EBR-L

Rod Type with Built-in Guide

Electric Actuator Servo Motor Compatible Motorless Specification

CONTENTS

Built-in guide makes it ideal for press-fitting and lifting / lowering.

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List of supported motor manufacturers * Refer to each model page compatible model and capacity

Servo Motor

Mitsubishi Electric Corporation | Delta Electronics Co., Ltd. | Sanyo Denki Co., Ltd. | Mitsubishi Electric Corporation | Keyence Corporation | Panasonic Corporation | OMRON Corporation | Fuji Electric Corporation | FANUC CORPORATION | Bosch Rexroth AG | Rockwell Automation, Inc. | SIEMENS AG

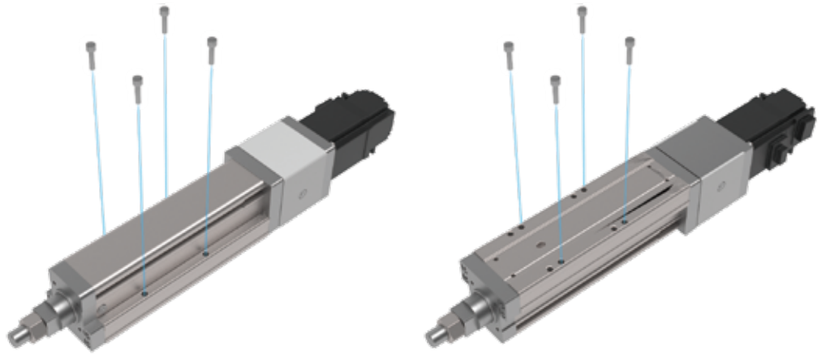
Compact, high-rigidity body

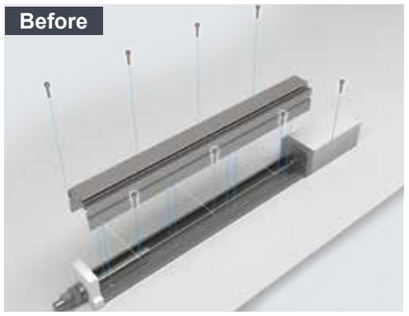
The guide that supports the load uses an outer rail. The wide guide integrated with the body achieves both high rigidity and space-saving. It has a structure that is strong against offset workpieces and achieves a longer stroke than conventional products.

Can handle offset workpieces

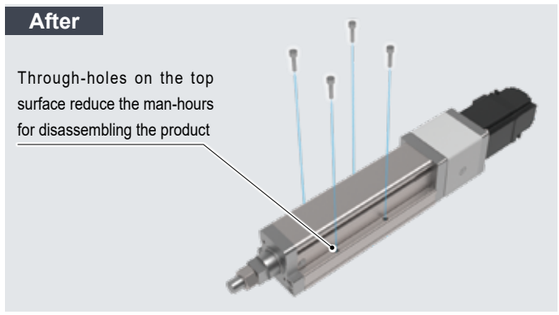
Mounting holes provided on top and bottom surfaces

It is a structure that allows direct installation from both the top and bottom surfaces without disassembling the product.
Especially when installing from the top surface, work time can be significantly reduced.





Disassemble main body for top mounting



Top mounting without disassembling the body

System Table

Rod Type with Built-in Guide

Type	Model No.		Application Motor (W)	Body Width (mm)	Screw Lead (mm)	Max. Payload (kg) Horizontal *1	Max. Payload (kg) Vertical	Stroke (mm) and Max. Speed (mm/s) *2	Listed Page
		EBR-04L□-06	50	44	6	20	5	50 mm: 300 mm/s 200: ⏱0.86 sec 300: 250 400: ⏱1.63 sec	78
		EBR-04L□-12			12	12	2	50 mm: 600 200: ⏱0.48 sec 300: 510 400: ⏱0.84 sec	
		EBR-05L□-02	100	54	2	30	10	50 mm: 100 200: ⏱2.51 sec 300: 85 400: ⏱4.71 sec	84
		EBR-05L□-05			5	30	10	50 mm: 250 200: ⏱1.03 sec 300: 200 400: ⏱2.02 sec	
		EBR-05L□-10			10	15	5	50 mm: 500 200: ⏱0.55 sec 300: 400 400: ⏱1.04 sec	
		EBR-05L□-20			20	10	2.5	50 mm: 1,000 200: ⏱0.35 sec 300: 850 400: ⏱0.56 sec	
		EBR-08L□-05	200	82	5	50	15	50 mm: 250 200: ⏱1.03 sec 300: 200 400: ⏱2.52 sec 500: ⏱3.52 sec	90
		EBR-08L□-10			10	30	8	50 mm: 500 200: ⏱0.55 sec 300: 400 400: ⏱1.29 sec 500: ⏱1.79 sec	
		EBR-08L□-20			20	12	2.5	50 mm: 1,000 200: ⏱0.35 sec 300: 850 400: ⏱0.67 sec 500: ⏱0.91 sec	
		EBR-12L□-05	400	120	5	110	33	50 mm: 250 200: ⏱1.03 sec 300: 200 400: ⏱2.52 sec 500: ⏱4.02 sec	96
		EBR-12L□-10			10	88	22	50 mm: 500 200: ⏱0.55 sec 300: 400 400: ⏱1.29 sec 500: ⏱2.04 sec	
		EBR-12L□-20			20	40	10	50 mm: 1,000 200: ⏱0.35 sec 300: 850 400: ⏱0.67 sec 500: ⏱1.03 sec	
		EBR-12L□-32			32	30	8	50 mm: 1600 200: ⏱0.32 sec 300: 1350 400: ⏱0.51 sec 500: ⏱0.73 sec	

*1 The payload when wall mounted is the same as for horizontal installation.
*2 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not operate at speeds exceeding the limit.
*3 ⏱ shows the Positioning time. This is the case when a specific stroke is operated under horizontal installation, at max. speed, and max. acceleration/deceleration. Please note that this is not the value at max. payload.

Model Number Configuration

Rod Type with Built-in Guide

EBR - 05 L E - 00 - 02 0050 NNN - M 1 N N - X

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾ ❿

❶ Body Size	
04	Body width 44 mm
05	Body width 54 mm
08	Body width 82 mm
12	Body width 120 mm

❷ Motor	
L	None

❸ Motor Mounting Direction	
E	Inline Mount
R	Right Side Return Mount
D	Bottom Side Return Mount
L	Left Side Fold-back Mounting

❹ Screw Lead	
02	2 mm
05	5 mm
06	6 mm
10	10 mm
12	12 mm
20	20 mm
32	32 mm

❺ Stroke	
0050 to 0800	50 mm (in 50 mm increments) 800 mm

❻ Mounting Motor Specifications	
M, Y, P, F	Refer to the list on the page at right

❼ Motor Capacity	
H	50 W
1	100 W
2	200 W
4	400 W

❽ Origin sensor	
N	None
C	Yes

❾ Limit sensor	
N	None
B	Yes

❿ Metal Stopper Specification (EBR-X) *1	
	Standard
X	Adopted

* This product is provided as an actuator (and motor mounting parts) only; the motor is not included. The user must prepare, mount, and adjust the motor and driver.
*1 ❶ Body size "12" cannot be selected.

Screw Lead / Stroke Compatibility Table by Body Size

❶ Body Size	❹ Screw Lead	❺ Stroke
04	06	0050 to 0400 (50 mm to 400 mm)
	12	
05	02	0050 to 0400 (50 mm to 400 mm)
	05	
	10	
	20	
08	05	0050 to 0700 (50 mm to 700 mm)
	10	
	20	
12	05	0050 to 0800 (50 mm to 800 mm)
	10	
	20	
	32	

Recommended Servo Motor Mounting List

Code	Manufacturer	Series	50 W	100 W
M	Mitsubishi Electric Corporation	MELSERVO J4	HG-KR053	HG-KR13
		MELSERVO J5	HG-KT_053W	HK-KT_13W
	Delta Electronics, Inc.	ECMA-C	ECMA-C1040F	ECMA-C10401
	Sanyo Denki Co., Ltd.	SANMOTION R	R2□A04005	R2□A04010
Y	Mitsubishi Electric Corporation	Σ-7	SGM7J-A5	SGM7J-01
		Σ-X	SGMXJ-A5	SGMXJ-01
	Keyence Corporation	SV	SV-□005	SV-□010
		SV2	SV2-□005	SV2-□010
P	Panasonic Corporation	MINAS A5	MSMD5A	MSMD01
		MINAS A6	MSMF5A	MSMF01
M	OMRON Corporation	G5	R88M-K05030	R88M-K10030
		1S	R88M-1M05030	R88M-1M10030
	Fuji Electric Corporation	ALPHA7 GYS	GYS500D7-□B2□	GYS101D7-□B2□
		ALPHA7 GYB	-	-
F	FANUC CORPORATION	βiS-B	A06B-0111-B1	A06B-0112-B1
P	Bosch Rexroth AG	MSM	MSM019A	MSM019B
M	Rockwell Automation, Inc.	TLP	TLP-A046-005-DKA□2	TLP-A046-010-DKA□2
	SIEMENS AG	1FK2 *1	1FK2102-0AG0	1FK2102-1AG0

Code	Manufacturer	Series	200 W	400 W
M	Mitsubishi Electric Corporation	MELSERVO J4	HG-KR23	HG-KR43
		MELSERVO J5	HK-KT_23W	HK-KT_43W
	Delta Electronics, Inc.	ECMA-C	ECMA-C10602	ECMA-C10604
	Sanyo Denki Co., Ltd.	SANMOTION R	R2□A06020	R2□A06040
Y	Mitsubishi Electric Corporation	Σ-7	SGM7J-02	SGM7J-04
		Σ-X	SGMXJ-02	SGMXJ-04
	Keyence Corporation	SV	SV-□020	SV-□040
		SV2	SV2-□020	SV2-□040
P	Panasonic Corporation	MINAS A5	MSMD02	MSMD04
		MINAS A6	MSMF02	MSMF04
	OMRON Corporation	G5	R88M-K20030	R88M-K40030
		1S	R88M-1M20030	R88M-1M40030
M	Fuji Electric Co., Ltd.	ALPHA7 GYS	GYS201D7-□B2□	GYS401D7-□B2□
		ALPHA7 GYB	GYB201D7-□B2□	GYB401D7-□B2□
F	FANUC CORPORATION	βiS-B	A06B-2115-B1	-
P	Bosch Rexroth AG	MSM	MSM031B	MSM031C
M	Rockwell Automation, Inc.	TLP	TLP-A070-020-DKA□2	TLP-A070-040-DKA□2
	SIEMENS AG	1FK2 *1	1FK2203-2AG0	1FK2203-4AG0

* Contact CKD for information on mounting motors other than the above and products of other motor manufacturers.
*1 The servo motor is a regulated item under Paragraph 7(8) of Appended Table 1 of the Export Trade Control Order, and its specifications also meet the applicable criteria. (as of January 2021)

Electric Actuator (Motorless Specification) Rod Type with Built-in Guide

EBR-04LE

Motor Straight Mounting Type

● Servo Motor Capacity : 50 W

RoHS

How to Order

EBR - 04 L E - 00 - 06 0050 NNN - M H N N - X

❶ Body Size
04	Body width 44 mm

❷ Motor
L	None

❸ Motor Mounting Direction
E	Straight Mounting

❹ Screw Lead
06	6 mm
12	12 mm

❺ Stroke
0050 to 0400	50 mm (in 50 mm increments) 400 mm

❻ Mounting Motor Specifications
M, Y, P, F	Select the mounting motor specification from the table on the right.

❼ Motor Capacity
H	50 W

❽ Origin sensor *1
N	None
C	Yes

❾ Limit sensor *1
N	None
B	Yes

❿ Metal Stopper Specification (EBR-X)
	Standard
X	Adopted

Manufacturer	50 W
Mitsubishi Electric Corporation	M
Delta Electronics, Inc.	M
Sanyo Denki Co., Ltd.	M
Yaskawa Electric Corporation	Y
Keyence Corporation	Y
Panasonic Corporation	P
OMRON Corporation	M
Fuji Electric Co., Ltd.	M
FANUC CORPORATION	F
Bosch Rexroth AG	P
Rockwell Automation, Inc.	M
SIEMENS AG	M

* For motor model Nos., please refer to P. 77.

*1 The home sensor and limit sensor are a set. If either is "None," please select "None" for the other as well.

Specifications

Applicable Motor Capacity		50 W servo motor	
Drive Method		Ball screw ø10	
Stroke	mm	50 to 400	
Screw lead	mm	6	12
Max. Payload *1	kg Horizontal	20	12
	kg Vertical	5	2
Max. Speed	mm/s	300	600
Rated thrust *1	N	141	71
Repeatability	mm	±0.01	
Lost Motion	mm	0.1 or less	
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	

* For allowable load at overhang, please refer to P. 104, P. 105.
*1 Rated thrust and maximum payload are guideline values, assuming that the motor mounted will output the rated torque.

Stroke and Max. Speed

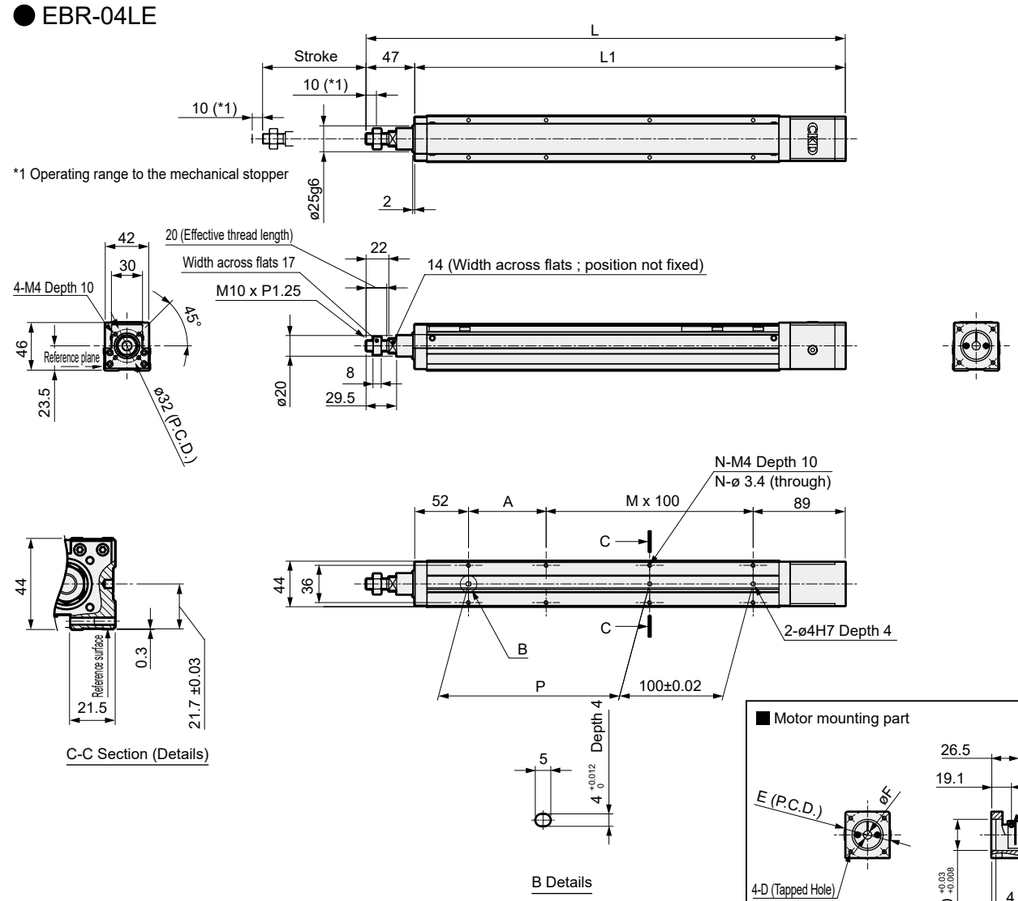
(mm/s)

Screw Lead \ Stroke	50 to 250	300	350	400
6	300	250		
12	600	510		

* The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not move at speeds beyond the limit.

External Dimension Drawing Motor Straight Mounting

● EBR-04LE



Mounting Motor Specifications	D	E	F	Motor mounting bolts
M 50 W	M4	ø46	ø8	4-M4 x L12
Y 50 W	M4	ø46	ø8	4-M4 x L12
P 50 W	M3	ø45	ø8	4-M3 x L12
F 50 W	M4	ø46	ø8	4-M4 x L12

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)	50	100	150	200	250	300	350	400
L	313	363	413	463	513	563	613	663
L1	266	316	366	416	466	516	566	616
A	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4
N	6	6	8	8	10	10	12	12
P	25	75	125	175	225	275	325	375
Weight (kg)	1.1	1.2	1.4	1.6	1.7	1.9	2.0	2.2

List of Accessories

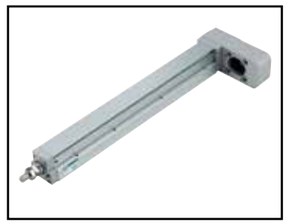
[Motor mounting parts]

Mounting Motor Specification	Coupling	Motor mounting bolt	
		Size	Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

[Home Sensor, Limit Sensor]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.



Electric actuator (motorless specifications) Rod with built-in guide

EBR-04L□

Motor Fold-back Mounting Type

● Servo Motor Capacity : 50 W

RoHS

How to Order

EBR - 04 L R - 00 - 06 0050 NNN - M H N N - X

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾ ❿

❶ Body Size

04	Body width 44 mm

❷ Motor

L	None

❸ Motor Mounting Direction

R	Right Side Fold-back Mounting
D	Bottom Side Fold-back Mounting
L	Left Side Fold-back Mounting

❹ Screw Lead

06	6 mm
12	12 mm

❺ Stroke

0050 to 0400	50 mm (in 50 mm increments) 400 mm

❻ Mounting Motor Specifications

M	Select the mounting motor specification from the table on the right.
Y	
P	
F	

❼ Motor Capacity

H	50 W

❽ Origin sensor *1

N	None
C	Yes

❾ Limit sensor *1

N	None
B	Yes

❿ Metal Stopper Specification (EBR-X)

	Standard
X	Adopted

Manufacturer	50 W
Mitsubishi Electric Corporation	M
Delta Electronics, Inc.	M
Sanyo Denki Co., Ltd.	M
Yaskawa Electric Corporation	Y
Keyence Corporation	Y
Panasonic Corporation	P
OMRON Corporation	M
Fuji Electric Co., Ltd.	M
FANUC CORPORATION	F
Bosch Rexroth AG	P
Rockwell Automation, Inc.	M
SIEMENS AG	M

* For motor model Nos., please refer to P. 77.

*1 The home sensor and limit sensor are a set. If either is "None," please select "None" for the other as well.

Specifications

Applicable Motor Capacity		50 W servo motor	
Drive Method		Ball screw ø10	
Stroke	mm	50 to 400	
Screw lead	mm	6	12
Max. Payload *1	kg Horizontal	20	12
	kg Vertical	5	2
Max. Speed	mm/s	300	600
Rated thrust *1	N	141	71
Repeatability	mm	±0.01	
Lost Motion	mm	0.1 or less	
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	

* For allowable load at overhang, please refer to P. 104, P. 105.
*1 Rated thrust and maximum payload are guideline values, assuming that the motor mounted will output the rated torque.

Stroke and Max. Speed

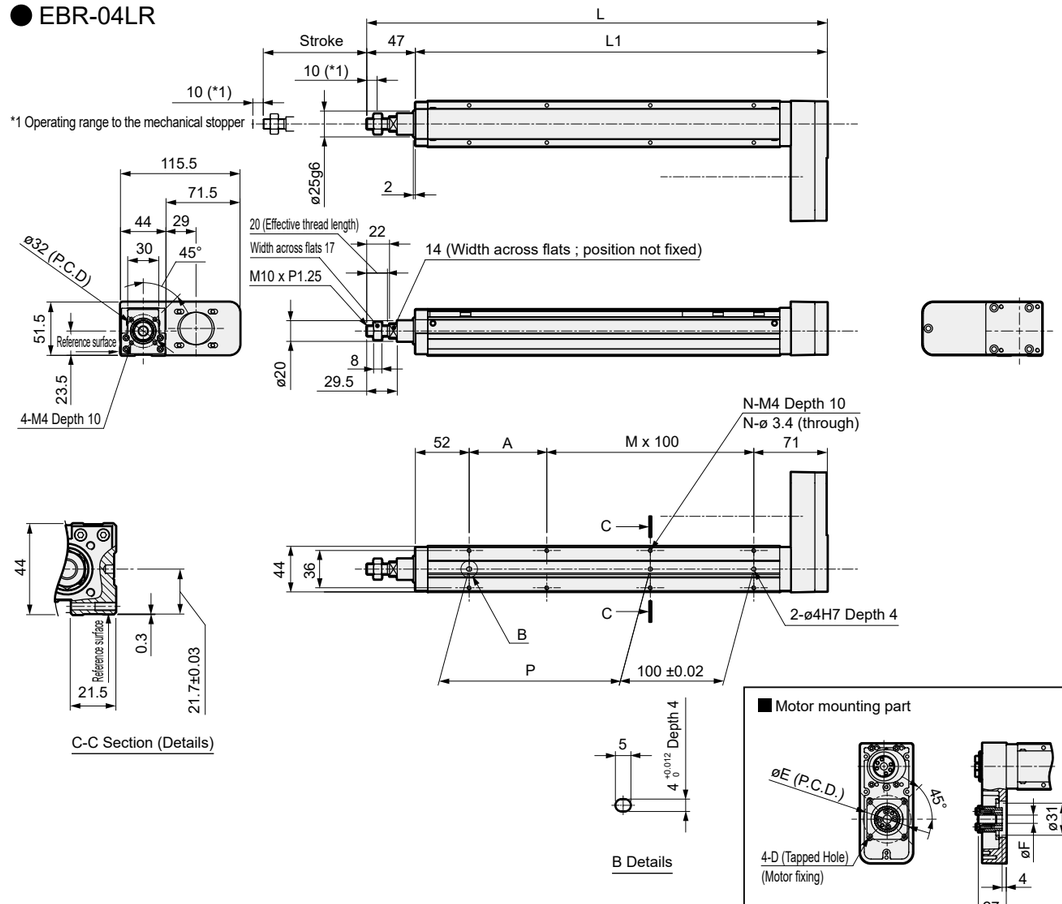
(mm/s)

Screw Lead \ Stroke	50 to 250	300	350	400
6	300	250		
12	600	510		

* The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not move at speeds beyond the limit.

External Dimension Drawing Motor Right Side Fold-back Mounting

● EBR-04LR



* For a 50 mm stroke, sensors may need to be mounted on both sides.

Motor Specifications	D	E	F	Motor mounting bolts
M 50 W	M4	ø46	ø8	4-M4 x L12
Y 50 W	M4	ø46	ø8	4-M4 x L12
P 50 W	M3	ø45	ø8	4-M3 x L12
F 50 W	M4	ø46	ø8	4-M4 x L12

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)	50	100	150	200	250	300	350	400
L	295	345	395	445	495	545	595	645
L1	248	298	348	398	448	498	548	598
A	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4
N	6	6	8	8	10	10	12	12
P	25	75	125	175	225	275	325	375
Weight (kg)	1.3	1.5	1.6	1.8	1.9	2.1	2.2	2.4

List of Accessories

[Motor mounting parts]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

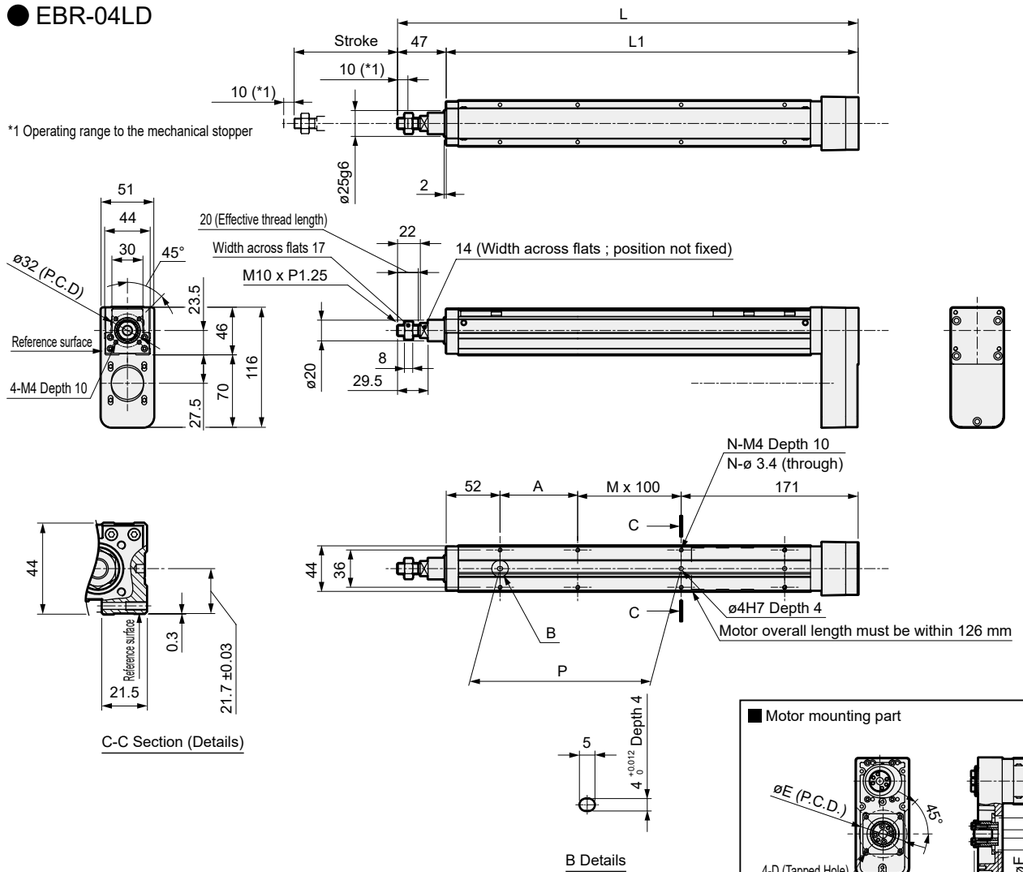
[Home Sensor, Limit Sensor]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.

External Dimension Drawing Motor Bottom Side Fold-back Mounting

● EBR-04LD



■ Motor mounting part

Mounting Motor Specifications	D	E	F	Motor mounting bolts
M 50 W	M4	ø46	ø8	4-M4 x L12
Y 50 W	M4	ø46	ø8	4-M4 x L12
P 50 W	M3	ø45	ø8	4-M3 x L12
F 50 W	M4	ø46	ø8	4-M4 x L12

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)	50	100	150	200	250	300	350	400
L	295	345	395	445	495	545	595	645
L1	248	298	348	398	448	498	548	598
A	25	75	25	75	25	75	25	75
M	0	0	1	1	2	2	3	3
N	4	4	6	6	8	8	10	10
P	25	75	125	175	225	275	325	375
Weight (kg)	1.3	1.5	1.6	1.8	1.9	2.1	2.2	2.4

List of Accessories

[Motor mounting parts]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

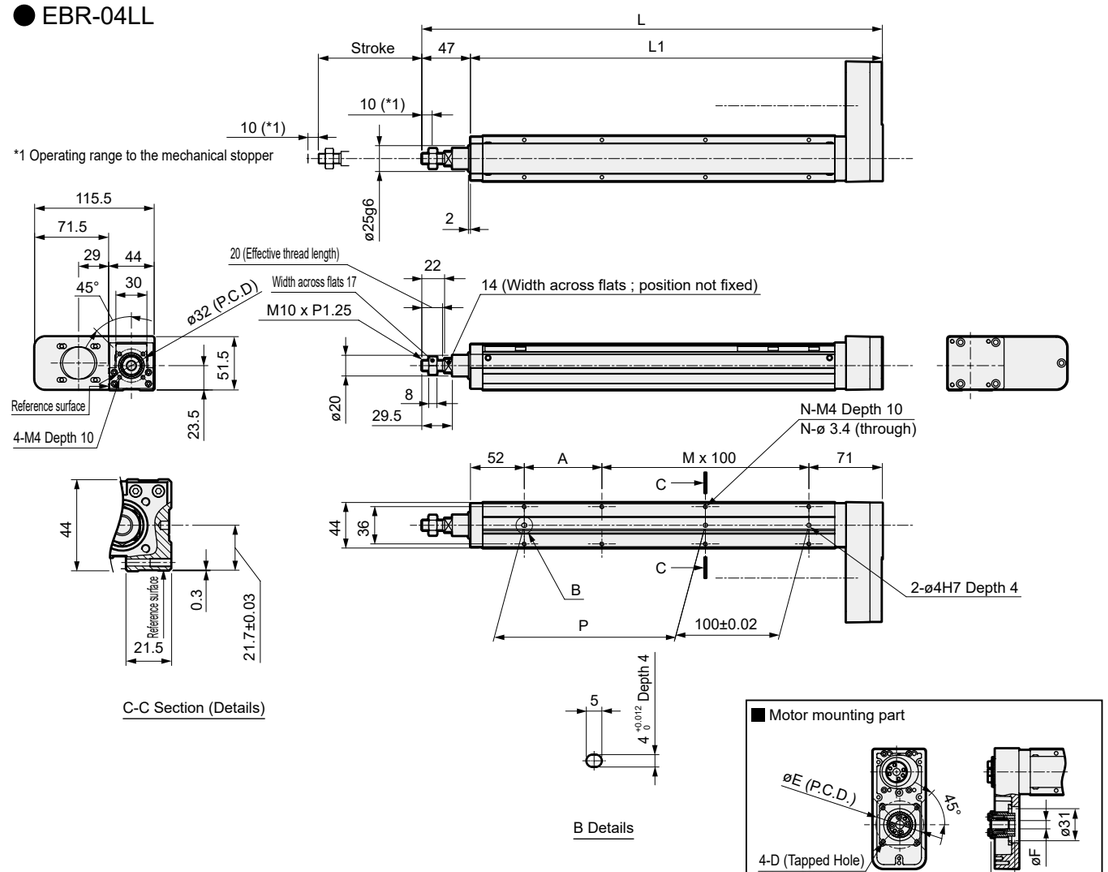
[Home Sensor, Limit Sensor]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.

External Dimension Drawing Motor Left Side Fold-back Mounting

● EBR-04LL



■ Motor mounting part

Mounting Motor Specifications	D	E	F	Motor mounting bolts
M 50 W	M4	ø46	ø8	4-M4 x L12
Y 50 W	M4	ø46	ø8	4-M4 x L12
P 50 W	M3	ø45	ø8	4-M3 x L12
F 50 W	M4	ø46	ø8	4-M4 x L12

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)	50	100	150	200	250	300	350	400
L	295	345	395	445	495	545	595	645
L1	248	298	348	398	448	498	548	598
A	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4
N	6	6	8	8	10	10	12	12
P	25	75	125	175	225	275	325	375
Weight (kg)	1.3	1.5	1.6	1.8	1.9	2.1	2.2	2.4

List of Accessories

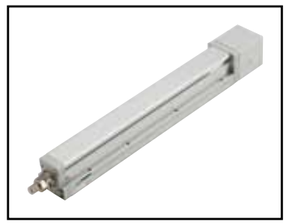
[Motor mounting parts]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

[Home Sensor, Limit Sensor]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.



Electric Actuator (Motorless Specification) Rod Type with Built-in Guide

EBR-05LE

Motor Straight Mounting Type

● Servo Motor Capacity : 100 W

RoHS

How to Order

EBR - 05 L E - 00 - 02 0050 NNN - M 1 N N - X

❶ Body Size

05	Body width 54 mm

❷ Motor

L	None

❸ Motor mounting method

E	Straight Mounting

❹ Screw Lead

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

❺ Stroke

0050 to 0400	50 mm (in 50 mm increments) 400 mm

❻ Mounting Motor Specifications

M, Y, P, F	Select the mounting motor specification from the table on the right.

❼ Motor Capacity

1	100 W

❽ Origin sensor *1

N	None
C	Yes

❾ Limit sensor *1

N	None
B	Yes

❿ Metal Stopper Specification (EBR-X)

	Standard
X	Adopted

Manufacturer	100 W
Mitsubishi Electric Corporation	M
Delta Electronics, Inc.	M
Sanyo Denki Co., Ltd.	M
Yaskawa Electric Corporation	Y
Keyence Corporation	Y
Panasonic Corporation	P
OMRON Corporation	M
Fuji Electric Co., Ltd.	M
FANUC CORPORATION	F
Bosch Rexroth AG	P
Rockwell Automation, Inc.	M
SIEMENS AG	M

* For motor model Nos., please refer to P. 77.

*1 Origin sensor and limit sensor are a set. If either is "None," please select "None" for the other as well.

Specifications

Applicable Motor Capacity		100 W Servo Motor			
Drive Method		Ball screw ø12			
Stroke	mm	50 to 400			
Screw lead	mm	2	5	10	20
Max. Payload *1	kg Horizontal	30	30	15	10
	kg Vertical	10	10	5	2.5
Max. Speed	mm/s	100	250	500	1,000
Rated thrust *1	N	854	341	170	85
Repeatability	mm	±0.01			
Lost Motion	mm	0.1 or less			
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			

* For allowable load at overhang, please refer to P. 104, P. 105.
*1 Rated thrust and maximum payload are guideline values, assuming that the motor mounted will output the rated torque.

Stroke and Max. Speed

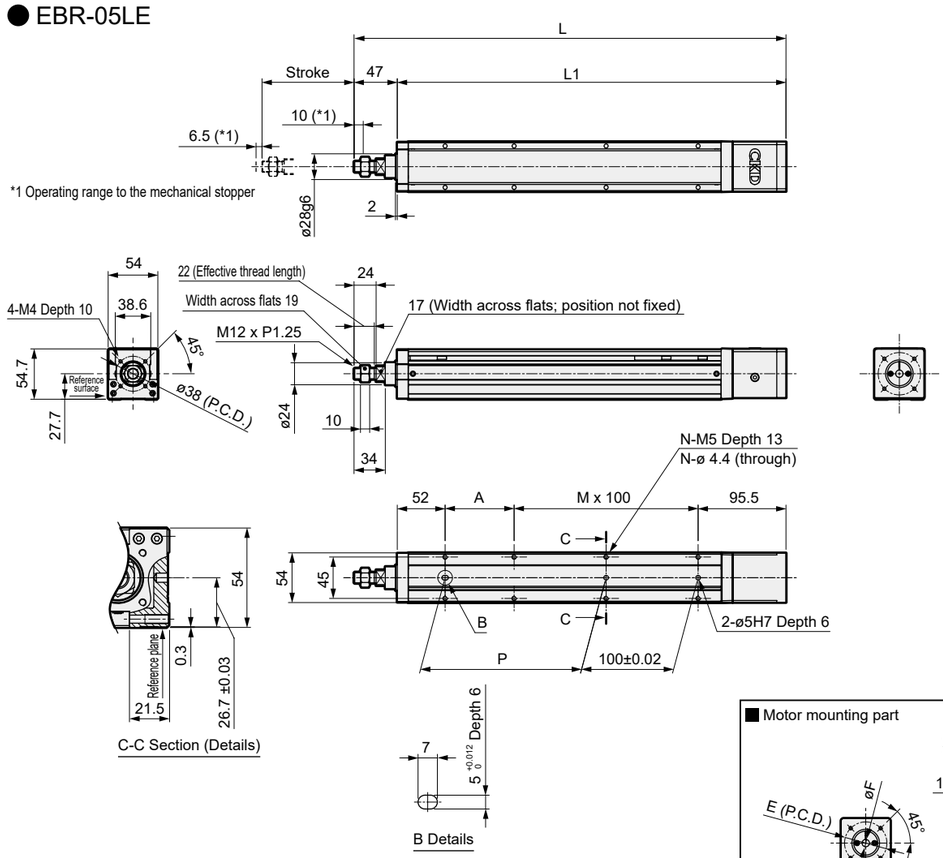
(mm/s)

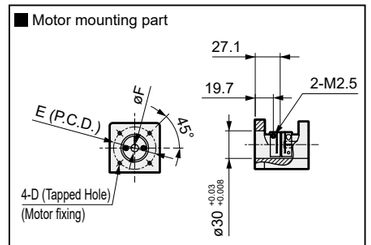
Screw Lead \ Stroke	50 to 250	300 to 400
2	100	85
5	250	200
10	500	400
20	1,000	850

* The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not move at speeds beyond the limit.

External Dimension Drawing Motor Straight Mounting

● EBR-05LE





Mounting Motor Specifications	D	E	F	Motor mounting bolts
M 100 W	M4	ø46	ø8	4-M4 x L12
Y 100 W	M4	ø46	ø8	4-M4 x L12
P 100 W	M3	ø45	ø8	4-M3 x L12
F 100 W	M4	ø46	ø8	4-M4 x L12

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)	50	100	150	200	250	300	350	400
L	319.5	369.5	419.5	469.5	519.5	569.5	619.5	669.5
L1	272.5	322.5	372.5	422.5	472.5	522.5	572.5	622.5
A	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4
N	6	6	8	8	10	10	12	12
P	25	75	125	175	225	275	325	375
Weight (kg)	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.0

List of Accessories

[Motor mounting parts]

Mounting Motor Specification	Coupling	Motor mounting bolt	
		Size	Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

[Home Sensor, Limit Sensor]

Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.

Electric Actuator (Motorless Specification) Rod Type with Built-in Guide

EBR-05L□

Motor Fold-back Mounting Type

● Servo Motor Capacity : 100 W

RoHS

How to Order

EBR - 05 (❶) L (❷) R (❸) - 00 - 02 (❹) 0050 (❺) NNN - M (❻) 1 (❼) N (❽) N (❾) - X (❿)

❶ Body Size

05	Body width 54 mm

❷ Motor

L	None

❸ Motor Mounting Direction

R	Right Side Return Mount
D	Bottom Side Return Mount
L	Left Side Fold-back Mounting

❹ Screw Lead

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

❺ Stroke

0050 to 0400	50 mm (in 50 mm increments) 400 mm

❻ Mounting Motor Specifications

M Y P F	Select the mounting motor specification from the table on the right.

❼ Motor Capacity

1	100 W

❽ Origin sensor *1

N	None
C	Yes

❾ Limit sensor *1

N	None
B	Yes

❿ Metal Stopper Specification (EBR-X)

	Standard
X	Adopted

Manufacturer	100 W
Mitsubishi Electric Corporation	M
Delta Electronics, Inc.	M
Sanyo Denki Co., Ltd.	M
Yaskawa Electric Corporation	Y
Keyence Corporation	Y
Panasonic Corporation	P
OMRON Corporation	M
Fuji Electric Co., Ltd.	M
FANUC CORPORATION	F
Bosch Rexroth AG	P
Rockwell Automation, Inc.	M
SIEMENS AG	M

* For motor model Nos., please refer to P. 77.

*1 Origin sensor and limit sensor are a set. If either is "None," please select "None" for the other as well.

Specifications

Applicable Motor Capacity		100 W Servo Motor			
Drive Method		Ball screw ø12			
Stroke	mm	50 to 400			
Screw Lead		2	5	10	20
Max. Payload *1	kg Horizontal	30	30	15	10
	kg Vertical	10	10	5	2.5
Max. Speed	mm/s	100	250	500	1,000
Rated thrust *1	N	854	341	170	85
Repeatability	mm	±0.01			
Lost Motion	mm	0.1 or less			
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			

* For allowable load at overhang, please refer to P. 104, P.105.
*1 Rated thrust and maximum payload are guideline values, assuming that the motor mounted will output the rated torque.

Stroke and Max. Speed

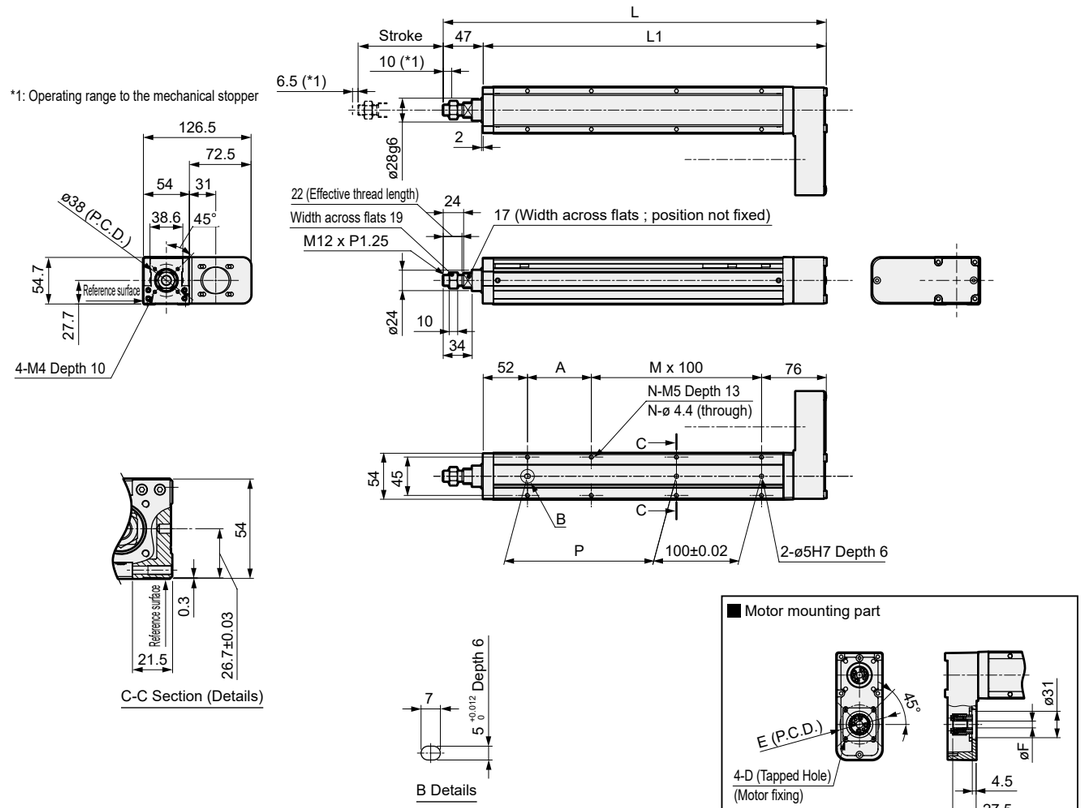
(mm/s)

Lead \ Stroke	50 to 250	300	350	400
2	100	85		
5	250	200		
10	500	400		
20	1,000	850		

* The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not operate at speeds exceeding the limit. Please use lead 2 at 0.5 G or less.

External Dimension Drawing Motor Right Side Fold-back Mounting

● EBR-05LR



Mounting Motor Specifications	D	E	F	Motor screw
M 100 W	M4	ø46	ø8	4-M4 x L12
Y 100 W	M4	ø46	ø8	4-M4 x L12
P 100 W	M3	ø45	ø8	4-M3 x L12
F 100 W	M4	ø46	ø8	4-M4 x L12

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)	50	100	150	200	250	300	350	400
L	300	350	400	450	500	550	600	650
L1	253	303	353	403	453	503	553	603
A	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4
N	6	6	8	8	10	10	12	12
P	25	75	125	175	225	275	325	375
Weight (kg)	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.2

List of Accessories

[Fold-back Type]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Attached Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

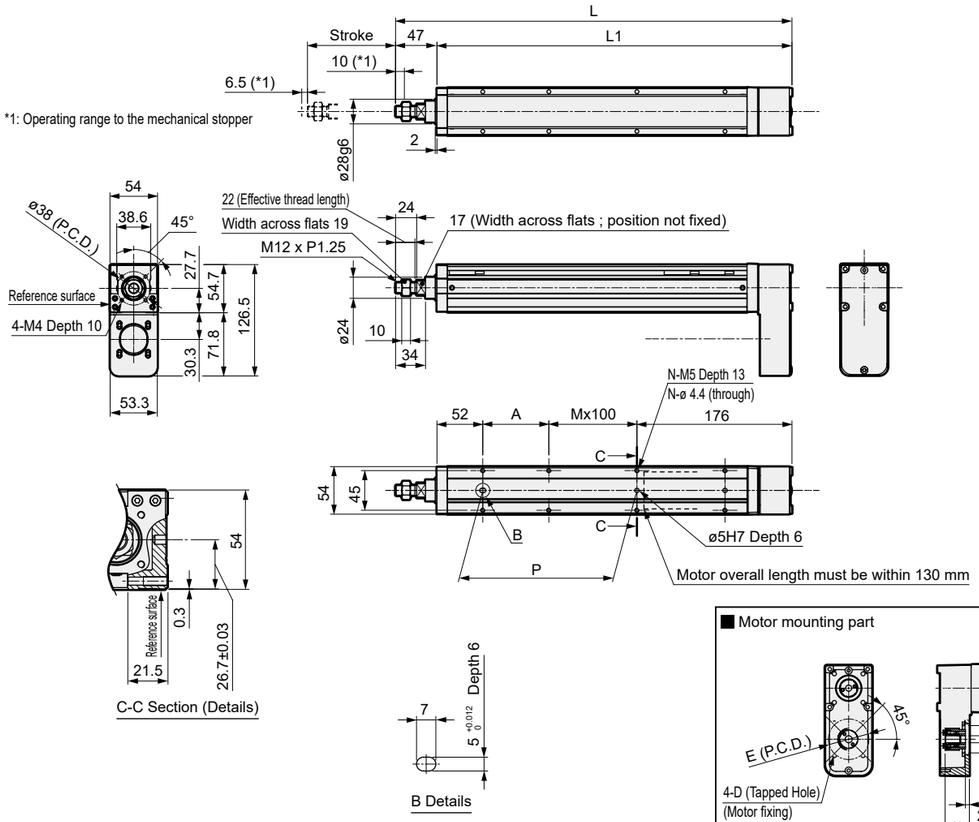
[When home sensor and limit sensor are selected]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.

External Dimension Drawing Motor Bottom Side Fold-back Mounting

● EBR-05LD



■ Motor mounting part

Mounting Motor Specifications	D	E	F	Motor screw
M 100 W	M4	ø46	ø8	4-M4 x L12
Y 100 W	M4	ø46	ø8	4-M4 x L12
P 100 W	M3	ø45	ø8	4-M3 x L12
F 100 W	M4	ø46	ø8	4-M4 x L12

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)	50	100	150	200	250	300	350	400
L	300	350	400	450	500	550	600	650
L1	253	303	353	403	453	503	553	603
A	25	75	25	75	25	75	25	75
M	0	0	1	1	2	2	3	3
N	4	4	6	6	8	8	10	10
P	25	75	125	175	225	275	325	375
Weight (kg)	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.2

List of Accessories

[Fold-back Type]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Attached Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

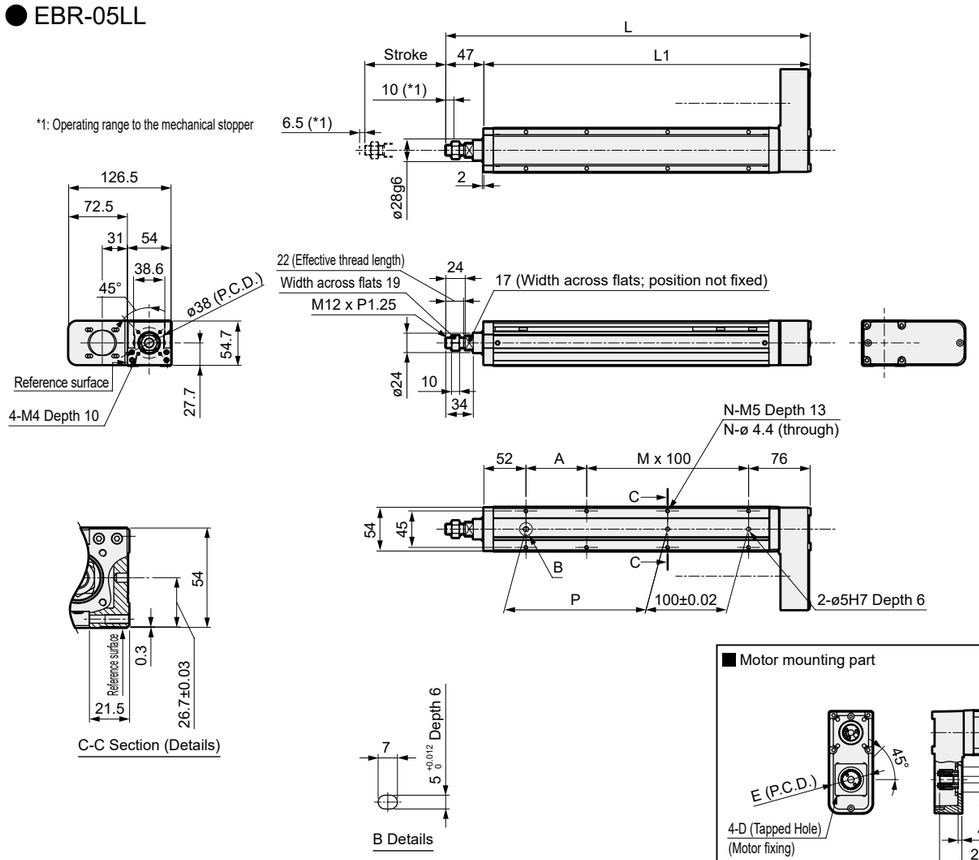
[When home sensor and limit sensor are selected]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.

External Dimension Drawing Motor Left Side Fold-back Mounting

● EBR-05LL



■ Motor mounting part

Mounting Motor Specifications	D	E	F	Motor screw
M 100 W	M4	ø46	ø8	4-M4 x L12
Y 100 W	M4	ø46	ø8	4-M4 x L12
P 100 W	M3	ø45	ø8	4-M3 x L12
F 100 W	M4	ø46	ø8	4-M4 x L12

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)	50	100	150	200	250	300	350	400
L	300	350	400	450	500	550	600	650
L1	253	303	353	403	453	503	553	603
A	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4
N	6	6	8	8	10	10	12	12
P	25	75	125	175	225	275	325	375
Weight (kg)	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.2

List of Accessories

[Fold-back Type]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Attached Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

[When home sensor and limit sensor are selected]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.

Electric Actuator (Motorless Specification) Rod Type with Built-in Guide

EBR-08LE

Motor Straight Mounting Type

● Servo Motor Capacity : 200 W

RoHS

How to Order

EBR - 08 L E - 00 - 05 0050 NNN - M 2 N N - X

❶ Body Size

08	Body width 82 mm

❷ Motor

L	None

❸ Motor Mounting Direction

E	Straight Mounting

❹ Screw Lead

05	5 mm
10	10 mm
20	20 mm

❺ Stroke

0050 to 0700	50 mm (in 50 mm increments) to 700 mm

❻ Mounting Motor Specifications

M	Select the mounting motor specification from the table on the right.
Y	
P	
F	

❼ Motor Capacity

2	200 W

❽ Origin sensor *1

N	None
C	Yes

❾ Limit sensor *1

N	None
B	Yes

❿ Metal Stopper Specification (EBR-X)

	Standard
X	Adopted

Manufacturer	200 W
Mitsubishi Electric Corporation	M
Delta Electronics, Inc.	M
Sanyo Denki Co., Ltd.	M
Yaskawa Electric Corporation	Y
Keyence Corporation	Y
Panasonic Corporation	P
OMRON Corporation	P
Fuji Electric Co., Ltd.	M
FANUC CORPORATION	F
Bosch Rexroth AG	P
Rockwell Automation, Inc.	M
SIEMENS AG	M

*1 Origin sensor and limit sensor are a set. If either is "None," please select "None" for the other as well.

* For motor model Nos., please refer to P. 77.

Specifications

Applicable Motor Capacity		200 W Servo Motor		
Drive Method		Ball screw ø16		
Stroke	mm	50 to 700		
Screw lead	mm	5	10	20
Max. Payload *1	kg Horizontal	50	30	12
	kg Vertical	15	8	2.5
Max. Speed	mm/s	250	500	1,000
Rated thrust *1	N	683	341	174
Repeatability	mm	±0.01		
Lost Motion	mm	0.1 or less		
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		

* For allowable load at overhang, please refer to P. 104, P. 105.
*1 Rated thrust and maximum payload are guideline values, assuming that the motor mounted will output the rated torque.

Stroke and Max. Speed

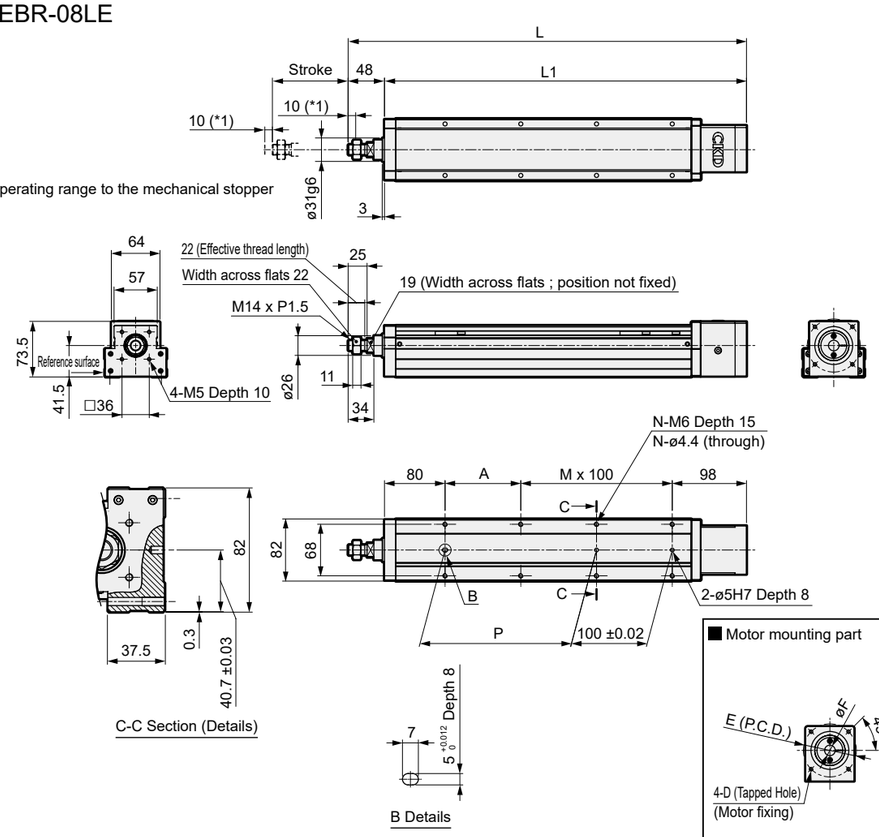
(mm/s)

Screw Lead \ Stroke	50 to 300	350 to 700
5	250	200
10	500	400
20	1,000	850

* The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not move at speeds beyond the limit.

External Dimension Drawing Motor Straight Mounting

● EBR-08LE



Mounting Motor Specifications	D	E	F	G	H	Motor mounting bolts
M 200 W	M5	ø70	ø14	31.1	22.5	4-M5 x L18
Y 200 W	M5	ø70	ø14	31.1	22.5	4-M5 x L18
P 200 W	M4	ø70	ø11	31.1	22.5	4-M4 x L18
F 200 W	M5	ø70	ø9	29.1	20.5	4-M5 x L16

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700
Stroke (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700
L	376	426	476	526	576	626	676	726	776	826	876	926	976	1026
L1	328	378	428	478	528	578	628	678	728	778	828	878	928	978
A	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
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Weight (kg)	4.0	4.4	4.8	5.1	5.5	5.9	6.3	6.6	7.0	7.4	7.7	8.1	8.5	8.8

List of Accessories

[Motor Mounting Parts]

Mounting Motor Specification	Coupling	Motor mounting bolt	
		Size	Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

[Home Sensor, Limit Sensor]

Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.

Electric actuator (motorless specifications) Rod with built-in guide

EBR-08L□

Motor Fold-back Mounting Type

● Servo Motor Capacity : 200 W

RoHS

How to Order

EBR - 08 L R - 00 - 05 0050 NNN - M 2 N N - X

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾ ❿

❶ Body Size	
08	Body width 82 mm

❷ Motor	
L	None

❸ Motor Mounting Direction	
R	Right Side Return Mount
D	Bottom Side Return Mount
L	Left Side Fold-back Mounting

❹ Screw Lead	
05	5 mm
10	10 mm
20	20 mm

❺ Stroke	
0050 to 0700	50 mm (in 50 mm increments) 700 mm

❻ Mounting Motor Specifications	
M, Y, P, F	Select the mounting motor specification from the table on the right.

❼ Motor Capacity	
2	200 W

❽ Origin sensor *1	
N	None
C	Yes

❾ Limit sensor *1	
N	None
B	Yes

❿ Metal Stopper Specification (EBR-X)	
	Standard
X	Adopted

Manufacturer	200 W
Mitsubishi Electric Corporation	M
Delta Electronics, Inc.	M
Sanyo Denki Co., Ltd.	M
Yaskawa Electric Corporation	Y
Keyence Corporation	Y
Panasonic Corporation	P
OMRON Corporation	P
Fuji Electric Co., Ltd.	M
FANUC CORPORATION	F
Bosch Rexroth AG	P
Rockwell Automation, Inc.	M
SIEMENS AG	M

* For motor model Nos., please refer to P. 77.

*1 Origin sensor and limit sensor are a set. If either is "None," please select "None" for the other as well.

Specifications

Applicable Motor Capacity		200 W Servo Motor		
Drive Method		Ball screw ø16		
Stroke	mm	50 to 700		
Screw Lead		5	10	20
Max. Payload	kg Horizontal	50	30	12
	kg Vertical	15	8	2.5
Max. Speed	mm/s	250	500	1,000
Rated thrust	N	683	341	174
Repeatability	mm	±0.01		
Lost Motion	mm	0.1 or less		
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		

* For allowable load at overhang, please refer to P. 104, 105.
*1 Rated thrust and maximum payload are guideline values, assuming that the motor mounted will output the rated torque.

Stroke and Max. Speed

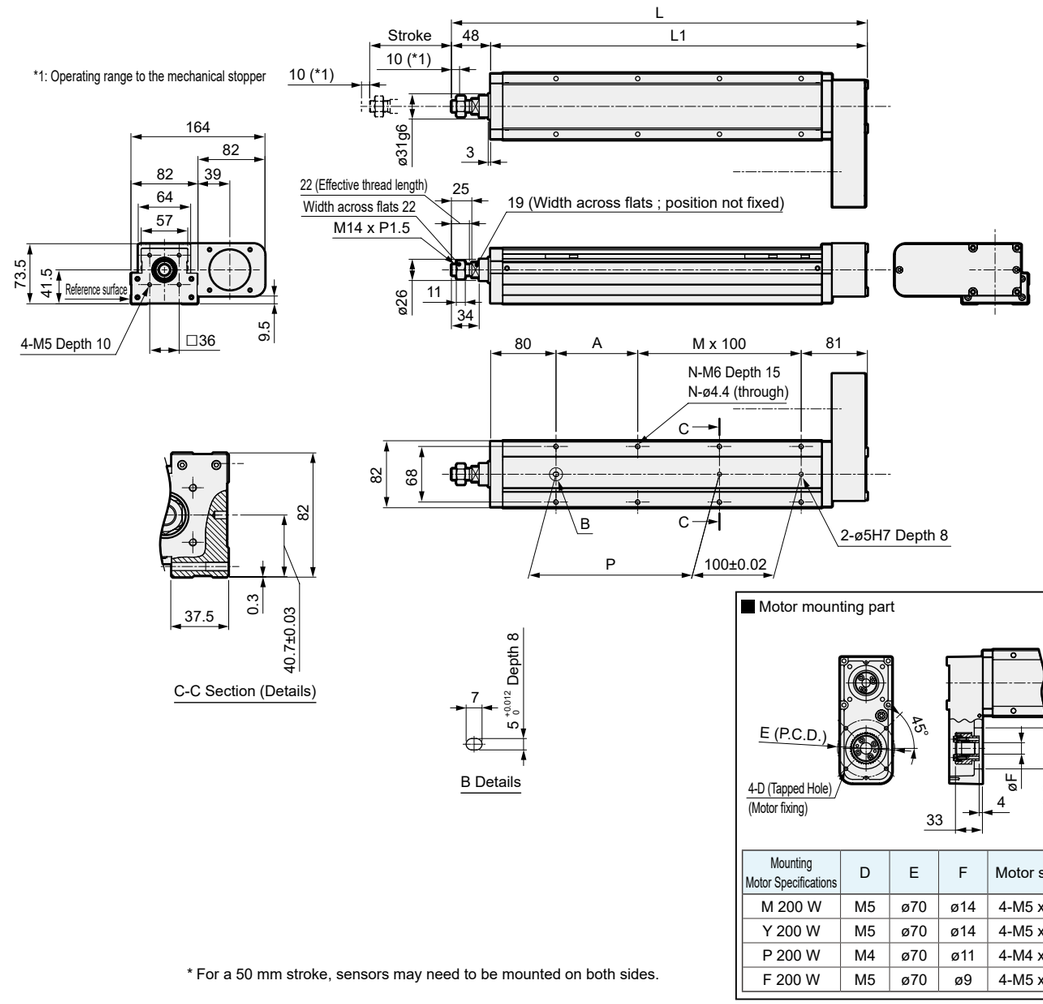
(mm/s)

Screw Lead \ Stroke	50 to 300	350 to 700
5	250	200
10	500	400
20	1,000	850

* The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not move at speeds beyond the limit.

External Dimension Drawing Motor Right Side Fold-back Mounting

● EBR-08LR



Mounting Motor Specifications	D	E	F	Motor screw
M 200 W	M5	ø70	ø14	4-M5 x L18
Y 200 W	M5	ø70	ø14	4-M5 x L18
P 200 W	M4	ø70	ø11	4-M4 x L18
F 200 W	M5	ø70	ø9	4-M5 x L16

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700
Stroke (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700
L	359	409	459	509	559	609	659	709	759	809	859	909	959	1009
L1	311	361	411	461	511	561	611	661	711	761	811	861	911	961
A	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
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Weight (kg)	4.4	4.8	5.1	5.5	5.9	6.2	6.6	7.0	7.3	7.7	8.1	8.4	8.8	9.1

List of Accessories

[Fold-back Type]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Attached Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

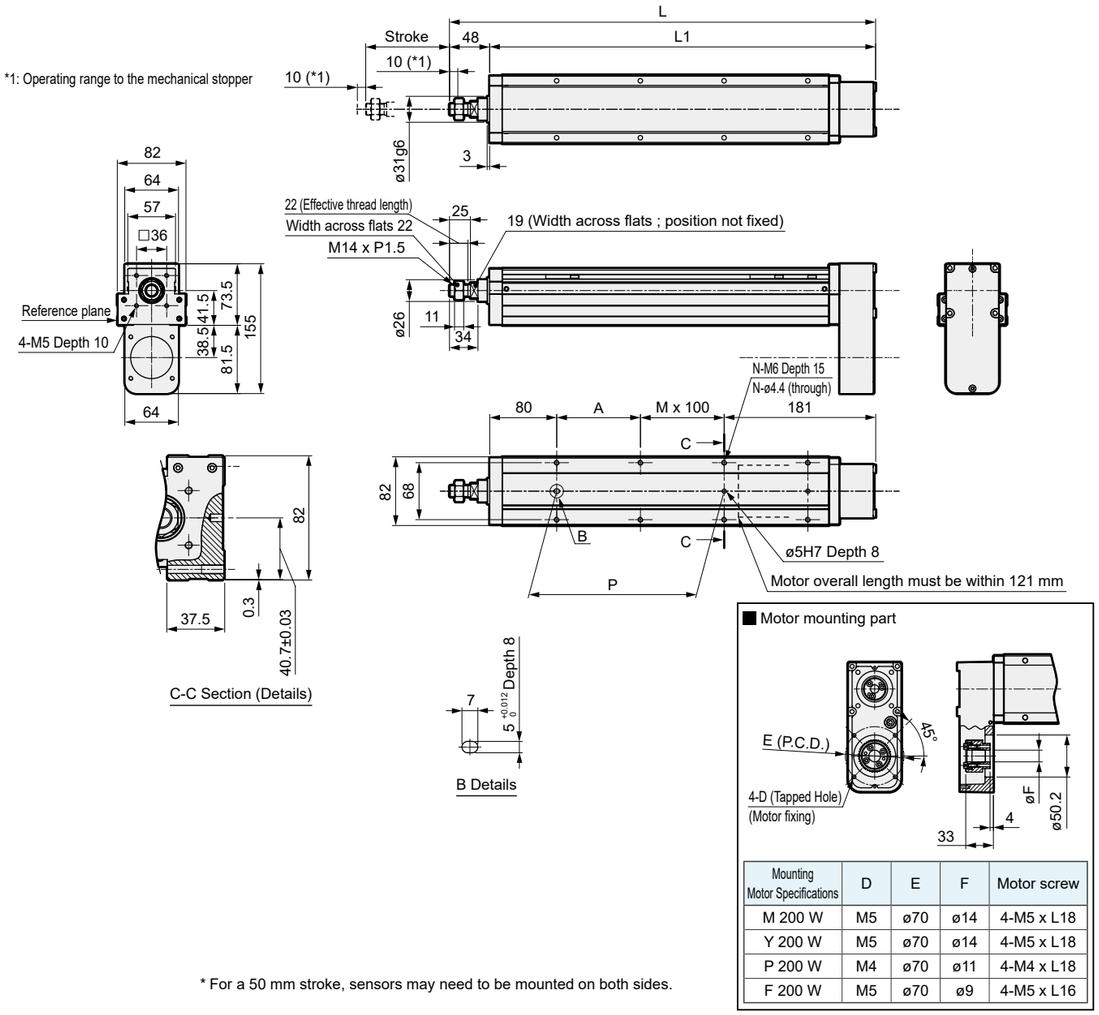
[When home sensor and limit sensor are selected]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.

External Dimension Drawing Motor Bottom Side Fold-back Mounting

● EBR-08LD



Mounting Motor Specifications	D	E	F	Motor screw
M 200 W	M5	ø70	ø14	4-M5 x L18
Y 200 W	M5	ø70	ø14	4-M5 x L18
P 200 W	M4	ø70	ø11	4-M4 x L18
F 200 W	M5	ø70	ø9	4-M5 x L16

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700
Stroke (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700
L	359	409	459	509	559	609	659	709	759	809	859	909	959	1009
L1	311	361	411	461	511	561	611	661	711	761	811	861	911	961
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	0	0	1	1	2	2	3	3	4	4	5	5	6	6
N	4	4	6	6	8	8	10	10	12	12	14	14	16	16
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Weight (kg)	4.4	4.8	5.1	5.5	5.9	6.2	6.6	7.0	7.3	7.7	8.1	8.4	8.8	9.1

List of Accessories

[Fold-back Type]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Attached Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

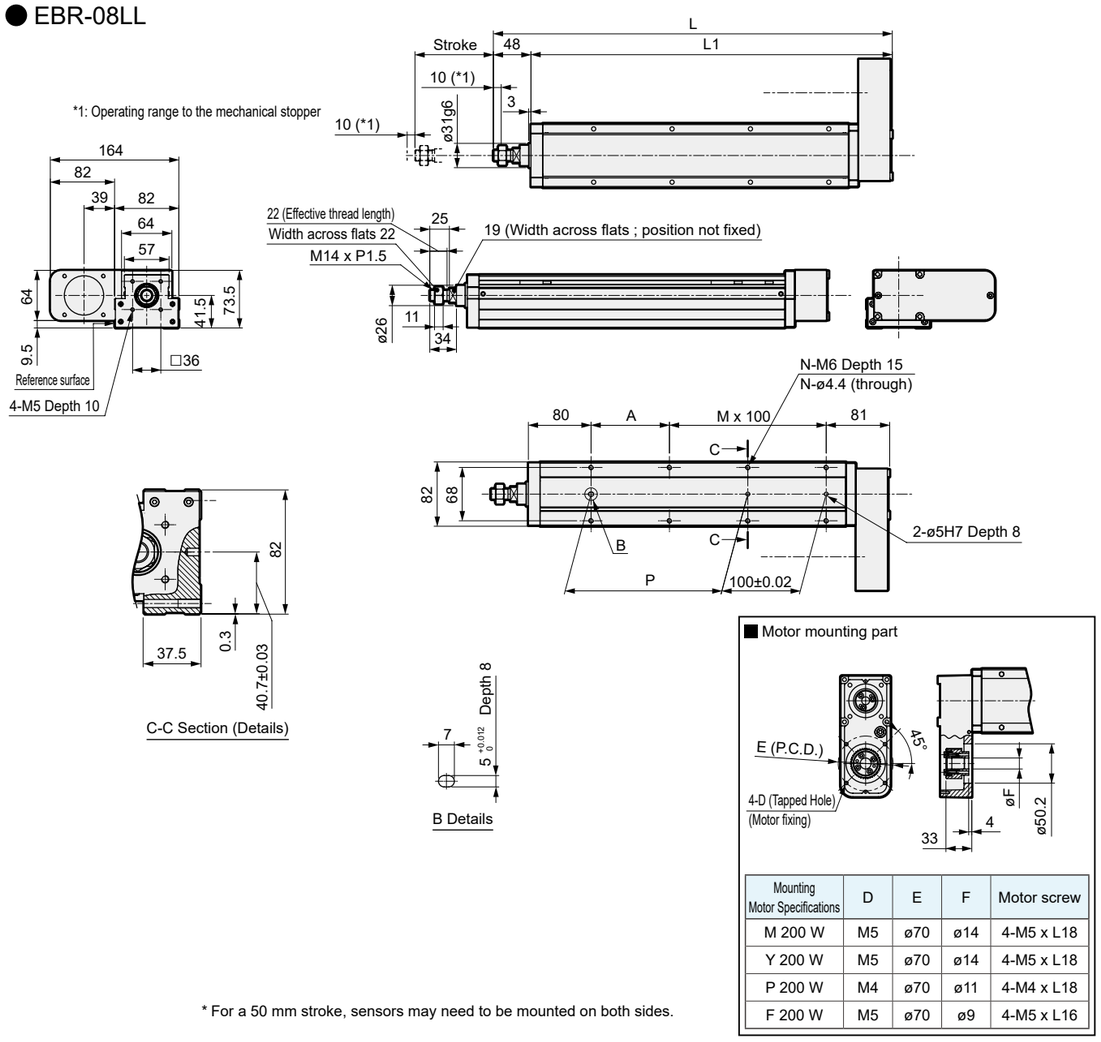
[When home sensor and limit sensor are selected]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.

External Dimension Drawing Motor Left Side Fold-back Mounting

● EBR-08LL



Mounting Motor Specifications	D	E	F	Motor screw
M 200 W	M5	ø70	ø14	4-M5 x L18
Y 200 W	M5	ø70	ø14	4-M5 x L18
P 200 W	M4	ø70	ø11	4-M4 x L18
F 200 W	M5	ø70	ø9	4-M5 x L16

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700
Stroke (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700
L	359	409	459	509	559	609	659	709	759	809	859	909	959	1009
L1	311	361	411	461	511	561	611	661	711	761	811	861	911	961
A	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
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700
Weight (kg)	4.4	4.8	5.1	5.5	5.9	6.2	6.6	7.0	7.3	7.7	8.1	8.4	8.8	9.1

List of Accessories

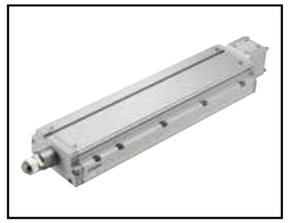
[Fold-back Type]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Attached Quantity
M	Shipped included	M4	4
Y		M4	4
P		M3	4
F		M4	4

[When home sensor and limit sensor are selected]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.



Electric Actuator (Motorless Specification) Rod Type with Built-in Guide

EBR-12LE

Motor Straight Mounting Type

● Servo Motor Capacity : 400 W

RoHS

How to Order

EBR - 12 L E - 00 - 05 0050 NNN - M 4 N N

❶ Body Size

12	Body width 120 mm

❷ Motor

L	None

❸ Motor Mounting Direction

E	Straight Mounting

❹ Screw Lead

05	5 mm
10	10 mm
20	20 mm
32	32 mm

❺ Stroke

0050 to 0800	50 mm (every 50 mm) 800 mm

❻ Mounting Motor Specifications

M	Select the mounting motor specification from the table on the right.
Y	
P	

❼ Motor Capacity

4	400 W

❽ Origin sensor *1

N	None
C	Yes

❾ Limit sensor *1

N	None
B	Yes

Manufacturer	400 W
Mitsubishi Electric Corporation	M
Delta Electronics, Inc.	M
Sanyo Denki Co., Ltd.	M
Yaskawa Electric Corporation	Y
Keyence Corporation	Y
Panasonic Corporation	P
OMRON Corporation	P
Fuji Electric Co., Ltd.	M
Bosch Rexroth AG	P
Rockwell Automation, Inc.	M
SIEMENS AG	M

* For motor model Nos., please refer to P. 77.

*1 Origin sensor and limit sensor are a set. If either is "None," please select "None" for the other as well.

Specifications

Applicable Motor Capacity		400 W Servo Motor			
Drive Method		Ball screw ø16			
Stroke	mm	50 to 800			
Screw lead	mm	5	10	20	32
Max. Payload *1	kg Horizontal	110	88	40	30
	kg Vertical	33	22	10	8
Max. Speed	mm/s	250	500	1,000	1600
Rated thrust *1	N	1388	694	347	218
Repeatability	mm	±0.01			
Lost Motion	mm	0.1 or less			
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			

* For allowable load at overhang, please refer to P. 104, 105.
*1 Rated thrust and maximum payload are guideline values, assuming that the motor mounted will output the rated torque.

Stroke and Max. Speed

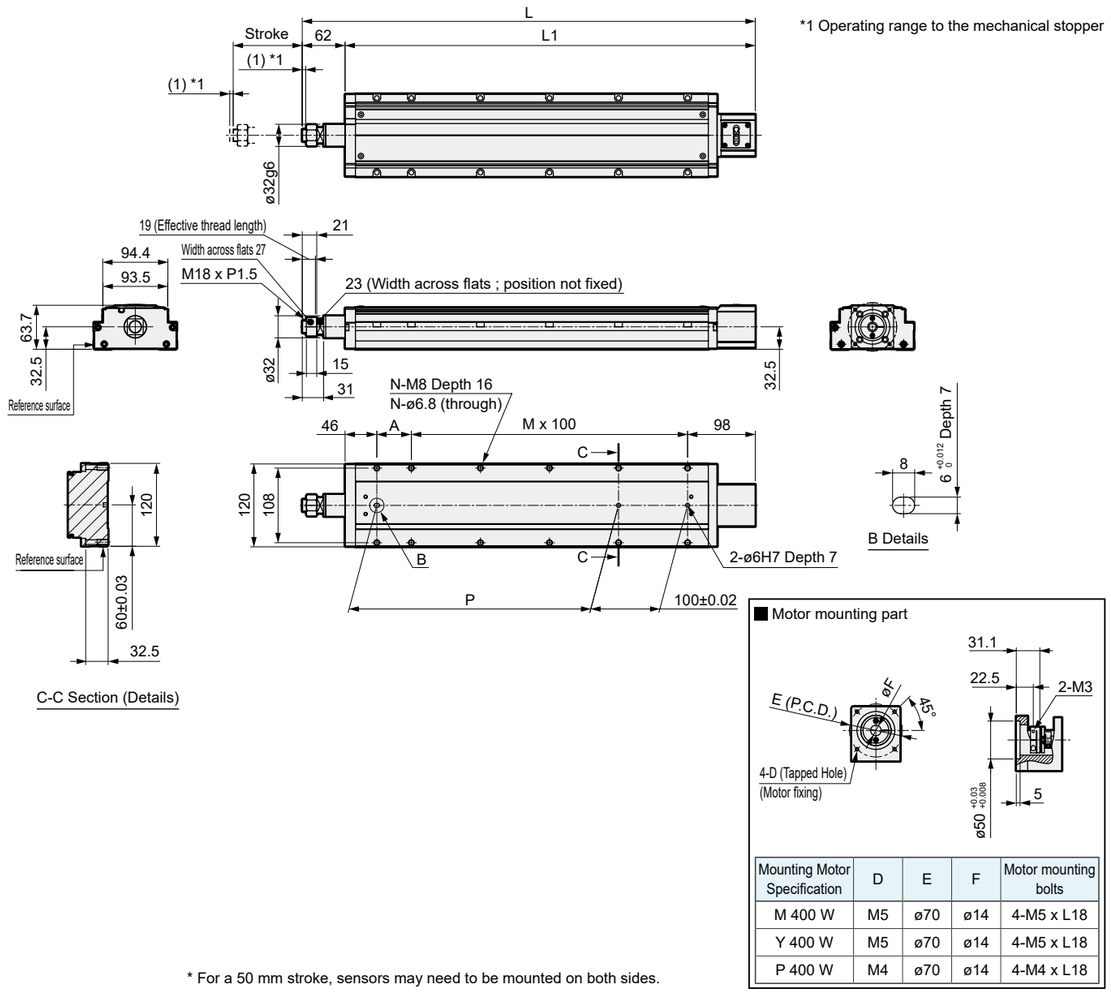
(mm/s)

Screw Lead \ Stroke	50 to 300	350 to 800
5	250	200
10	500	400
20	1,000	850
32	1600	1350

* The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not move at speeds beyond the limit.

External Dimension Drawing Motor Straight Mounting

● EBR-12LE



*1 Operating range to the mechanical stopper

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Mounting Motor Specification	D	E	F	Motor mounting bolts
M 400 W	M5	ø70	ø14	4-M5 x L18
Y 400 W	M5	ø70	ø14	4-M5 x L18
P 400 W	M4	ø70	ø14	4-M4 x L18

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700	0750	0800
Stroke (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	406	456	506	556	606	656	706	756	806	856	906	956	1006	1056	1106	1156
L1	344	394	444	494	544	594	644	694	744	794	844	894	944	994	1044	1094
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
Weight (kg)	4.9	5.4	5.9	6.4	6.9	7.4	7.9	8.4	8.9	9.4	9.9	10.4	10.9	11.4	11.9	12.4

List of Accessories

[Motor mounting parts]

Mounting Motor Specification	Coupling	Motor mounting bolt	
		Size	Quantity
M	Shipped Included	M5	4
Y		M5	4
P		M4	4

[Home Sensor, Limit Sensor]

Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.

Electric actuator (motorless specifications) Rod with built-in guide

EBR-12L□

Motor Fold-back Mounting Type

● Servo Motor Capacity : 400 W

RoHS

How to Order

EBR - 12 L R - 00 - 05 0050 NNN - M 4 N N

❶ Body Size

12	Body width 120 mm

❷ Motor

L	None

❸ Motor Mounting Direction

R	Right Side Return Mount
D	Bottom Side Return Mount
L	Left Side Fold-back Mounting

❹ Screw Lead

05	5 mm
10	10 mm
20	20 mm
32	32 mm

❺ Stroke

0050 to 0800	50 mm (every 50 mm) 800 mm

❻ Mounting Motor Specifications

M	Select the mounting motor specification from the table on the right.
Y	
P	

❼ Motor Capacity

4	400 W

❽ Origin sensor*1

N	None
C	Yes

❾ Limit sensor *1

N	None
B	Yes

Manufacturer	400 W
Mitsubishi Electric Corporation	M
Delta Electronics, Inc.	M
Sanyo Denki Co., Ltd.	M
Yaskawa Electric Corporation	Y
Keyence Corporation	Y
Panasonic Corporation	P
OMRON Corporation	P
Fuji Electric Co., Ltd.	M
Bosch Rexroth AG	P
Rockwell Automation, Inc.	M
SIEMENS AG	M

* For motor model Nos., please refer to P. 77.

*1 Origin sensor and limit sensor are a set. If either is "None," please select "None" for the other as well.

Specifications

Applicable Motor Capacity		400 W Servo Motor			
Drive Method		Ball screw ø16			
Stroke	mm	50 to 800			
Screw lead	mm	5	10	20	32
Max. Payload *1	kg Horizontal	110	88	40	30
	kg Vertical	33	22	10	8
Max. Speed	mm/s	250	500	1,000	1600
Rated thrust *1	N	1388	694	347	218
Repeatability	mm	±0.01			
Lost Motion	mm	0.1 or less			
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			

* For allowable load at overhang, please refer to P. 104, 105.
*1 Rated thrust and maximum payload are guideline values, assuming that the motor mounted will output the rated torque.

Stroke and Max. Speed

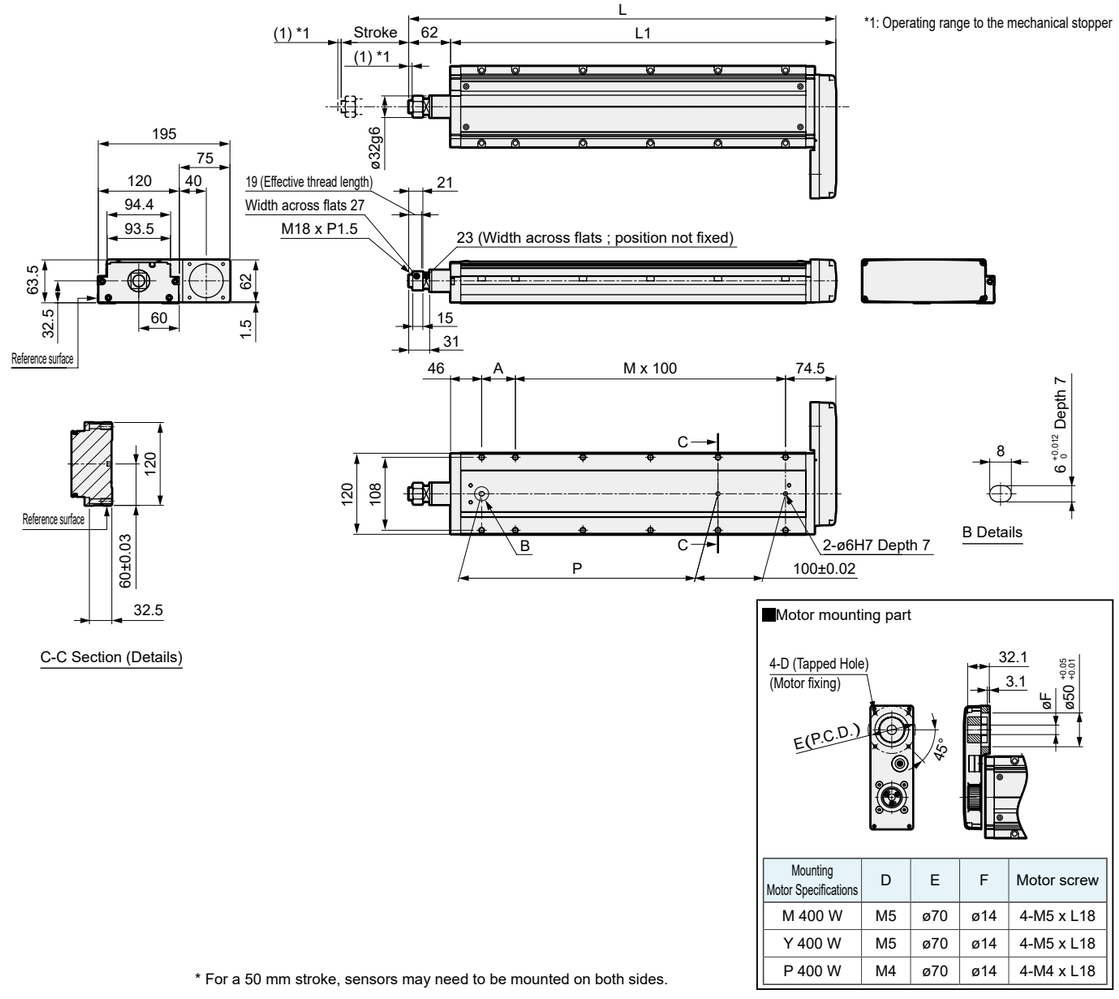
(mm/s)

Screw Lead \ Stroke	50 to 300	350 to 800
5	250	200
10	500	400
20	1,000	850
32	1600	1350

* The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not move at speeds beyond the limit.

External Dimension Drawing Motor Right Side Fold-back Mounting

● EBR-12LR



■Motor mounting part

Mounting Motor Specifications	D	E	F	Motor screw
M 400 W	M5	ø70	ø14	4-M5 x L18
Y 400 W	M5	ø70	ø14	4-M5 x L18
P 400 W	M4	ø70	ø14	4-M4 x L18

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700	0750	0800
Stroke (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	382.5	432.5	482.5	532.5	582.5	632.5	682.5	732.5	782.5	832.5	882.5	932.5	982.5	1032.5	1082.5	1132.5
L1	320.5	370.5	420.5	470.5	520.5	570.5	620.5	670.5	720.5	770.5	820.5	870.5	920.5	970.5	1020.5	1070.5
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
Weight (kg)	5.4	5.8	6.3	6.8	7.3	7.8	8.3	8.8	9.2	9.7	10.2	10.7	11.2	11.7	12.2	12.6

List of Accessories

[Fold-back Type]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Attached Quantity
M	Shipped included	M5	4
Y		M5	4
P		M4	4

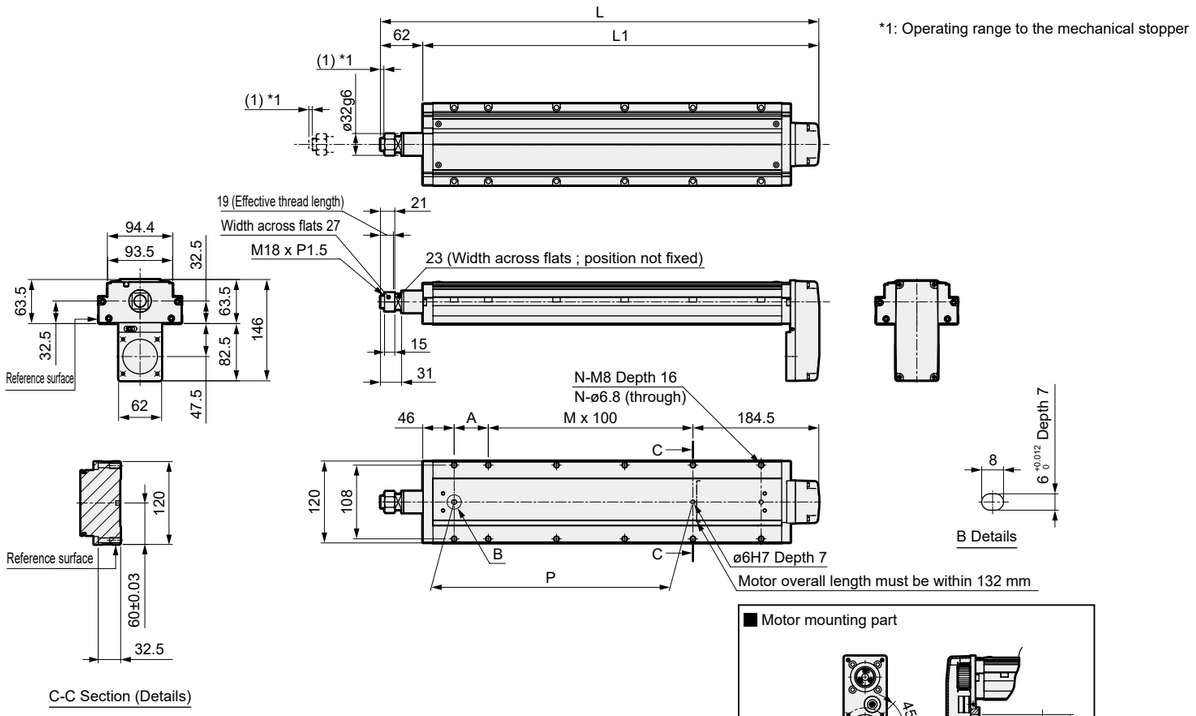
[When home sensor and limit sensor are selected]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

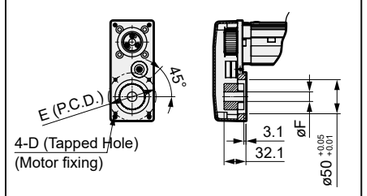
* For sensor specifications, please refer to P. 108.

External Dimension Drawing Motor Bottom Side Fold-back Mounting

● EBR-12LD



■ Motor mounting part



Mounting Motor Specifications	D	E	F	Motor screw
M 400 W	M5	ø70	ø14	4-M5 x L18
Y 400 W	M5	ø70	ø14	4-M5 x L18
P 400 W	M4	ø70	ø14	4-M4 x L18

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700	0750	0800
Stroke (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	392.5	442.5	492.5	542.5	592.5	642.5	692.5	742.5	792.5	842.5	892.5	942.5	992.5	1042.5	1092.5	1142.5
L1	330.5	380.5	430.5	480.5	530.5	580.5	630.5	680.5	730.5	780.5	830.5	880.5	930.5	980.5	1030.5	1080.5
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
Weight (kg)	5.3	5.8	6.3	6.8	7.3	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.1	11.6	12.1	12.6

List of Accessories

[Fold-back Type]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Attached Quantity
M	Shipped included	M5	4
Y		M5	4
P		M4	4

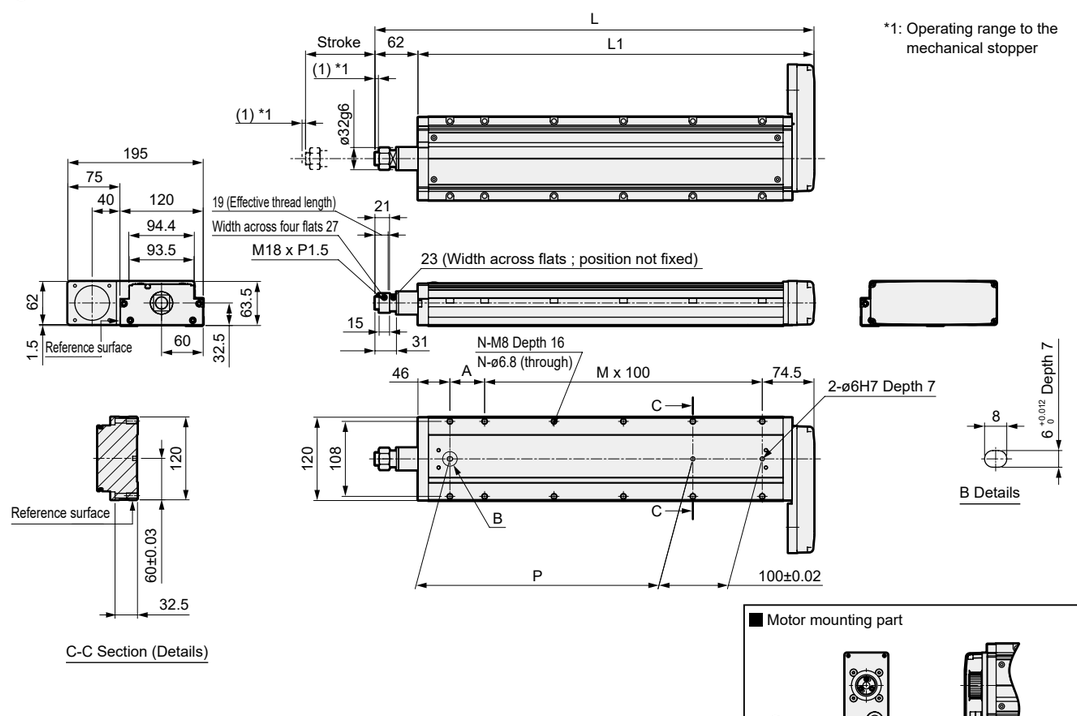
[When home sensor and limit sensor are selected]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

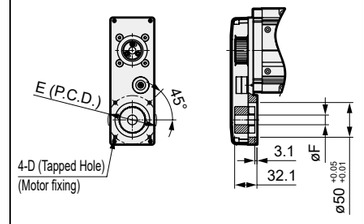
* For sensor specifications, please refer to P. 108.

External Dimension Drawing Motor Left Side Fold-back Mounting

● EBR-12LL



■ Motor mounting part



Mounting Motor Specifications	D	E	F	Motor screw
M 400 W	M5	ø70	ø14	4-M5 x L18
Y 400 W	M5	ø70	ø14	4-M5 x L18
P 400 W	M4	ø70	ø14	4-M4 x L18

* For a 50 mm stroke, sensors may need to be mounted on both sides.

Stroke Code	0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700	0750	0800
Stroke (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	382.5	432.5	482.5	532.5	582.5	632.5	682.5	732.5	782.5	832.5	882.5	932.5	982.5	1032.5	1082.5	1132.5
L1	320.5	370.5	420.5	470.5	520.5	570.5	620.5	670.5	720.5	770.5	820.5	870.5	920.5	970.5	1020.5	1070.5
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
Weight (kg)	5.4	5.8	6.3	6.8	7.3	7.8	8.3	8.8	9.2	9.7	10.2	10.7	11.2	11.7	12.2	12.6

List of Accessories

[Fold-back Type]

Mounting Motor Specification	Timing belt, pulley	Motor mounting bolt	
		Size	Attached Quantity
M	Shipped included	M5	4
Y		M5	4
P		M4	4

[When home sensor and limit sensor are selected]

Sensor		
Manufacturer	Model	Attached Quantity
KITA	KT-32N-2M	3

* For sensor specifications, please refer to P. 108.

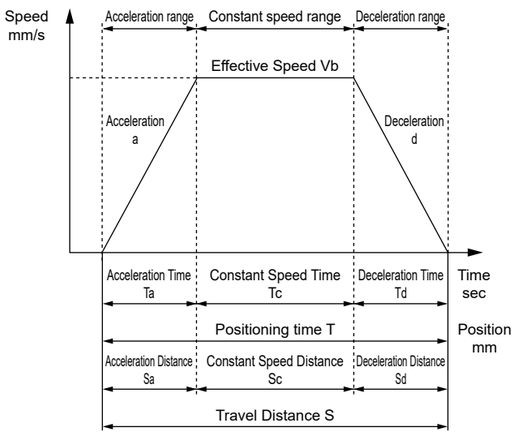
Model Selection

STEP1 Confirmation of Payload

Payload varies depending on the mounting orientation and screw lead. Select the size and screw lead by referring to the System Table (P. 74) and the specification table for each model.

STEP2 Confirmation of Positioning Time

Calculate the positioning time for the selected product according to the example below and check if it meets the required tact time.
Select the speed and acceleration/deceleration from the specification table for each model and the motor selected by the customer.



	Content	Code	Unit	Remarks
Setting Value	Set Speed	V	mm/s	
	Set Acceleration	a	mm/s²	
	Set Deceleration	d	mm/s²	
	Travel Distance	S	mm	
Calculated Value	Reached Speed	Vmax	mm/s	$=\{2 \times a \times d \times S / (a + d)\}^{1/2}$
	Effective Speed	Vb	mm/s	The smaller of V and Vmax
	Acceleration Time	Ta	s	= Vb / a
	Deceleration Time	Td	s	= Vb / d
	Constant Speed Time	Tc	s	= Sc / Vb
	Acceleration Distance	Sa	mm	$= (a \times Ta^2) / 2$
	Deceleration Distance	Sd	mm	$= (d \times Td^2) / 2$
	Constant Speed Distance	Sc	mm	= S - (Sa + Sd)
	Positioning Time	T	s	= Ta + Tc + Td

* Do not use at speeds exceeding the specifications.
* Depending on the acceleration/deceleration and stroke, a trapezoidal velocity waveform may not be formed (the set speed may not be reached).
  In that case, select the smaller of the set speed (V) and the reached speed (Vmax) as the effective speed (Vb).
* Use at acceleration and deceleration of 1 G or less for horizontal use and 0.5 G or less for vertical use.
* The settling time varies depending on the operating conditions, but it may take about 0.2 s.
* 1 G ≈ 9.8 m/s².

STEP3 Confirmation of Allowable Load Weight

Confirm that the load weight during operation is within the allowable load weight range (P. 104, P. 105). If the allowable load weight is exceeded, please increase the size or use an external guide in combination.

For details on selection, please check the "Model Selection System" on the CKD website or contact our sales representative.

Introduction to the Model Selection System on our website

[For confirmation via PC]

(https://www.ckd.co.jp/kiki/en/selection_system/)

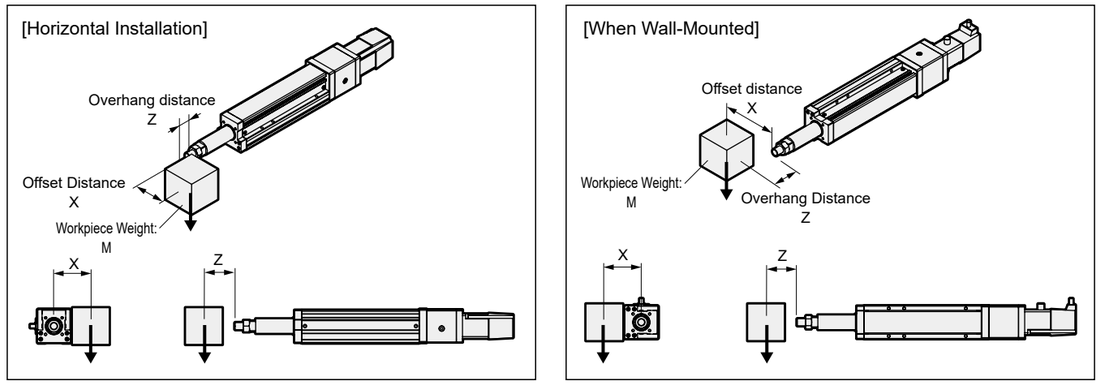
[For confirmation via iPad or smartphone]

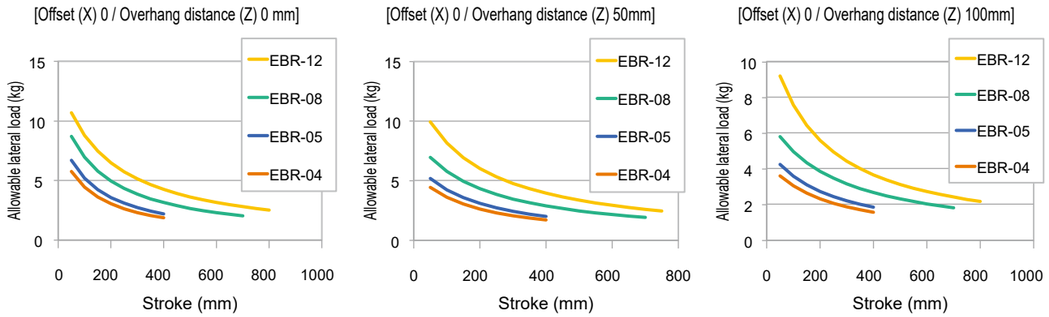
* May not display correctly depending on the smartphone's usage environment.

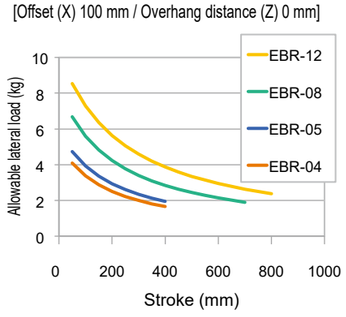
MEMO

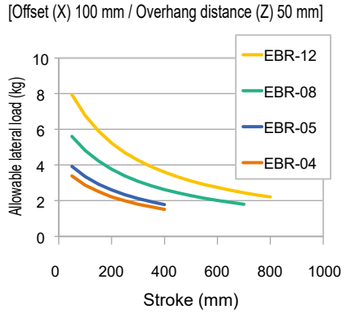
Allowable Load Weight

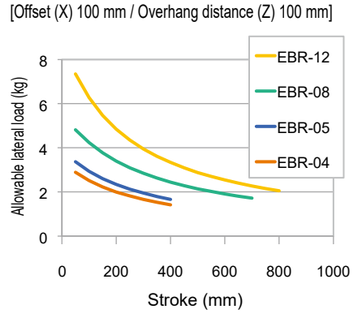
[When mounted horizontally/wall-mounted]







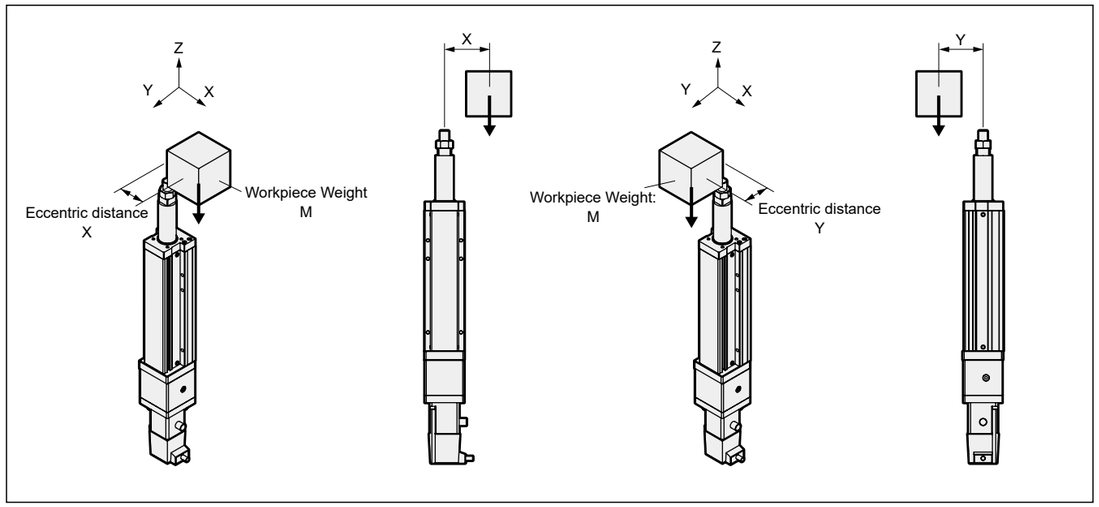


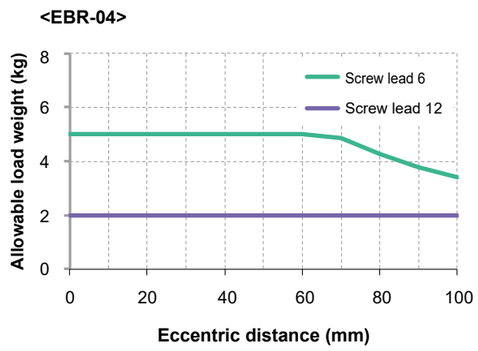


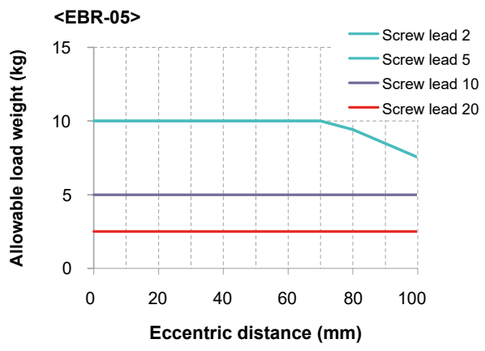
* The value when the actuator's running life is 5,000 km. (Acceleration/deceleration 0.5 G, speed 300 mm/s)
Screw lead : 2 mm is the value when the running life is 1,000 km.

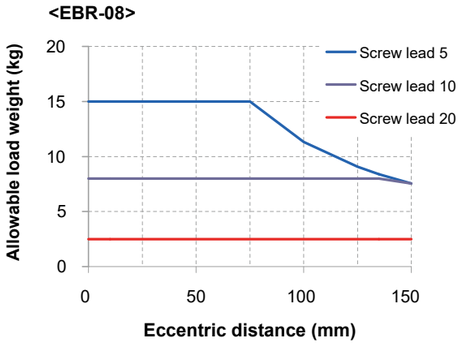
Allowable Load Weight

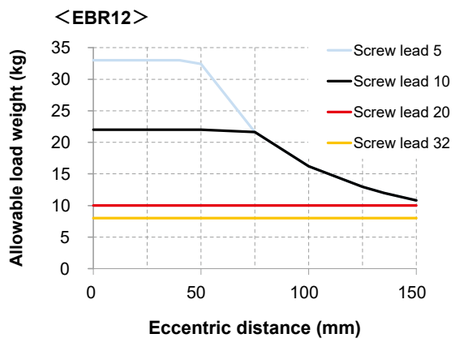
[Vertical Installation]





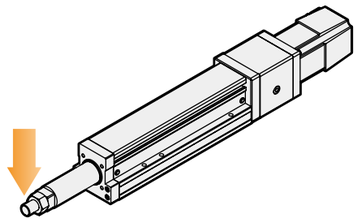




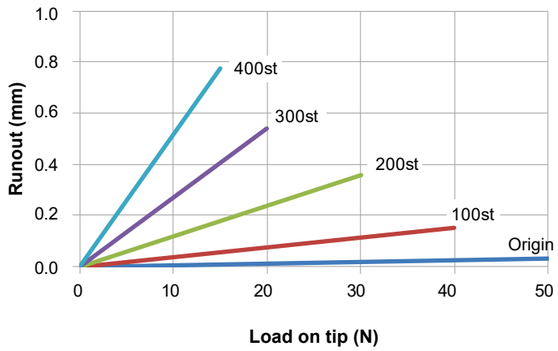


* The value when the actuator's running life is 5,000 km. (Acceleration/deceleration 0.5 G, speed 300 mm/s)
Screw lead: 2 mm is the value when the running life is 1,000 km.

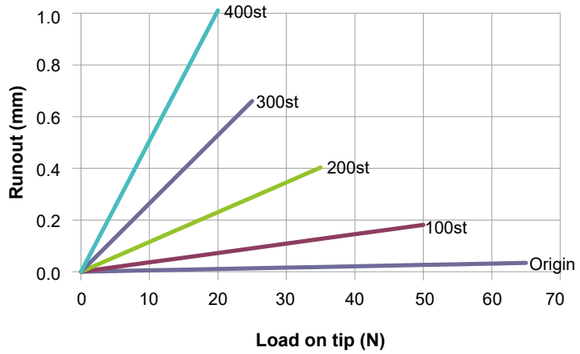
Rod Tip Runout (EBR Series) * Reference Value



[EBR-04]

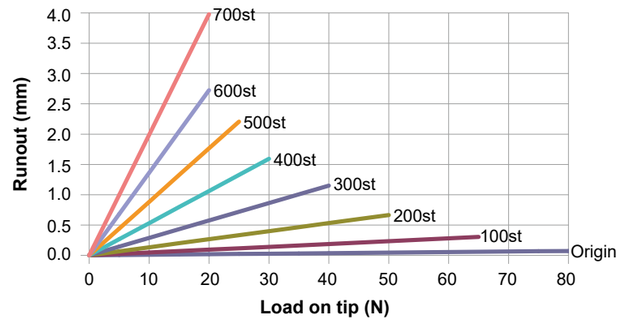


[EBR-05]

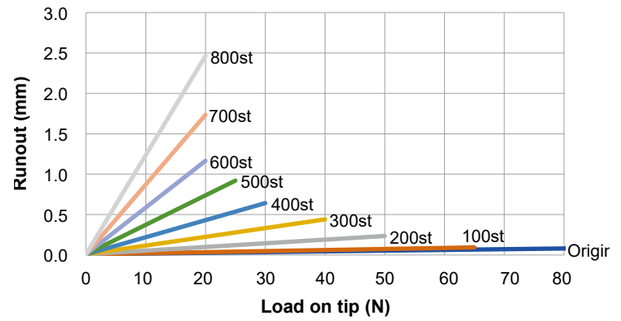


Rod Tip Runout (EBR Series) * Reference Value

[EBR-08]



[EBR-12]

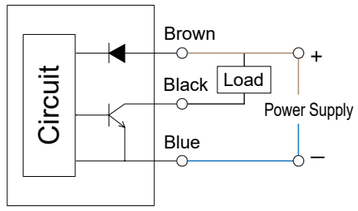


Home Sensor, Limit Sensor

[Specifications]

Item		Specifications
Manufacturer	Manufacturer name	KITA
	Model	KT-32N-2M
Output Method		NPN Output
Load Voltage		10 to 30 VDC
Load Current		100 mA or less
Current Consumption		17 mA at DC24
Internal Voltage Drop		Max 1.5 V
Leakage Current		Max 0.01 mA
Indicator Light		Red
Shock Resistance		50 G
Ambient Temperature		-10 to 70°C
Enclosure		IP67 IEC60529 standard
Cord length		2 m

Output circuit



List of Accessories

Motor Mounting Bolts (Common for all motor mounting directions)

Model No.	Mounting Motor Specification	Motor Capacity	Size	Quantity
EBR-04	M	50 W	M4	4
	Y		M4	4
	P		M3	4
	F		M4	4
EBR-05	M	100 W	M4	4
	Y		M4	4
	P		M3	4
	F		M4	4
EBR-08	M	200 W	M5	4
	Y		M5	4
	P		M4	4
	F		M5	4
EBR-12	M	400 W	M5	4
	Y		M5	4
	P		M4	4

Coupling

Model No.	Attached Part Name	Quantity
LE (Motor mounting direction : straight)	Coupling (Shipped Included)	1 pc

Timing belt, pulley (motor side)

Model No.	Shipment Form	Quantity
L☐ (Motor fold-back mounting)	Shipped included *1	1 pc each

*1 The pulley on the main body side is pre-assembled.

Home Sensor, Limit Sensor

Model No.	Shipment Form	Quantity
When sensor "Yes" is selected	Shipped included	3 pcs. *1

*1 If "None" is selected for either the home sensor or the limit sensor, the other will also be "None."

Maintenance Parts

■ Maintenance parts (coupling)

Model Number 	Applicable Models	Bore Diameter
EBS-05-COUPLING	EBR-04LE, EBR-05LE	ø8
EBS-08-COUPLING-M	EBR-08LE (Mounting motor specification: M, Y, F)	ø14
EBS-08-COUPLING-P	EBR-08LE (Mounting motor specification: P)	ø11
EBS-12-COUPLING	EBR-12LE (Mounting motor specification: M, Y, P)	ø14

■ Maintenance parts (timing belt, pulley)

Model Number 	Applicable Models	Part
EBR-04-BELT-KIT	EBR-04LR/LD/LL	Timing belt, pulley (motor side) (1 each)
EBS-05-BELT-KIT	EBR-05LR/LD/LL	
EBS-08-BELT-KIT-M	EBR-08LR/LD/LL (Mounting motor specification: M, Y, F)	
EBS-08-BELT-KIT-P	EBR-08LR/LD/LL (Mounting motor specification: P)	
EBS-12-BELT-KIT-LR	EBR-12LR/LL	
EBS-12-BELT-KIT-LD	EBR-12LD	

■ Maintenance parts (origin sensor, limit sensor)

Model Number 	Applicable Models	Part
EBR-SENSOR-N	All EBR models	Body

■ Maintenance parts (grease nozzle)

Model Number 	Applicable Models
EBS-NOZZLE	EBR-04, EBR-05, EBS-08

MEMO

Servo motor compatible
EBS
EBR
ETS
ETS Multi Axis
ECS
ETV
ECV
EKS
ESM
Ending

To Use This Product Safely

Please be sure to read this before use.
For general information on Electric Actuators, please refer to Intro 15.

Common Precautions: Electric Actuator EBR-LE Series

During Design and Selection

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, fire, or explosion.

■ Do not allow water droplets, oil droplets, etc. to come into contact with the product.
This can cause fire or failure.

■ When mounting the product, be sure to securely hold and fix (including the workpiece) it.
There is a risk of injury due to the product tipping over, falling, or malfunctioning. As a general rule, please fix the product using all mounting holes.

Warning

■ Use within the product's specified operating range.

■ If there is a risk of danger to the human body, install a protective cover.
If the moving parts of the electric actuator pose a particular danger to the human body, design the structure so that people cannot enter the drive range of the electric actuator or directly touch that area.

■ Design a safety circuit or equipment so that damage to equipment, injury to persons, etc., does not occur when the machine stops in the event of a system failure such as emergency stop or power outage.

■ Install indoors with low humidity.
In places exposed to rain or high humidity (80% humidity or more, with condensation), there is a risk of electric leakage or fire. Oil drops and oil mist are also strictly prohibited.
Use in such environments can cause damage and malfunction.

■ Make sure that the product is D type grounded (ground resistance of 100 Ω or less).
In case of electric leakage, there is a risk of electric shock or malfunction.

■ When installing the actuator in a direction other than horizontal, use a motor with brake.
Without a brake, when the servo is OFF (including emergency stop and alarms) or when the power is OFF, there is a risk of injury or workpiece damage due to the falling of the moving part.

■ When vertically installing the actuator, do everything possible to keep the motor on top.
If the motor is on the lower side, there is no problem in normal operation, but if stopped for a long period, grease may separate and flow into the motor, which may rarely cause a malfunction.

■ 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. In addition, this product has not been considered for chemical resistance.
This can cause failure, explosion, or fire.

■ Use and store in locations free from strong electromagnetic waves, ultraviolet rays, or radiation.
This can cause malfunction or failure.

■ Take possibility of power source breakdown into consideration.
Take measures to prevent injury to people or damage to equipment even if the power source fails.

■ Take the operational status into consideration if the machine is reactivated after emergency or abnormal stops.
Design so that restarting does not cause harm to people or damage to the equipment.
Also, if it is necessary to reset the electric actuator to the starting position, design a safe control device.
Consider the possibility of failure of the installed motor.
Take measures to prevent injury to personnel or damage to equipment in the event of a power source failure.

■ Avoid using this product where vibration and impact are present.

■ Do not apply a load to the product that is greater than or equal to the allowable load listed in the materials for selection.

■ 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 temperature: 0 °C to 40 °C, Operating humidity: 35 % to 80 %)
This can cause abnormal product stoppage or reduced service life. If heat accumulates, ventilate.

Caution

■ Do not use in a range where the moving table could collide with the stroke end and break.

■ Indicate the maintenance conditions in the device's 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.Proper maintenance allows the product to fully demonstrate its functions.

■ This product is manufactured in accordance with applicable standards. Do not disassemble or modify the product.

■ Refer to the instruction manual of the motor mounted to the product and control for your safety before wiring and designing.

■ The customer is responsible for confirming the compatibility of CKD products and motors with their 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 piping and wiring (with multi-conductor cables) as any large motor power lines other than that of this product.
Do not use the same piping and 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.

■ When installing an external stopper or retention mechanism (brake, etc.), place it so as not to affect origin position detection.
When the power supply is turned ON, the origin position will be detected. If the detection is disturbed by an external stopper or retention mechanism, an inappropriate position may be indicated as the origin.

For precautions regarding mounting, installation, adjustment, operation, and maintenance, please refer to the CKD Equipment Product Site(https://www.ckd.co.jp/kiki/en/) → 'model No.' → Instruction Manual.

EBR Model Selection Checklist → CKD (Contact)

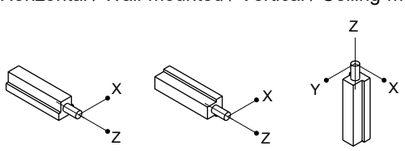
Please fill out this form and send it to your nearest sales office. We will respond with the model selection results.

MEMO

Customer :

Company		Department	
Name		E-mail	
TEL		FAX	

Selection Conditions :

Desired Model	(EBR)-	
Basic Specifications	Max. Stroke : mm, Ball screw lead : mm	
Operating Conditions	Moving stroke : mm, travel time : s	
	Set Speed : mm/s	
	Set acceleration / deceleration : mm/s² (set acceleration/deceleration time : s)	
	Repeatability : ± mm	
Load Conditions	Rod Type	
	Load weight : kg	
	Mounting Orientation : Horizontal / Wall-mounted / Vertical / Ceiling-mounted / Other 	
	Distance from rod center to load's center of gravity	
	X direction : mm Y direction mm Z direction : mm	
	Pressing load : None / Yes (N) During operation / When stopped Direction of force on slider center ( )	
Operating Environment	Ambient Temperature : °C, Ambient Humidity : %	
	Atmosphere :	
Motor Used	Manufacturer : , Model No.:	
	Motor capacity, size :	
Special Notes		

Servo motor compatible
EBS
EBR
ETS
ETS Multi Axis
ECS
ETV
ECV
EKS
ESM
Ending