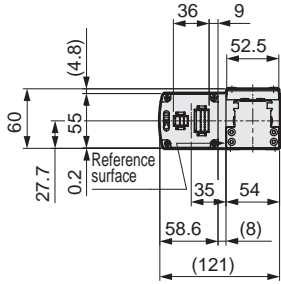
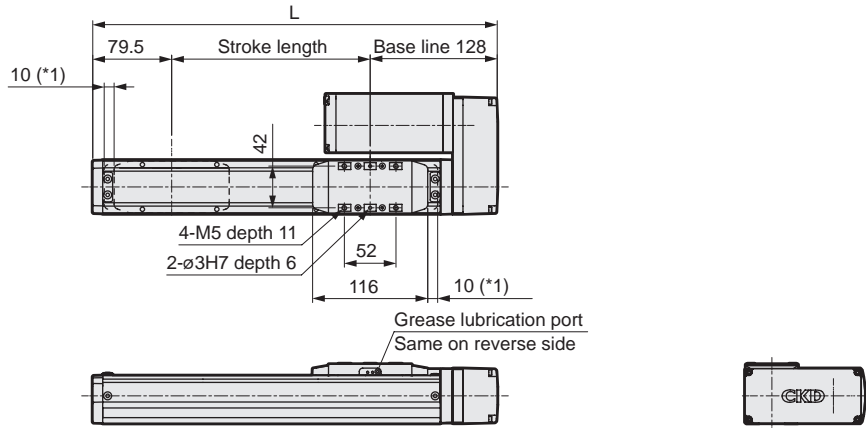
*1 Operating range to the mechanical stopper

EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

ECG-A
(Controller)



Safety
precautions

Stroke code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700	0750	0800	
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
L	257.5	307.5	357.5	407.5	457.5	507.5	557.5	607.5	657.5	707.5	757.5	807.5	857.5	907.5	957.5	1007.5	
A	25	75	25	75	25	75	25	75	25	75	25	75	25	75	25	75	
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	
P	25	75	125	175	225	275	325	375	425	475	525	575	625	675	725	775	
Weight (kg)	Without brake	2.7	2.8	3.0	3.1	3.4	3.5	3.6	3.8	3.9	4.0	4.2	4.3	4.5	4.6	4.7	5.1
	With brake	3.4	3.5	3.7	3.8	4.1	4.2	4.3	4.5	4.6	4.7	4.9	5.0	5.2	5.3	5.4	5.8

Notes

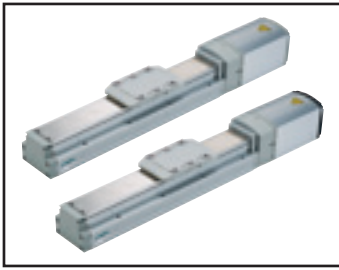
EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

ECG-A
(Controller)

Safety
precautions



Electric actuator Slider EBS-08*E

Straight motor mounting

56 Stepper motor



How to order

EBS - 08 M E - 05 0300 N A N - C S03

A Body size

08	Body width 82 mm
-----------	------------------

B Applicable controller *1

M	ECR
G	ECG

C Motor mounting direction

E	Straight mounting
----------	-------------------

D Screw lead

05	5 mm
10	10 mm
20	20 mm

E Stroke length

0050 to 1100	50 mm (In 50 mm increments) 1100 mm
---------------------	-------------------------------------

F Brake *2

N	None
B	Yes

G Encoder *1

A	Battery-less absolute encoder (for ECR)
B	Battery-less absolute encoder (for ECG)
C	Incremental encoder (for ECG)

H Relay cable *3

N00	None
S01	Fixing cable 1 m
S03	Fixing cable 3 m
S05	Fixing cable 5 m
S10	Fixing cable 10 m
R01	Movable cable 1 m
R03	Movable cable 3 m
R05	Movable cable 5 m
R10	Movable cable 10 m

*1 Select the controller from page 93 or page 105.
Select encoder "A" when an ECR controller is selected and "B" or "C" when an ECG controller is selected.
*2 Select "Yes" for vertical use.
*3 Refer to page 103 for ECR and page 116 for ECG relay cable dimensions.

Product subject to the EAR (EAR99)

Specifications

[EBS-08M (applicable controller ECR)]

Motor	<input type="checkbox"/> 56 Stepper motor			
Encoder type	Battery-less absolute encoder			
Drive method	Ball screw ϕ 16			
Stroke length mm	50 to 1100			
Thread lead mm	5	10	20	
Max. load capacity kg	Horizontal	80 (80)	70 (70)	43.3 (43.3)
	Vertical	40 (38.3)	18.3 (18.3)	10 (10)
Operation speed range		6 to 250	12 to 550	25 to 1100
		(150)	(300)	(600)
Maximum pressing force N		970	477	250
Press operation speed range mm/s		5 to 25	5 to 30	5 to 30
Repeatability mm		\pm 0.01		
Lost motion mm		0.1 or less		
Static allowable moment N·m		MP: 203, MY: 203, MR: 336		
Motor power supply voltage		24 VDC \pm 10% or 48 VDC \pm 10%		
Motor section max. instantaneous current A		8.6		
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC \pm 10%		
	Power consumption W	8		
	Holding force N	754	377	188

*1 The values in () are at 24 VDC.
*2 Load capacity varies according to acceleration/deceleration and speed. Refer to page 42 for details.
*3 The maximum speed values in () are at 24 VDC.
*4 The maximum speed may decrease depending on the conditions.

[Common specifications]

Insulation resistance	10M Ω , 500 VDC
Withstand voltage	500 VAC for 1 minute
Operating ambient temperature, humidity *	0 to 40 °C (no freezing) 35 to 80% RH (no condensation)
Storage ambient temperature, humidity	-10 to 50 °C (no freezing) 35 to 80% RH (no condensation)
Atmosphere	No corrosive gas, explosive gas, or dust
Degree of protection	IP40

[EBS-08G (applicable controller ECG)]

Motor	<input type="checkbox"/> 56 Stepper motor			
Encoder type	Battery-less absolute encoder Incremental encoder			
Drive method	Ball screw ϕ 16			
Stroke length mm	50 to 1100			
Thread lead mm	5	10	20	
Max. load capacity kg	Horizontal	80.0	70.0	30.0
	Vertical	43.3	28.3	3.3
Operation speed range		6 to 150	12 to 250	25 to 500
Maximum pressing force N		965	482	241
Press operation speed range mm/s		5 to 20	5 to 20	5 to 20
Repeatability mm		\pm 0.01		
Lost motion mm		0.1 or less		
Static allowable moment N·m		MP: 203, MY: 203, MR: 336		
Motor power supply voltage		24 VDC \pm 10%		
Motor section max. instantaneous current A		4.0		
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC \pm 10%		
	Power consumption W	7.2		
	Holding force N	768	384	192

*1 Load capacity varies according to acceleration/deceleration and speed. Refer to page 44 for details.
*2 The maximum speed may decrease depending on the conditions.

* The operating ambient temperature of EBS-**G is 10°C to 40°C.

Stroke and max. speed

[EBS-08M (applicable controller ECR)]

(mm/s)

Thread lead	Power supply voltage	Stroke length										
		50 to 600	650	700	750	800	850	900	950	1000	1050	1100
5	48 VDC	250	250	250	250	220	200	180	135	120	110	100
	24 VDC	150	150	150	150	150	150	150	135	120	110	100
10	48 VDC	550	550	550	510	450	410	370	270	240	225	200
	24 VDC	300	300	300	300	300	300	300	270	240	225	200
20	48 VDC	1100	1000	1000	1000	910	820	740	540	490	450	410
	24 VDC	600	600	600	600	600	600	600	540	490	450	410

[EBS-08G (applicable controller ECG)]

(mm/s)

Thread lead	Power supply voltage	Stroke length				
		50 to 900	950	1000	1050	1100
5	24 VDC	150	135	120	110	100
10	24 VDC	250	250	240	225	200
20	24 VDC	500	500	490	450	410

EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

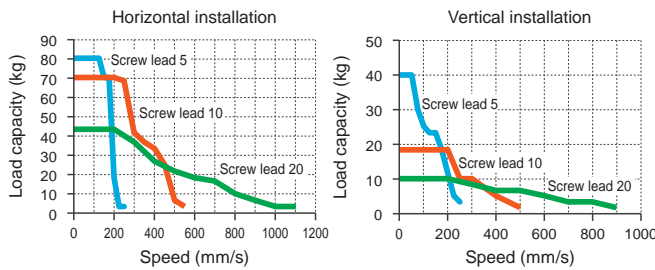
ECG-A
(Controller)

Safety
precautions

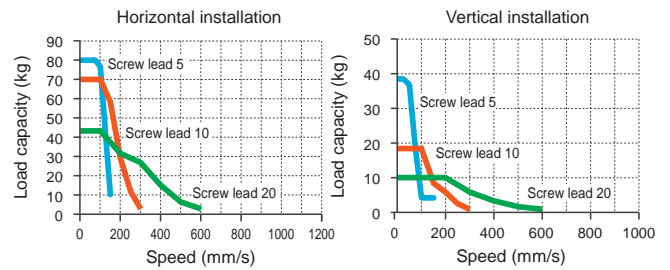
Speed and load capacity

[EBS-08M (applicable controller ECR)]

· At 48 VDC

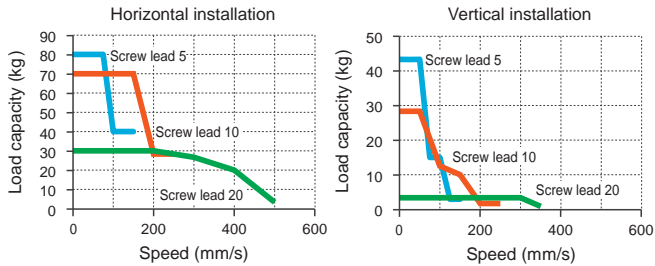


· At 24 VDC



[EBS-08G (applicable controller ECG)]

· At 24 VDC



* At acceleration of 0.3 G.

* Confirm each of the pages listed below for details.

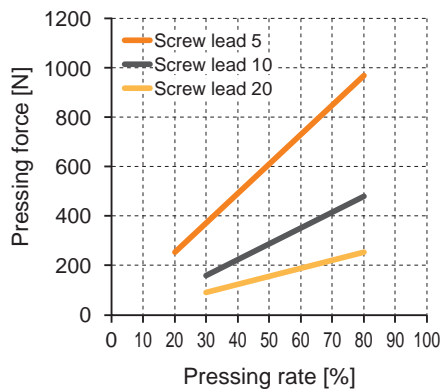
ECR: Page 42

ECG: Page 44

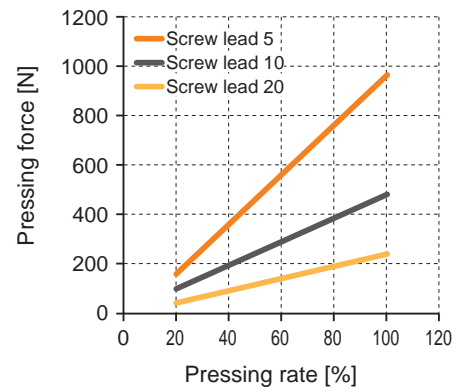
* Incorrectly applying a 48 VDC power supply could result in damage.

Pressing force

[EBS-08M (applicable controller ECR)]



[EBS-08G (applicable controller ECG)]



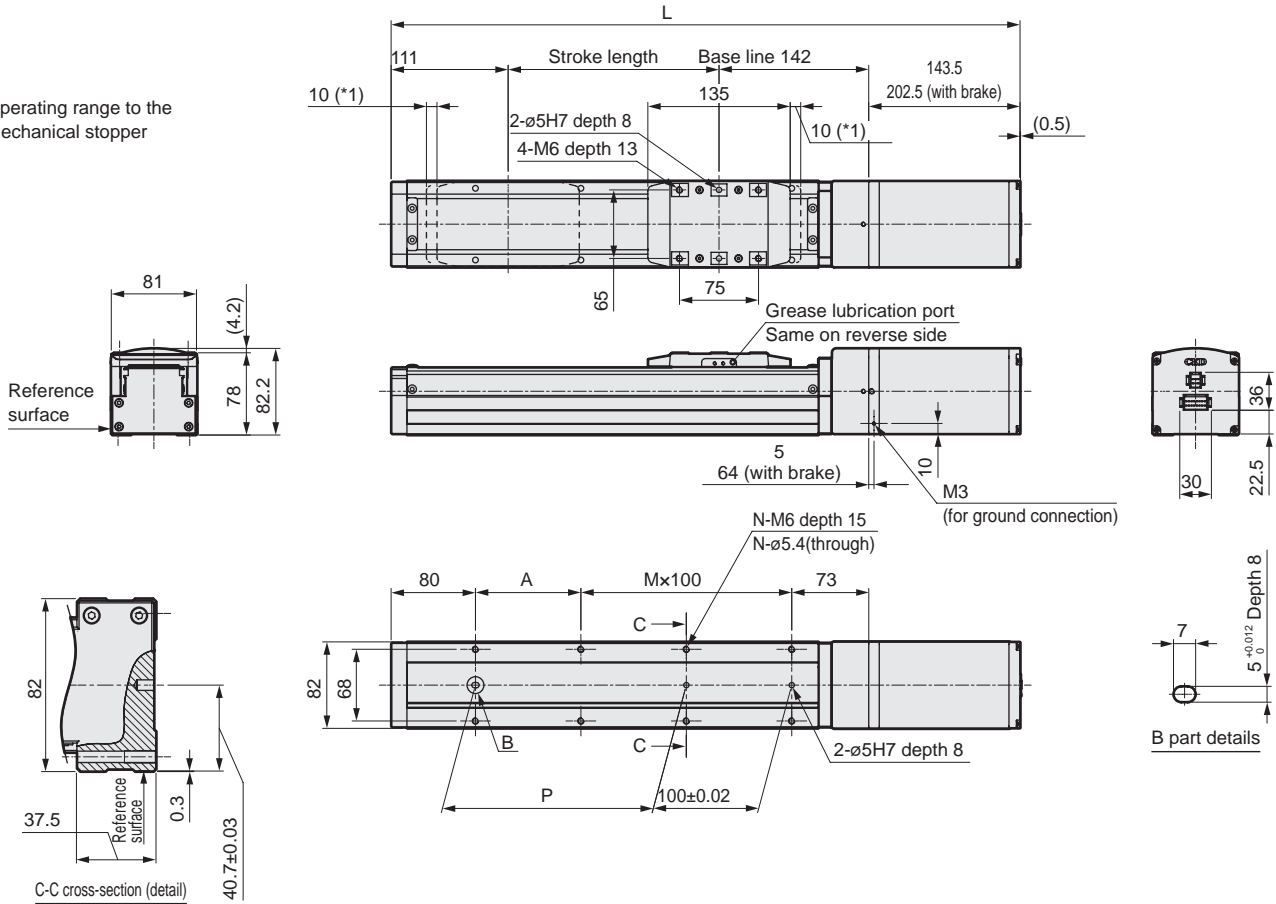
* The above pressing force is a reference value. Variation may occur according to conditions such as pressing speed.

EBS-08*E

Dimensions: Straight motor mounting

● EBS-08*E

*1 Operating range to the mechanical stopper



Stroke code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700	0750	0800	0850	0900	0950	1000	1050	1100	
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
L	Without brake	446.5	496.5	546.5	596.5	646.5	696.5	746.5	796.5	846.5	896.5	946.5	996.5	1046.5	1096.5	1146.5	1196.5	1246.5	1296.5	1346.5	1396.5	1446.5	1496.5
	With brake	505.5	555.5	605.5	655.5	705.5	755.5	805.5	855.5	905.5	955.5	1005.5	1055.5	1105.5	1155.5	1205.5	1255.5	1305.5	1355.5	1405.5	1455.5	1505.5	1555.5
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
Weight (kg)	Without brake	6.7	7.0	7.3	7.6	8.0	8.3	8.6	9.0	9.3	9.6	9.9	10.3	10.6	10.9	11.2	11.6	11.9	12.2	12.6	12.9	13.2	13.5
	With brake	8.0	8.3	8.6	8.9	9.3	9.6	9.9	10.3	10.6	10.9	11.2	11.6	11.9	12.2	12.5	12.9	13.2	13.5	13.9	14.2	14.5	14.8

Safety precautions

Notes

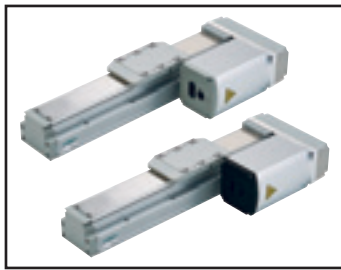
EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

ECG-A
(Controller)

Safety
precautions



Electric actuator Slider EBS-08**

Motor side mounting (left, right, bottom)

56 Stepper motor



How to order

EBS - 08 M R - 05 0300 N A N - C S03

A Body size

08	Body width 82 mm
----	------------------

B Applicable controller *1

M	ECR
G	ECG

C Motor mounting direction *2

R	Right mounting
D	Bottom mounting
L	Left mounting

E Stroke length *2

0050 to 1100	50 mm (In 50 mm increments) 1100 mm
--------------	-------------------------------------

F Brake *3

N	None
B	Yes

D Screw lead

05	5 mm
10	10 mm
20	20 mm

G Encoder *1

A	Battery-less absolute encoder (for ECR)
B	Battery-less absolute encoder (for ECG)
C	Incremental encoder (for ECG)

H Relay cable *4

N00	None
S01	Fixing cable 1 m
S03	Fixing cable 3 m
S05	Fixing cable 5 m
S10	Fixing cable 10 m
R01	Movable cable 1 m
R03	Movable cable 3 m
R05	Movable cable 5 m
R10	Movable cable 10 m

*1 Select the controller from page 93 or page 105.

Select encoder "A" when an ECR controller is selected and "B" or "C" when an ECG controller is selected.

*2 If "D" is selected for the motor mounting direction, select a stroke length from "0250 (250 mm)" to "1100 (1100 mm)".

*3 Select "Yes" for vertical use.

*4 Refer to page 103 for ECR and page 116 for ECG relay cable dimensions.

Product subject to the EAR (EAR99)

Specifications

[EBS-08M (applicable controller ECR)]

Motor	<input type="checkbox"/> 56 Stepper motor		
Encoder type	Battery-less absolute encoder		
Drive method	Ball screw ϕ 16		
Stroke length mm	50 to 1100		
Thread lead mm	5	10	20
Max. load capacity kg	Horizontal	Vertical	
*1 *2	80 (80)	40 (36.6)	70 (70) 8.3 (8.3)
Operation speed range mm/s	6 to 225 (100)	12 to 550 (300)	25 to 1000 (500)
*3 *4			
Maximum pressing force N	970	477	250
Press operation speed range mm/s	5 to 25	5 to 30	5 to 30
Repeatability mm	\pm 0.01		
Lost motion mm	0.1 or less		
Static allowable moment N-m	MP: 203, MY: 203, MR: 336		
Motor power supply voltage	24 VDC \pm 10% or 48 VDC \pm 10%		
Motor section max. instantaneous current A	8.6		
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC \pm 10%	
	Power consumption W	8	
	Holding force N	754	377 188

*1 The values in () are at 24 VDC.

*2 Load capacity varies according to acceleration/deceleration and speed. Refer to page 42 for details.

*3 The maximum speed values in () are at 24 VDC.

*4 The maximum speed may decrease depending on the conditions.

[Common specifications]

Insulation resistance	10M Ω , 500 VDC
Withstand voltage	500 VAC for 1 minute
Operating ambient temperature, humidity *	0 to 40 °C (no freezing) 35 to 80% RH (no condensation)
Storage ambient temperature, humidity	-10 to 50 °C (no freezing) 35 to 80% RH (no condensation)
Atmosphere	No corrosive gas, explosive gas, or dust
Degree of protection	IP40

[EBS-08G (applicable controller ECG)]

Motor	<input type="checkbox"/> 56 Stepper motor		
Encoder type	Battery-less absolute encoder Incremental encoder		
Drive method	Ball screw ϕ 16		
Stroke length mm	50 to 1100		
Thread lead mm	5	10	20
Max. load capacity kg	Horizontal	Vertical	
*1	80.0	33.3	70.0 18.3 30.0 3.3
Operation speed range mm/s	6 to 125	12 to 250	25 to 400
*2			
Maximum pressing force N	965	482	241
Press operation speed range mm/s	5 to 20	5 to 20	5 to 20
Repeatability mm	\pm 0.01		
Lost motion mm	0.1 or less		
Static allowable moment N-m	MP: 203, MY: 203, MR: 336		
Motor power supply voltage	24 VDC \pm 10%		
Motor section max. instantaneous current A	4.0		
Brake	Model, power supply voltage	Non-excitation operation, 24 VDC \pm 10%	
	Power consumption W	7.2	
	Holding force N	768	384 192

*1 Load capacity varies according to acceleration/deceleration and speed. Refer to page 44 for details.

*2 The maximum speed may decrease depending on the conditions.

* The operating ambient temperature of EBS-**G is 10°C to 40°C.

Stroke and max. speed

[EBS-08M (applicable controller ECR)]

(mm/s)

Thread lead	Power supply voltage	Stroke length								
		50 to 700	750	800	850	900	950	1000	1050	1100
5	48 VDC	225	225	220	200	180	135	120	110	100
	24 VDC	100	100	100	100	100	100	100	100	100
10	48 VDC	550	510	450	410	370	270	240	225	200
	24 VDC	300	300	300	300	300	270	240	225	200
20	48 VDC	1000	1000	910	820	740	540	490	450	410
	24 VDC	500	500	500	500	500	500	490	450	410

[EBS-08G (applicable controller ECG)]

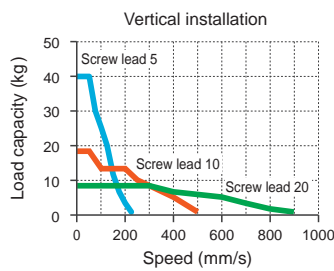
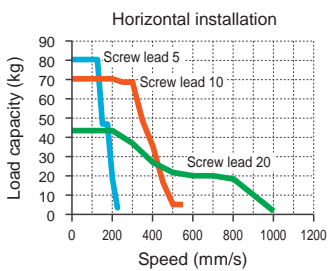
(mm/s)

Thread lead	Power supply voltage	Stroke length			
		50 to 600	1000	1050	1100
5	24 VDC	125	120	110	100
10	24 VDC	250	240	225	200
20	24 VDC	400	400	400	400

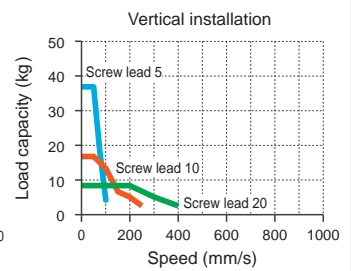
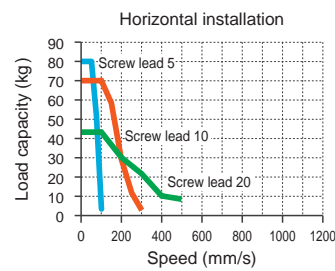
Speed and load capacity

[EBS-08M (applicable controller ECR)]

· At 48 VDC

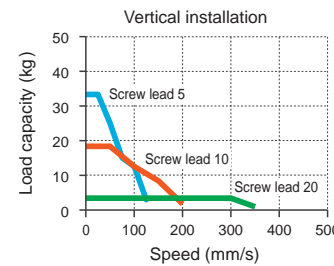
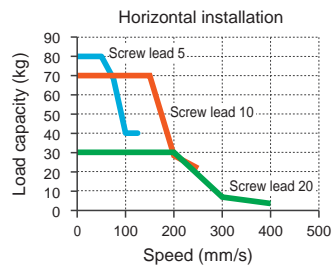


· At 24 VDC



[EBS-08G (applicable controller ECG)]

· At 24 VDC



* At acceleration of 0.3 G.

* Confirm each of the pages listed below for details.

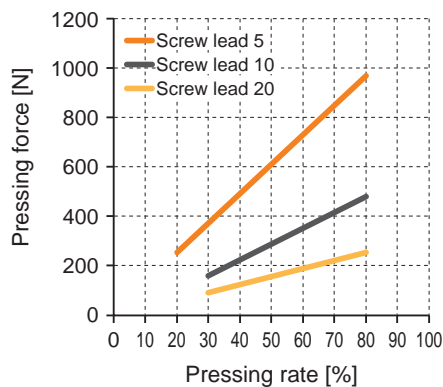
ECR: Page 42

ECG: Page 44

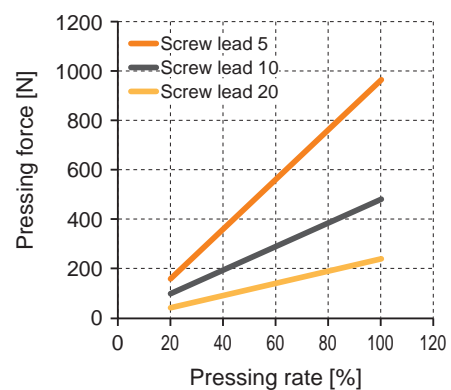
* Incorrectly applying a 48 VDC power supply could result in damage.

Pressing force

[EBS-08M (applicable controller ECR)]



[EBS-08G (applicable controller ECG)]



* The above pressing force is a reference value. Variation may occur according to conditions such as pressing speed.

EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

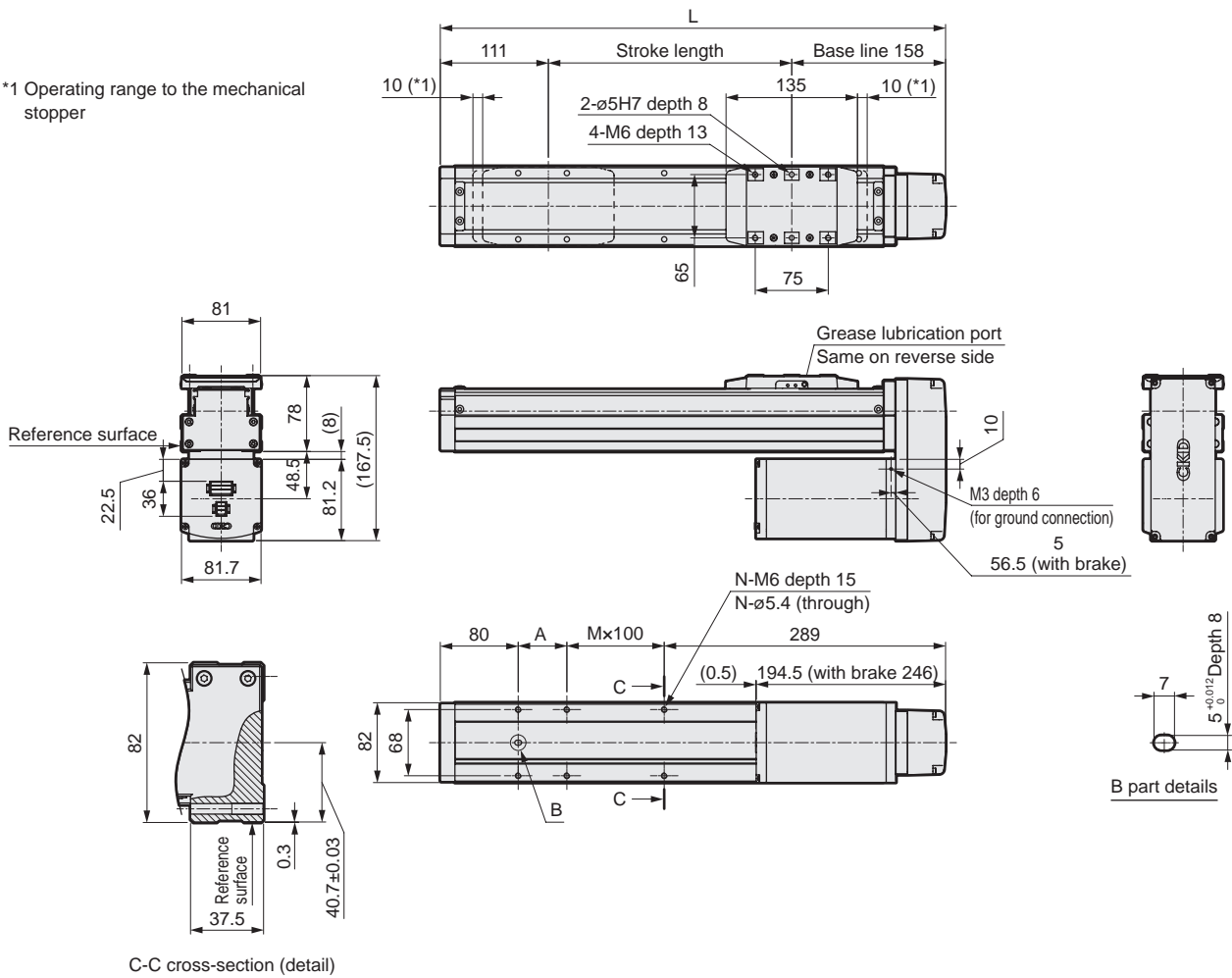
ECG-A
(Controller)

Safety
precautions

Dimensions: Motor bottom mounting

● EBS-08*D

*1 Operating range to the mechanical stopper



Stroke code	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700	0750	0800	0850	0900	0950	1000	
Stroke length (mm)	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	
L	519	569	619	669	719	769	819	869	919	969	1019	1069	1119	1169	1219	1269	
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	
Weight (kg)	Without brake	7.2	7.5	7.8	8.2	8.5	8.8	9.2	9.5	9.9	10.2	10.5	10.8	11.2	11.4	11.8	12.1
	With brake	8.5	8.8	9.1	9.5	9.8	10.1	10.5	10.8	11.2	11.5	11.8	12.1	12.5	12.7	13.1	13.4

Stroke code	1050	1100	
Stroke length (mm)	1050	1100	
L	1319	1369	
A	50	100	
M	9	9	
N	22	22	
Weight (kg)	Without brake	12.5	12.9
	With brake	13.8	14.2

EBS
(With motor)

EBR
(With motor)

ECR
(Controller)

ECG-A
(Controller)

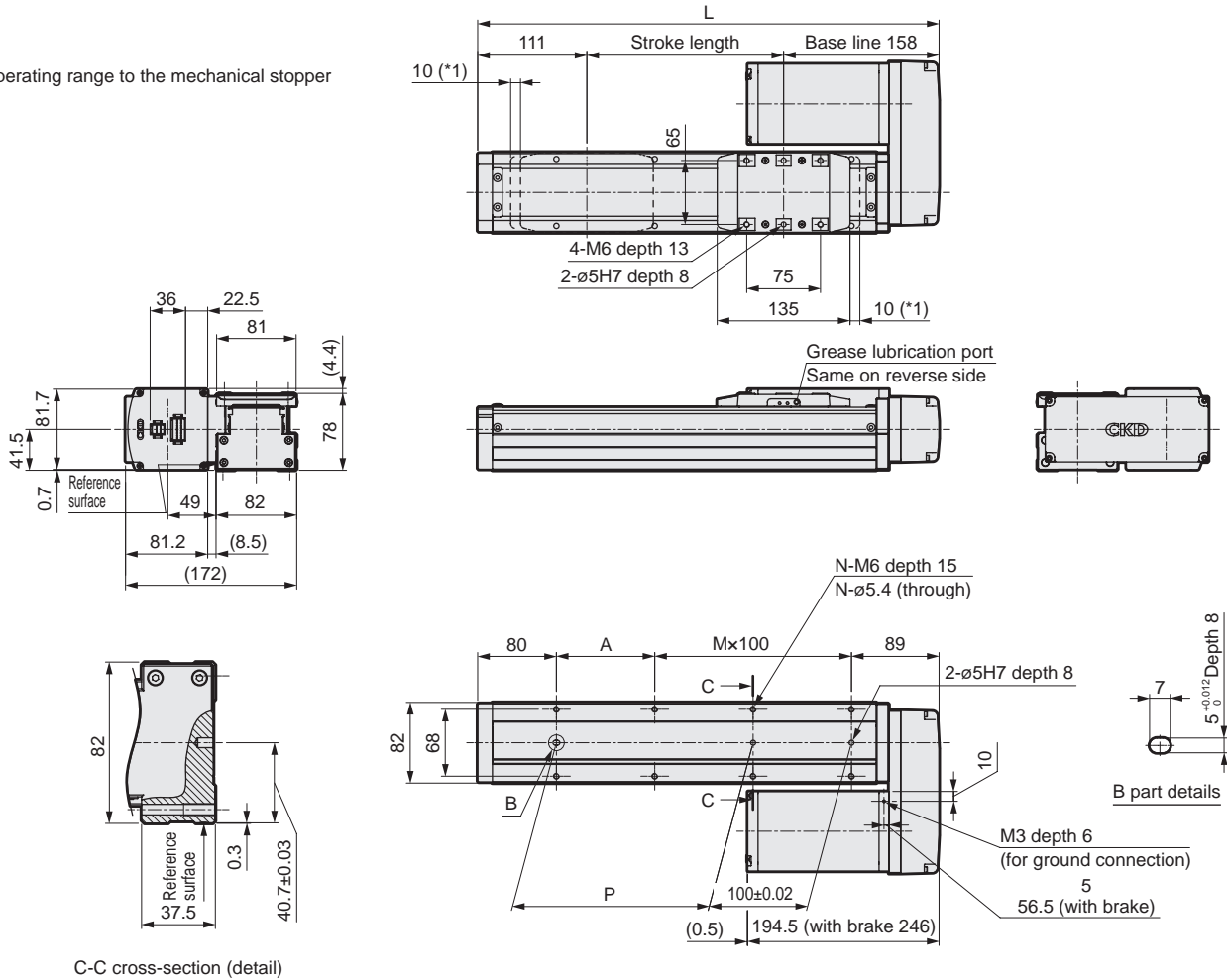
Safety
precautions

EBS-08**

Dimensions: Motor left-side mounting

● EBS-08*L

*1 Operating range to the mechanical stopper



C-C cross-section (detail)

Stroke code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700	0750	0800	
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
L	319	369	419	469	519	569	619	669	719	769	819	869	919	969	1019	1069	
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
Weight (kg)	Without brake	5.7	6.1	6.5	6.8	7.2	7.5	7.8	8.2	8.5	8.8	9.2	9.5	9.9	10.2	10.5	10.8
	With brake	7.0	7.4	7.8	8.1	8.5	8.8	9.1	9.5	9.8	10.1	10.5	10.8	11.2	11.5	11.8	12.1

Stroke code	0850	0900	0950	1000	1050	1100	
Stroke length (mm)	850	900	950	1000	1050	1100	
L	1119	1169	1219	1269	1319	1369	
A	50	100	50	100	50	100	
M	9	9	10	10	11	11	
N	22	22	24	24	26	26	
P	850	900	950	1000	1050	1100	
Weight (kg)	Without brake	11.2	11.4	11.8	12.1	12.5	12.9
	With brake	12.5	12.7	13.1	13.4	13.8	14.2