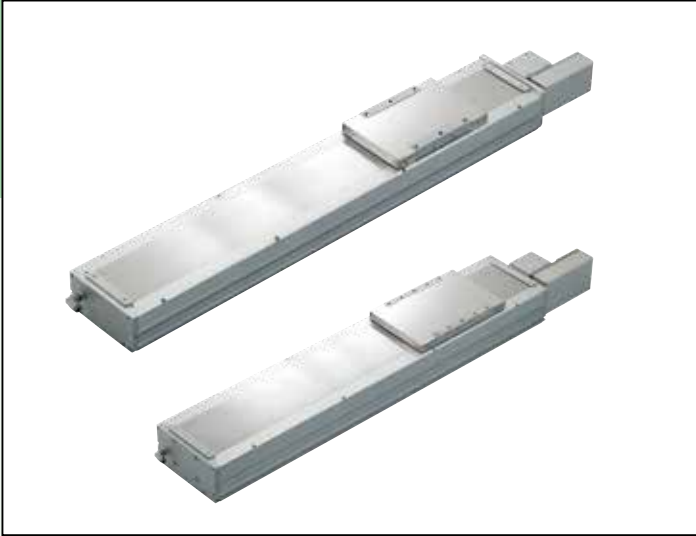


Electric Actuator Servo
Motor Compatible
Motorless Specification

ECV

Slider Type
(Belt Drive, Low Particle Emission Specification)



CONTENTS	
Product Introduction	326
System Table	328
● Specifications, Model No. Notation, External Dimension Drawings	
· ECV-14	332
· ECV-17	340
· ECV-22	348
● Model Selection	356
● Technical Data	358
⚠ Precautions for Use	367
Model Selection Checklist	368

Slider type (belt drive, low dust generation)
Servo motor compatible

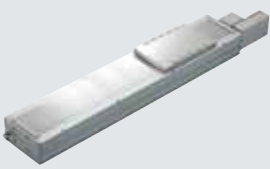
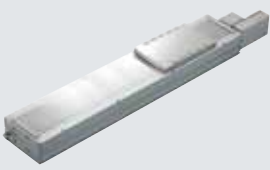
ECV Series



Servo motor compatible

EBS
EBR
ETS
ETS Multi Axis
ECS
ETV
ECV
EKS
ESM

Long Stroke & High-Speed Transport (Low Particle Emission Model)

Line-up	Body Size	14	17	22	Catalog page
	Motor capacity	200 W	400 W	750 W	
Low dust specification ECV 					328
Low dust specifications / compatible with food manufacturing processes ECV-FP1 					CC-1271AA

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

Ending

Motorless Specification

ROBODEX Std.



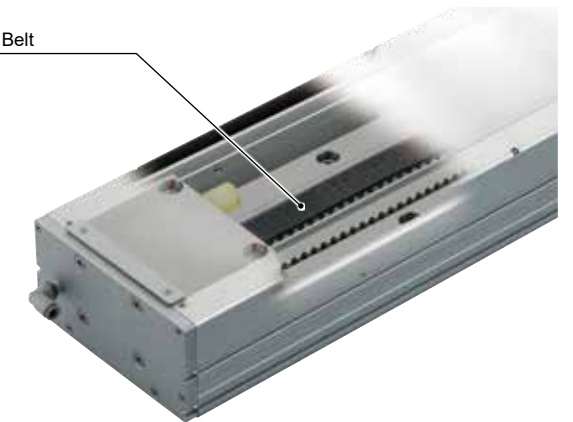
Long Stroke & High-Speed Transport with Belt Drive

Belt drive supports strokes up to 3500 mm.
Maximum speed is up to 2000 mm/s.

Max. Supported
3500 mm

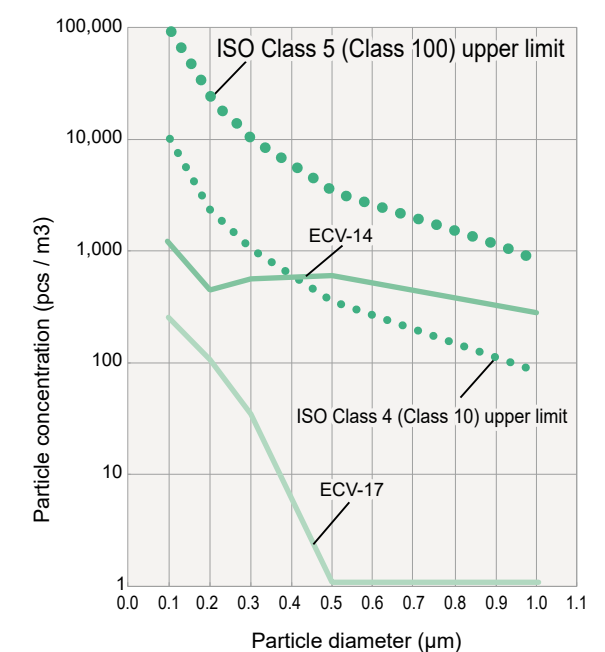
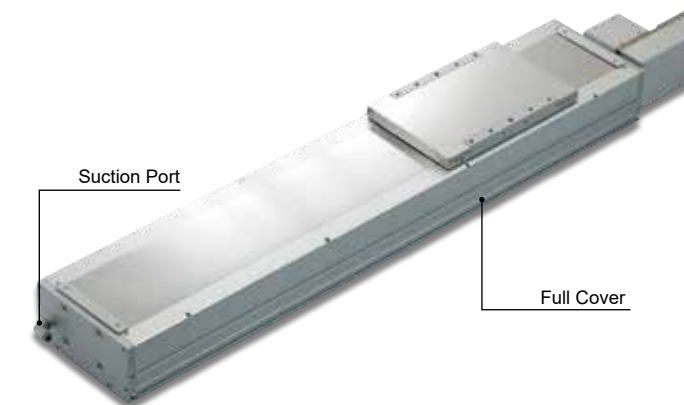
Max. Speed Supported
2000 mm/s

Drive Belt



Low Particle Emission Structure

The actuator body has a full cover with few gaps, and dust is exhausted outside through a suction port. Ideal for liquid crystal panel production lines and food lines.

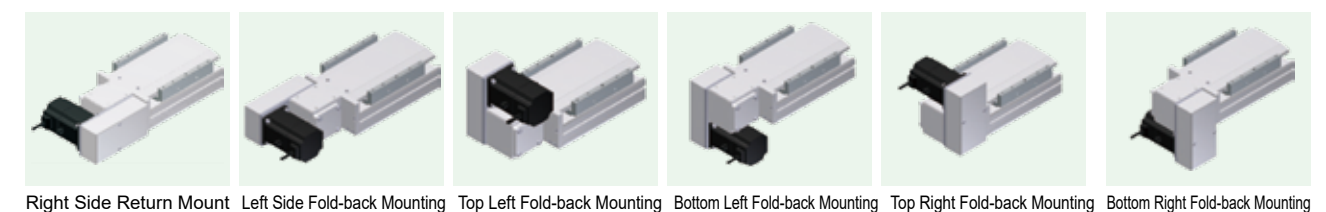


* Please refer to the catalog text for data acquisition conditions. This is not a guaranteed value.



Motor fold-back variations

We have prepared a total of 6 motor fold-back variations that can be selected according to the equipment.



Servo motor compatible

EBS
EBR
ETS
ETS Multi Axis
ECS
ETV
ECV
EKS
ESM

Ending

System Table

Type	Model No.	Application Motor (W)	Body Width (mm)	Lead Equivalent (mm)	Max. Payload (kg)							Stroke (mm) and Max. Speed (mm/s) *2																				Listed Page																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
					Horizontal *1	Vertical	100 mm	300	600			800	#3 1000			#3 1500			#3 2000			#3 2500			#3 3,000			#3 3500		3800																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Low Particle Emission Belt Type		ECV-14	200	135	40	25	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

*1 For wall-mounted installation, the payload 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.
*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.

Servo motor compatible

EBS

EBR

ETS

ETS Multi Axis

ECS

ETV

ECV

EKS

ESM

Servo motor compatible

EBS

EBR

ETS

ETS Multi Axis

ECS

ETV

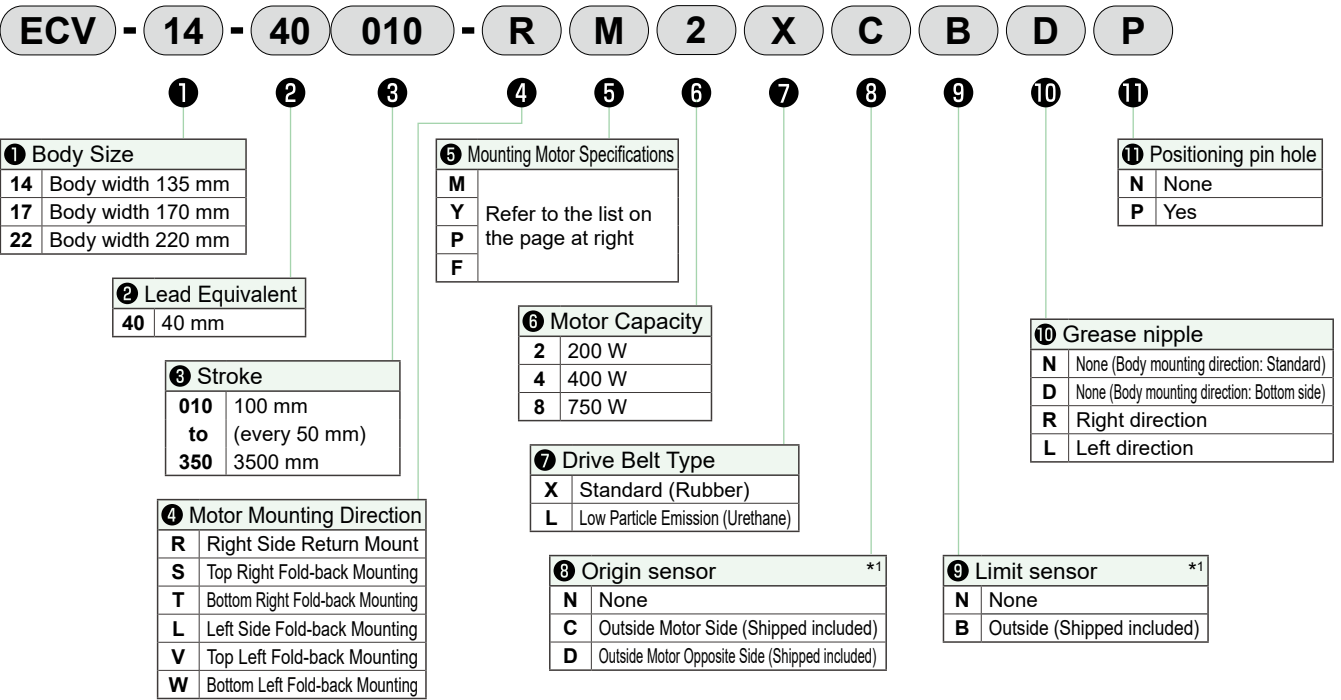
ECV

EKS

ESM

Model Number Configuration

Model No. Notation Method



Screw Lead / Stroke Compatibility Table by Body Size

① Body Size	② Screw Lead	③ Stroke
14	40	010 to 305 (100 mm to 3500 mm)
17		010 to 350 (100 mm to 3500 mm)
22		010 to 350 (100 mm to 3500 mm)

*1 Sensor dogs will be assembled and shipped regardless of the presence of sensors.

Manufacturer	200 W	400 W	750 W
Mitsubishi Electric Corporation	M	M	M
Delta Electronics, Inc.	M	M	M
Sanyo Denki Co., Ltd.	M	M	-
Yaskawa Electric Corporation	Y	Y	Y
Keyence Corporation	Y	Y	Y
Panasonic Corporation	P	P	P
OMRON Corporation	P	P	P
Fuji Electric Co., Ltd.	M	M	M
FANUC CORPORATION	F	F	F
Bosch Rexroth AG	P	P	P
Rockwell Automation, Inc.	M	M	M
SIEMENS AG	M	M	M

Model Number Display Example

ECV-14-40010-RM2 XCBDP

- ① Body size : 14 Series
- ② Lead Equivalent : 40 mm
- ③ Stroke : 100 mm
- ④ Motor mounting direction : Right Side Return Mount
- ⑤ Mounting motor specification : M (Please refer to the table on the right page)
- ⑥ Motor Capacity : 200 W
- ⑦ Drive belt type : Standard (rubber)
- ⑧ Home sensor : External motor side
- ⑨ Limit sensor : Outside
- ⑩ Grease nipple : None (Body mounting direction: Bottom side)
- ⑪ Locating pin hole : Yes

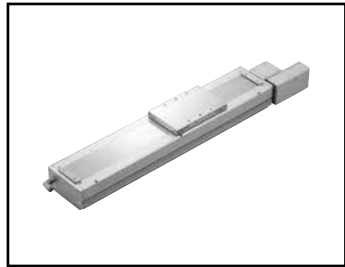
*This product is available only for the actuator (and motor mounting part) and does not include a motor. The user must prepare, mount, and adjust the motor and driver.

Recommended Servo Motor Mounting List

Recommended Servo Motor Mounting List

Code	Manufacturer	Series	200 W (ECV-14 Series)	400 W (ECV-17 Series)	750 W (ECV-22 Series)
M	Mitsubishi Electric Corporation	MELSERVO J4	HG-KR23	HG-KR43	HG-KR73
		MELSERVO J5	HK-KT23 W	HK-KT43 W	HK-KT7 M3 W
M	Delta Electronics, Inc.	ECMA-C	ECMA-C10602	ECMA-C10604	ECMA-C10807
M	Sanyo Denki Co., Ltd.	SANMOTION R	R2□A06020	R2□A06040	-
Y	Mitsubishi Electric Corporation	Σ-7	SGM7 J-02	SGM7 J-04	SGM7 J-08
		Σ-X	SGMXJ-02	SGMXJ-04	SGMXJ-08
Y	Keyence Corporation	SV	SV-□020	SV-□040	SV-□075
		SV2	SV2-□020	SV2-□040	SV2-□075
P	Panasonic Corporation	MINAS A5	MSMD02	MSMD04	MSMD08
		MINAS A6	MSMF02	MSMF04	MSMF08
P	OMRON Corporation	G5	R88 M-K20030	R88 M-K40030	R88 M-K75030
		1 S	R88 M-1 M20030	R88 M-1 M40030	R88 M-1 M75030
M	Fuji Electric Co., Ltd.	ALPHA7 GYS	GYS201 D7-□B2□	GYS401 D7-□B2□	-
		ALPHA7 GYB	GYB201 D7-□B2□	GYB401 D7-□B2□	GYB751 D7-□B2□
F	FANUC CORPORATION	βiS-B	A06 B-2115-B1	A06 B-2116-B1	A06 B-2063-B1
P	Bosch Rexroth AG	MSM	MSM031 B	MSM031 C	MSM041 B
M	Rockwell Automation, Inc.	TLP	TLP-A070-020-DKA□2	TLP-A070-040-DKA□2	TLP-A090-075-DKA□2
M	SIEMENS AG	1 FK2	1 FK2203-2 AG0	1 FK2203-4 AG0	1 FK2204-5 AK0

* For mounting motors other than the above and products from other motor manufacturers, please contact us.
*1 The servo motor is an item subject to regulation under Item 7(8) of Appended Table 1 of the Export Trade Control Order, and it also falls under the specifications. (As of January 2021)



Electric Actuator Belt Type

ECV-14 Series

Motor Fold-back Mounting Type

● Servo Motor Capacity : 200 W

Model No. Notation Method

ECV

-

14

-

40

-

010

-

R

M

2

X

N

N

N

N

1

Body Size

14

Body width 135 mm

2

Lead Equivalent

40

40 mm

3

Stroke

010

100 mm

to

(every 50 mm)

305

3050 mm

4

Motor mounting direction *5

R

Right Side Return Mount

S

Top Right Fold-back Mounting

T

Bottom Right Fold-back Mounting

L

Left Side Fold-back Mounting

V

Top Left Fold-back Mounting

W

Bottom Left Fold-back Mounting

5

Mounting Motor Specifications

M

Select the mounting motor specification from the table below.

Y

P

F

6

Motor Capacity

2

200 W

7

Drive Belt Type

X

Standard (rubber)

L

Low Particle Emission (Urethane)

8

Origin sensor (1 pc) *1, *2, *3

N

None

C

Outside, motor side

D

Outside, opposite motor side

9

Limit sensor (2 pcs) *1, *2, *3

N

None

B

Outside

10

Grease nipple *3, *4, *5

N

None (Body mounting direction: Standard)

R

Right direction

L

Left direction

11

Positioning pin hole

N

None

P

Yes

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

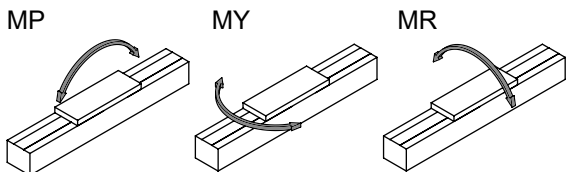
*1 The home sensor and limit sensor are a set. If either is "None," please select "None" for the other as well.
*2 The customer can adjust the sensor position. (Shipped included)
*3 If you wish to use the home sensor, limit sensor, and grease nipple in the same direction, please contact us.
*4 Here, "Body mounting direction: Standard means mounting from the bottom.
*5 If "R", "S", or "T" is selected for the motor mounting direction, "R" cannot be selected for the grease nipple. If "L", "V", or "W" is selected, "L" cannot be selected for the grease nipple.

Specifications

Applicable Motor Capacity		200 W Servo Motor
Drive Method		Belt width 22 mm
Stroke	mm	100 to 3050
Lead equivalent	mm	40
Max. payload *1	Horizontal kg	25
	Vertical kg	-
Max. Speed	mm/s	2000
Rated thrust *1	N	100
Repeatability	mm	±0.04
Lost motion		0.1 mm or less
Dynamic allowable load N		6566.9
Static Allowable Moment N·m		MP : 552 MY : 551 MR : 485
Dynamic allowable moment N·m		MP : 262.7 MY : 262.7 MR : 261.0
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

*1 Rated thrust and maximum payload are guideline values, assuming that the motor mounted will output the rated torque.

Moment Direction



Stroke and Max. Speed

		(mm/s)
Stroke Lead Equivalent	100 to 3050	
	40	2000

* The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm.

Allowable Overhang Length

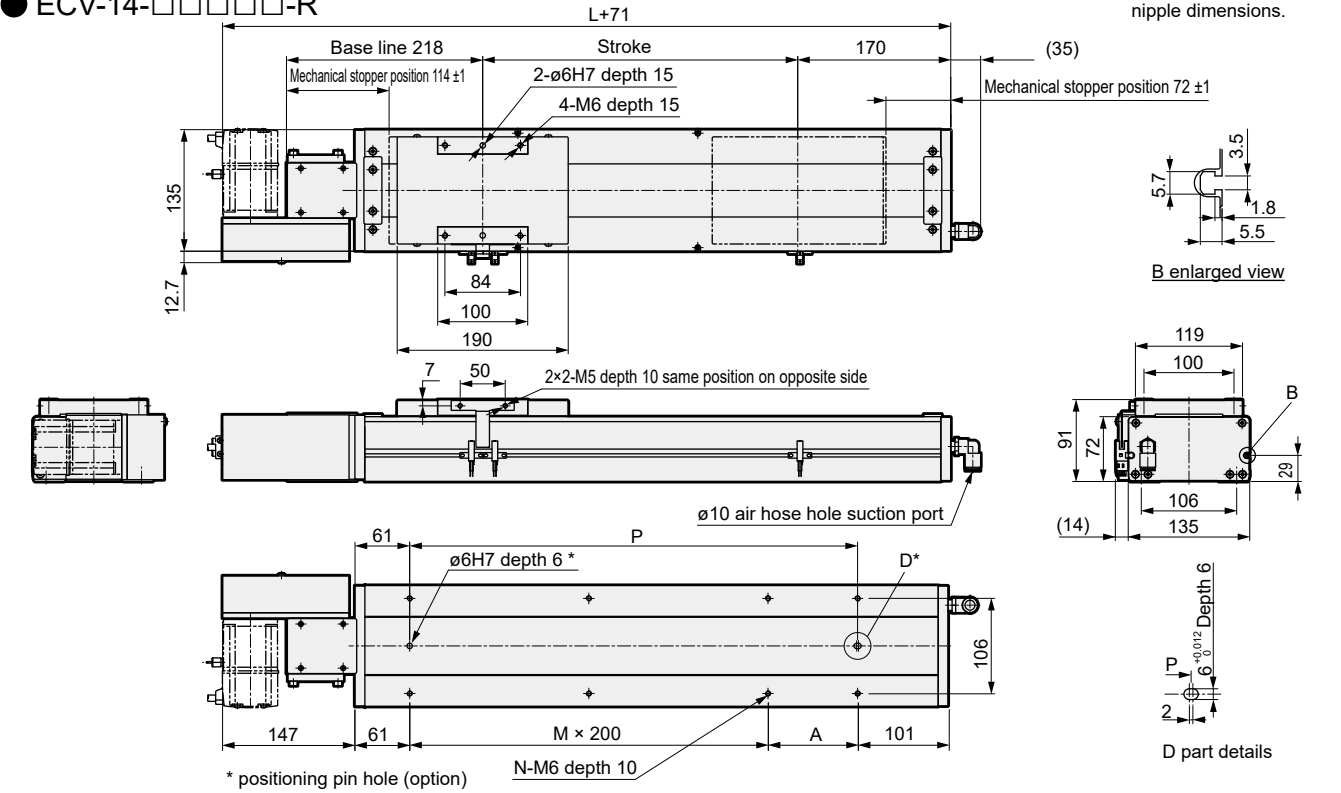
* Refer to P. 358 for details.

ECV-14 Series

Dimensions / List of attachments

External Dimension Drawing Motor Right Side Fold-back Mounting

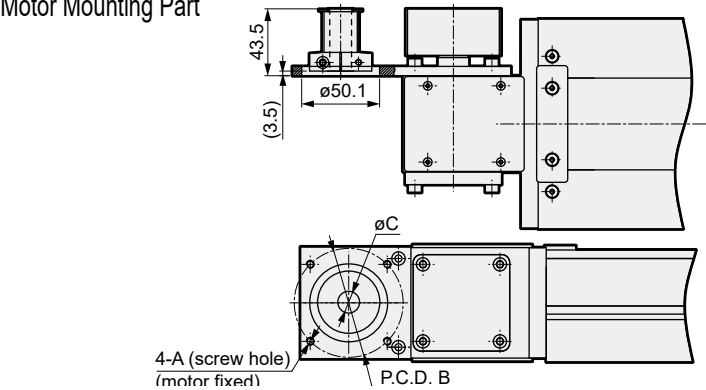
● ECV-14-□□□□□-R



Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550
L	488	538	588	638	688	738	788	838	888	938	988	1038	1088	1138	1188	1238	1288	1338	1388	1438	1488	1538	1588	1638	1688	1738	1788	1838	1888	1938
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
P	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700
Weight (kg)	11.6	12.0	12.5	13.0	13.5	14.0	14.4	15.0	15.4	16.0	16.4	16.9	17.4	17.9	18.4	18.9	19.4	19.9	20.3	20.9	21.5	22.1	22.7	23.3	23.9	24.5	25.1	25.7	26.3	26.9

Stroke (mm)	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050
L	1988	2038	2088	2138	2188	2238	2288	2338	2388	2438	2488	2538	2588	2638	2688	2738	2788	2838	2888	2938	2988	3038	3088	3138	3188	3238	3288	3338	3388	3438
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	8	8	9	9	9	9	10	10	10	10	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	14	15	15	15	15
N	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	30	32	32	32	32	34	34	34	34
P	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050	3100	3150	3200
Weight (kg)	27.5	28.1	28.7	29.3	29.9	30.5	31.1	31.7	32.3	32.9	33.5	34.1	34.7	35.3	35.9	36.5	37.1	37.7	38.3	38.9	39.5	40.1	40.7	41.3	41.9	42.5	43.1	43.7	44.3	44.9

Motor Mounting Part



Mounting Motor Specification		A	B	C	Motor mounting bolts
M 200 W	M5	ø70	ø14		4-M5 x L12
Y 200 W	M5	ø70	ø14		4-M5 x L12
P 200 W	M4	ø70	ø11		4-M4 x L12
F 200 W	M5	ø70	ø9		4-M5 x L12

List of Accessories

[Motor Mounting Parts]

Mounting Motor Specification	Timing belt, pulley	Fitting	Motor Capacity	Motor mounting bolts	
				Size	Quantity
M	Shipped included	Attached Shipment	200 W	M5	4
Y				M5	4
P				M4	4
F				M5	4

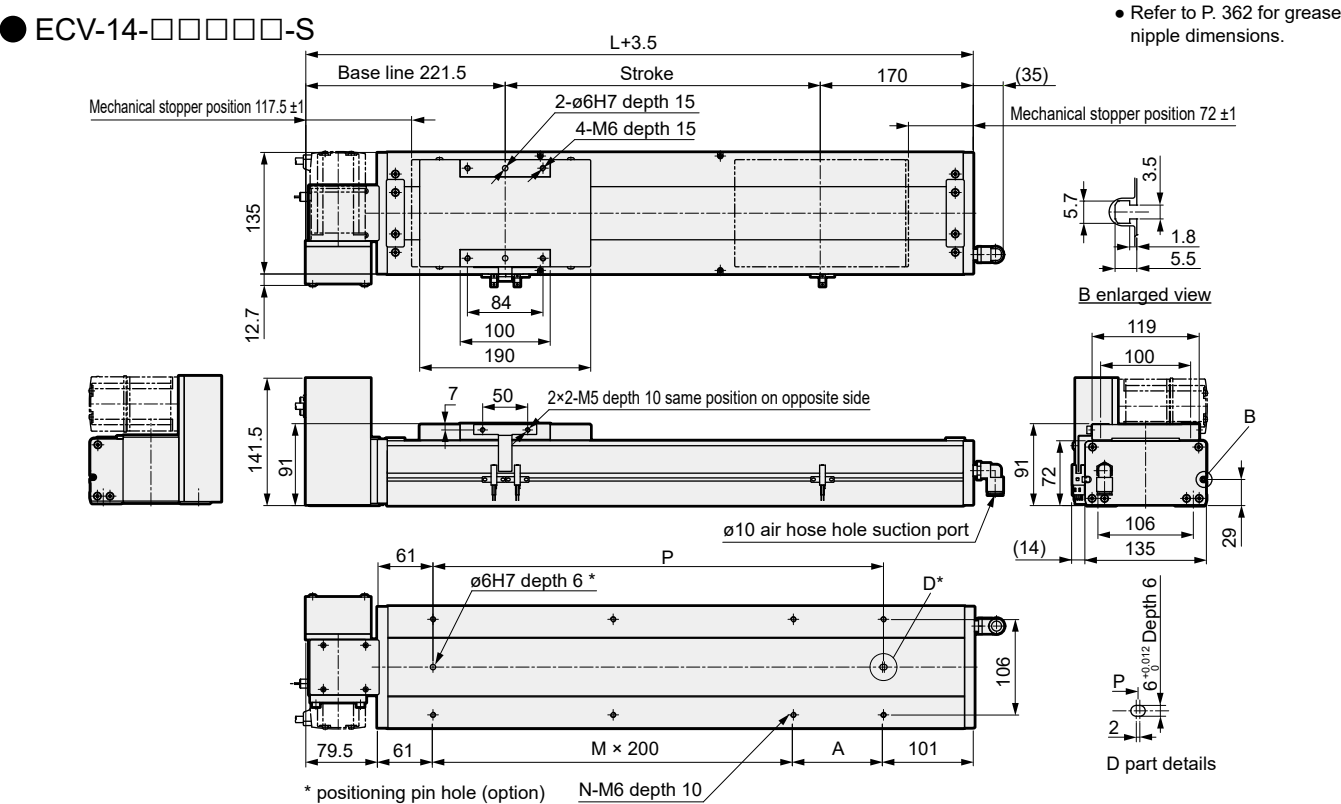
* For fittings, refer to P. 364 for details.

[Home Sensor / Limit Sensor]

Manufacturer	Model	Quantity
OMRON	EE-SX672	3

* For sensor specifications, please refer to P. 360.

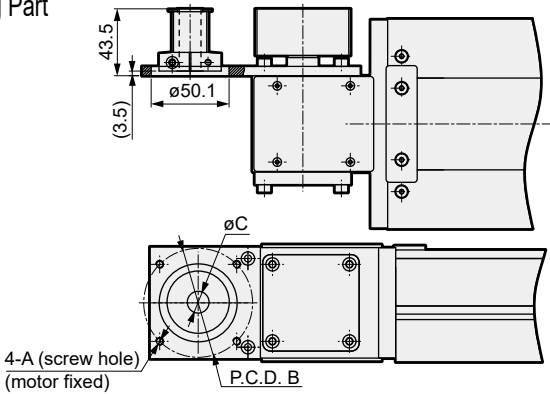
External Dimension Drawing: Top Right Fold-back Motor Mounting



Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550
L	488	538	588	638	688	738	788	838	888	938	988	1038	1088	1138	1188	1238	1288	1338	1388	1438	1488	1538	1588	1638	1688	1738	1788	1838	1888	1938
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	8	10	10	10	10	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
P	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700
Weight (kg)	11.6	12.0	12.5	13.0	13.5	14.0	14.4	15.0	15.4	16.0	16.4	16.9	17.4	17.9	18.4	18.9	19.4	19.9	20.3	20.9	21.5	22.1	22.7	23.3	23.9	24.5	25.1	25.7	26.3	26.9

Stroke (mm)	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050
L	1988	2038	2088	2138	2188	2238	2288	2338	2388	2438	2488	2538	2588	2638	2688	2738	2788	2838	2888	2938	2988	3038	3088	3138	3188	3238	3288	3338	3388	3438
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	14	14	14	14	15	15	15	15	15
N	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	32	32	32	32	34	34	34	34	34
P	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050	3100	3150	3200
Weight (kg)	27.5	28.1	28.7	29.3	29.9	30.5	31.1	31.7	32.3	32.9	33.5	34.1	34.7	35.3	35.9	36.5	37.1	37.7	38.3	38.9	39.5	40.1	40.7	41.3	41.9	42.5	43.1	43.7	44.3	44.9

Motor Mounting Part



Mounting Motor Specification		A	B	C	Motor mounting bolts
M	200 W	M5	ø70	ø14	4-M5 x L12
Y	200 W	M5	ø70	ø14	4-M5 x L12
P	200 W	M4	ø70	ø11	4-M4 x L12
F	200 W	M5	ø70	ø9	4-M5 x L12

List of Accessories

[Motor Mounting Parts]

Mounting Motor Specification	Timing belt, pulley	Fitting	Motor Capacity	Motor mounting bolts	
				Size	Quantity
M	Shipped included	Attached Shipment	200 W	M5	4
Y				M5	4
P				M4	4
F				M5	4

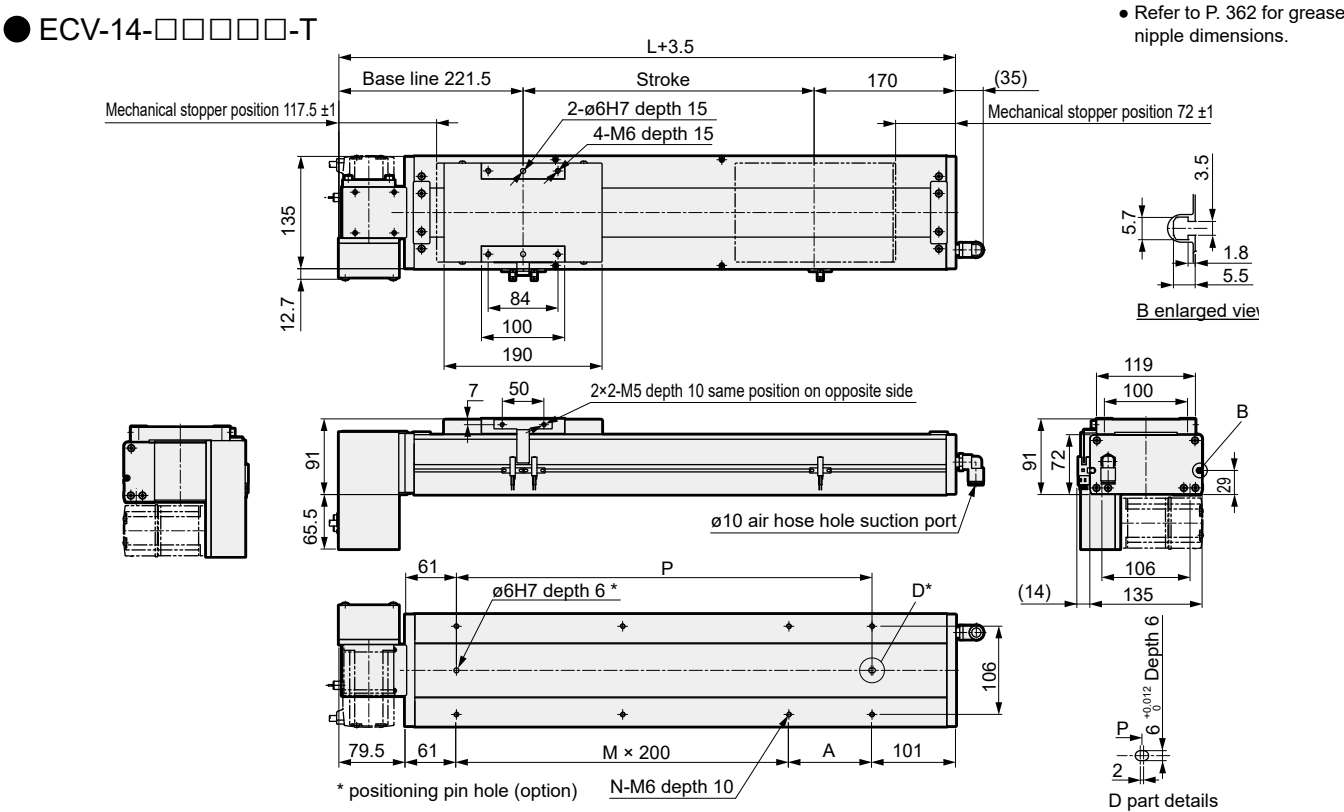
* For fittings, refer to P. 364 for details.

[Home Sensor / Limit Sensor]

Manufacturer	Model	Quantity
OMRON	EE-SX672	3

* For sensor specifications, please refer to P. 360.

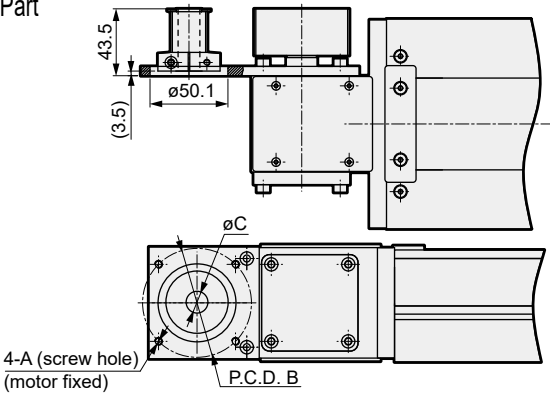
External Dimension Drawing: Bottom Right Fold-back Motor Mounting



Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550
L	488	538	588	638	688	738	788	838	888	938	988	1038	1088	1138	1188	1238	1288	1338	1388	1438	1488	1538	1588	1638	1688	1738	1788	1838	1888	1938
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
P	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700
Weight (kg)	11.6	12.0	12.5	13.0	13.5	14.0	14.4	15.0	15.4	16.0	16.4	16.9	17.4	17.9	18.4	18.9	19.4	19.9	20.3	20.9	21.5	22.1	22.7	23.3	23.9	24.5	25.1	25.7	26.3	26.9

Stroke (mm)	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050
L	1988	2038	2088	2138	2188	2238	2288	2338	2388	2438	2488	2538	2588	2638	2688	2738	2788	2838	2888	2938	2988	3038	3088	3138	3188	3238	3288	3338	3388	3438
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	14	14	14	14	15	15	15	15	15
N	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	32	32	32	32	34	34	34	34	34
P	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050	3100	3150	3200
Weight (kg)	27.5	28.1	28.7	29.3	29.9	30.5	31.1	31.7	32.3	32.9	33.5	34.1	34.7	35.3	35.9	36.5	37.1	37.7	38.3	38.9	39.5	40.1	40.7	41.3	41.9	42.5	43.1	43.7	44.3	44.9

Motor Mounting Part



Mounting Motor Specification		A	B	C	Motor mounting bolts
M	200 W	M5	ø70	ø14	4-M5 x L12
Y	200 W	M5	ø70	ø14	4-M5 x L12
P	200 W	M4	ø70	ø11	4-M4 x L12
F	200 W	M5	ø70	ø9	4-M5 x L12

List of Accessories

[Motor Mounting Parts]

Mounting Motor Specification	Timing belt, pulley	Fitting	Motor Capacity	Motor mounting bolts	
				Size	Quantity
M	Shipped included	Attached Shipment	200 W	M5	4
Y				M5	4
P				M4	4
F				M5	4

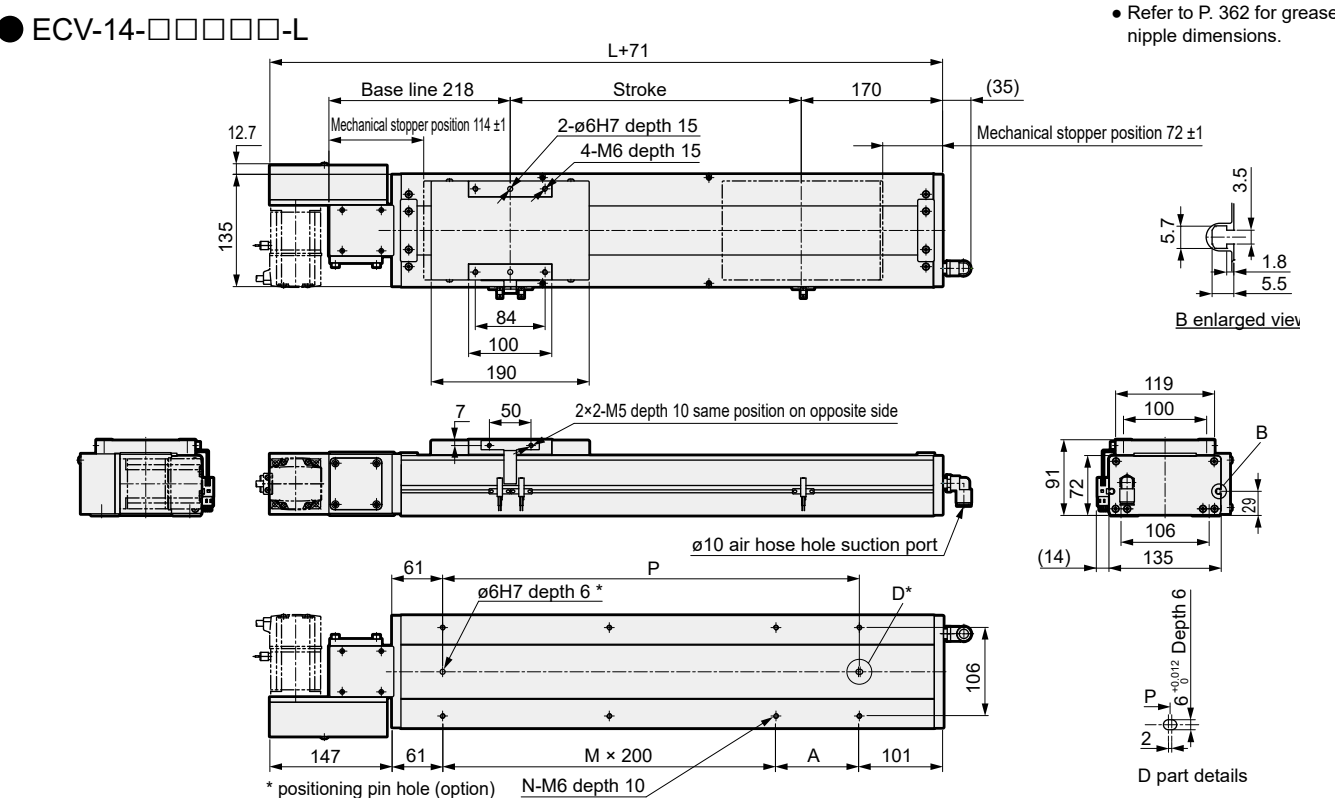
* For fittings, refer to P. 364 for details.

[Home Sensor / Limit Sensor]

Manufacturer	Model	Quantity
OMRON	EE-SX672	3

* For sensor specifications, please refer to P. 360.

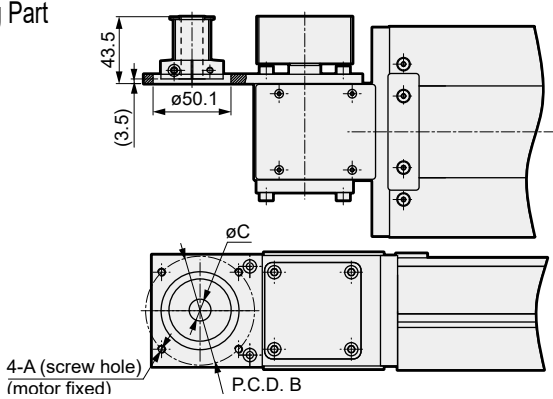
External Dimension Drawing Motor Left Side Fold-back Mounting



Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550
L	488	538	588	638	688	738	788	838	888	938	988	1038	1088	1138	1188	1238	1288	1338	1388	1438	1488	1538	1588	1638	1688	1738	1788	1838	1888	1938
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
P	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700
Weight (kg)	11.6	12.0	12.5	13.0	13.5	14.0	14.4	15.0	15.4	16.0	16.4	16.9	17.4	17.9	18.4	18.9	19.4	19.9	20.3	20.9	21.5	22.1	22.7	23.3	23.9	24.5	25.1	25.7	26.3	26.9

Stroke (mm)	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050
L	1988	2038	2088	2138	2188	2238	2288	2338	2388	2438	2488	2538	2588	2638	2688	2738	2788	2838	2888	2938	2988	3038	3088	3138	3188	3238	3288	3338	3388	3438
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	8	8	9	9	9	10	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15
N	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	30	32	32	32	32	34	34	34	34
P	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050	3100	3150	3200
Weight (kg)	27.5	28.1	28.7	29.3	29.9	30.5	31.1	31.7	32.3	32.9	33.5	34.1	34.7	35.3	35.9	36.5	37.1	37.7	38.3	38.9	39.5	40.1	40.7	41.3	41.9	42.5	43.1	43.7	44.3	44.9

Motor Mounting Part



Mounting Motor Specification		A	B	C	Motor mounting bolts
M	200 W	M5	ø70	ø14	4-M5 x L12
Y	200 W	M5	ø70	ø14	4-M5 x L12
P	200 W	M4	ø70	ø11	4-M4 x L12
F	200 W	M5	ø70	ø9	4-M5 x L12

List of Accessories

[Motor Mounting Parts]

Mounting Motor Specification	Timing belt, pulley	Fitting	Motor Capacity	Motor mounting bolts	
				Size	Quantity
M	Shipped included	Attached Shipment	200 W	M5	4
Y				M5	4
P				M4	4
F				M5	4

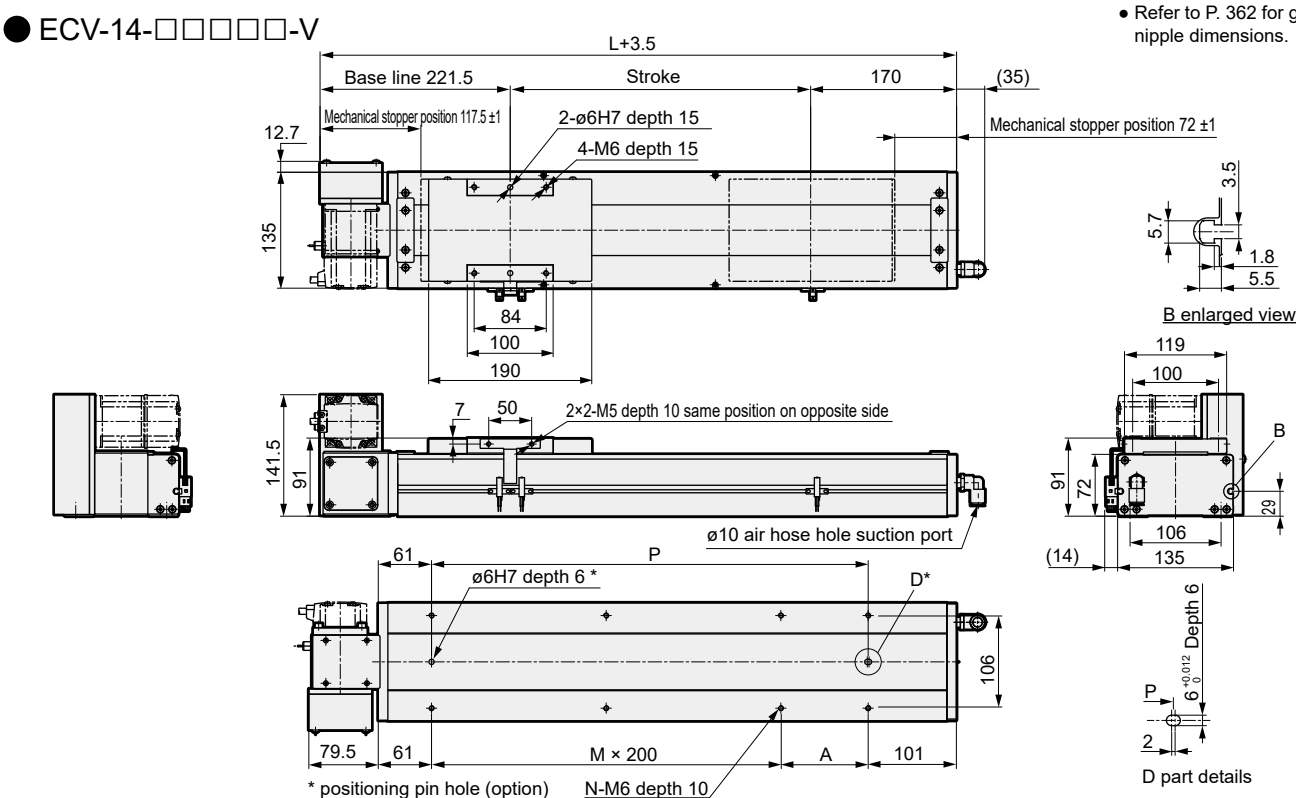
* For fittings, refer to P. 364 for details.

[Home Sensor / Limit Sensor]

Manufacturer	Model	Quantity
OMRON	EE-SX672	3

* For sensor specifications, please refer to P. 360.

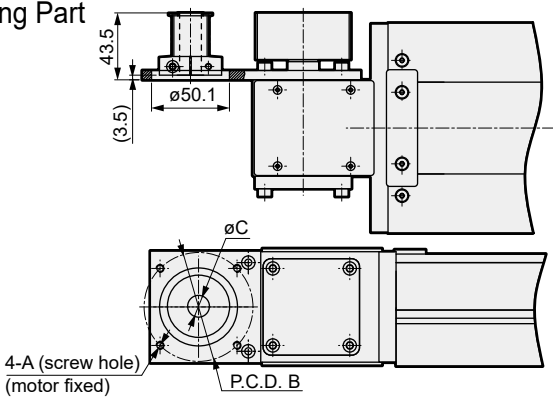
External Dimension Drawing: Top Left Fold-back Motor Mounting



Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550
L	488	538	588	638	688	738	788	838	888	938	988	1038	1088	1138	1188	1238	1288	1338	1388	1438	1488	1538	1588	1638	1688	1738	1788	1838	1888	1938
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
P	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700
Weight (kg)	11.6	12.0	12.5	13.0	13.5	14.0	14.4	15.0	15.4	16.0	16.4	16.9	17.4	17.9	18.4	18.9	19.4	19.9	20.3	20.9	21.5	22.1	22.7	23.3	23.9	24.5	25.1	25.7	26.3	26.9

Stroke (mm)	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050
L	1988	2038	2088	2138	2188	2238	2288	2338	2388	2438	2488	2538	2588	2638	2688	2738	2788	2838	2888	2938	2988	3038	3088	3138	3188	3238	3288	3338	3388	3438
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	8	8	9	9	9	10	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15
N	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	30	32	32	32	32	34	34	34	34
P	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050	3100	3150	3200
Weight (kg)	27.5	28.1	28.7	29.3	29.9	30.5	31.1	31.7	32.3	32.9	33.5	34.1	34.7	35.3	35.9	36.5	37.1	37.7	38.3	38.9	39.5	40.1	40.7	41.3	41.9	42.5	43.1	43.7	44.3	44.9

Motor Mounting Part



Mounting Motor Specification		A	B	C	Motor mounting bolts
M	200 W	M5	ø70	ø14	4-M5 x L12
Y	200 W	M5	ø70	ø14	4-M5 x L12
P	200 W	M4	ø70	ø11	4-M4 x L12
F	200 W	M5	ø70	ø9	4-M5 x L12

List of Accessories

[Motor Mounting Parts]

Mounting Motor Specification	Timing belt, pulley	Fitting	Motor Capacity	Motor mounting bolts	
				Size	Quantity
M	Shipped included	Attached Shipment	200 W	M5	4
Y				M5	4
P				M4	4
F				M5	4

* For fittings, refer to P. 364 for details.

[Home Sensor / Limit Sensor]

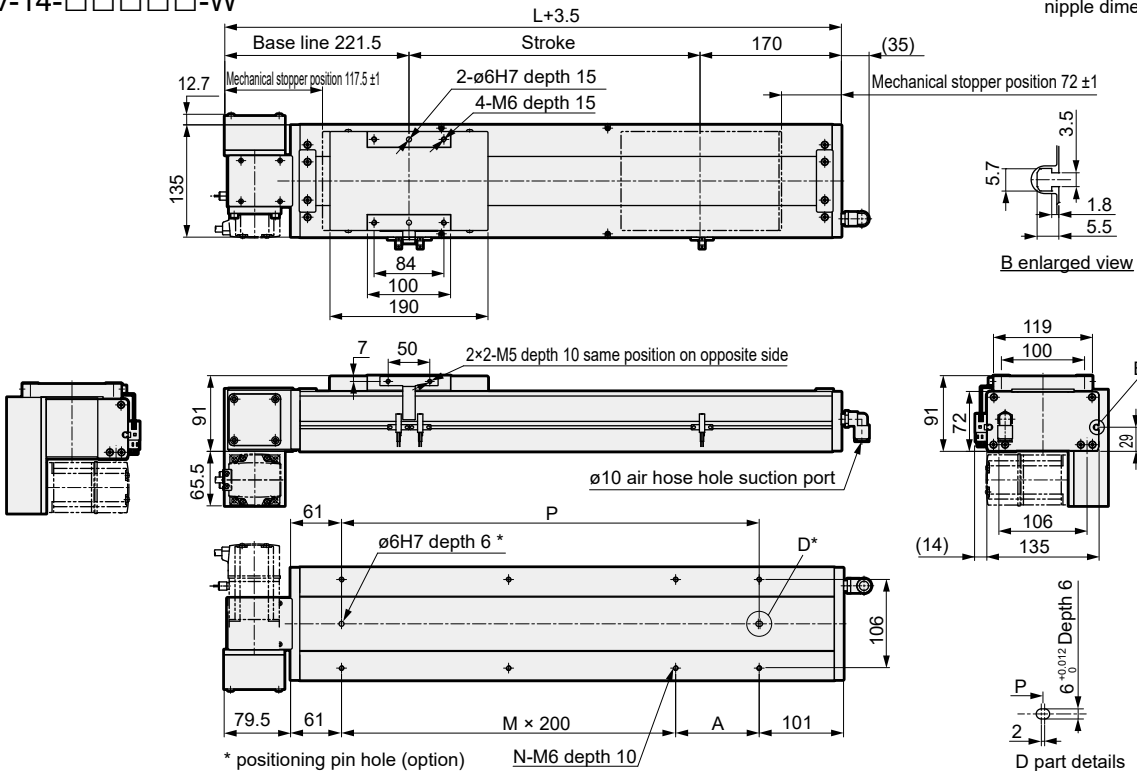
Manufacturer	Model	Quantity
OMRON	EE-SX672	3

* For sensor specifications, please refer to P. 360.

External Dimension Drawing: Bottom Left Fold-back Motor Mounting

● ECV-14-□□□□□-W

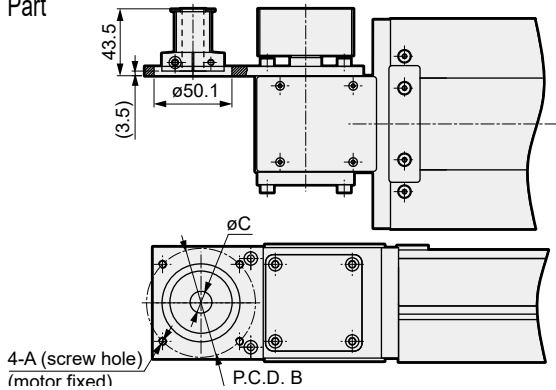
● Refer to P. 362 for grease nipple dimensions.



Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550
L	488	538	588	638	688	738	788	838	888	938	988	1038	1088	1138	1188	1238	1288	1338	1388	1438	1488	1538	1588	1638	1688	1738	1788	1838	1888	1938
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20
P	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700
Weight (kg)	11.6	12.0	12.5	13.0	13.5	14.0	14.4	15.0	15.4	16.0	16.4	16.9	17.4	17.9	18.4	18.9	19.4	19.9	20.3	20.9	21.5	22.1	22.7	23.3	23.9	24.5	25.1	25.7	26.3	26.9

Stroke (mm)	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050
L	1988	2038	2088	2138	2188	2238	2288	2338	2388	2438	2488	2538	2588	2638	2688	2738	2788	2838	2888	2938	2988	3038	3088	3138	3188	3238	3288	3338	3388	3438
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	8	8	9	9	9	10	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15
N	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28	30	30	30	30	32	32	32	32	34	34	34	34
P	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050	3100	3150	3200
Weight (kg)	27.5	28.1	28.7	29.3	29.9	30.5	31.1	31.7	32.3	32.9	33.5	34.1	34.7	35.3	35.9	36.5	37.1	37.7	38.3	38.9	39.5	40.1	40.7	41.3	41.9	42.5	43.1	43.7	44.3	44.9

Motor Mounting Part



Mounting Motor Specification		A	B	C	Motor mounting bolts
M	200 W	M5	ø70	ø14	4-M5 x L12
Y	200 W	M5	ø70	ø14	4-M5 x L12
P	200 W	M4	ø70	ø11	4-M4 x L12
F	200 W	M5	ø70	ø9	4-M5 x L12

List of Accessories

[Motor Mounting Parts]

Mounting Motor Specification	Timing belt, pulley	Fitting	Motor Capacity	Motor mounting bolts	
				Size	Quantity
M	Shipped included	Included at shipment	200 W	M5	4
Y				M5	4
P				M4	4
F				M5	4

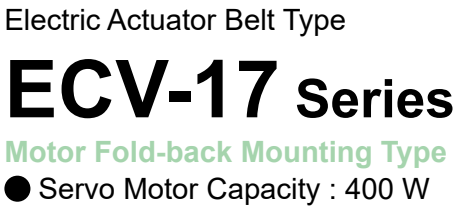
* For fittings, refer to P. 364 for details.

[Home Sensor / Limit Sensor]

Manufacturer	Model	Quantity
OMRON	EE-SX672	3

* For sensor specifications, please refer to P. 360.

MEMO



ECV-17 Series

● Servo Motor Capacity : 400 W

ECV - 17 - 40 010 - R M 4 X N N N N

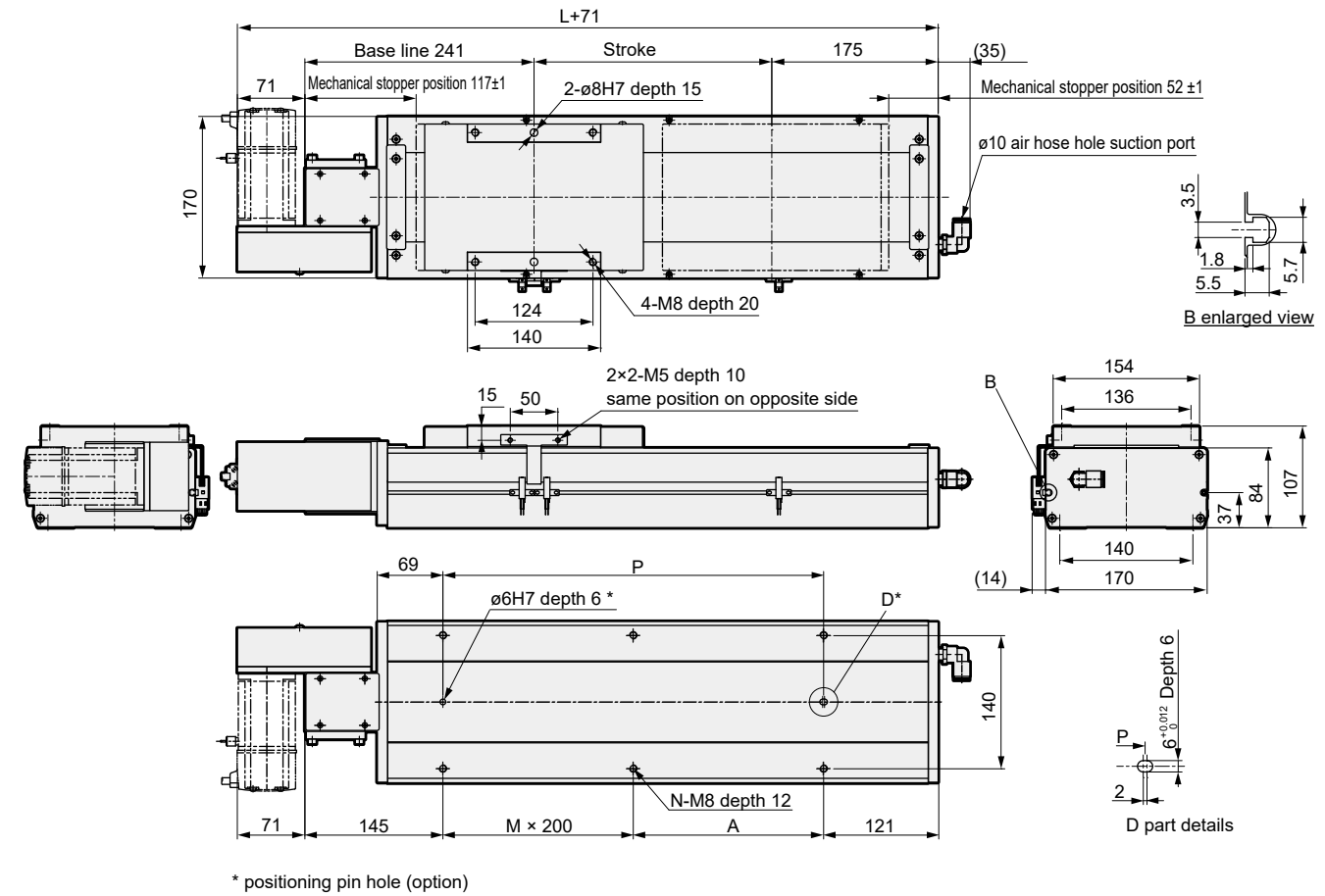
* Refer to P. 331 for motor model No.

*1 The home sensor and limit sensor are a set. If either is "None," please select "None" for the other as well.
 *2 The customer can adjust the sensor position. (Shipped included)
 *3 If you wish to use the home sensor, limit sensor, and grease nipple in the same direction, please contact us.
 *4 Here, "Body mounting direction: Standard means mounting from the bottom.
 *5 If "R", "S", or "T" is selected for the motor mounting direction, "R" cannot be selected for the grease nipple
 If "L", "V", or "W" is selected, "L" cannot be selected for the grease nipple.

* The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm.

* Refer to P. 358 for details.

- Refer to P. 362 for grease nipple dimensions.



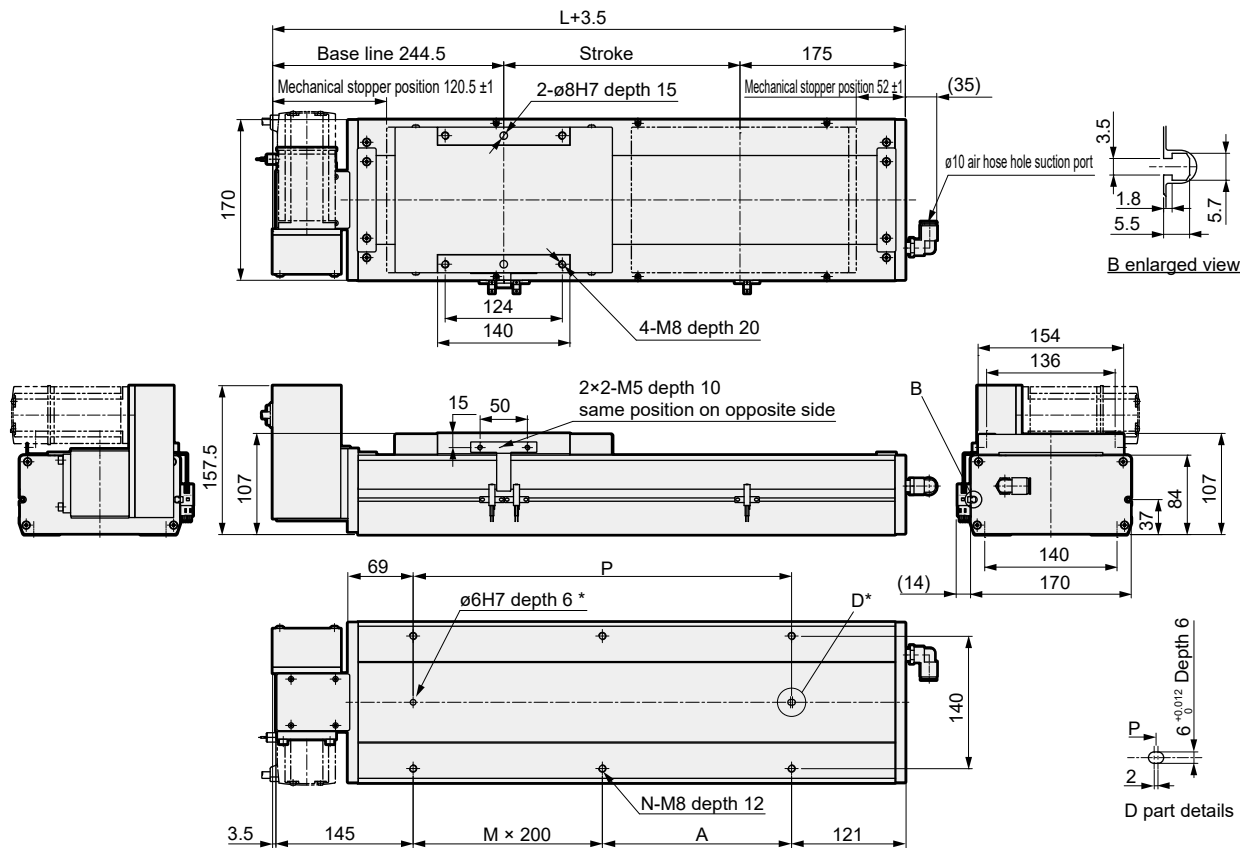
* positioning pin hole (option)

* For motor mounting dimensions and list of accessories, please refer to P. 347.

External Dimension Drawing: Top Right Fold-back Motor Mounting

● ECV-17-□□□□□-S

- Refer to P. 362 for grease nipple dimensions.



* positioning pin hole (option)

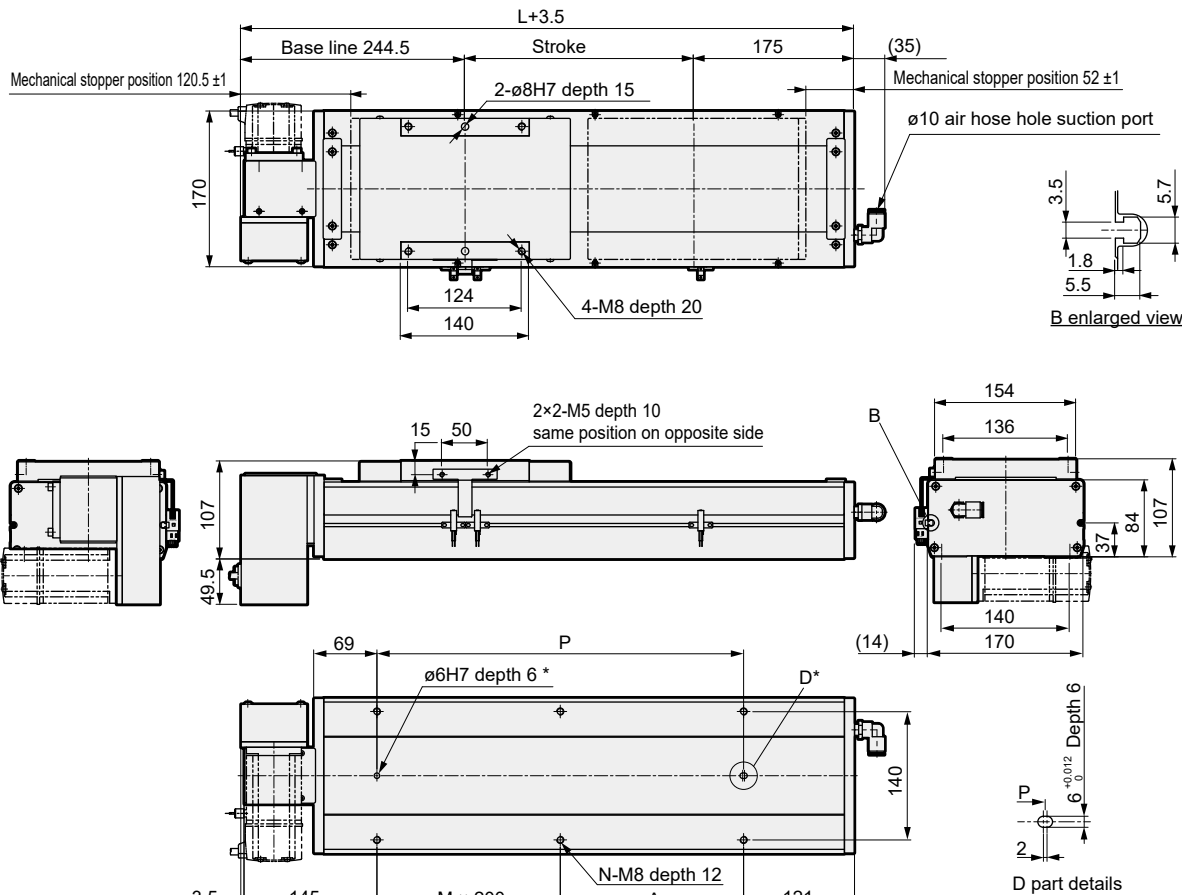
Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	516	566	616	666	716	766	816	866	916	966	1016	1066	1116	1166	1216	1266	1316	1366	1416	1466	1516	1566	1616
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16
P	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350
Weight (kg)	15.0	16.8	17.6	18.4	19.1	19.9	20.7	21.5	22.2	23.0	23.8	24.6	25.3	26.1	26.9	27.7	28.4	29.2	30.0	30.8	31.6	32.4	33.2
Stroke (mm)	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350
L	1666	1716	1766	1816	1866	1916	1966	2016	2066	2116	2166	2216	2266	2316	2366	2416	2466	2516	2566	2616	2666	2716	2766
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	6	7	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12
N	16	18	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28
P	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500
Weight (kg)	34.0	34.8	35.6	36.4	37.2	38.0	38.8	39.6	40.4	41.2	42.0	42.8	43.6	44.4	45.2	46.0	46.8	47.6	48.4	49.2	50.0	50.8	51.6
Stroke (mm)	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500
L	2816	2866	2916	2966	3016	3066	3116	3166	3216	3266	3316	3366	3416	3466	3516	3566	3616	3666	3716	3766	3816	3866	3916
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17	17	18
N	28	28	30	30	30	30	32	32	32	32	34	34	34	34	36	36	36	36	38	38	38	38	40
P	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650
Weight (kg)	52.4	53.2	54.0	54.8	55.6	56.4	57.2	58.0	58.8	59.6	60.4	61.2	62.0	62.8	63.6	64.4	65.2	66.0	66.8	67.6	68.4	69.2	70.0

* For motor mounting dimensions and list of accessories, please refer to P. 347.

External Dimension Drawing: Bottom Right Fold-back Motor Mounting

● ECV-17-□□□□□-T

- Refer to P. 362 for grease nipple dimensions.



* positioning pin hole (option)

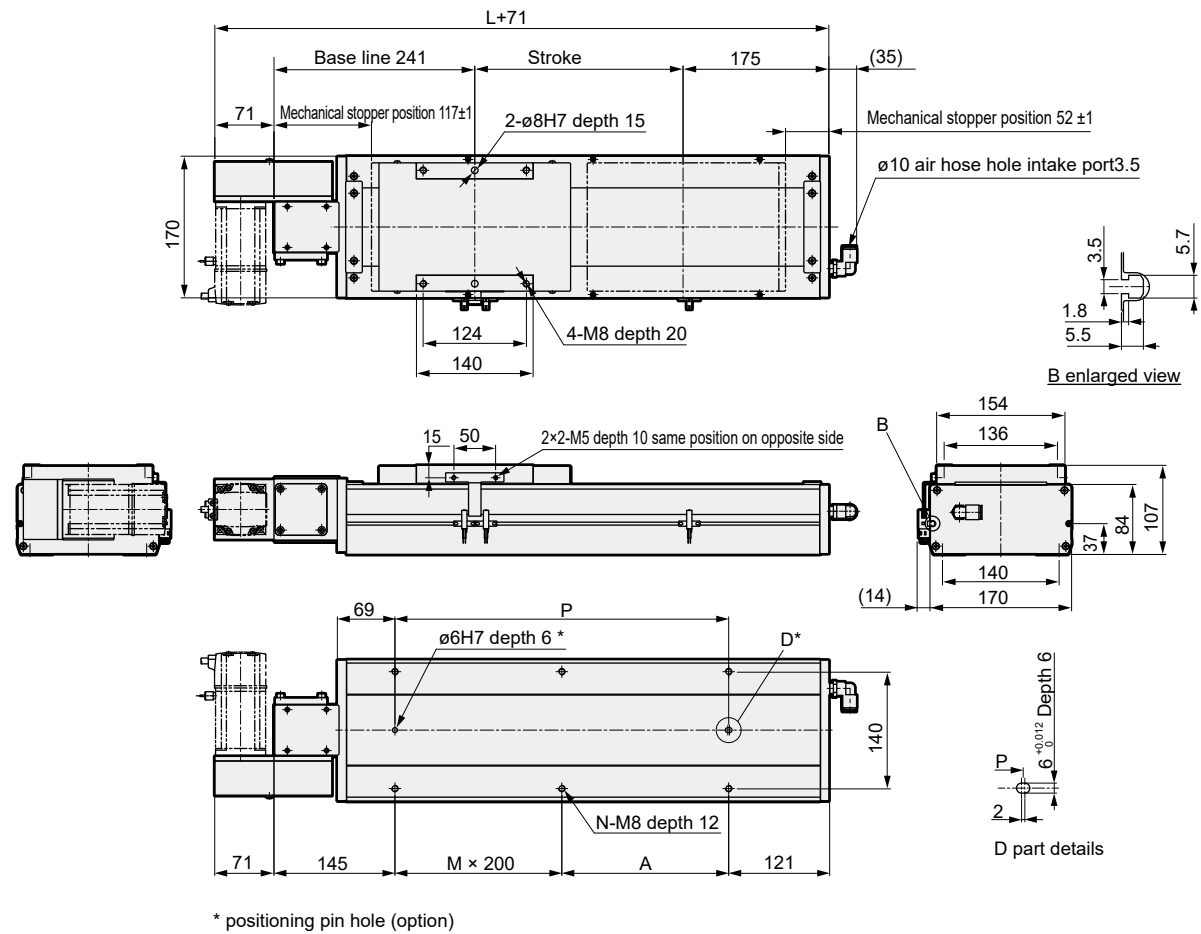
Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	516	566	616	666	716	766	816	866	916	966	1016	1066	1116	1166	1216	1266	1316	1366	1416	1466	1516	1566	1616
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16
P	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350
Weight (kg)	15.0	16.8	17.6	18.4	19.1	19.9	20.7	21.5	22.2	23.0	23.8	24.6	25.3	26.1	26.9	27.7	28.4	29.2	30.0	30.8	31.6	32.4	33.2
Stroke (mm)	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350
L	1666	1716	1766	1816	1866	1916	1966	2016	2066	2116	2166	2216	2266	2316	2366	2416	2466	2516	2566	2616	2666	2716	2766
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	6	7	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12
N	16	18	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28
P	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500
Weight (kg)	34.0	34.8	35.6	36.4	37.2	38.0	38.8	39.6	40.4	41.2	42.0	42.8	43.6	44.4	45.2	46.0	46.8	47.6	48.4	49.2	50.0	50.8	51.6
Stroke (mm)	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500
L	2816	2866	2916	2966	3016	3066	3116	3166	3216	3266	3316	3366	3416	3466	3516	3566	3616	3666	3716	3766	3816	3866	3916
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17	17	18
N	28	28	30	30	30	30	32	32	32	32	34	34	34	34	36	36	36	36	38	38	38	38	40
P	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650
Weight (kg)	52.4	53.2	54.0	54.8	55.6	56.4	57.2	58.0	58.8	59.6	60.4	61.2	62.0	62.8	63.6	64.4	65.2	66.0	66.8	67.6	68.4	69.2	70.0

* For motor mounting dimensions and list of accessories, please refer to P. 347.

External Dimension Drawing Motor Left Side Fold-back Mounting

● ECV-17-□□□□□-L

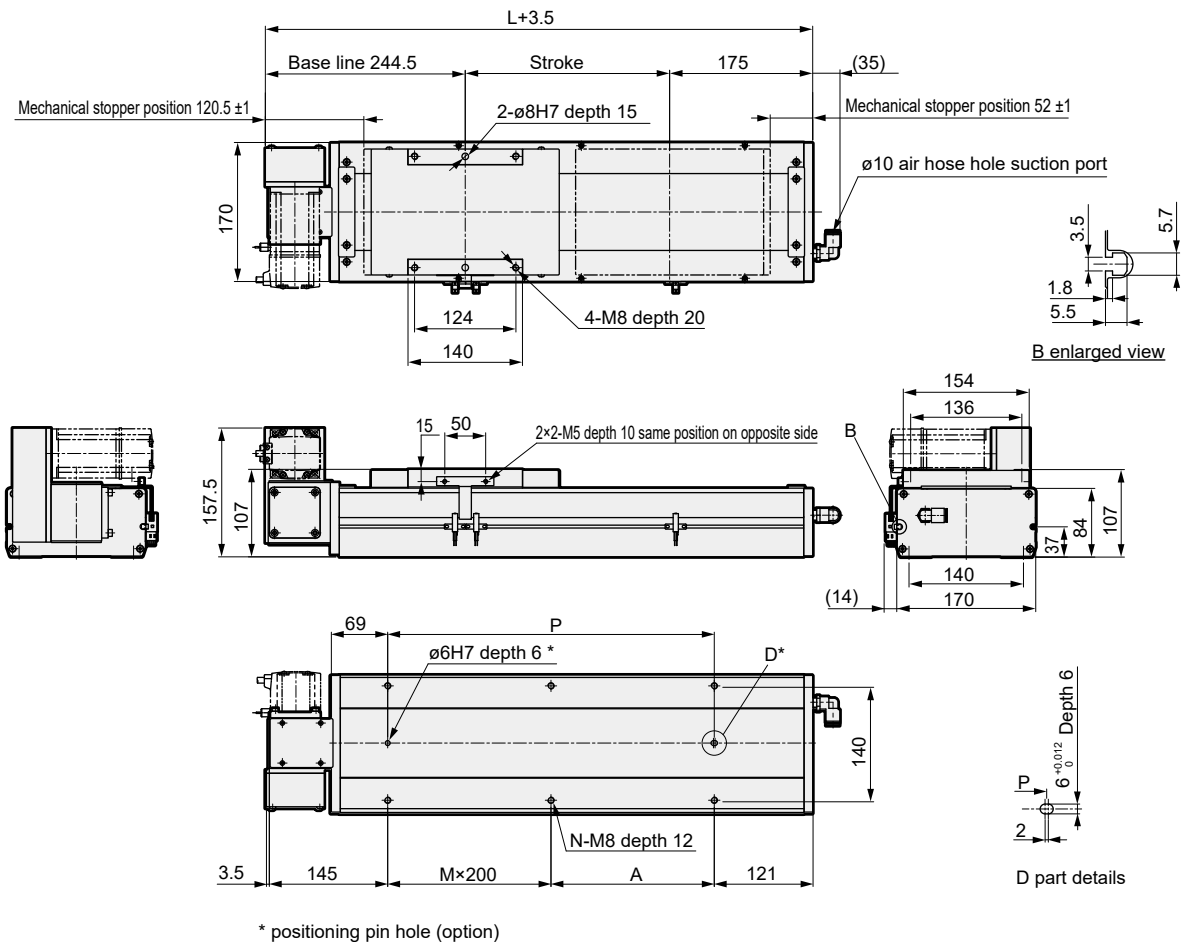
● Refer to P. 362 for grease nipple dimensions.



External Dimension Drawing: Top Left Fold-back Motor Mounting

● ECV-17-□□□□□-V

● Refer to P. 362 for grease nipple dimensions.



Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	516	566	616	666	716	766	816	866	916	966	1016	1066	1116	1166	1216	1266	1316	1366	1416	1466	1516	1566	1616
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16
P	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350
Weight (kg)	15.0	16.8	17.6	18.4	19.1	19.9	20.7	21.5	22.2	23.0	23.8	24.6	25.3	26.1	26.9	27.7	28.4	29.2	30.0	30.8	31.6	32.4	33.2

Stroke (mm)	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350
L	1666	1716	1766	1816	1866	1916	1966	2016	2066	2116	2166	2216	2266	2316	2366	2416	2466	2516	2566	2616	2666	2716	2766
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	6	7	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12
N	16	18	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28
P	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500
Weight (kg)	34.0	34.8	35.6	36.4	37.2	38.0	38.8	39.6	40.4	41.2	42.0	42.8	43.6	44.4	45.2	46.0	46.8	47.6	48.4	49.2	50.0	50.8	51.6

Stroke (mm)	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500
L	2816	2866	2916	2966	3016	3066	3116	3166	3216	3266	3316	3366	3416	3466	3516	3566	3616	3666	3716	3766	3816	3866	3916
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17	17	18
N	28	28	30	30	30	30	32	32	32	32	34	34	34	34	36	36	36	36	38	38	38	38	40
P	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650
Weight (kg)	52.4	53.2	54.0	54.8	55.6	56.4	57.2	58.0	58.8	59.6	60.4	61.2	62.0	62.8	63.6	64.4	65.2	66.0	66.8	67.6	68.4	69.2	70.0

* For motor mounting dimensions and list of accessories, please refer to P. 347.

Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	516	566	616	666	716	766	816	866	916	966	1016	1066	1116	1166	1216	1266	1316	1366	1416	1466	1516	1566	1616
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16
P	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350
Weight (kg)	15.0	16.8	17.6	18.4	19.1	19.9	20.7	21.5	22.2	23.0	23.8	24.6	25.3	26.1	26.9	27.7	28.4	29.2	30.0	30.8	31.6	32.4	33.2

Stroke (mm)	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350
L	1666	1716	1766	1816	1866	1916	1966	2016	2066	2116	2166	2216	2266	2316	2366	2416	2466	2516	2566	2616	2666	2716	2766
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	6	7	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12
N	16	18	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28
P	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500
Weight (kg)	34.0	34.8	35.6	36.4	37.2	38.0	38.8	39.6	40.4	41.2	42.0	42.8	43.6	44.4	45.2	46.0	46.8	47.6	48.4	49.2	50.0	50.8	51.6

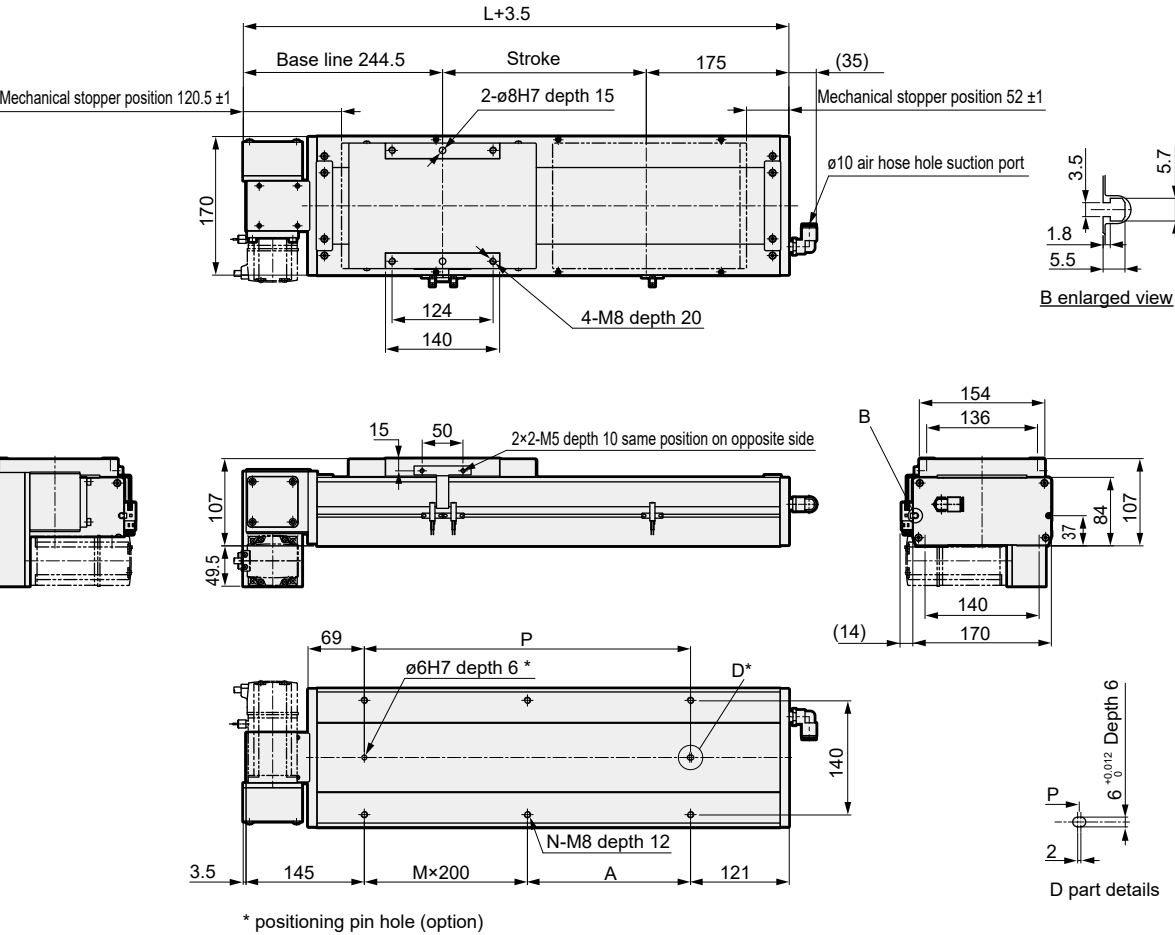
Stroke (mm)	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500
L	2816	2866	2916	2966	3016	3066	3116	3166	3216	3266	3316	3366	3416	3466	3516	3566	3616	3666	3716	3766	3816	3866	3916
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17	17	18
N	28	28	30	30	30	30	32	32	32	32	34	34	34	34	36	36	36	36	38	38	38	38	40
P	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650
Weight (kg)	52.4	53.2	54.0	54.8	55.6	56.4	57.2	58.0	58.8	59.6	60.4	61.2	62.0	62.8	63.6	64.4	65.2	66.0	66.8	67.6	68.4	69.2	70.0

* For motor mounting dimensions and list of accessories, please refer to P. 347.

External Dimension Drawing: Bottom Left Fold-back Motor Mounting

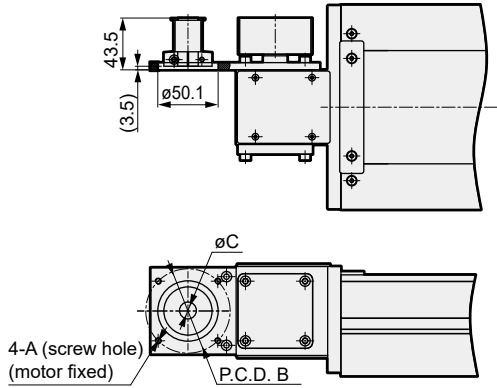
● ECV-17-□□□□□-W

● Refer to P. 362 for grease nipple dimensions.



External Dimension Drawing: Bottom Left Fold-back Motor Mounting

Motor Mounting Part



Mounting Motor Specification		A	B	C	Motor mounting bolts
M	400 W	M5	ø70	ø14	4-M5 x L12
Y	400 W	M5	ø70	ø14	4-M5 x L12
P	400 W	M4	ø70	ø14	4-M4 x L12
F	400 W	M5	ø70	ø14	4-M5 x L12

List of Accessories

[Motor Mounting Parts]

Mounting Motor Specification	Timing belt, pulley	Fitting	Motor Capacity	Motor mounting bolts	
				Size	Quantity
M	Shipped included	Attached Shipment	400 W	M5	4
Y				M5	4
P				M4	4
F				M5	4

* For fittings, refer to P. 364 for details.

[Home Sensor / Limit Sensor]

Manufacturer	Model	Quantity
OMRON	EE-SX672	3

* For sensor specifications, please refer to P. 360.

MEMO

Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	516	566	616	666	716	766	816	866	916	966	1016	1066	1116	1166	1216	1266	1316	1366	1416	1466	1516	1566	1616
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16
P	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350
Weight (kg)	15.0	16.8	17.6	18.4	19.1	19.9	20.7	21.5	22.2	23.0	23.8	24.6	25.3	26.1	26.9	27.7	28.4	29.2	30.0	30.8	31.6	32.4	33.2
Stroke (mm)	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350
L	1666	1716	1766	1816	1866	1916	1966	2016	2066	2116	2166	2216	2266	2316	2366	2416	2466	2516	2566	2616	2666	2716	2766
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	6	7	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12
N	16	18	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28
P	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500
Weight (kg)	34.0	34.8	35.6	36.4	37.2	38.0	38.8	39.6	40.4	41.2	42.0	42.8	43.6	44.4	45.2	46.0	46.8	47.6	48.4	49.2	50.0	50.8	51.6
Stroke (mm)	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500
L	2816	2866	2916	2966	3016	3066	3116	3166	3216	3266	3316	3366	3416	3466	3516	3566	3616	3666	3716	3766	3816	3866	3916
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17	17	18
N	28	28	30	30	30	30	32	32	32	32	34	34	34	34	36	36	36	36	38	38	38	38	40
P	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650
Weight (kg)	52.4	53.2	54.0	54.8	55.6	56.4	57.2	58.0	58.8	59.6	60.4	61.2	62.0	62.8	63.6	64.4	65.2	66.0	66.8	67.6	68.4	69.2	70.0

* For motor mounting dimensions and list of accessories, please refer to P. 347.

Servo motor compatible

EBS

EBR

ETS

ETS
Multi
Axis

ECS

ETV

ECV

EKS

ESM

Servo motor compatible

EBS

EBR

ETS

ETS
Multi
Axis

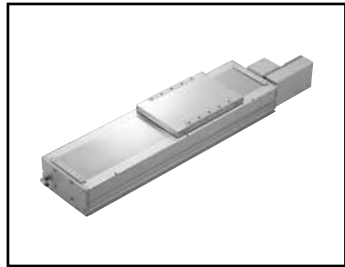
ECS

ETV

ECV

EKS

ESM



Electric Actuator Belt Type

ECV-22 Series

Motor Fold-back Mounting Type

● Servo Motor Capacity : 750 W

Model No. Notation Method

ECV

-

22

-

40

-

010

-

R

M

8

X

N

N

N

N

1

2

3

4

5

6

7

8

9

10

11

1 Body Size

22 Body width 220 mm

2 Lead Equivalent

40 40 mm

3 Stroke

010 100 mm

to (every 50 mm)

340 3400 mm

4 Motor mounting direction *5

R Right Side Return Mount

S Top Right Fold-back Mounting

T Bottom Right Fold-back Mounting

L Left Side Fold-back Mounting

V Top Left Fold-back Mounting

W Bottom Left Fold-back Mounting

5 Mounting Motor Specifications

M Select the mounting motor specification from the table below.

Y

P

F

6 Motor Capacity

8 750 W

7 Drive Belt Type

X Standard (rubber)

L Low Particle Emission (Urethane)

8 Origin sensor (1 pc) *1, *2, *3

N None

C Outside, motor side

D Outside, opposite motor side

9 Limit sensor (2 pcs) *1, *2, *3

N None

B Outside

10 Grease nipple *3, *4, *5

N None (Body mounting direction: Bottom side)

R Right direction

L Left direction

11 Positioning pin hole

N None

P Yes

Manufacturer	750 W
Mitsubishi Electric Corporation	M
Delta Electronics, Inc.	M
Sanyo Denki Co., Ltd.	-
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

* Refer to P. 331 for motor model No.

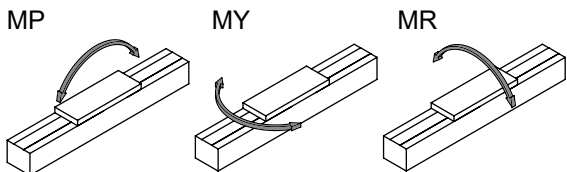
*1 The home sensor and limit sensor are a set. If either is "None," please select "None" for the other as well.
*2 The customer can adjust the sensor position. (Shipped included)
*3 If you wish to use the home sensor, limit sensor, and grease nipple in the same direction, please contact us.
*4 Here, "Body mounting direction: Standard means mounting from the bottom.
*5 If "R", "S", or "T" is selected for the motor mounting direction, "R" cannot be selected for the grease nipple.
If "L", "V", or "W" is selected, "L" cannot be selected for the grease nipple.

Specifications

Applicable Motor Capacity	750 W Servo Motor
Drive Method	Belt width 50 mm
Stroke	mm100 to 3400
Lead equivalent	mm40
Max. Payload	Horizontal kg85
	Vertical kg-
Max. Speed	mm/s2000
Rated thrust *1	N367
Repeatability	mm±0.04
Lost motion	0.1 mm or less
Dynamic allowable load N	14174.2
Static Allowable Moment N·m	MP : 2052 MY : 2052 MR : 1810
Dynamic allowable moment N·m	MP : 1098.5 MY : 1098.5 MR : 999.3
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

*1 Rated thrust and maximum payload are guideline values, assuming that the motor mounted will output the rated torque.

Moment Direction



Stroke and Max. Speed

	Stroke	(mm/s)
Lead Equivalent	100 to 3400	
40	2000	

* The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm.

Allowable Overhang Length

* Refer to P. 358 for details.

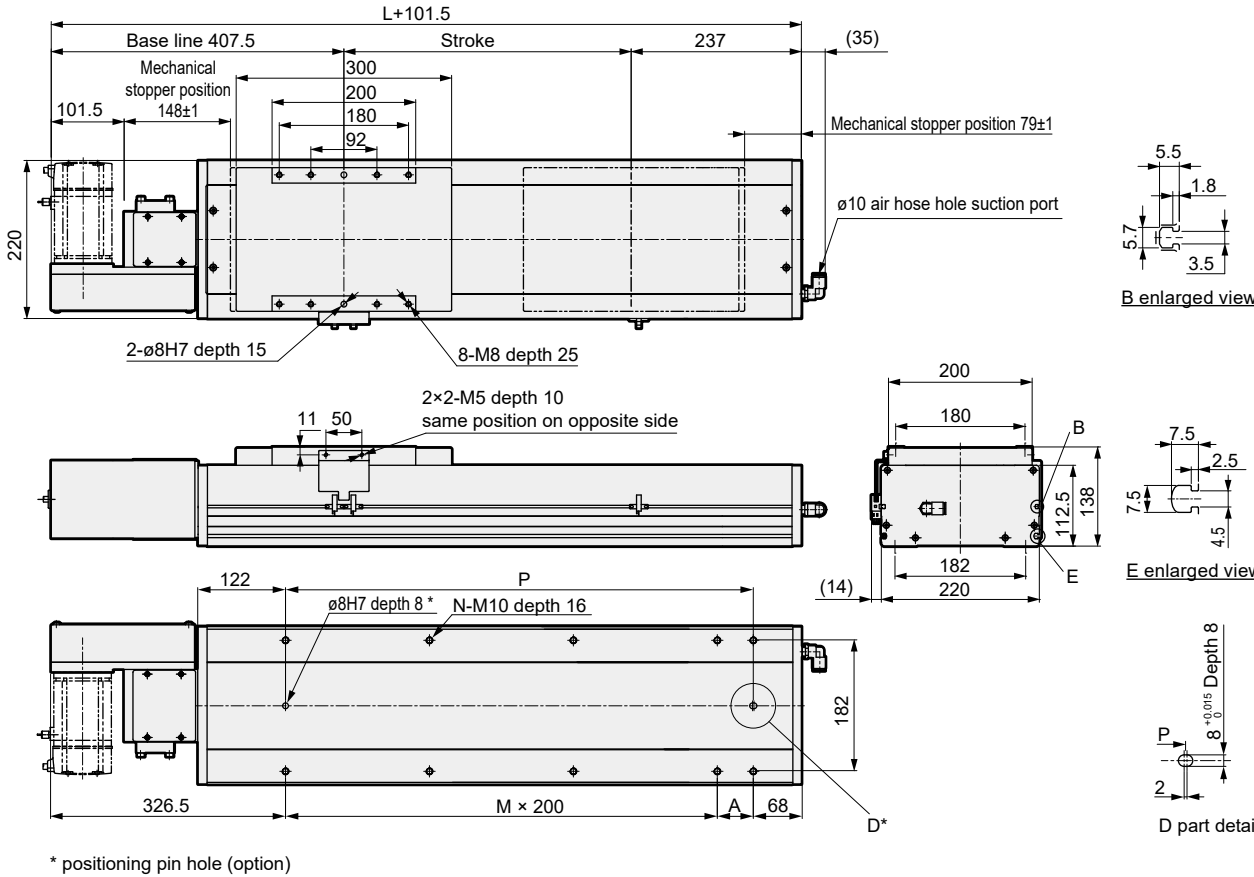
ECV-22 Series

External Dimension Drawings

External Dimension Drawing Motor Right Side Fold-back Mounting

● ECV-22-□□□□□-R

● Refer to P. 362 for grease nipple dimensions.



Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	643	693	743	793	843	893	943	993	1043	1093	1143	1193	1243	1293	1343	1393	1443	1493	1543	1593	1643	1693	1743
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7
N	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18
P	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450
Weight (kg)	33.0	34.2	35.4	36.6	37.8	39.0	40.2	41.4	42.6	43.8	45.0	46.2	47.4	48.6	49.8	51.0	52.2	53.4	54.6	55.8	57.0	58.2	59.4

Stroke (mm)	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350
L	1793	1843	1893	1943	1993	2043	2093	2143	2193	2243	2293	2343	2393	2443	2493	2543	2593	2643	2693	2743	2793	2843	2893
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12
N	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28
P	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600
Weight (kg)	60.6	61.8	63.0	64.2	65.4	66.6	67.8	69.0	70.2	71.4	72.6	73.8	75.0	76.2	77.4	78.6	79.8	81.0	82.2	83.4	84.6	85.8	87.0

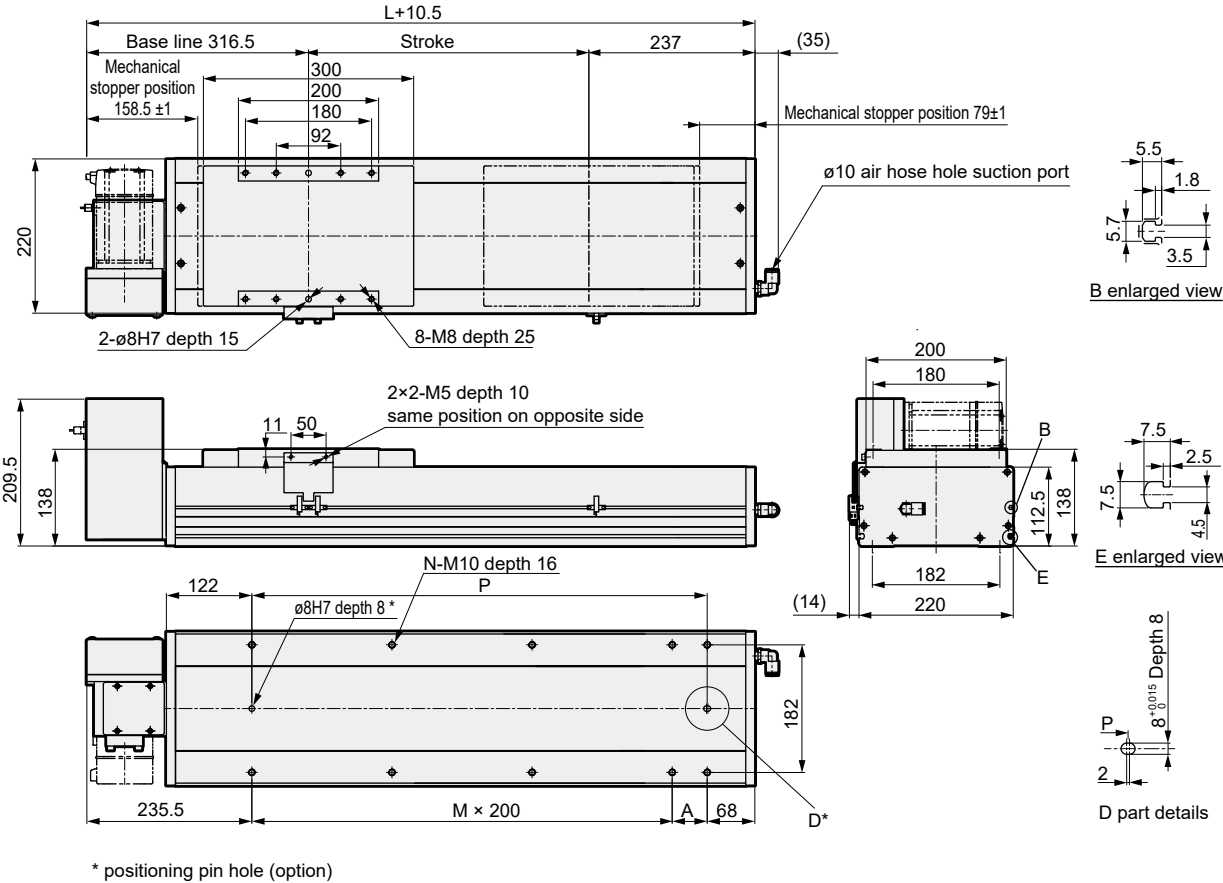
Stroke (mm)	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400
L	2943	2993	3043	3093	3143	3193	3243	3293	3343	3393	3443	3493	3543	3593	3643	3693	3743	3793	3843	3893	3943
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17	17	18
N	30	30	30	30	32	32	32	32	34	34	34	34	36	36	36	36	36	38	38	38	40
P	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650
Weight (kg)	88.2	89.4	90.6	91.8	93.0	94.2	95.4	96.6	97.8	99.0	100.2	101.4	102.6	103.8	105.0	106.2	107.4	108.6	109.8	111.0	112.2

* For motor mounting dimensions and list of accessories, please refer to P. 355.

External Dimension Drawing: Top Right Fold-back Motor Mounting

● ECV-22-□□□□□-S

● Refer to P. 362 for grease nipple dimensions.



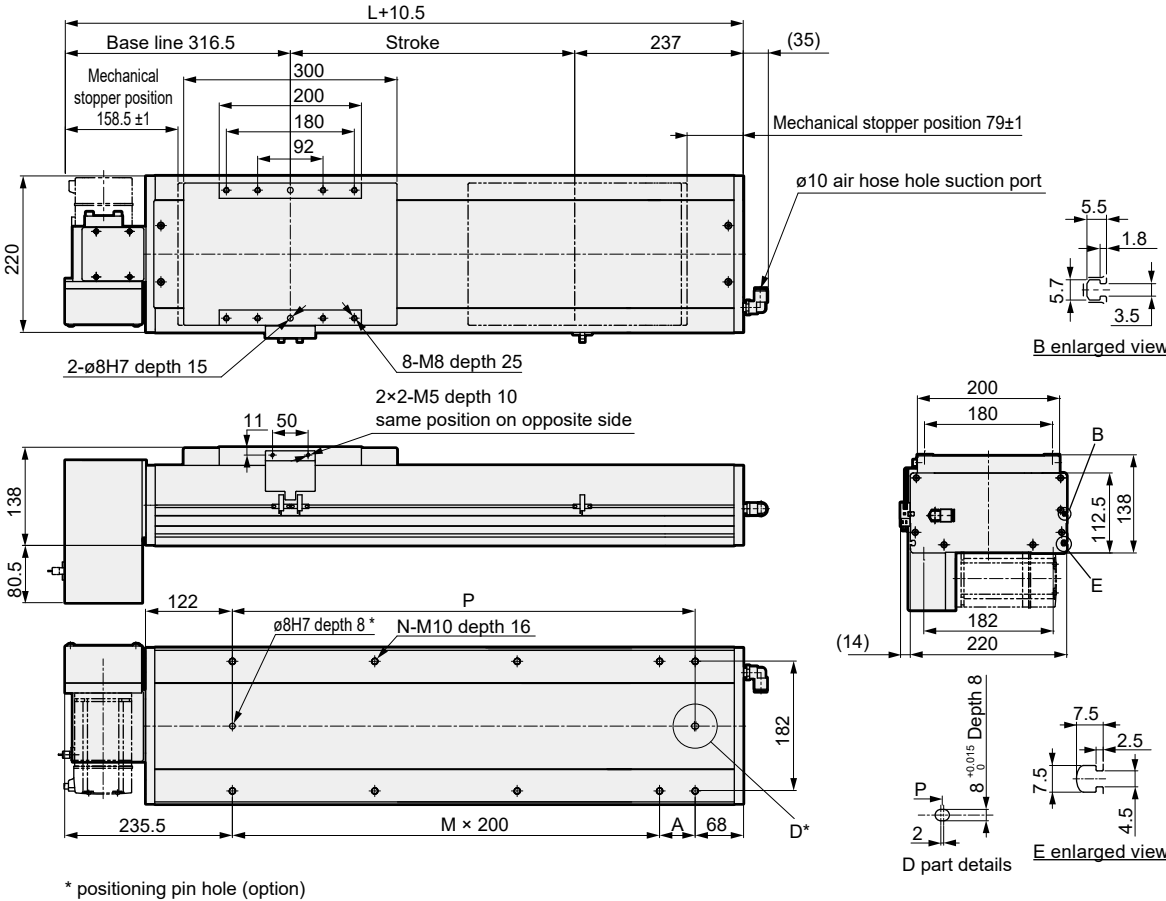
Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	643	693	743	793	843	893	943	993	1043	1093	1143	1193	1243	1293	1343	1393	1443	1493	1543	1593	1643	1693	1743
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7
N	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18
P	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450
Weight (kg)	33.0	34.2	35.4	36.6	37.8	39.0	40.2	41.4	42.6	43.8	45.0	46.2	47.4	48.6	49.8	51.0	52.2	53.4	54.6	55.8	57.0	58.2	59.4
Stroke (mm)	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350
L	1793	1843	1893	1943	1993	2043	2093	2143	2193	2243	2293	2343	2393	2443	2493	2543	2593	2643	2693	2743	2793	2843	2893
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12
N	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28
P	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600
Weight (kg)	60.6	61.8	63.0	64.2	65.4	66.6	67.8	69.0	70.2	71.4	72.6	73.8	75.0	76.2	77.4	78.6	79.8	81.0	82.2	83.4	84.6	85.8	87.0
Stroke (mm)	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400		
L	2943	2993	3043	3093	3143	3193	3243	3293	3343	3393	3443	3493	3543	3593	3643	3693	3743	3793	3843	3893	3943		
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50		
M	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17	17	18		
N	30	30	30	30	32	32	32	32	34	34	34	34	36	36	36	36	38	38	38	38	40		
P	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650		
Weight (kg)	88.2	89.4	90.6	91.8	93.0	94.2	95.4	96.6	97.8	99.0	100.2	101.4	102.6	103.8	105.0	106.2	107.4	108.6	109.8	111.0	112.2		

* For motor mounting dimensions and list of accessories, please refer to P. 355.

External Dimension Drawing: Bottom Right Fold-back Motor Mounting

● ECV-22-□□□□□-T

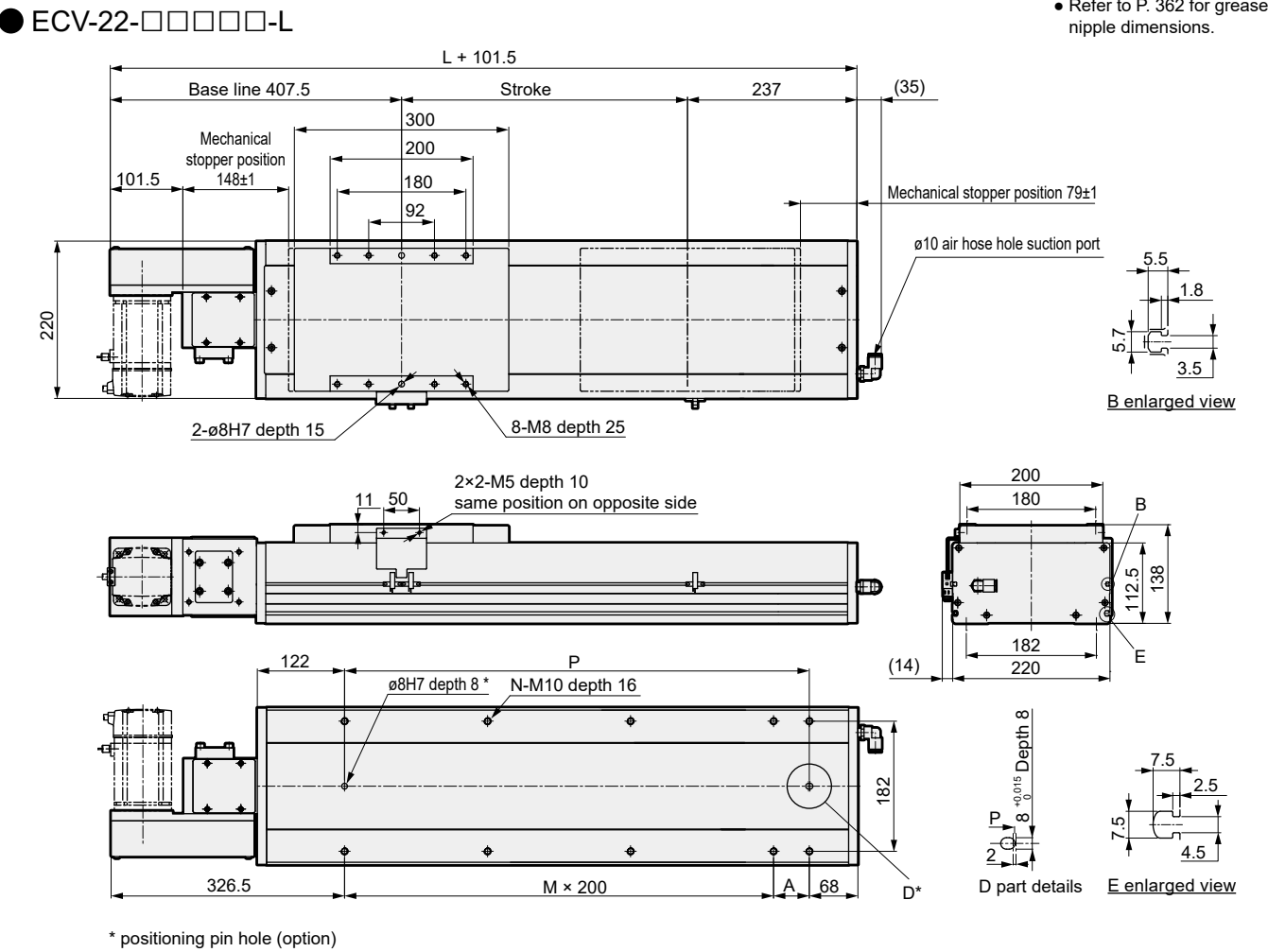
● Refer to P. 362 for grease nipple dimensions.



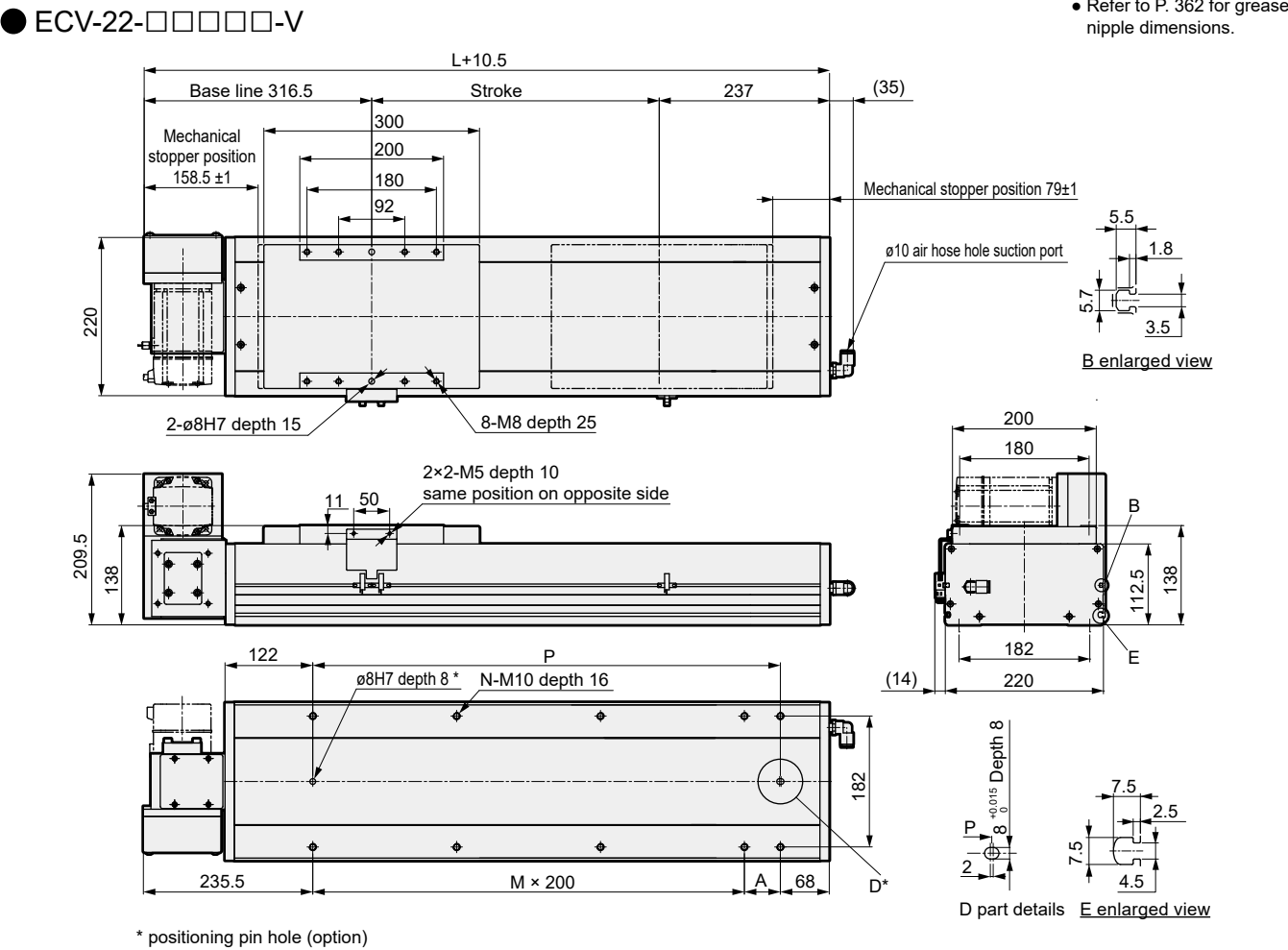
Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	643	693	743	793	843	893	943	993	1043	1093	1143	1193	1243	1293	1343	1393	1443	1493	1543	1593	1643	1693	1743
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7
N	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18
P	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450
Weight (kg)	33.0	34.2	35.4	36.6	37.8	39.0	40.2	41.4	42.6	43.8	45.0	46.2	47.4	48.6	49.8	51.0	52.2	53.4	54.6	55.8	57.0	58.2	59.4
Stroke (mm)	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350
L	1793	1843	1893	1943	1993	2043	2093	2143	2193	2243	2293	2343	2393	2443	2493	2543	2593	2643	2693	2743	2793	2843	2893
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12
N	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28
P	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600
Weight (kg)	60.6	61.8	63.0	64.2	65.4	66.6	67.8	69.0	70.2	71.4	72.6	73.8	75.0	76.2	77.4	78.6	79.8	81.0	82.2	83.4	84.6	85.8	87.0
Stroke (mm)	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400		
L	2943	2993	3043	3093	3143	3193	3243	3293	3343	3393	3443	3493	3543	3593	3643	3693	3743	3793	3843	3893	3943		
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50		
M	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17	17	18		
N	30	30	30	30	32	32	32	32	34	34	34	34	36	36	36	36	38	38	38	38	40		
P	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650		
Weight (kg)	88.2	89.4	90.6	91.8	93.0	94.2	95.4	96.6	97.8	99.0	100.2	101.4	102.6	103.8	105.0	106.2	107.4	108.6	109.8	111.0	112.2		

* For motor mounting dimensions and list of accessories, please refer to P. 355.

External Dimension Drawing Motor Left Side Fold-back Mounting



External Dimension Drawing: Top Left Fold-back Motor Mounting



Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	643	693	743	793	843	893	943	993	1043	1093	1143	1193	1243	1293	1343	1393	1443	1493	1543	1593	1643	1693	1743
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7
N	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18
P	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450
Weight (kg)	33.0	34.2	35.4	36.6	37.8	39.0	40.2	41.4	42.6	43.8	45.0	46.2	47.4	48.6	49.8	51.0	52.2	53.4	54.6	55.8	57.0	58.2	59.4

Stroke (mm)	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350
L	1793	1843	1893	1943	1993	2043	2093	2143	2193	2243	2293	2343	2393	2443	2493	2543	2593	2643	2693	2743	2793	2843	2893
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12
N	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28
P	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600
Weight (kg)	60.6	61.8	63.0	64.2	65.4	66.6	67.8	69.0	70.2	71.4	72.6	73.8	75.0	76.2	77.4	78.6	79.8	81.0	82.2	83.4	84.6	85.8	87.0

Stroke (mm)	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400
L	2943	2993	3043	3093	3143	3193	3243	3293	3343	3393	3443	3493	3543	3593	3643	3693	3743	3793	3843	3893	3943
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17	17	18
N	30	30	30	30	32	32	32	32	34	34	34	34	36	36	36	36	38	38	38	38	40
P	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650
Weight (kg)	88.2	89.4	90.6	91.8	93.0	94.2	95.4	96.6	97.8	99.0	100.2	101.4	102.6	103.8	105.0	106.2	107.4	108.6	109.8	111.0	112.2

* For motor mounting dimensions and list of accessories, please refer to P. 355.

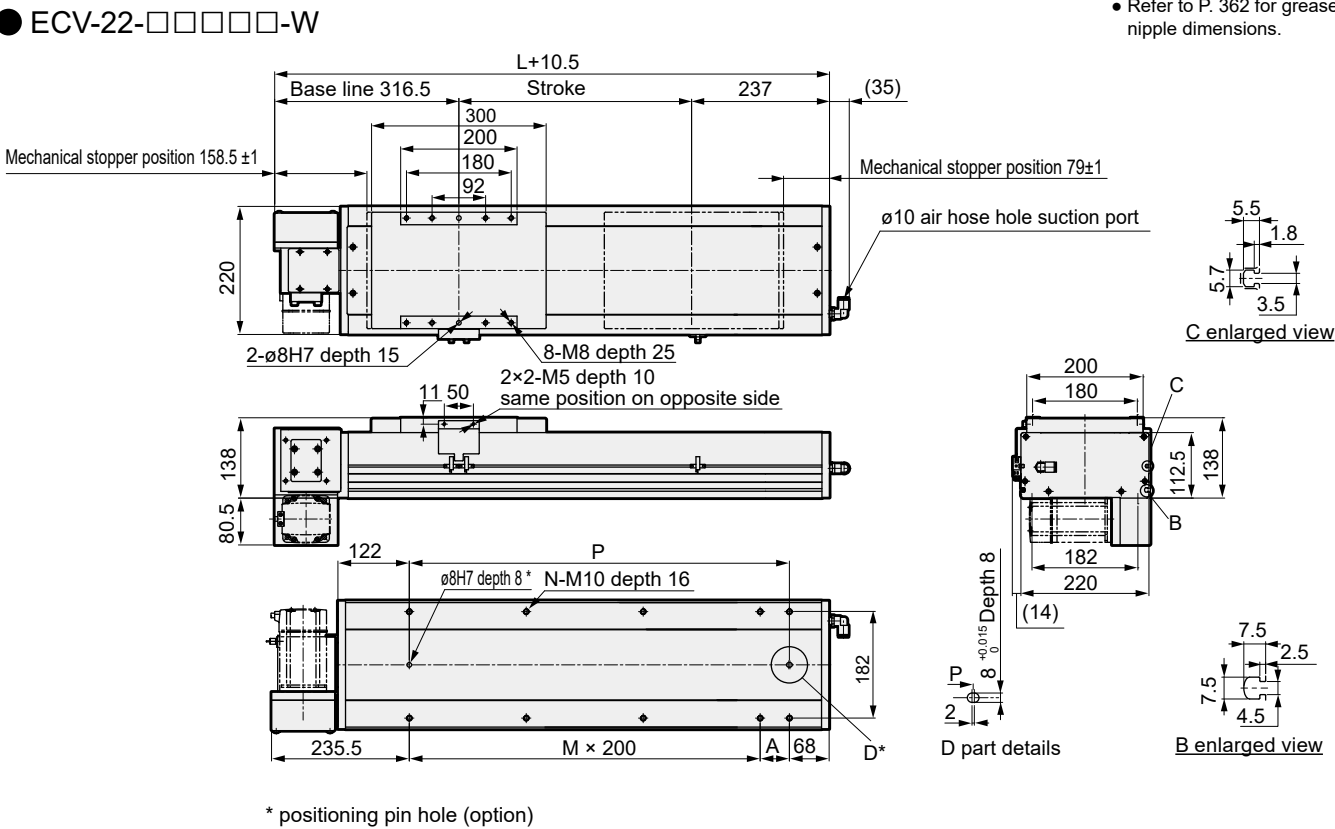
Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	643	693	743	793	843	893	943	993	1043	1093	1143	1193	1243	1293	1343	1393	1443	1493	1543	1593	1643	1693	1743
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7
N	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18
P	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450
Weight (kg)	33.0	34.2	35.4	36.6	37.8	39.0	40.2	41.4	42.6	43.8	45.0	46.2	47.4	48.6	49.8	51.0	52.2	53.4	54.6	55.8	57.0	58.2	59.4

Stroke (mm)	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350
L	1793	1843	1893	1943	1993	2043	2093	2143	2193	2243	2293	2343	2393	2443	2493	2543	2593	2643	2693	2743	2793	2843	2893
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12
N	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28
P	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600
Weight (kg)	60.6	61.8	63.0	64.2	65.4	66.6	67.8	69.0	70.2	71.4	72.6	73.8	75.0	76.2	77.4	78.6	79.8	81.0	82.2	83.4	84.6	85.8	87.0

Stroke (mm)	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400
L	2943	2993	3043	3093	3143	3193	3243	3293	3343	3393	3443	3493	3543	3593	3643	3693	3743	3793	3843	3893	3943
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17	17	18
N	30	30	30	30	32	32	32	32	34	34	34	34	36	36	36	36	38	38	38	38	40
P	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650
Weight (kg)	88.2	89.4	90.6	91.8	93.0	94.2	95.4	96.6	97.8	99.0	100.2	101.4	102.6	103.8	105.0	106.2	107.4	108.6	109.8	111.0	112.2

* For motor mounting dimensions and list of accessories, please refer to P. 355.

External Dimension Drawing: Bottom Left Fold-back Motor Mounting



Stroke (mm)	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	643	693	743	793	843	893	943	993	1043	1093	1143	1193	1243	1293	1343	1393	1443	1493	1543	1593	1643	1693	1743
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	7
N	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18
P	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450
Weight (kg)	33.0	34.2	35.4	36.6	37.8	39.0	40.2	41.4	42.6	43.8	45.0	46.2	47.4	48.6	49.8	51.0	52.2	53.4	54.6	55.8	57.0	58.2	59.4

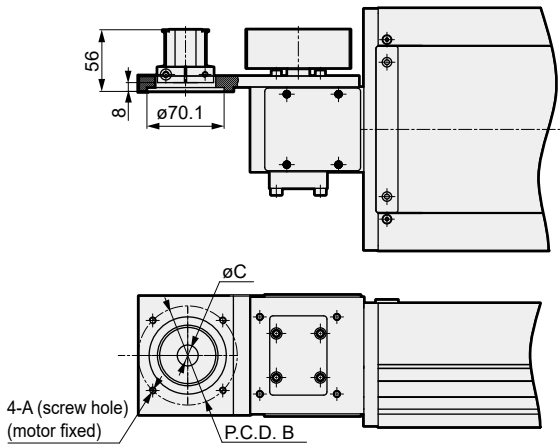
Stroke (mm)	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350
L	1793	1843	1893	1943	1993	2043	2093	2143	2193	2243	2293	2343	2393	2443	2493	2543	2593	2643	2693	2743	2793	2843	2893
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12
N	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26	26	28	28	28	28
P	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600
Weight (kg)	60.6	61.8	63.0	64.2	65.4	66.6	67.8	69.0	70.2	71.4	72.6	73.8	75.0	76.2	77.4	78.6	79.8	81.0	82.2	83.4	84.6	85.8	87.0

Stroke (mm)	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400
L	2943	2993	3043	3093	3143	3193	3243	3293	3343	3393	3443	3493	3543	3593	3643	3693	3743	3793	3843	3893	3943
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50
M	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17	17	18
N	30	30	30	30	32	32	32	32	34	34	34	34	36	36	36	36	38	38	38	38	40
P	2650	2700	2750	2800	2850	2900	2950	3,000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650
Weight (kg)	88.2	89.4	90.6	91.8	93.0	94.2	95.4	96.6	97.8	99.0	100.2	101.4	102.6	103.8	105.0	106.2	107.4	108.6	109.8	111.0	112.2

* For motor mounting dimensions and list of accessories, please refer to P. 355.

External Dimension Drawing: Bottom Left Fold-back Motor Mounting

Motor Mounting Part



Mounting Motor Specification	A	B	C	Motor mounting bolts
M 750 W	M6	ø90	ø19	4-M6 x L20
Y 750 W	M6	ø90	ø19	4-M6 x L20
P 750 W	M5	ø90	ø19	4-M5 x L20
F 750 W	M6	ø100	ø14	4-M6 x L20

List of Accessories

[Motor Mounting Parts]

Mounting Motor Specification	Timing belt, pulley	Fitting	Motor shape	Motor mounting bolts	
				Size	Quantity
M	Shipped included	Attached Shipment	750 W	M6	4
Y				M6	4
P				M5	4
F				M6	4

* For fittings, refer to P. 364 for details.

[Home Sensor / Limit Sensor]

Manufacturer	Model	Quantity
OMRON	EE-SX672	3

* For sensor specifications, please refer to P. 360.

MEMO

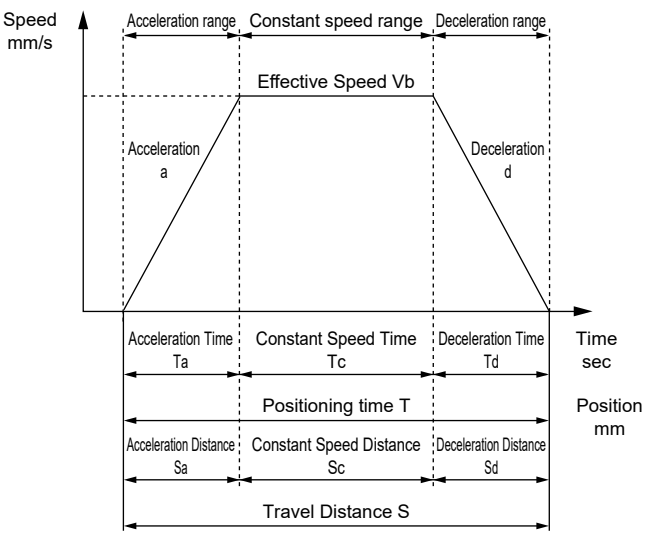
Model Selection

STEP-1 Confirmation of Payload

Payload varies depending on the mounting orientation and screw lead.
Select the size and lead by referring to the selection table (P. 328) and the specification table for each model.

STEP-2 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/s ²	
	Set Deceleration	d	mm/s ²	
	Travel Distance	S	mm	
Calculated Value	Reached Speed	Vmax	mm/s	= {2 x a x d x S / (a + d)} ^{1/2}
	Effective Speed	Vb	mm/s	The smaller of V and Vmax
	Acceleration Time	Ta	s	= Vb/a [0.4 sec or more]
	Deceleration Time	Td	s	= Vb/d [0.4 sec or more]
	Constant Speed Time	Tc	s	= Sc / Vb
	Acceleration Distance	Sa	mm	= (a x Ta ²)/2
	Deceleration Distance	Sd	mm	= (d x 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.
* The setting of acceleration/deceleration by acceleration/deceleration time varies depending on the set speed and stroke.
* 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).
* Please use an acceleration/deceleration time of 0.4 sec or more.
*1 G ≈ 9.8 m/s².

STEP-3 Confirmation of Allowable Overhang Length

Confirm that the overhang length of the load during operation is within the allowable overhang length (P. 358, P. 359).

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/)

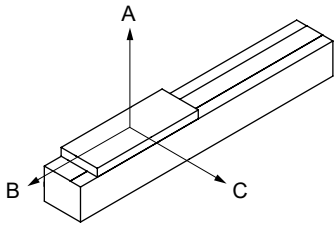
[For confirmation via iPad or smartphone]

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

MEMO

Allowable Overhang Length (ECV Series)

[Horizontal Installation]



[Allowable Overhang Length]

● ECV-14

Motor Mounting	Acceleration/ deceleration time sec	Screw Lead Equivalent	Payload kg	Overhang mm		
				A	B	C
Fold-back	0.4	40	10	1800	700	550
			20	880	330	260
			25	700	260	200

● ECV-17

Motor Mounting	Acceleration/ deceleration time sec	Screw Lead Equivalent	Payload kg	Overhang mm		
				A	B	C
Fold-back	40	10	10	3,000	1250	1150
			20	1600	600	550
			30	1050	400	360
			45	650	250	230

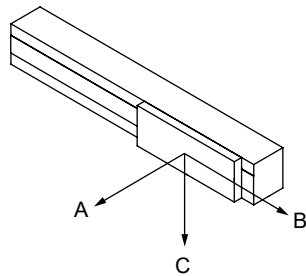
● ECV-22

Motor Mounting	Acceleration/ deceleration time sec	Screw Lead Equivalent	Payload kg	Overhang mm		
				A	B	C
Fold-back	0.4	40	45	1700	650	470
			65	1150	420	310
			85	850	310	225

* For ceiling-mounted use, please select 1/3 of the max. payload, static allowable moment, dynamic allowable load, dynamic allowable moment, and overhang length. Please use the overhang length to the load's center of gravity within each A, B, and C direction.

Allowable Overhang Length (ECV Series)

[When Wall-Mounted]



[Allowable Overhang Length]

● ECV-14

Motor Mounting	Acceleration/ deceleration time sec	Screw Lead Equivalent	Payload kg	Overhang mm		
				A	B	C
Fold-back	0.4	40	10	540	690	1800
			20	260	330	860
			25	200	255	680

● ECV-17

Motor Mounting	Acceleration/ deceleration time sec	Screw Lead Equivalent	Payload kg	Overhang mm		
				A	B	C
Fold-back	0.4	40	10	1150	1250	2700
			20	550	600	1550
			30	350	390	1000
			45	220	230	630

● ECV-22

Motor Mounting	Acceleration/ deceleration time sec	Screw Lead Equivalent	Payload kg	Overhang mm		
				A	B	C
Fold-back	0.4	40	45	480	650	1700
			65	320	430	1150
			85	230	320	850

* For ceiling-mounted use, please select 1/3 of the max. payload, static allowable moment, dynamic allowable load, dynamic allowable moment, and overhang length. Please use the overhang length to the load's center of gravity within each A, B, and C direction.

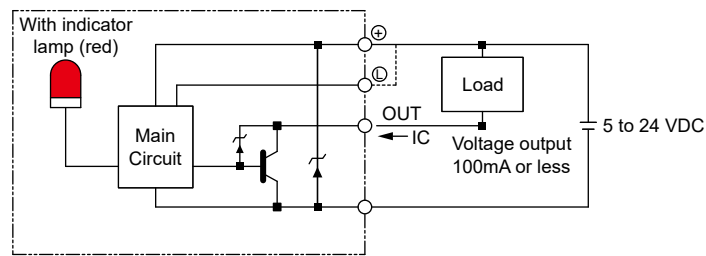
Sensor Specifications

Manufacturer	Model	Quantity
OMRON	EE-SX672	3

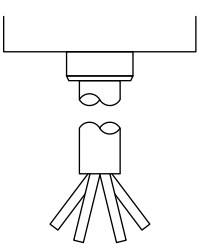
Performance

Item	Specifications
Hysteresis	0.025 mm or less
Light source (peak emission wavelength)	GaAs infrared emitting diode (940 nm)
Indicator Light	Lights up when light is received (red)
Power Supply Voltage	5 to 24 VDC ±10% Ripple (p-p) 10% or less
Current Consumption	35 mA or less (NPN type)
Control output	NPN type: NPN open collector output 5 to 24 VDC 100 mA or less Off-state current 0.5 mA or less, residual voltage 0.8 V or less (at load current 100 mA) Residual voltage: 0.4 V or less (with 40 mA load current)
Ambient illuminance	Illuminance at Light-Receiving Surface: Fluorescent Lamp : 1000 lx or less
Ambient Temperature	Operating : -25 to +55°C Storage : -30 to +80°C (however, no freezing or condensation)
Ambient Humidity	Operating : 5 to 85%RH Storage : 5 to 95%RH (however, no freezing or condensation)
Enclosure	IP50 IEC60529 standard
Cord length	2 m (Connector with cord (EE-1006 2 M))

Output circuit



Wiring Diagram



Terminal arrangement

Brown	5 to 24 VDC
Pink	L
Blue	0 V
Black	OUTPUT

Sensor External Dimension Drawing

Sensor Dog External Dimension Drawing

	Motor Mounting Direction
Body Size	R / S / T / L / V / W
ECV-14	Fig. 1
ECV-17	Fig. 1
ECV-22	Fig. 2

Fig. 1

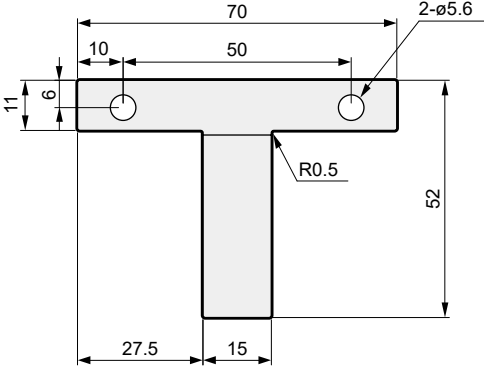
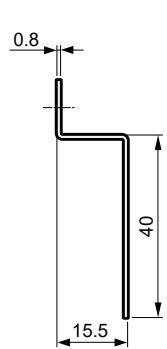
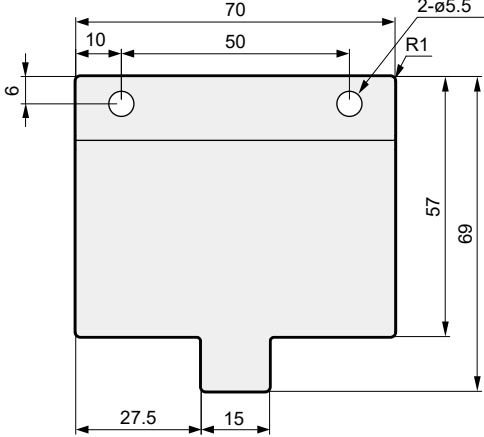
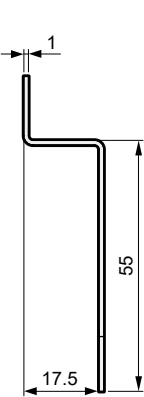
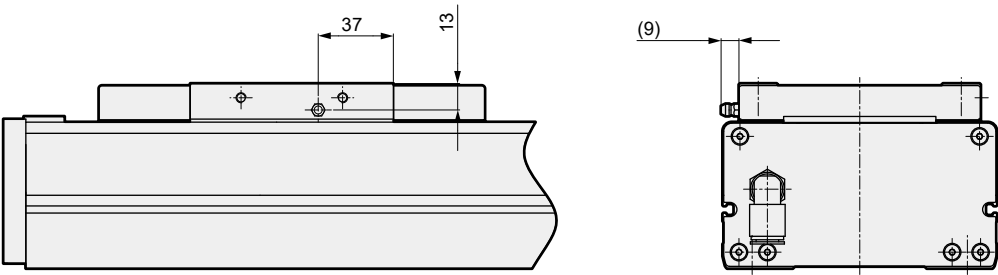


Fig. 2

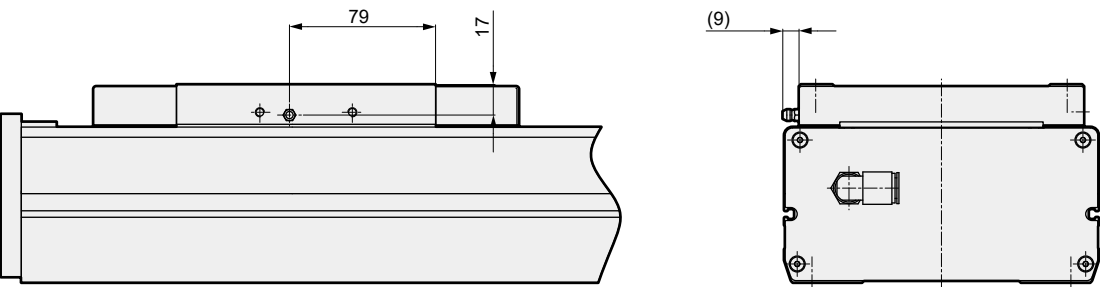


● ECV-14

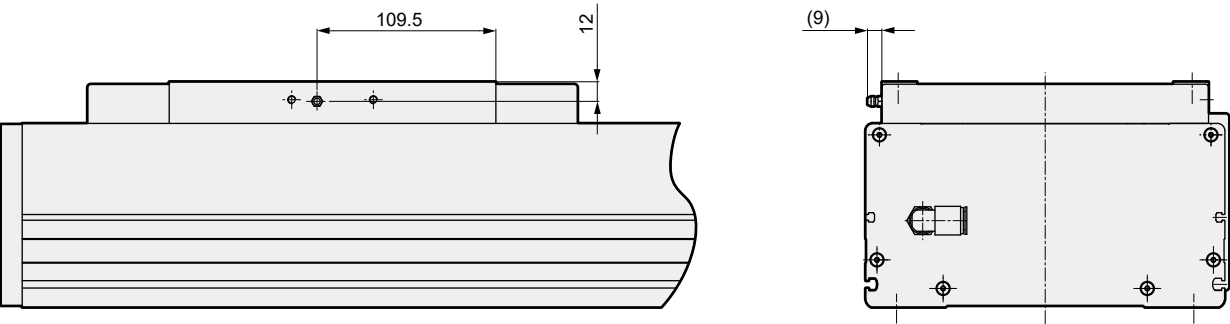
* Symmetrical with respect to the actuator.



● ECV-17



● ECV-22



Servo motor compatible

EBS

EBR

ETS

ETS Multi Axis

ECS

ETV

ECV

EKS

ESM

Ending

Servo motor compatible

EBS

EBR

ETS

ETS Multi Axis

ECS

ETV

ECV

EKS

ESM

Ending

List of Accessories

Basic Type

Motor Mounting Bolts (Common for all motor mounting directions)

Model No.	Mounting Motor Specification	Motor Capacity	Size	Quantity
ECV-14	M	200 W	M5	4 pcs.
	Y		M5	4 pcs.
	P		M4	4 pcs.
	F		M5	4 pcs.
ECV-17	M	400 W	M5	4 pcs.
	Y		M5	4 pcs.
	P		M4	4 pcs.
	F		M5	4 pcs.
ECV-22	M	750 W	M6	4 pcs.
	Y		M6	4 pcs.
	P		M5	4 pcs.
	F		M6	4 pcs.

By Motor Mounting Direction

Attached Part Name	Attached quantity
Timing Belt	1 pc.
Pulley	1 pc

When home/limit sensor is selected

Sensor mounting direction	Shipment Form	Quantity
Outer sensor	Shipped included *1	3 pcs. *2

*1 If "None" is selected for either the home sensor or the limit sensor, the other will also be "None". The sensor rail (ECV-10) is shipped as "None".
*2 Sensor mounting screws are also attached.

Fitting for Suction Port

Model No.	Fitting Model Number	Shipment Form	Quantity
ECV-14 to ECV-22	GWL10-8	Shipped included	1 pc.

Maintenance Parts

● Maintenance Parts Set

Model Number	Applicable Models	Component Parts			
		①	②	③	④
		Timing Belt 	Pulley 	Sensor Dog 	Roller unit 
ECV-08 JP002-0022	ECV-14	○ (1 pc.)	○ (3 pcs.)	○ (1 pc.)	○ (4 pcs.)
ECV-08 JP002-0023	ECV-17	○ (1 pc.)	○ (1 pc.)	○ (1 pc.)	○ (4 pcs.)
ECV-08 JP002-0020	ECV-22	○ (2 pcs.)	○ (2 pcs.)	○ (1 pc.)	○ (6 pcs.)

● Maintenance parts (external mounted sensor)

Model Number	Applicable Models	Part
	All models	Body
ETS-22008-000001		Cable
ETS-22008-000006		

Servo motor compatible

EBS

EBR

ETS

ETS
Multi
Axis

ECS

ETV

ECV

EKS

ESM

Ending

Servo motor compatible

EBS

EBR

ETS

ETS
Multi
Axis

ECS

ETV

ECV

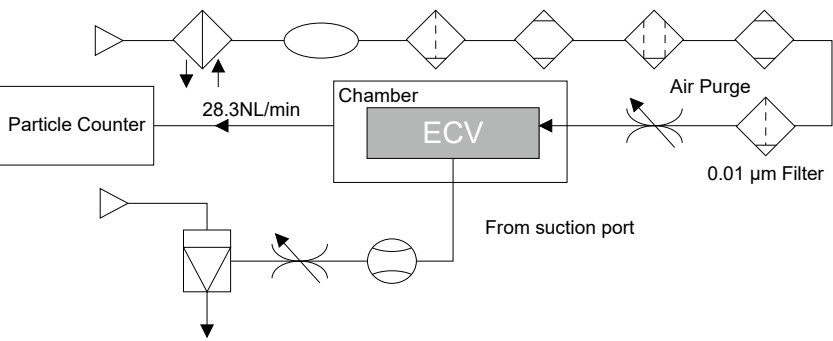
EKS

ESM

Ending

Particle Emission Characteristics Reference Data

Test Circuit



Measurement Method

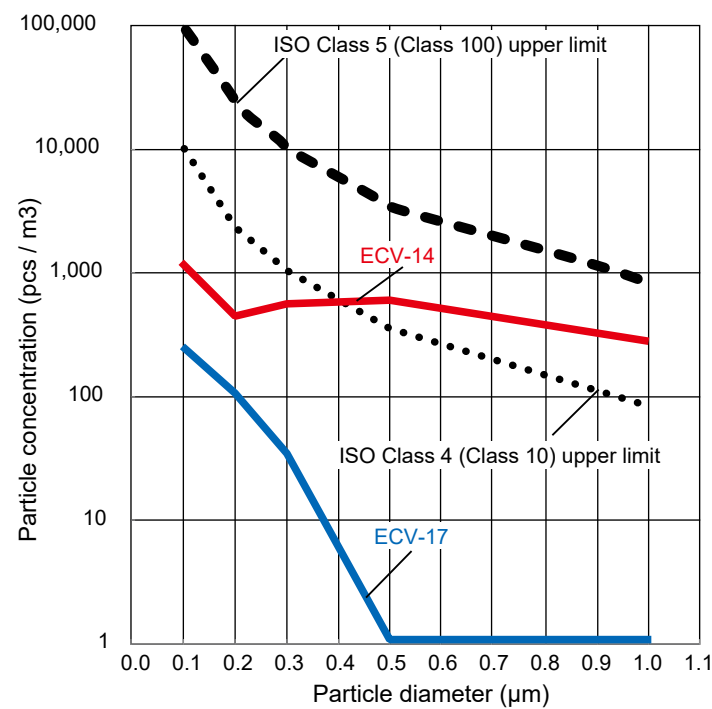
- ① Test sample set in acrylic resin chamber.
- ② Clean air supplied in the same quantity as the particle counter intake rate (28.3 NL/min).
- ③ Set in a clean bench of ISO Class 4 (Class 10) within the chamber.
- ④ Test sample activated, particle concentration change over time measured up to required measurement time.
- ⑤ Test sample operating speed

Measurement Conditions

Item		Content
Test Sample	Model No.	For ECV-14-40040, operating speed 800 mm/sec For ECV-17-40040, operating speed 800 mm/sec
	Acceleration/Deceleration Time	0.4 sec
	Air Suction Volume	60.0 NL/min for ECV-14-40040 80.0 NL/min for ECV-17-40040
Chamber	Internal Volume	28.3 NL
Particle Counter	Name	Laser dust monitor
	Minimum measurable particle size	0.1 μm
	Suction Volume	28.3 NL/min
Setting Conditions	Sampling	10 min
	Interval	40 min
	Measurement Time	50 h

Particle Emission Data

Data is measured under the above conditions and is not guaranteed.



To Use This Product Safely

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

Individual Precautions: Electric Actuator ECV Series

During Design and Selection

Danger

- Do not use in locations where hazardous materials such as ignitable, flammable, or explosive substances are present. There is a possibility of ignition, fire, or explosion.
- Ensure that the product is free of water droplets and oil droplets. This can cause fire or failure.
- When mounting the product, be sure to securely hold and fix it (including the workpiece). There is a risk of injury due to the product tipping over, falling, or malfunctioning.

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 (over 85% RH, with condensation), there is a risk of electric leakage and fire. Oil drops and oil mist are also strictly prohibited.
 - Use in such environments can cause damage and malfunction.
- Use and store in accordance with the working/storage temperatures and where there is no condensation.
 - (Storage temperature : -10 °C to 50 °C, Storage humidity : 35 % to 80 %, Operating 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.
- 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 a location free from strong electromagnetic waves, ultraviolet rays, and radiation. This can cause malfunction or failure.

- Consider the possibility of power source failure.
 - In case of breakdown in the power source, take countermeasures without causing trouble or damage to the operator or equipment.
- Consider the operating state when restarting after an emergency stop or abnormal stop.
 - 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.

Caution

- Do not use in a range where the moving table could collide with the stroke end and break.
- Clearly state the maintenance conditions in the equipment's instruction manual.
 - The functionality of this product may be significantly reduced and safety may not be ensured depending on the usage conditions, environment, and maintenance. If maintenance is performed correctly, the product's functions can be fully utilized.
- Regarding installing, setting up, adjusting and maintaining the product, read through the instruction manual and operate correctly.
- The product is manufactured in conformity with the related standards. Never disassemble or modify.
- 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 with the customer's systems, machines and equipment.
- Do not pressurize from the suction port. Lubricating grease may scatter, potentially reducing product life.
- The required air intake amount differs depending on the model. Please use the required air suction volume for your model.

ECV-14	ECV-17	ECV-22
60 NL/min or less	80 NL/min or less	100 NL/min or less

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](#).

ECVModel Selection Check Sheet → CKD (Contact)

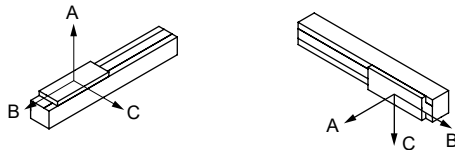
Please fill out this form and send it to your nearest sales office. We will respond with the model selection results.

MEMO

Customer :

Company		Department	
Name		E-mail	
TEL		FAX	

Selection Conditions :

Desired Model	ECV-		
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/s ² (set acceleration/deceleration time : s)	
	Repeatability : ±	mm	
Load Conditions	Slider Type		
	Load weight :	kg	
	Mounting Orientation : Horizontal/Wall-mounted/Ceiling-mounted/Other		
			
	Distance from slider center to load's center of gravity		
	Direction A :	mm	
	Direction B :	mm	
	Direction C :	mm	
Operating Environment	Pressing load :		
	None / Yes (N) During operation / When stopped Direction of force on slider center ()		
Motor Used	Ambient Temperature : °C, Ambient Humidity : %		
	Atmosphere :		
Special Notes	Manufacture : , Model No. :		
	Motor capacity, size:		

Servo motor compatible

BS

BR

TS

TS
Multi
axis

CS

TV

KS

SM

Servo motor compatible

EBS

EBR

ETS

ETS
Multi
Axis

ECS

ETV

EKS

ESM

Ending

ending