

ETS-05 Series

Straight motor mounting

● Servo motor capacity: 100 W



How to order

ETS	-	05	-	05	-	040	-	E	M	1	-	N	C	B	-	N	P	-	M
		A			B			C			D			E			F		
		A Body size						E Mounted motor specification						I Limit sensor (2 pcs) *1*2				K Positioning pin hole	
		05 Body width 51 mm						M Select the mounted motor specification from the table below.						N None				N None	
		B Screw lead						F Motor capacity						J Grease nipple *3				L Magnet slider method	
		02 2 mm						1 100 W						N None (Body mounting direction: Standard)				M Yes	
		05 5 mm																	
		10 10 mm																	
		C Stroke length						G Brake											
		005 50 mm						N None											
		to (In 50 mm increments)																	
		080 800 mm																	
		D Motor mounting direction						H Origin sensor (1 pc) *1 *2											
		E Straight mounting						N None											
								C Outside motor side											
								D Outside motor opposite side											

Manufacturer	100 W
Mitsubishi Electric Corporation	M
Delta Electronics Co., Ltd.	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

*Refer to page 89 for the motor model No.

*1: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*2: The user can adjust the sensor position. (Included at shipment)

*3: "Body mounting direction: Standard" here refers to mounting from the bottom side.

Specifications

Applicable motor capacity	100 W servo motor		
Drive method	Ball screw $\phi 12$		
Ball screw accuracy grade	C7		
Stroke length mm	50 to 800		
Screw lead mm	2	5	10
Max. load capacity *1	Horizontal kg	10	5
	Vertical kg	7	1.5
Max. speed mm/s	100	250	500
Rated thrust *1 N	854	341	170
Repeatability mm	± 0.01		
Lost motion mm	0.1 or less		
Dynamic allowable load N	551		
Static allowable moment N·m	MP: 20, MY: 16, MR: 19		
Dynamic allowable moment N·m	MP: 2.8, MY: 2.8, MR: 6.8		
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 max. load capacity are guideline values assuming that the motor mounted will output the rated torque.

Stroke and max. speed

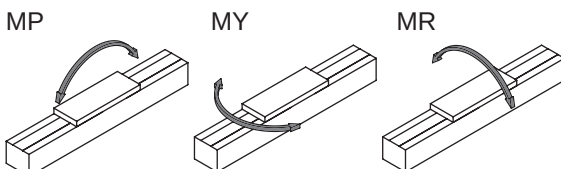
		(mm/s)				
Screw lead	Stroke length	100 to 600	650	700	750	800
2		100	90	80	70	60
5		250	225	200	175	150
10		500	450	400	350	300

*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 page 152 for details.

Moment direction





Electric actuator Ball screw drive Slider

ETS-05 Series

Motor side mounting (left, right, bottom)

● Servo motor capacity: 100 W

How to order

ETS - 05 - 05 040 - R M 1 N C B N P - M

A Body size
05 Body width 51 mm

B Screw lead
02 2 mm
05 5 mm
10 10 mm

C Stroke length
005 50 mm
to (In 50 mm increments)
080 800 mm

D Motor mounting direction
R Right mounting
D Bottom mounting
L Left mounting

E Mounted motor specification
M Select the mounted motor specification from the table below.
Y
P
F

F Motor capacity
1 100 W

G Brake
N None

H Origin sensor (1 pc) *1 *2
N None
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *1 *2
N None
B Outside

J Grease nipple *3
N None (Body mounting direction: Standard)

K Positioning pin hole
N None
P Yes

L Magnet slider method
M Yes

Manufacturer	100 W
Mitsubishi Electric Corporation	M
Delta Electronics Co., Ltd.	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

*1: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*2: The user can adjust the sensor position. (Included at shipment)

*3: "Body mounting direction: Standard" here refers to mounting from the bottom side.

*Refer to page 89 for the motor model No.

Specifications

Applicable motor capacity	100 W servo motor			
Drive method	Ball screw ø12			
Ball screw accuracy grade	C7			
Stroke length mm	50 to 800			
Screw lead mm	2	5	10	
Max. load capacity *1	Horizontal kg	10	10	5
	Vertical kg	7	3	1.5
Max. speed mm/s	100	250	500	
Rated thrust *1 N	854	341	170	
Repeatability mm	±0.01			
Lost motion mm	0.1 or less			
Dynamic allowable load N	551			
Static allowable moment N·m	MP: 20, MY: 16, MR: 19			
Dynamic allowable moment N·m	MP: 2.8, MY: 2.8, MR: 6.8			
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 max. load capacity are guideline values assuming that the motor mounted will output the rated torque.

Stroke and max. speed

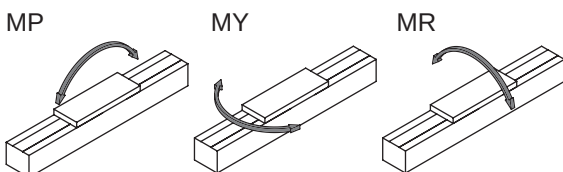
Stroke length Screw lead	(mm/s)				
	100 to 600	650	700	750	800
2	100	90	80	70	60
5	250	225	200	175	150
10	500	450	400	350	300

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

Allowable overhang length

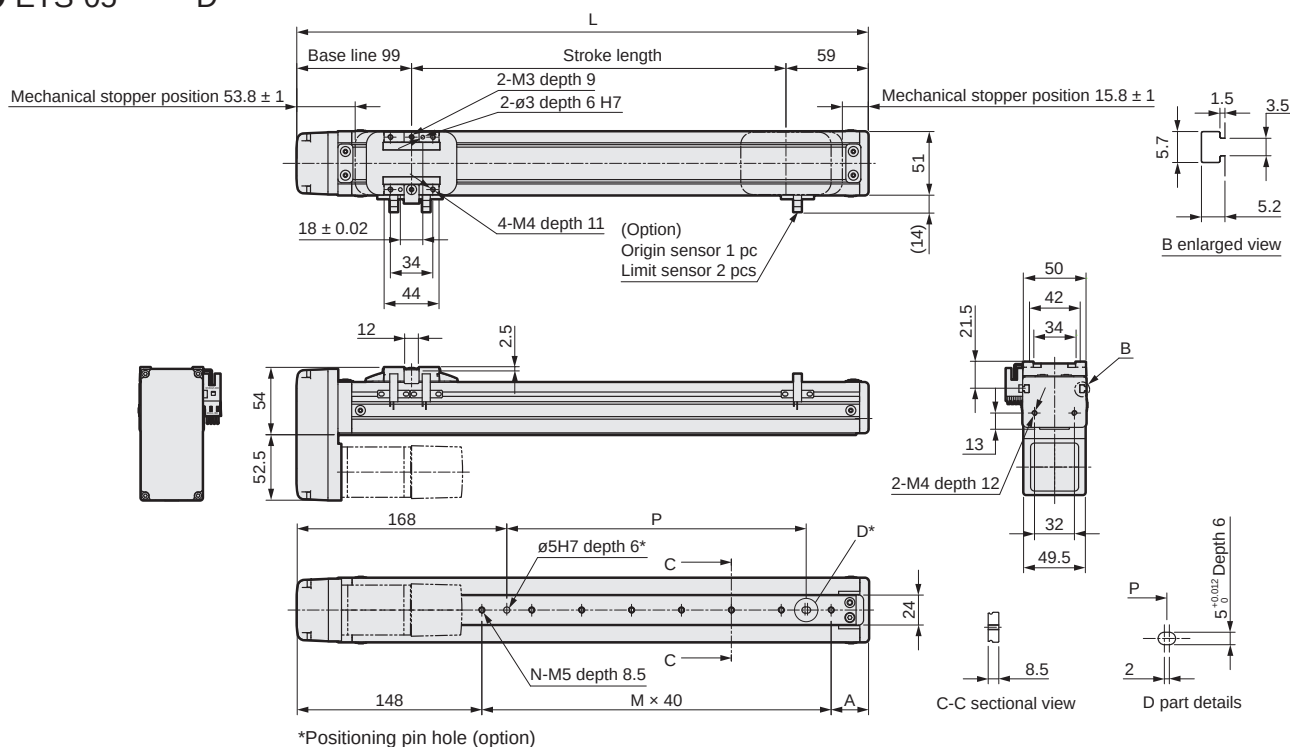
*Refer to page 152 for details.

Moment direction



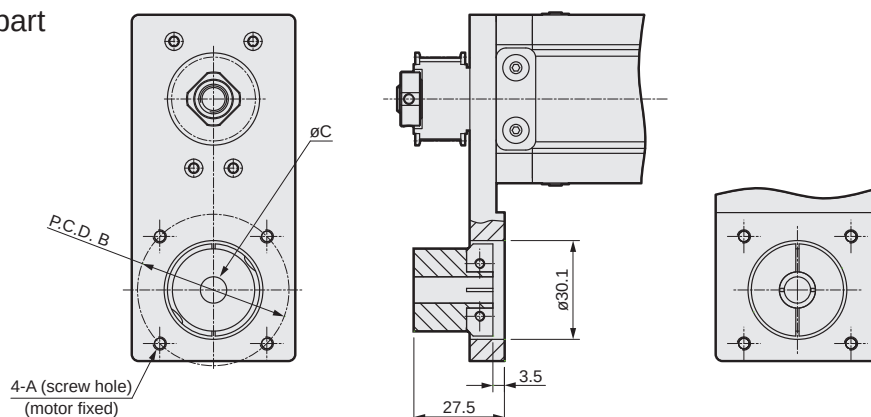
Dimensions Motor bottom mounting

● ETS-05-*****-D



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	208	258	308	358	408	458	508	558	608	658	708	758	808	858	908	958
A	60	30	40	50	60	30	40	50	60	30	40	50	60	30	40	50
M	0	2	3	4	5	7	8	9	10	12	13	14	15	17	18	19
N	1	3	4	5	6	8	9	10	11	13	14	15	16	18	19	20
P	0	40	80	120	160	240	280	320	360	440	480	520	560	640	680	720
Weight (kg)	1.7	1.8	1.9	2.0	2.1	2.3	2.4	2.4	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3

Motor mounting part



Mounted motor specification		A	B	C	Motor mounting bolt
M	100 W	M4	$\phi 46$	$\phi 8$	4-M4 $\times$ L12
Y	100 W	M4	$\phi 46$	$\phi 8$	4-M4 $\times$ L12
P	100 W	M3	$\phi 45$	$\phi 8$	4-M3 $\times$ L12
F	100 W	M4	$\phi 46$	$\phi 8$	4-M4 $\times$ L12

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor capacity	Motor mounting bolt	
			Size	Quantity
M	Included at shipment	100 W	M4	2
Y			M4	2
P			M3	4
F			M4	2

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 156 for sensor specifications.

ETS-06 Series

Straight motor mounting

● Servo motor capacity: 50 W (metal stopper specifications)/100 W

How to order

ETS - 06 - 05 040 - E M 1 N C B D P - M - X

A Body size
06 Body width 65 mm

B Screw lead
02 2 mm
05 5 mm
10 10 mm

C Stroke length
005 50 mm
to 080 (In 50 mm increments) 800 mm

D Motor mounting direction
E Straight mounting

E Mounted motor specification
M Select the mounted motor specification from the table below.
Y
P
F

F Motor capacity *1
0 50 W
1 100 W

G Brake
N None

H Origin sensor (1 pc) *2 *3
N None
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *2 *3
N None
B Outside

J Grease nipple *4 *5
N None (Body mounting direction: Standard)
D None (Body mounting direction: Bottom side)

K Positioning pin hole
N None
P Yes

L Magnet slider method
M Yes

M Metal stopper specifications (ETS-X) *1
Standard
X Yes

Manufacturer	50 W	100 W
Mitsubishi Electric Corporation	M	M
Delta Electronics Co., Ltd.	M	M
Sanyo Denki Co., Ltd.	M	M
YASKAWA Electric Corporation	Y	Y
Keyence Corporation	Y	Y
Panasonic Corporation	P	P
OMRON Corporation	M	M
Fuji Electric Co., Ltd.	M	M
FANUC CORPORATION	F	F
DENSO WAVE Incorporated (ETS-X only)	-	M
Bosch Rexroth AG	P	P
Rockwell Automation, Inc.	M	M
SIEMENS AG	M	M

*1: 50 W can be selected only when selecting metal stopper specifications.

*2: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*3: The user can adjust the sensor position. (Included at shipment)

*4: Select the body mounting direction. N (top side ø4.5 spot face) or D (M5 from bottom side bottom surface)

*5: "Body mounting direction: Standard" here refers to mounting from the top.

*50 W supports only metal stopper specifications.

*Refer to page 89 for the motor model No.

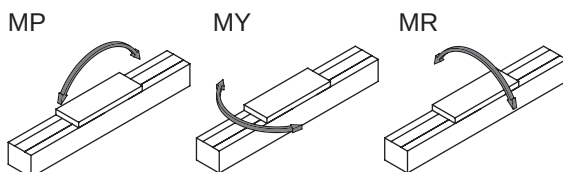
Specifications

Applicable motor capacity *1	50 W/100 W servo motor		
Drive method	Ball screw ø12		
Ball screw accuracy grade	C7		
Stroke length mm	50 to 800		
Screw lead mm	2	5	10
Max. load capacity *1 *2	Horizontal kg	50 W 12	100 W 30
	Vertical kg	50 W 6	100 W 15
	Vertical kg	50 W 15	100 W 30
Max. speed mm/s	100	250	500
Rated thrust *1 *2	50 W N	427	85
	100 W N	854	170
Repeatability mm	±0.01		
Lost motion mm	0.1 or less		
Dynamic allowable load N	1209		
Static allowable moment N·m	MP: 80, MY: 70, MR: 75		
Dynamic allowable moment N·m	MP: 8.9, MY: 8.9, MR: 24.8		
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 50 W can be selected only with metal stopper (ETS-X) specifications.

*2 Rated thrust and max. load capacity are guideline values assuming that the motor mounted will output the rated torque.

Moment direction



Stroke and max. speed

		(mm/s)				
Stroke length	Screw lead	100 to 600	650	700	750	800
		100	90	80	70	60
	2	100	90	80	70	60
	5	250	225	200	175	150
	10	500	450	400	350	300

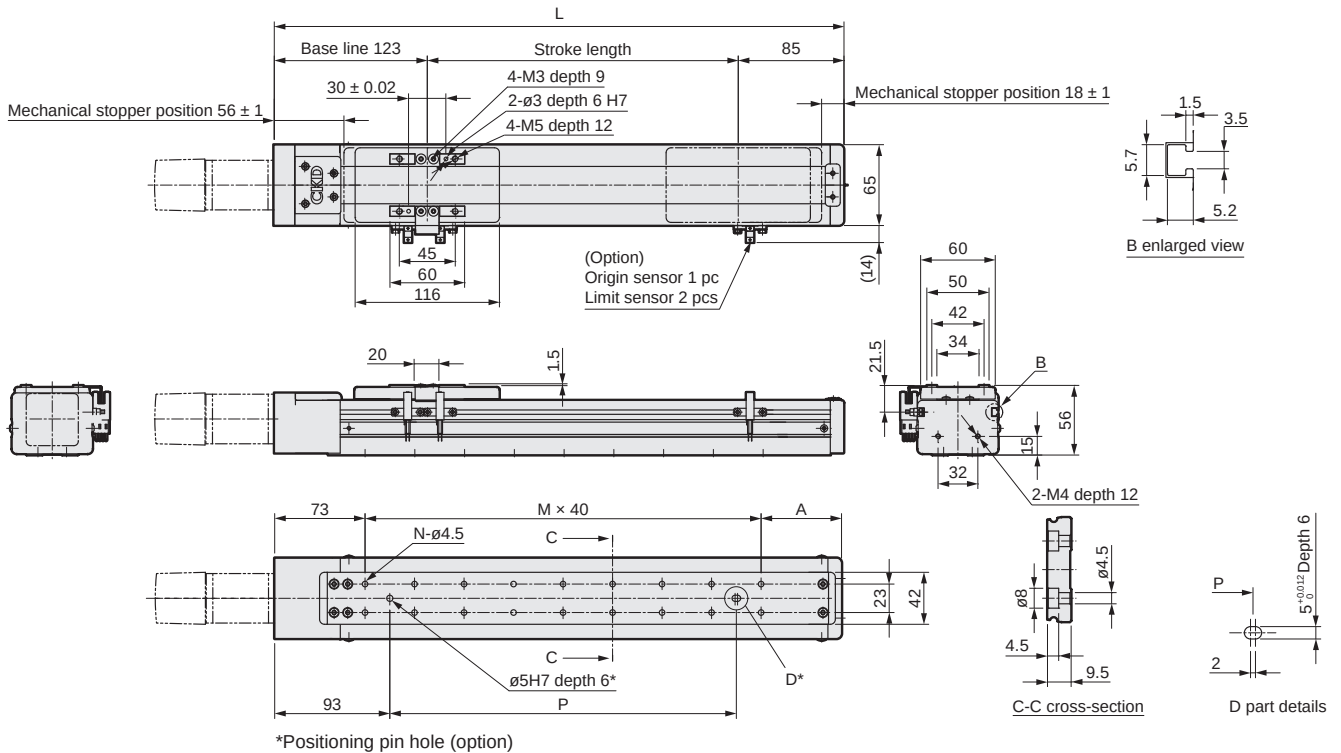
*The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm.

Allowable overhang length

*Refer to page 152 for details.

Dimensions Straight motor mounting

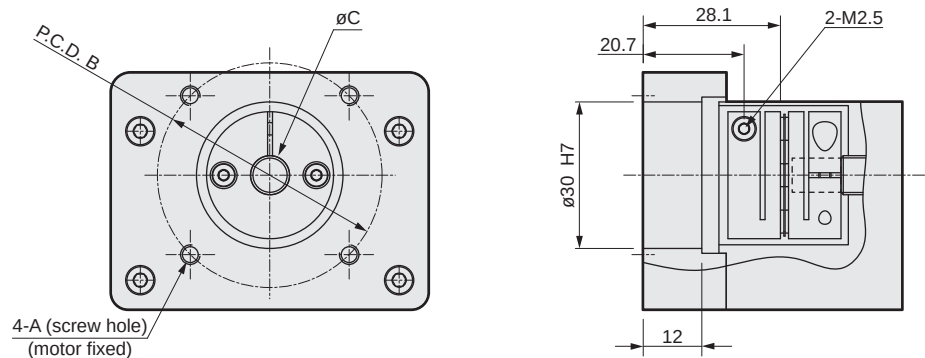
● ETS-06-*****-E



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	258	308	358	408	458	508	558	608	658	708	758	808	858	908	958	1008
A	65	35	45	55	65	35	45	55	65	35	45	55	65	35	45	55
M	3	5	6	7	8	10	11	12	13	15	16	17	18	20	21	22
N	8	12	14	16	18	22	24	26	28	32	34	36	38	42	44	46
P	80	160	200	240	280	360	400	440	480	560	600	640	680	760	800	840
Weight (kg)	2.0	2.1	2.2	2.4	2.6	2.8	3.0	3.1	3.3	3.5	3.7	3.8	4.0	4.2	4.4	4.5

*N-M5 when **J** Grease nipple is D.

Motor mounting part



Mounted motor specification		A	B	C	Motor mounting bolt
M	50 W/100 W	M4	ø46	ø8	4-M4 × L12
Y	50 W/100 W	M4	ø46	ø8	4-M4 × L12
P	50 W/100 W	M3	ø45	ø8	4-M3 × L12
F	50 W/100 W	M4	ø46	ø8	4-M4 × L12

*50 W supports only metal stopper specifications.

List of attachments

[Motor mounting parts]

Mounted motor specification	Coupling	Motor capacity	Motor mounting bolt	
			Size	Quantity
M	Assembled at shipment	50 W/100 W	M4	2
Y			M4	2
P			M3	4
F			M4	2

*50 W supports only metal stopper specifications.

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 156 for sensor specifications.



Electric actuator Ball screw drive Slider

ETS-06 Series

Motor side mounting (left, right, bottom)

● Servo motor capacity: 50 W (metal stopper specifications)/100 W

How to order

ETS - 06 - 05 040 - R M 1 N C B D P - M - X

A Body size
06 Body width 65 mm

B Screw lead
02 2 mm
05 5 mm
10 10 mm

C Stroke length
005 to 080 50 mm (In 50 mm increments) 800 mm

D Motor mounting direction
R Right mounting
D Bottom mounting
L Left mounting

E Mounted motor specification
M Select the mounted motor specification from the table below.
Y
P
F

F Motor capacity *1
0 50 W
1 100 W

G Brake
N None

H Origin sensor (1 pc) *2 *3
N None
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *2 *3
N None
B Outside

J Grease nipple *4 *5
N None (Body mounting direction: Standard)
D None (Body mounting direction: Bottom side)

K Positioning pin hole
N None
P Yes

L Magnet slider method
M Yes

M Metal stopper specifications (ETS-X) *1
Standard
X Yes

Manufacturer	50 W	100 W
Mitsubishi Electric Corporation	M	M
Delta Electronics Co., Ltd.	M	M
Sanyo Denki Co., Ltd.	M	M
YASKAWA Electric Corporation	Y	Y
Keyence Corporation	Y	Y
Panasonic Corporation	P	P
OMRON Corporation	M	M
Fuji Electric Co., Ltd.	M	M
FANUC CORPORATION	F	F
DENSO WAVE Incorporated (ETS-X only)	-	M
Bosch Rexroth AG	P	P
Rockwell Automation, Inc.	M	M
SIEMENS AG	M	M

*1: 50 W can be selected only when selecting metal stopper specifications.

*2: Origin sensor and limit sensor are available as a set.
As it is both-or-nothing, select "None" for both.

*3: The user can adjust the sensor position. (Included at shipment)

*4: Select the body mounting direction. N (top side ø4.5 spot face) or D (M5 from bottom side bottom surface)

*5: "Body mounting direction: Standard" here refers to mounting from the top.

*50 W supports only metal stopper specifications.

*Refer to page 89 for the motor model No.

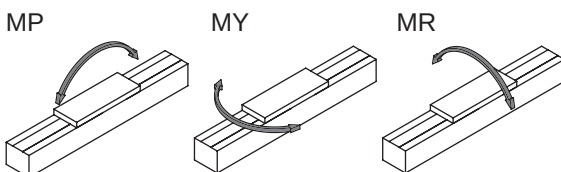
Specifications

Applicable motor capacity *1	50 W/100 W servo motor		
Drive method	Ball screw ø12		
Ball screw accuracy grade	C7		
Stroke length mm	50 to 800		
Screw lead mm	2	5	10
Max. load capacity *1 *2	Horizontal kg	50 W	12
	100 W	30	30
	Vertical kg	50 W	6
100 W		15	10
		4	2
Max. speed mm/s	100	250	500
Rated thrust *1 *2	50 W	N	427
	100 W	N	854
Repeatability mm	±0.01		
Lost motion mm	0.1 or less		
Dynamic allowable load N	1209		
Static allowable moment N·m	MP: 80, MY: 70, MR: 75		
Dynamic allowable moment N·m	MP: 8.9, MY: 8.9, MR: 24.8		
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 50 W can be selected only with metal stopper (ETS-X) specifications.

*2 Rated thrust and max. load capacity are guideline values assuming that the motor mounted will output the rated torque.

Moment direction



Stroke and max. speed

		(mm/s)				
Screw lead	Stroke length	100 to 600	650	700	750	800
2		100	90	80	70	60
5		250	225	200	175	150
10		500	450	400	350	300

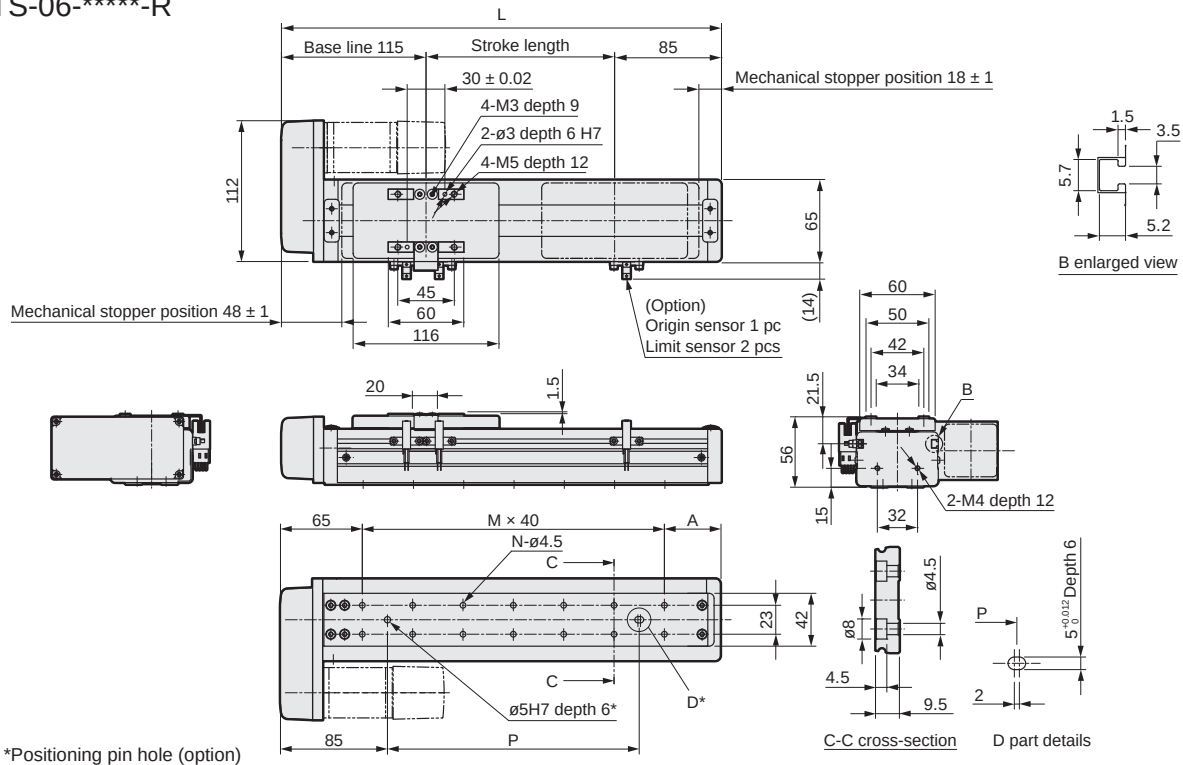
*The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm.

Allowable overhang length

*Refer to page 152 for details.

Dimensions Motor right-side mounting

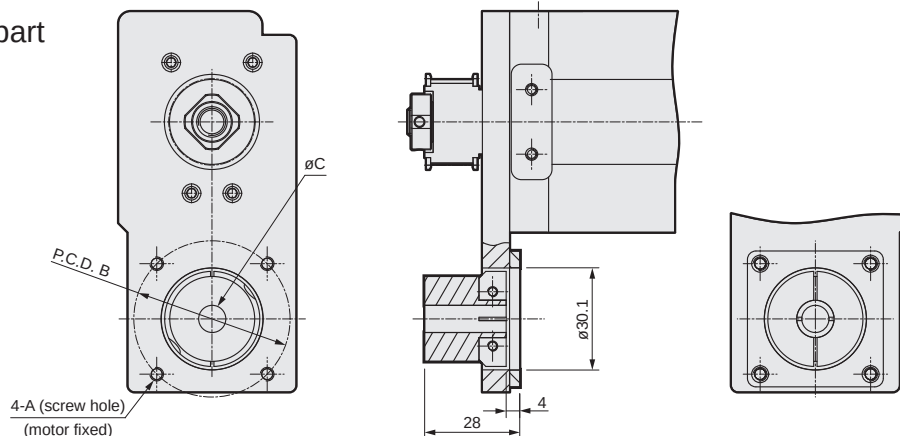
● ETS-06-*****-R



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
A	65	35	45	55	65	35	45	55	65	35	45	55	65	35	45	55
M	3	5	6	7	8	10	11	12	13	15	16	17	18	20	21	22
N	8	12	14	16	18	22	24	26	28	32	34	36	38	42	44	46
P	80	160	200	240	280	360	400	440	480	560	600	640	680	760	800	840
Weight (kg)	2.1	2.3	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.7	3.9	4.0	4.2	4.4	4.6	4.7

*N-M5 when ① Grease nipple is D.

Motor mounting part



Mounted motor specification		A	B	C	Motor mounting bolt
M	50 W/100 W	M4	ø46	ø8	4-M4 × L12
Y	50 W/100 W	M4	ø46	ø8	4-M4 × L12
P	50 W/100 W	M3	ø45	ø8	4-M3 × L12
F	50 W/100 W	M4	ø46	ø8	4-M4 × L12

*50 W supports only metal stopper specifications.

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor capacity	Motor mounting bolt	
			Size	Quantity
M	Included at shipment	50 W/100 W	M4	2
Y			M4	2
P			M3	4
F			M4	2

*50 W supports only metal stopper specifications.

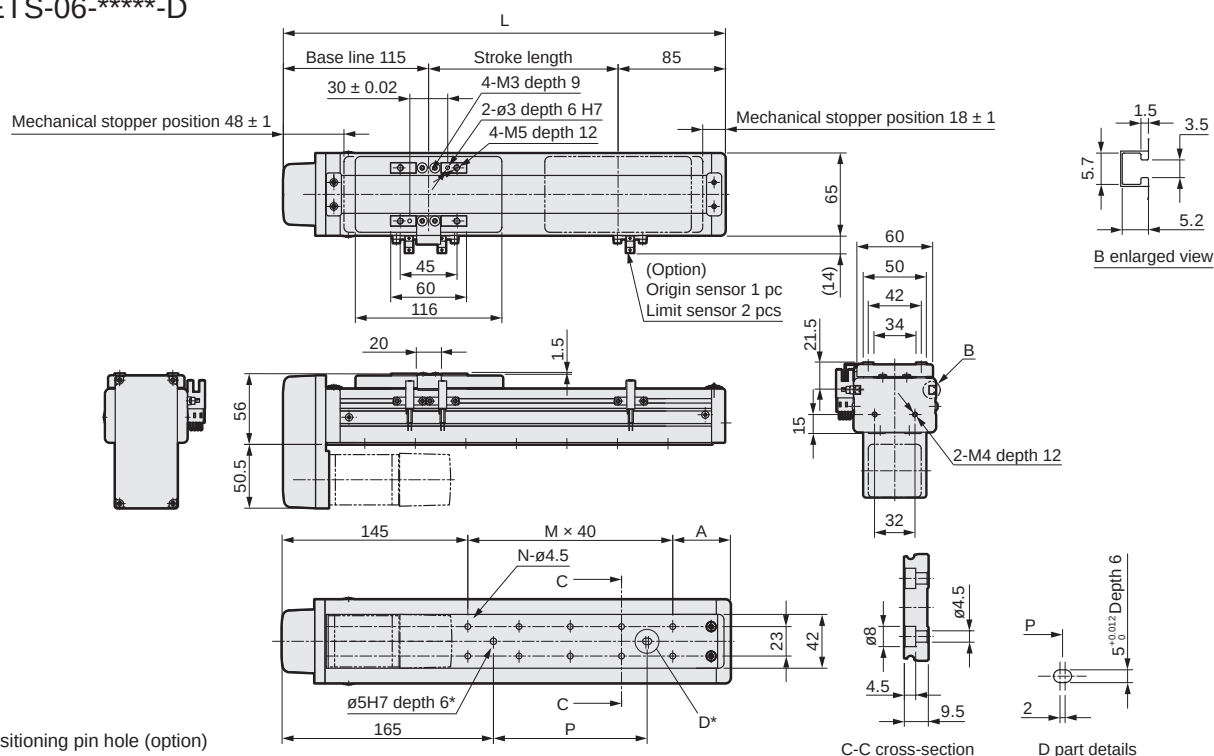
[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 156 for sensor specifications.

Dimensions Motor bottom mounting

● ETS-06-*****-D

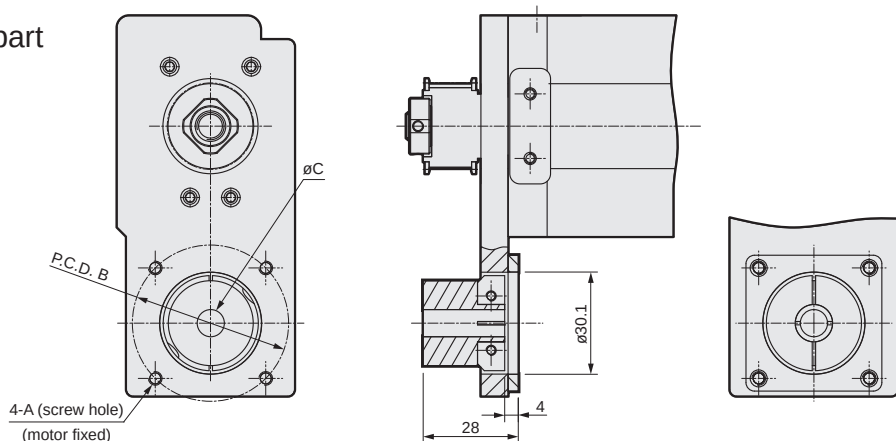


*Positioning pin hole (option)

Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
A	65	35	45	55	65	35	45	55	65	35	45	55	65	35	45	55
M	1	3	4	5	6	8	9	10	11	13	14	15	16	18	19	20
N	4	8	10	12	14	18	20	22	24	28	30	32	34	38	40	42
P	0	80	120	160	200	280	320	360	400	480	520	560	600	680	720	760
Weight (kg)	2.1	2.3	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.7	3.9	4.0	4.2	4.4	4.6	4.7

*N-M5 when ① Grease nipple is D.

Motor mounting part



Mounted motor specification		A	B	C	Motor mounting bolt
M	50 W/100 W	M4	$\phi 46$	$\phi 8$	4-M4 x L12
Y	50 W/100 W	M4	$\phi 46$	$\phi 8$	4-M4 x L12
P	50 W/100 W	M3	$\phi 45$	$\phi 8$	4-M3 x L12
F	50 W/100 W	M4	$\phi 46$	$\phi 8$	4-M4 x L12

*50 W supports only metal stopper specifications.

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor capacity	Motor mounting bolt	
			Size	Quantity
M	Included at shipment	50 W/100 W	M4	2
Y			M4	2
P			M3	4
F			M4	2

*50 W supports only metal stopper specifications.

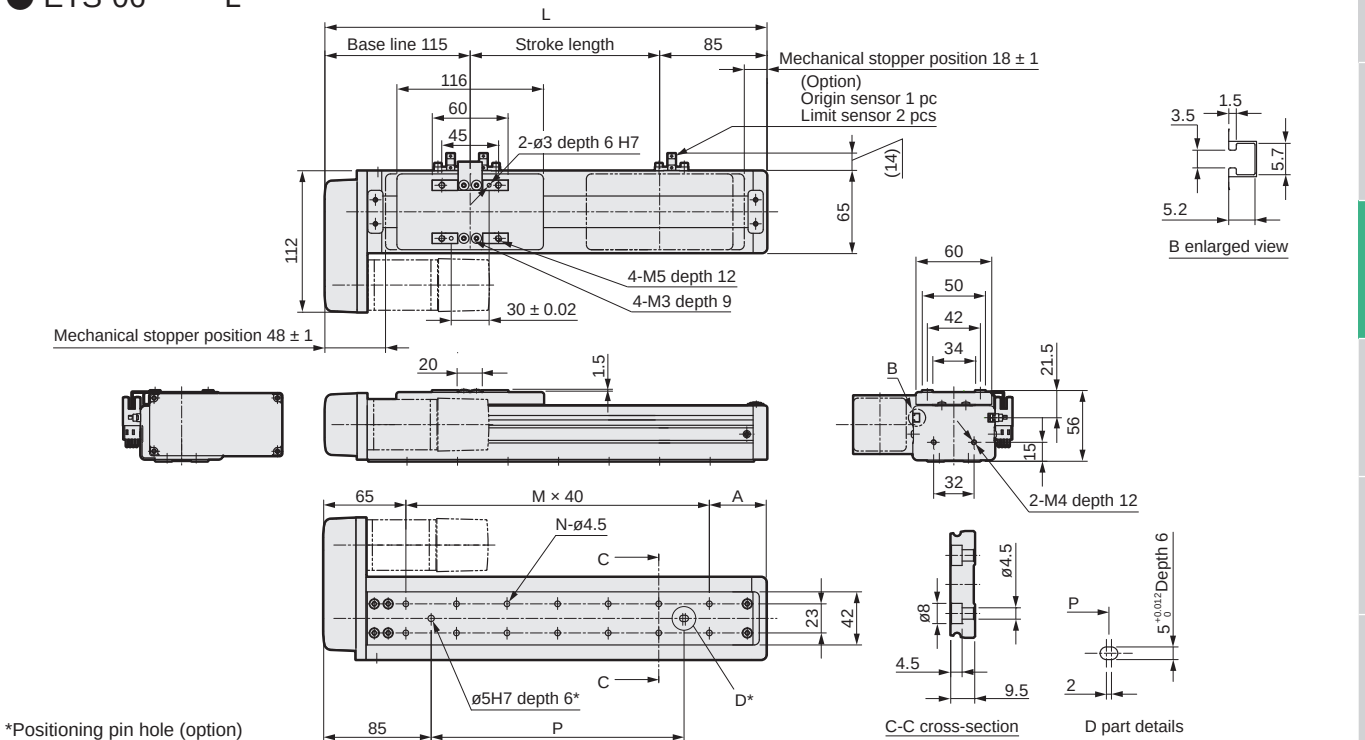
[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 156 for sensor specifications.

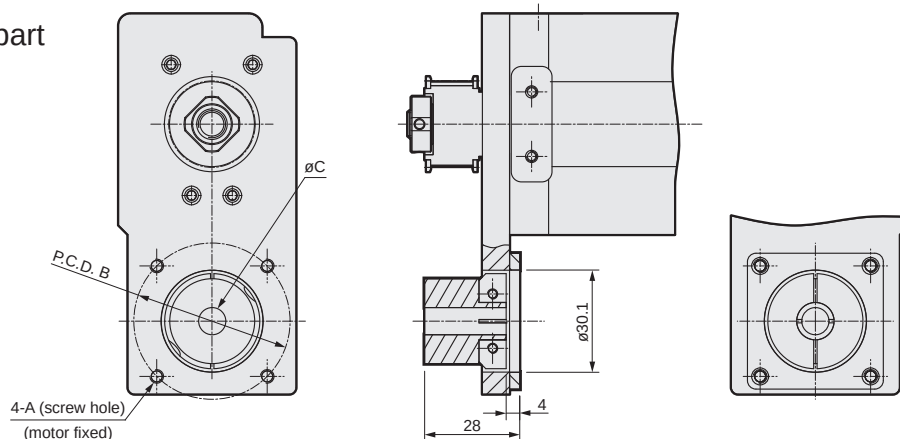
Dimensions Motor left-side mounting

● ETS-06-*****-L



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
A	65	35	45	55	65	35	45	55	65	35	45	55	65	35	45	55
M	3	5	6	7	8	10	11	12	13	15	16	17	18	20	21	22
N	8	12	14	16	18	22	24	26	28	32	34	36	38	42	44	46
P	80	160	200	240	280	360	400	440	480	560	600	640	680	760	800	840
Weight (kg)	2.1	2.3	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.7	3.9	4.0	4.2	4.4	4.6	4.7

Motor mounting part



Mounted motor specification		A	B	C	Motor mounting bolt
M	50 W/100 W	M4	ø46	ø8	4-M4 × L12
Y	50 W/100 W	M4	ø46	ø8	4-M4 × L12
P	50 W/100 W	M3	ø45	ø8	4-M3 × L12
F	50 W/100 W	M4	ø46	ø8	4-M4 × L12

*50 W supports only metal stopper specifications.

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor capacity	Motor mounting bolt	
			Size	Quantity
M	Included at shipment	50 W/100 W	M4	2
Y			M4	2
P			M3	4
F			M4	2

*50 W supports only metal stopper specifications.

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 156 for sensor specifications.

ETS-10 Series

Straight motor mounting, built-in mounting

● Servo motor capacity: 100 W/200 W

How to order

ETS - 10 - 05 005 - E M 1 N N N N N - X

A Body size
10 Body width 102 mm

B Screw lead
05 5 mm
10 10 mm
16 16 mm
20 20 mm

C Stroke length
005 50 mm
to (In 50 mm increments)
105 1050 mm

D Motor mounting direction *1 *2
E Straight mounting
B Built-in mounting

E Mounted motor specification
M Select the mounted motor specification from the table below.
Y
P
F

F Motor capacity *1
1 100 W
2 200 W

G Brake *2
N None
B Yes

H Origin sensor (1 pc) *3 *4 *5 *6 *8
N None
A Inside motor side
B Inside motor opposite side
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *3 *4 *5 *6 *8
N None
A Inside
B Outside

J Grease nipple *6 *7 *8
N None (Body mounting direction: Standard)
R Right
L Left

K Positioning pin hole
N None
P Yes

L Metal stopper specifications (ETS-X) *1
Standard
X Yes

Manufacturer	100 W	200 W
Mitsubishi Electric Corporation	M	M
Delta Electronics Co., Ltd.	M	M
Sanyo Denki Co., Ltd.	M	M
YASKAWA Electric Corporation	Y	Y
Keyence Corporation	Y	Y
Panasonic Corporation	P	P
OMRON Corporation	M	P
Fuji Electric Co., Ltd.	M	M
FANUC CORPORATION	F	F
DENSO WAVE Incorporated (ETS-X only)	M	M
Bosch Rexroth AG	P	P
Rockwell Automation, Inc.	M	M
SIEMENS AG	M	M

*1: The built-in mounting motor mounting direction cannot be selected for the 200 W motor capacity.
Built-in mounting cannot be selected with metal stopper specifications either.

*2: "Yes" to the Brake can be selected only when the motor mounting direction is built-in mounting.

*3: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*4: Origin sensor B and limit sensor A cannot be combined.

*5: For sensor inside mounting, the user cannot adjust the position. (Assembled at shipment)

For sensor outside mounting, the user can adjust the position. (Included at shipment)

*6: Contact CKD to use the origin sensor, limit sensor and grease nipple in the same direction.

*7: "Body mounting direction: Standard" here indicates that either top or bottom mounting is possible.

*8: For sensor interior mounting, select "None" for the grease nipple.

*Refer to page 89 for the motor model No.

Specifications

Applicable motor capacity		100 W/200 W servo motor			
Drive method		Ball screw ø16			
Ball screw accuracy grade		C7			
Stroke length mm		50 to 1050			
Screw lead mm		5	10	16	20
Max. load capacity *1	Horizontal kg	50	30	22	18
	Vertical kg	12	8	5	3
Max. speed mm/s		250	500	800	1000
Rated thrust *1	100 W N	341	170	106	85
	200 W N	683	341	213	174
Repeatability mm		±0.01			
Lost motion mm		0.1 or less			
Dynamic allowable load N		2651			
Static allowable moment N·m		MP: 110, MY: 110, MR: 120			
Dynamic allowable moment N·m		MP: 24.1, MY: 24.1, MR: 24.8			
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 max. load capacity are guideline values assuming that the motor mounted will output the rated torque.

Stroke and max. speed

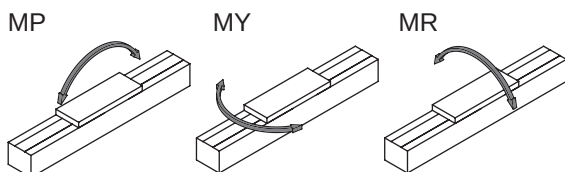
		(mm/s)					
Stroke length	Screw lead	100 to 750	800	850	900	950	1050
	5	250	225	200	175	150	125
	10	500	450	400	350	300	250
	16	800	720	640	560	480	400
	20	1000	900	800	700	600	500

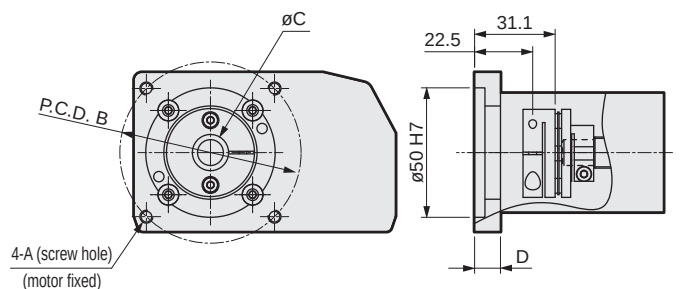
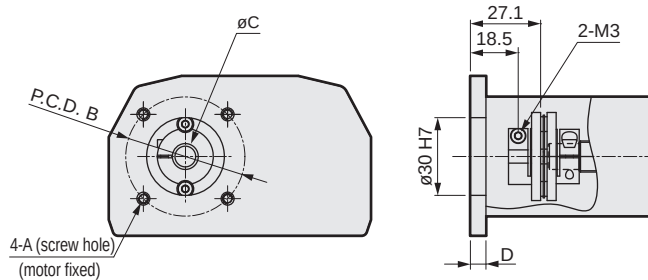
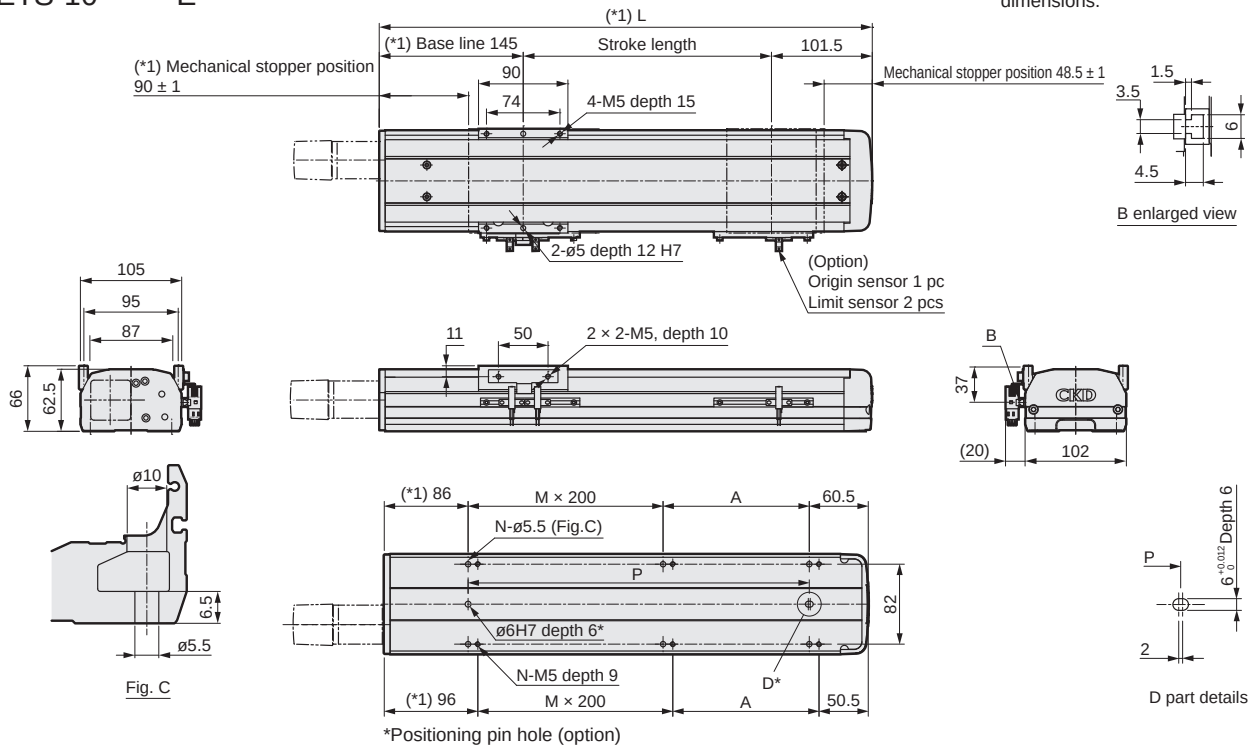
*The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm.

Allowable overhang length

*Refer to page 152 for details.

Moment direction

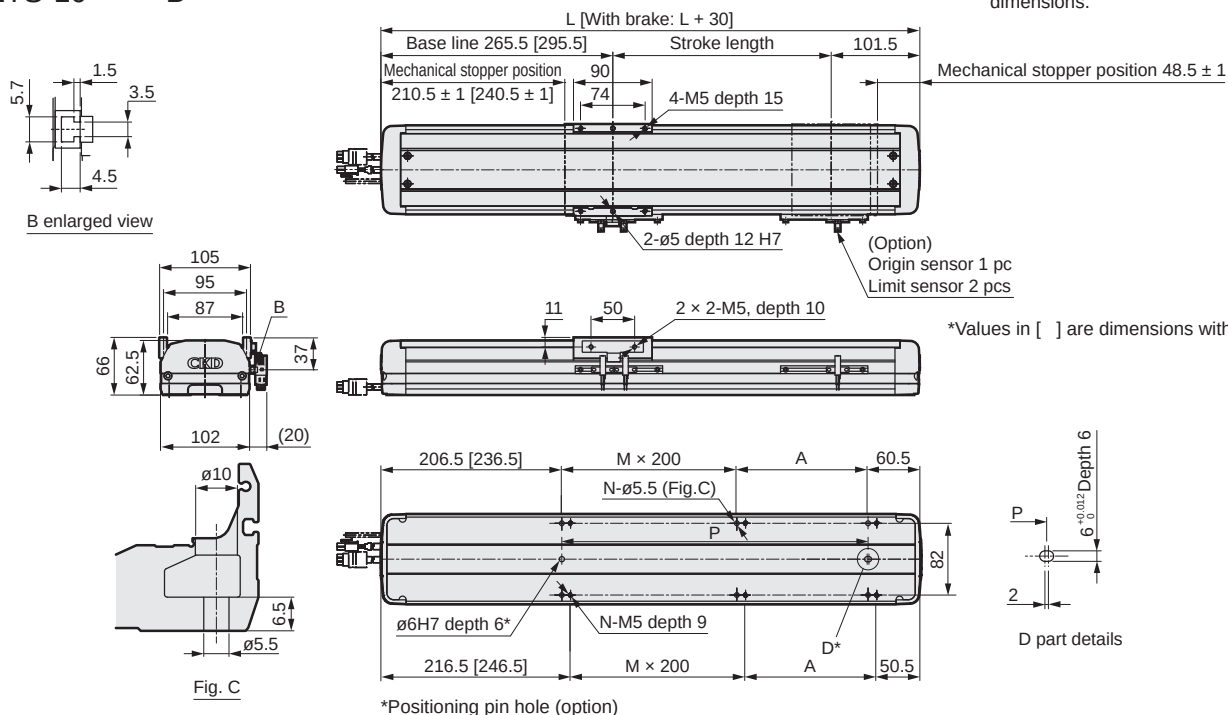




Dimensions Motor built-in mounting

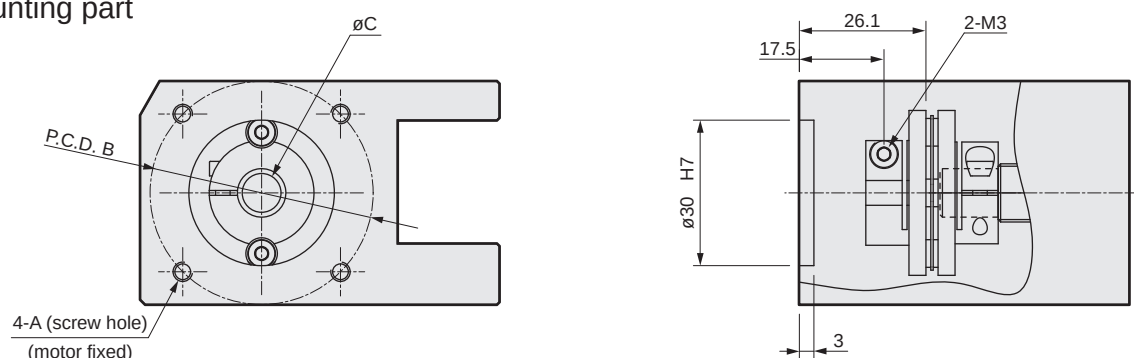
● ETS-10-*****-B

Refer to page 158 for grease nipple dimensions.



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	417	467	517	567	617	667	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317	1367	1417
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
Weight (kg)	Without brake	6.0	6.7	7.4	8.1	8.8	9.5	10.2	10.9	11.6	12.4	13.1	13.8	14.5	15.2	15.9	16.6	17.4	18.1	18.8	19.5
	With brake	6.4	7.1	7.8	8.5	9.2	9.9	10.6	11.4	12.1	12.8	13.5	14.2	14.9	15.6	16.4	17.1	17.8	18.5	19.2	20.6

Motor mounting part



Mounted motor specification		A	B	C	Motor mounting bolt
M	100 W	M4	ø46	ø8	4-M4 × L10
Y	100 W	M4	ø46	ø8	4-M4 × L10
P	100 W	M3	ø45	ø8	4-M3 × L10

List of attachments

[Motor mounting parts]

Mounted motor specification	Coupling	Motor capacity	Motor mounting bolt	
			Size	Quantity
M	Assembled at shipment	100 W	M4	2
Y			M4	2
P			M3	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 156 for sensor specifications.

MEMO

Servo motor compatible							Stepper motor compatible				Safety precautions
EBS	EBR	ETS	ETS Multi-Axis	ECS	ETV	ECV	EKS	EBS	EBR	ETS	ECS



Electric actuator Ball screw drive Slider

ETS-10 Series

Motor side mounting (left, right, bottom)

● Servo motor capacity: 100 W/200 W

How to order

ETS - 10 - 05 005 - R M 1 N N N L N - X

A Body size
10 Body width 102 mm

B Screw lead
05 5 mm
10 10 mm
16 16 mm
20 20 mm

C Stroke length
005 50 mm
to (In 50 mm increments)
105 1050 mm

D Motor mounting direction *6
R Right mounting
D Bottom mounting
L Left mounting

E Mounted motor specification
M Select the mounted motor
Y specification from the table below.
P
F

F Motor capacity
1 100 W
2 200 W

G Brake
N None

H Origin sensor (1 pc) *1 *2 *3 *4 *7
N None
A Inside motor side
B Inside motor opposite side
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *1 *2 *3 *4 *7
N None
A Inside
B Outside

J Grease nipple *4 *5 *6 *7
N None (Body mounting direction: Standard)
R Right
L Left

K Positioning pin hole
N None
P Yes

L Metal stopper specifications (ETS-X)
Standard
X Yes

Manufacturer	100 W	200 W
Mitsubishi Electric Corporation	M	M
Delta Electronics Co., Ltd.	M	M
Sanyo Denki Co., Ltd.	M	M
YASKAWA Electric Corporation	Y	Y
Keyence Corporation	Y	Y
Panasonic Corporation	P	P
OMRON Corporation	M	P
Fuji Electric Co., Ltd.	M	M
FANUC CORPORATION	F	F
DENSO WAVE Incorporated (ETS-X only)	M	M
Bosch Rexroth AG	P	P
Rockwell Automation, Inc.	M	M
SIEMENS AG	M	M

*Refer to page 89 for the motor model No.

*1: Origin sensor and limit sensor are available as a set.

As it is both-or-nothing, select "None" for both.

*2: Origin sensor B and limit sensor A cannot be combined.

*3: For sensor inside mounting, the user cannot adjust the position. (Assembled at shipment)

For sensor outside mounting, the user can adjust the position. (Included at shipment)

*4: Contact CKD to use the origin sensor, limit sensor and grease nipple in the same direction.

*5: "Body mounting direction: Standard" here indicates that either top or bottom mounting is possible.

*6: When selecting motor mounting direction R, grease nipple R cannot be selected.

When selecting L, grease nipple L cannot be selected.

*7: For sensor interior mounting, select "None" for the grease nipple.

Specifications

Applicable motor capacity	100 W/200 W servo motor			
Drive method	Ball screw $\phi 16$			
Ball screw accuracy grade	C7			
Stroke length mm	50 to 1050			
Screw lead mm	5	10	16	20
Max. load capacity *1	Horizontal kg	50	30	22
	Vertical kg	12	8	5
Max. speed mm/s	250	500	800	1000
Rated thrust *1	100 W N	341	170	106
	200 W N	683	341	213
Repeatability mm	± 0.01			
Lost motion mm	0.1 or less			
Dynamic allowable load N	2651			
Static allowable moment N·m	MP: 110, MY: 110, MR: 120			
Dynamic allowable moment N·m	MP: 24.1, MY: 24.1, MR: 24.8			
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 max. load capacity are guideline values assuming that the motor mounted will output the rated torque.

Stroke and max. speed

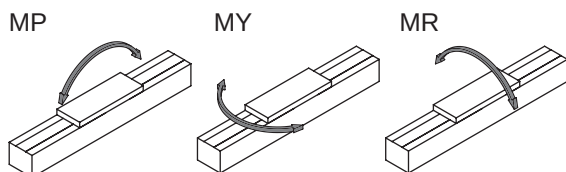
(mm/s)						
Stroke length Screw lead	100 to 750	800	850	900	950	1050
5	250	225	200	175	150	125
10	500	450	400	350	300	250
16	800	720	640	560	480	400
20	1000	900	800	700	600	500

*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 page 152 for details.

Moment direction

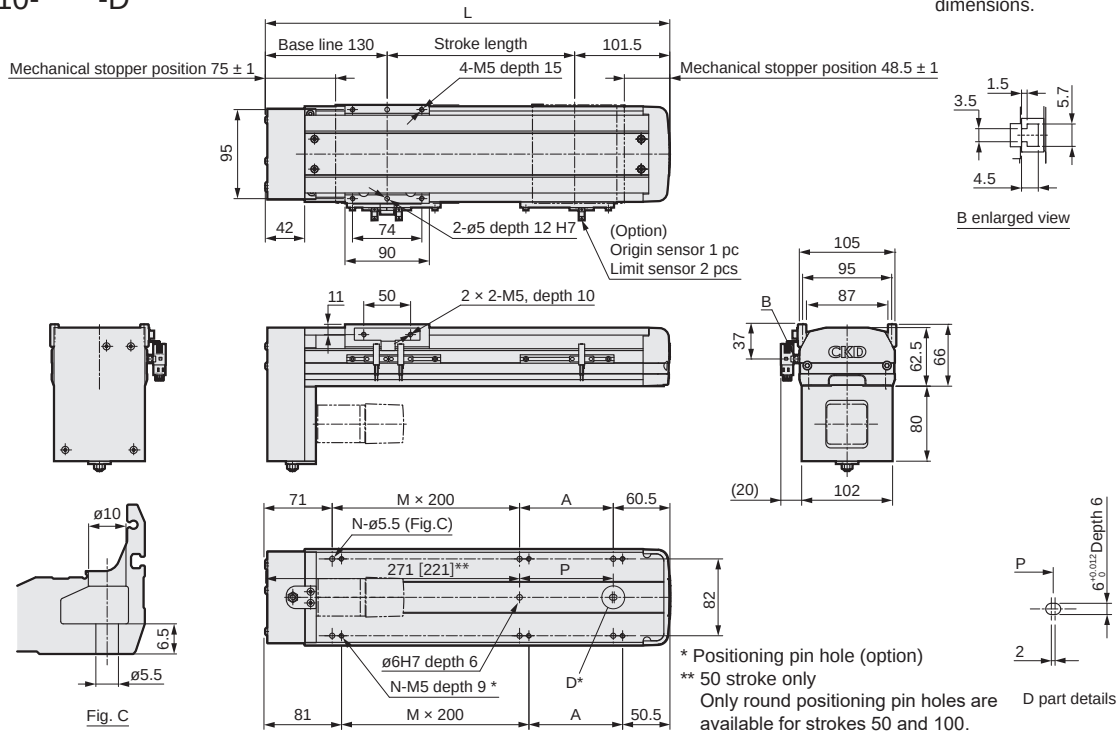


CKD

Dimensions Motor bottom mounting

● ETS-10-*****-D

Refer to page 158 for grease nipple dimensions.

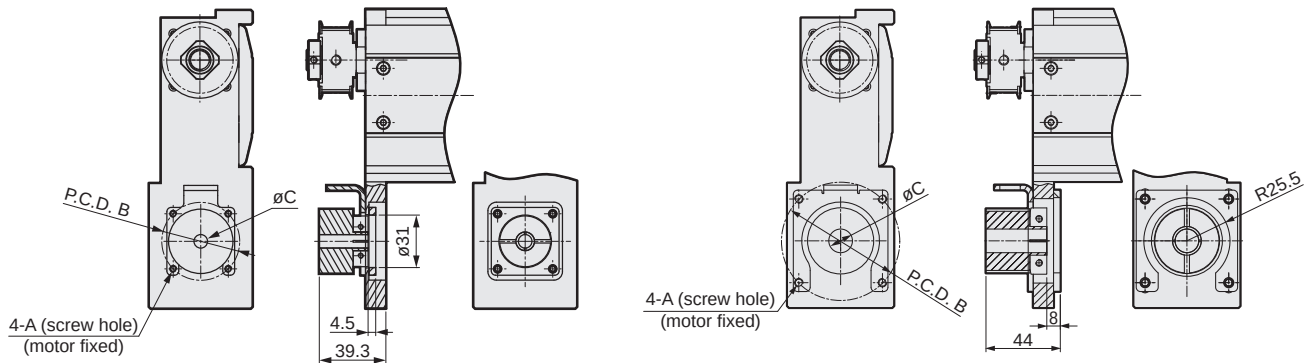


Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	281.5	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5	981.5	1031.5	1081.5	1131.5	1181.5	1231.5	1281.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	0	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
Weight (kg)	5.2	5.7	6.0	6.4	6.6	7.0	7.6	8.0	8.4	8.7	9.1	9.5	9.9	10.3	10.7	11.1	11.4	11.8	12.2	12.6	13.0

Motor mounting part

● ETS-10-100W

● ETS-10-200W



Mounted motor specification		A	B	C	Motor mounting bolt
M	100 W/200 W	M4/M5	ø46/ø70	ø8/ø14	4-M4 × L10/4-M5 × L25
Y	100 W/200 W	M4/M5	ø46/ø70	ø8/ø14	4-M4 × L10/4-M5 × L25
P	100 W/200 W	M3/M4	ø45/ø70	ø8/ø11	4-M3 × L10/4-M4 × L25
F	100 W/200 W	M4/M5	ø46/ø70	ø8/ø9	4-M4 × L10/4-M5 × L25

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor capacity	Motor mounting bolt
Size	Quantity		
M			M4/M5 2/4
Y	Included at shipment	100 W/200 W	M4/M5 2/4
P			M3/M4 4
F			M4/M5 2/4

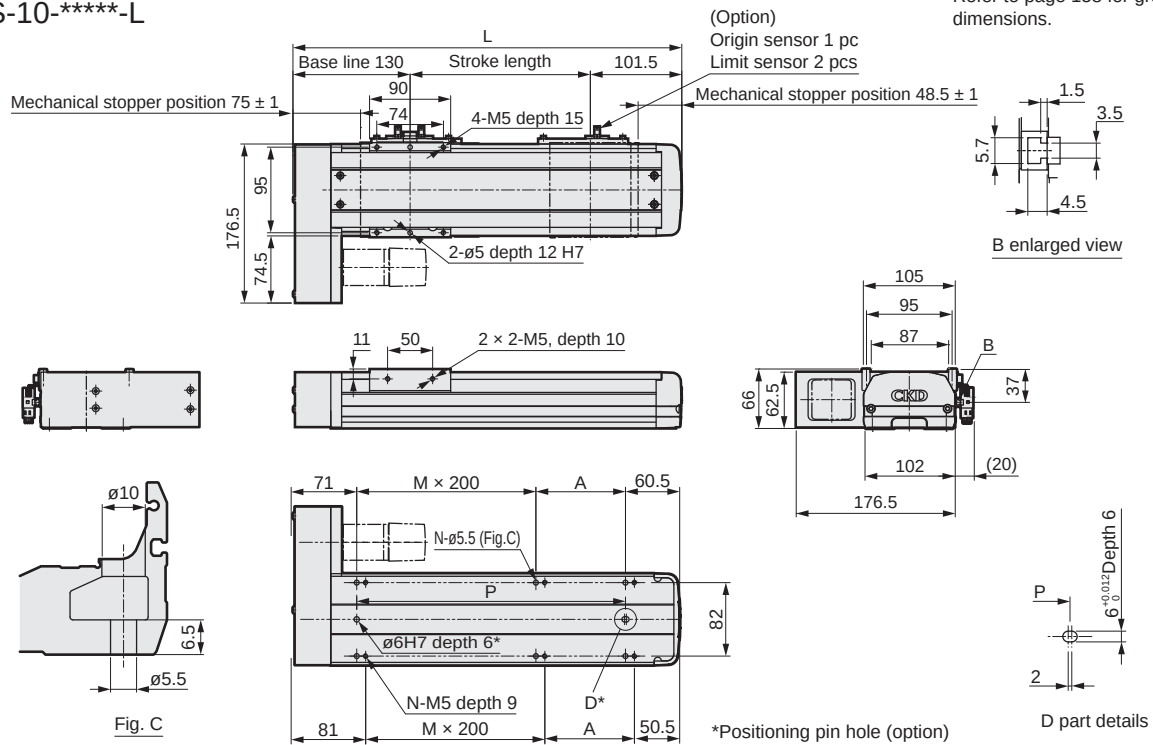
[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 156 for sensor specifications.

Dimensions Motor left-side mounting

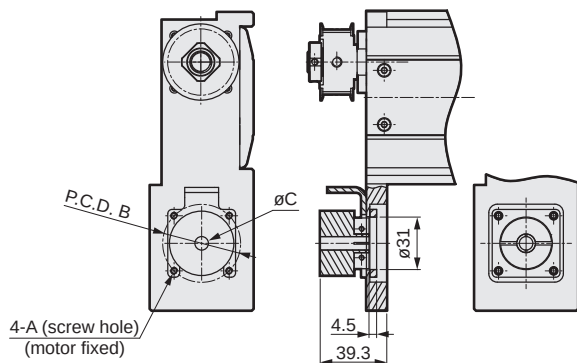
● ETS-10-****-L



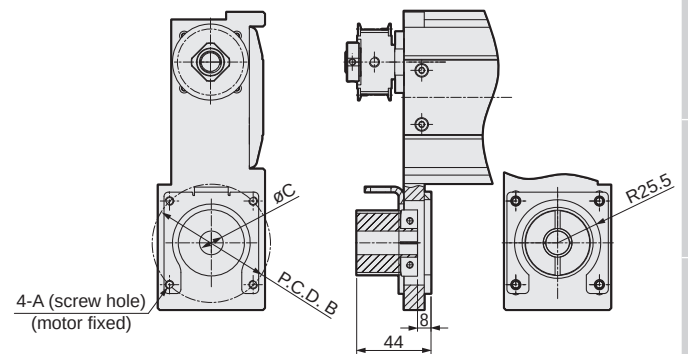
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	281.5	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5	981.5	1031.5	1081.5	1131.5	1181.5	1231.5	1281.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
Weight (kg)	5.2	5.5	5.8	6.2	6.6	7.0	7.4	7.8	8.2	8.5	8.9	9.3	9.7	10.1	10.5	10.9	11.2	11.6	12.0	12.4	12.8

Motor mounting part

● ETS-10-100W



● ETS-10-200W



Mounted motor specification		A	B	C	Motor mounting bolt
M	100 W/200 W	M4/M5	ø46/ø70	ø8/ø14	4-M4 × L10/4-M5 × L25
Y	100 W/200 W	M4/M5	ø46/ø70	ø8/ø14	4-M4 × L10/4-M5 × L25
P	100 W/200 W	M3/M4	ø45/ø70	ø8/ø11	4-M3 × L10/4-M4 × L25
F	100 W/200 W	M4/M5	ø46/ø70	ø8/ø9	4-M4 × L10/4-M5 × L25

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor capacity	Motor mounting bolt	
			Size	Quantity
M	Included at shipment	100 W/200 W	M4/M5	2/4
Y			M4/M5	2/4
P			M3/M4	4
F			M4/M5	2/4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 156 for sensor specifications.



Electric actuator Ball screw drive Slider

ETS-12 Series

Straight motor mounting, built-in mounting

● Servo motor capacity: 100 W/200 W

How to order

ETS - 12 - 05 005 - E M 1 N N N N N - X

A Body size	
12	Body width 102 mm

B Screw lead	
05	5 mm
10	10 mm
16	16 mm
20	20 mm

C Stroke length	
005 to 105	50 mm (In 50 mm increments)
105	1050 mm

D Motor mounting direction *1 *2 *3	
E	Straight mounting
B	Built-in mounting

E Mounted motor specification	
M	Select the mounted motor
Y	specification from
P	the table below.
F	

F Motor capacity *1	
1	100 W
2	200 W

G Brake *3	
N	None
B	Yes

H Origin sensor (1 pc) *4 *5 *6	
N	None
A	Inside motor side
B	Inside motor opposite side
C	Outside motor side
D	Outside motor opposite side

I Limit sensor (2 pcs) *4 *5 *6	
N	None
A	Inside
B	Outside

K Positioning pin hole	
N	None
P	Yes

J Grease nipple *6 *7	
N	None (Body mounting direction: Standard)
R	Right
L	Left

L Metal stopper specifications (ETS-X) *1	
	Standard
X	Yes

Manufacturer	100 W	200 W
Mitsubishi Electric Corporation	M	M
Delta Electronics Co., Ltd.	M	M
Sanyo Denki Co., Ltd.	M	M
YASKAWA Electric Corporation	Y	Y
Keyence Corporation	Y	Y
Panasonic Corporation	P	P
OMRON Corporation	M	P
Fuji Electric Co., Ltd.	M	M
FANUC CORPORATION	F	F
DENSO WAVE Incorporated (ETS-X only)	M	M
Bosch Rexroth AG	P	P
Rockwell Automation, Inc.	M	M
SIEMENS AG	M	M

*Refer to page 89 for the motor model No.

*1: The built-in mounting motor mounting direction cannot be selected for the 200 W motor capacity.

Built-in mounting cannot be selected with metal stopper specifications either.

*2: Contact CKD when using an OMRON motor.

*3: "Yes" to the Brake can be selected only when the motor mounting direction is built-in mounting.

*4: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*5: For sensor inside mounting, the user cannot adjust the position. (Assembled at shipment)

For sensor outside mounting, the user can adjust the position. (Included at shipment)

*6: Contact CKD to use the origin sensor, limit sensor and grease nipple in the same direction.

*7: "Body mounting direction: Standard" here indicates that either top or bottom mounting is possible.

Specifications

Applicable motor capacity	100 W/200 W servo motor			
Drive method	Ball screw $\phi 16$			
Ball screw accuracy grade	C7			
Stroke length mm	50 to 1050			
Screw lead mm	5	10	16	20
Max. load capacity *1	Horizontal kg	50	30	22
	Vertical kg	12	8	5
Max. speed mm/s		250	500	800
Rated thrust *1	100 W N	341	170	106
	200 W N	683	341	213
Repeatability mm	± 0.01			
Lost motion mm	0.1 or less			
Dynamic allowable load N	1660			
Static allowable moment N·m	MP: 150, MY: 150, MR: 130			
Dynamic allowable moment N·m	MP: 42.3, MY: 42.3, MR: 53.1			
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 max. load capacity are guideline values assuming that the motor mounted will output the rated torque.

Stroke and max. speed

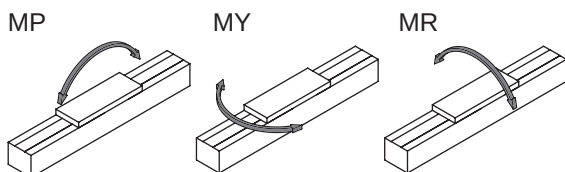
		(mm/s)					
Stroke length	Screw lead	100 to 750	800	850	900	950	1050
		250	225	200	175	150	125
	5	250	225	200	175	150	125
	10	500	450	400	350	300	250
	16	800	720	640	560	480	400
	20	1000	900	800	700	600	500

*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 page 152 for details.

Moment direction



Servo motor compatible

ETV

ECV

EKS

EBS

EBR

ETS

ECS

EBR

ETV

ECV

EKS

EBS

EBR

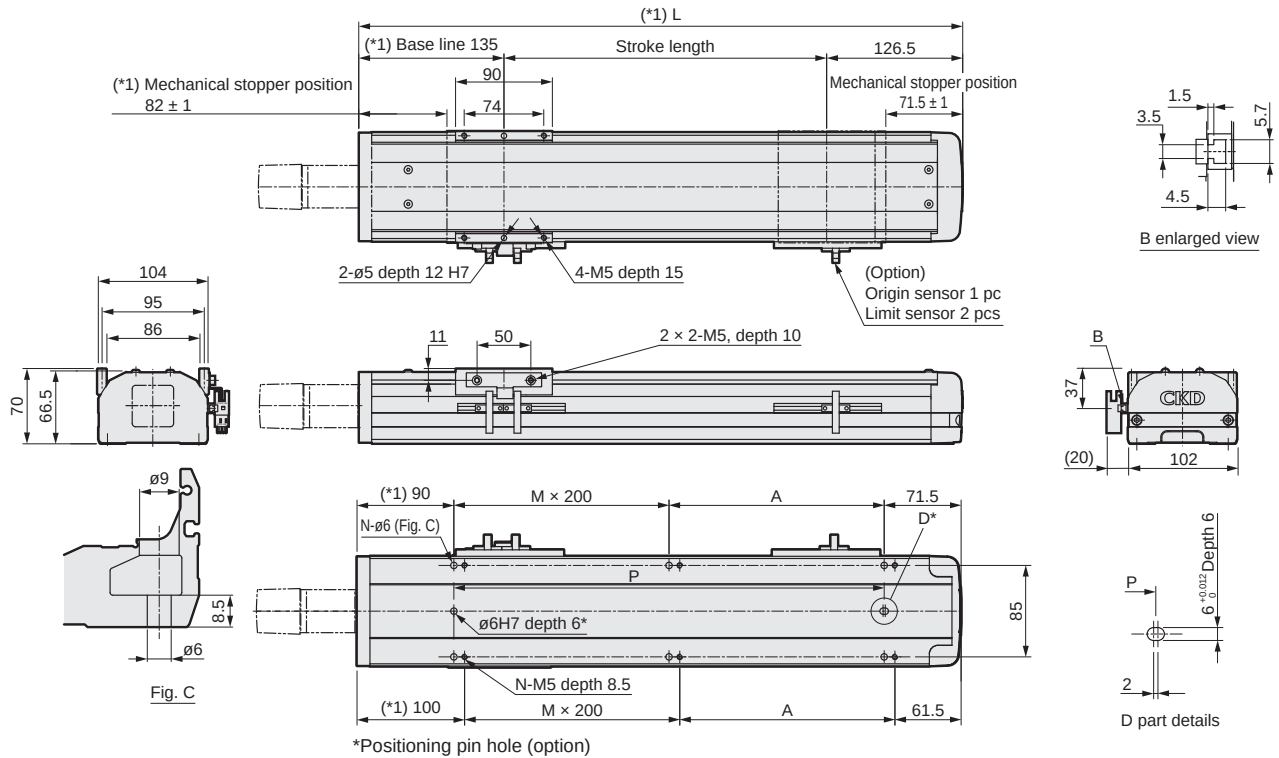
ETS

ECS

Dimensions Straight motor mounting

● ETS-12-****-E

· Refer to page 158 for grease nipple dimensions.

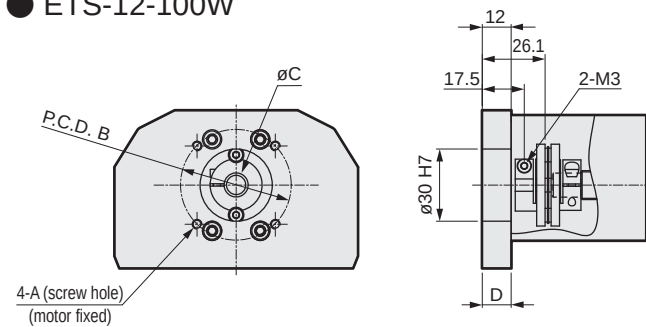


Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	311.5	361.5	411.5	461.5	511.5	561.5	611.5	661.5	711.5	761.5	811.5	861.5	911.5	961.5	1011.5	1061.5	1111.5	1161.5	1211.5	1261.5	1311.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
Weight (kg)	5.6	6.0	6.4	6.8	7.2	7.6	8.0	8.4	8.8	9.1	9.5	9.9	10.3	10.7	11.1	11.5	11.8	12.2	12.6	13.0	13.4

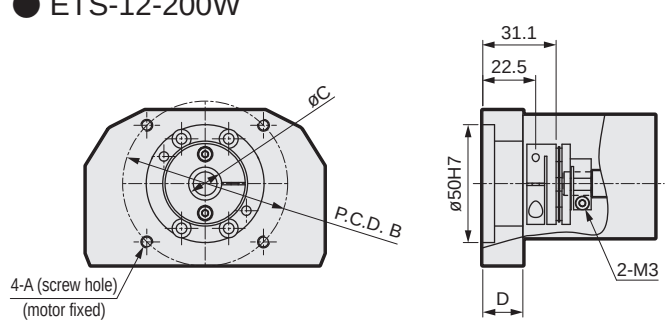
*1 The 200 W motor capacity is +5 mm.

Motor mounting part

● ETS-12-100W



● ETS-12-200W



Mounted motor specification		A	B	C	D	Motor mounting bolt
M	100 W/200 W	M4/M5	ø46/ø70	ø8/ø14	12/17	4-M4 × L16/4-M5 × L18
Y	100 W/200 W	M4/M5	ø46/ø70	ø8/ø14	12/17	4-M4 × L16/4-M5 × L18
P	100 W/200 W	M3/M4	ø45/ø70	ø8/ø11	12/17	4-M3 × L16/4-M4 × L18
F	100 W/200 W	M4/M5	ø46/ø70	ø8/ø9	12/5	4-M4 × L16/4-M5 × L16

List of attachments

[Motor mounting parts]

Mounted motor specification	Coupling	Motor capacity	Motor mounting bolt
			Size Quantity
M	Assembled at shipment	100 W/200 W	M4/M5 2/4
Y			M4/M5 2/4
P			M3/M4 4
F			M4/M5 2/4

[Origin sensor/Limit sensor]

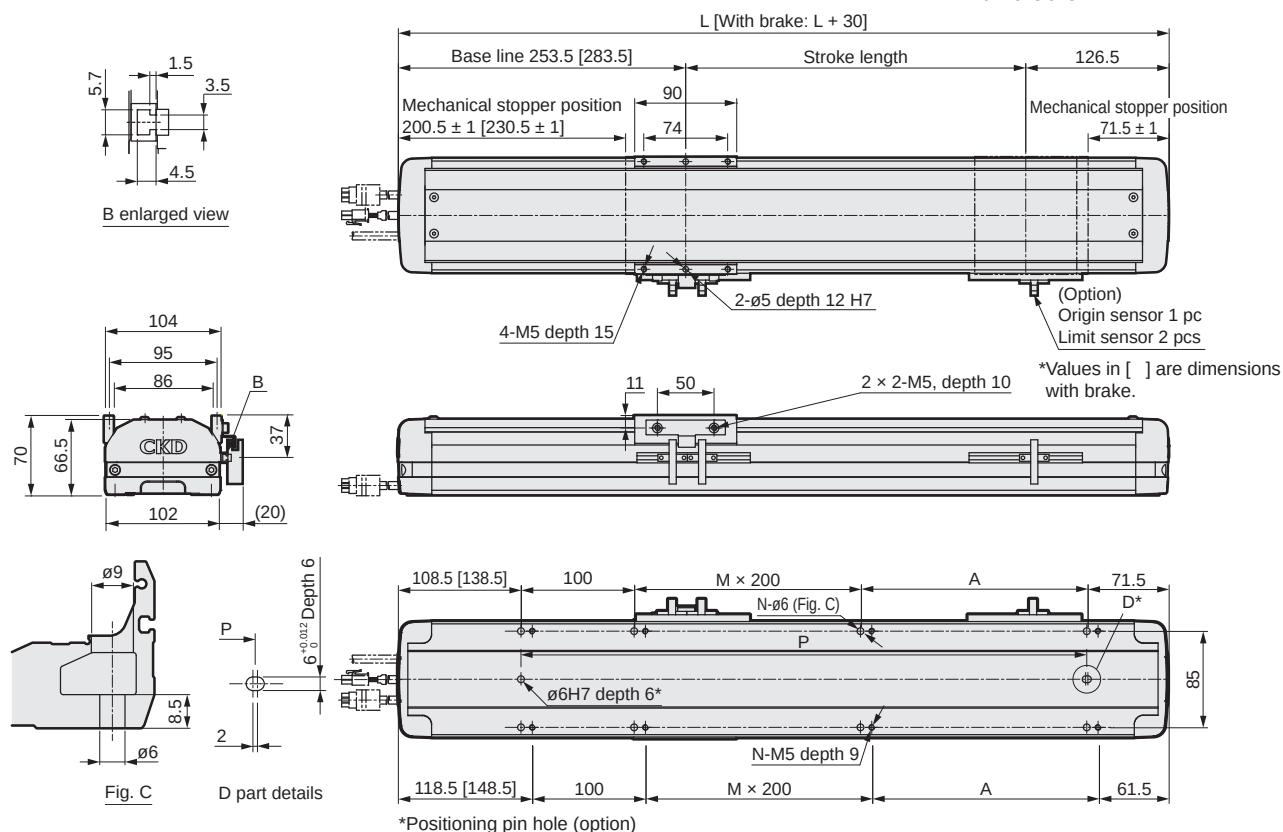
Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 156 for sensor specifications.

Dimensions Motor built-in mounting

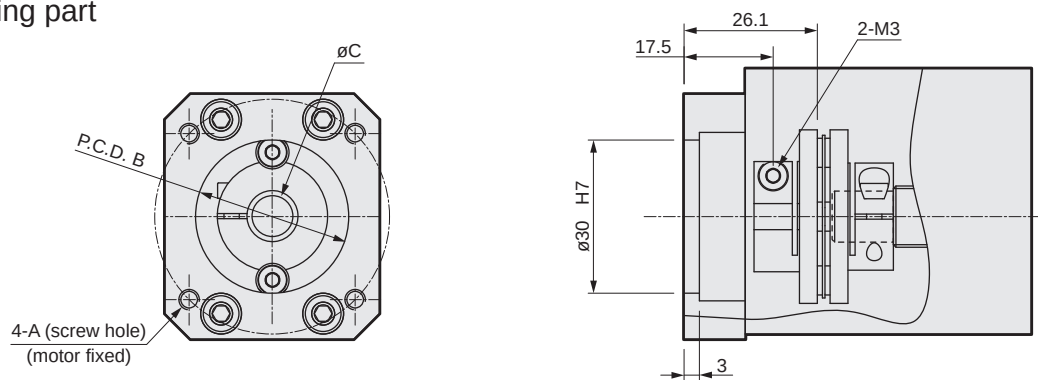
● ETS-12-*****-B

- Refer to page 158 for grease nipple dimensions.



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	
L	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230	1280	1330	1380	1430	
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	
N	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	
Weight (kg)	Without brake	7.1	8.0	8.9	9.7	10.5	11.4	12.2	13.0	13.9	14.7	15.5	16.4	17.2	18.0	18.9	19.7	20.6	21.4	22.2	23.1	23.9
	With brake	7.6	8.5	9.4	10.2	11.0	11.9	12.7	13.5	14.4	15.2	16.0	16.9	17.7	18.5	19.4	20.2	21.1	21.9	22.7	23.6	24.4

Motor mounting part



Mounted motor specification		A	B	C	Motor mounting bolt
M	100 W	M4	ø46	ø8	4-M4 × L16
Y	100 W	M4	ø46	ø8	4-M4 × L16
P	100 W	M3	ø45	ø8	4-M3 × L16

[Motor mounting parts]

Mounted motor specification	Coupling	Motor capacity	Motor mounting bolt	
			Size	Quantity
M	Assembled at shipment	100 W	M4	2
Y			M4	2
P			M3	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 156 for sensor specifications.

MEMO

Servo motor compatible							Stepper motor compatible				Safety precautions
EBS	EBR	ETS	ETS Multi-Axis	ECS	ETV	ECV	EKS	EBS	EBR	ETS	ECS



Electric actuator Ball screw drive Slider

ETS-12 Series

Motor side mounting (left, right, bottom)

● Servo motor capacity: 100 W/200 W

How to order

ETS - 12 - 05 005 - R M 1 N N N L N - X

A Body size
12 Body width 102 mm

B Screw lead
05 5 mm
10 10 mm
16 16 mm
20 20 mm

C Stroke length
005 50 mm
to (In 50 mm increments)
105 1050 mm

D Motor mounting direction *3*6
R Right mounting
D Bottom mounting
L Left mounting

E Mounted motor specification
M Select the mounted motor
Y specification from
P the table below.
F

F Motor capacity
1 100 W
2 200 W

G Brake
N None

H Origin sensor (1 pc) *1 *2 *3 *4
N None
A Inside motor side
B Inside motor opposite side
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *1 *2 *3 *4
N None
A Inside
B Outside

J Grease nipple *4 *5 *6
N None (Body mounting direction: Standard)
R Right
L Left

K Positioning pin hole
N None
P Yes

L Metal stopper specifications (ETS-X)
Standard
X Yes

Manufacturer	100 W	200 W
Mitsubishi Electric Corporation	M	M
Delta Electronics Co., Ltd.	M	M
Sanyo Denki Co., Ltd.	M	M
YASKAWA Electric Corporation	Y	Y
Keyence Corporation	Y	Y
Panasonic Corporation	P	P
OMRON Corporation	M	P
Fuji Electric Co., Ltd.	M	M
FANUC CORPORATION	F	F
DENSO WAVE Incorporated (ETS-X only)	M	M
Bosch Rexroth AG	P	P
Rockwell Automation, Inc.	M	M
SIEMENS AG	M	M

*1: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*2: For sensor inside mounting, the user cannot adjust the position. (Assembled at shipment)

For sensor outside mounting, the user can adjust the position. (Included at shipment)

*3: When the motor mounting direction is R or L, origin sensor A and limit sensor A cannot be combined.

*4: Contact CKD to use the origin sensor, limit sensor and grease nipple in the same direction.

*5: "Body mounting direction: Standard" here indicates that either top or bottom mounting is possible.

*6: When selecting motor mounting direction R, grease nipple R cannot be selected.

When selecting L, grease nipple L cannot be selected.

*Refer to page 89 for the motor model No.

Specifications

Applicable motor capacity		100 W/200 W servo motor			
Drive method		Ball screw ø16			
Ball screw accuracy grade		C7			
Stroke length mm		50 to 1050			
Screw lead mm		5	10	16	20
Max. load capacity *1	Horizontal kg	50	30	22	18
	Vertical kg	12	8	5	3
Max. speed *2 mm/s		250	500	800	1000
Rated thrust *1	100 W N	341	170	106	85
	200 W N	683	341	213	174
Repeatability mm		±0.01			
Lost motion mm		0.1 or less			
Dynamic allowable load N		1660			
Static allowable moment N·m		MP: 150, MY: 150, MR: 130			
Dynamic allowable moment N·m		MP: 42.3, MY: 42.3, MR: 53.1			
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 max. load capacity are guideline values assuming that the motor mounted will output the rated torque.

Stroke and max. speed

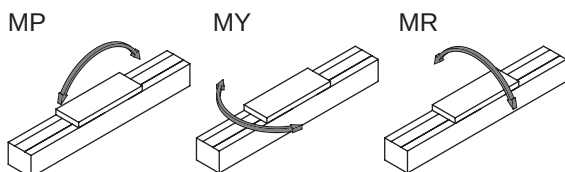
		(mm/s)					
Stroke length	Screw lead	100 to 750	800	850	900	950	1050
		250	225	200	175	150	125
	5	250	225	200	175	150	125
	10	500	450	400	350	300	250
	16	800	720	640	560	480	400
	20	1000	900	800	700	600	500

*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 page 152 for details.

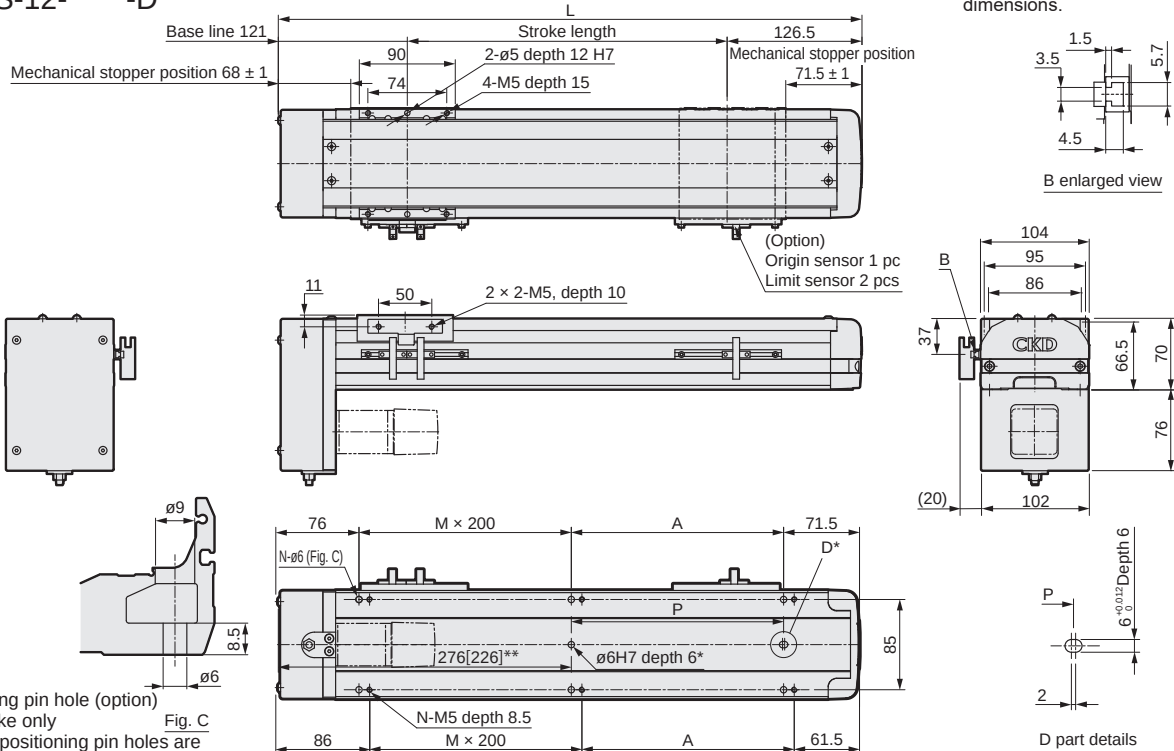
Moment direction



Dimensions Motor bottom mounting

● ETS-12-*****-D

Refer to page 158 for grease nipple dimensions.

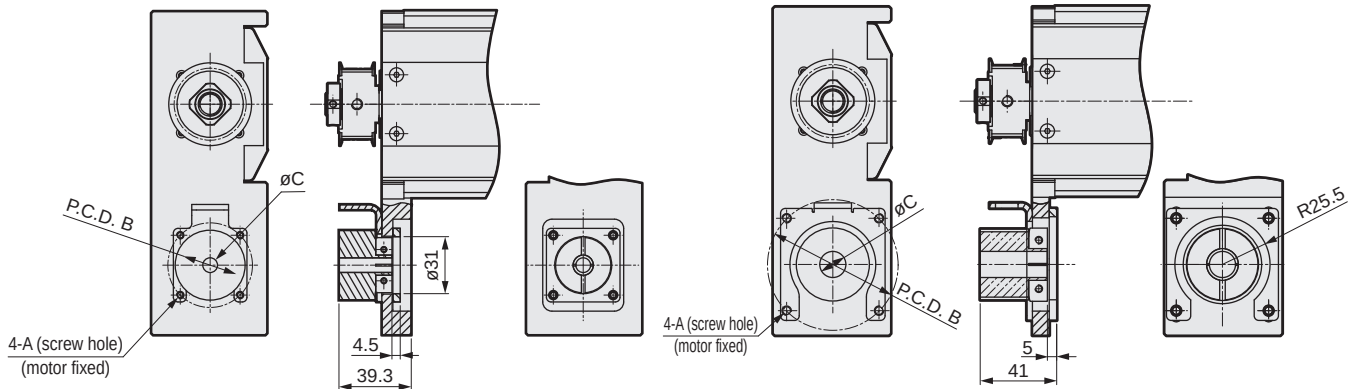


Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	297.5	347.5	397.5	447.5	497.5	547.5	597.5	647.5	697.5	747.5	797.5	847.5	897.5	947.5	997.5	1047.5	1097.5	1147.5	1197.5	1247.5	1297.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	0	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
Weight (kg)	6.4	6.8	7.2	7.6	7.8	8.2	8.8	9.2	9.6	9.9	10.3	10.7	11.1	11.5	11.9	12.3	12.6	13.0	13.4	13.8	14.2

Motor mounting part

● ETS-12-100W

● ETS-12-200W



Mounted motor specification		A	B	C	Motor mounting bolt
M	100 W/200 W	M4/M5	ø46/ø70	ø8/ø14	4-M4 × L16/4-M5 × L25
Y	100 W/200 W	M4/M5	ø46/ø70	ø8/ø14	4-M4 × L16/4-M5 × L25
P	100 W/200 W	M3/M4	ø45/ø70	ø8/ø11	4-M3 × L16/4-M4 × L25
F	100 W/200 W	M4/M5	ø46/ø70	ø8/ø9	4-M4 × L16/4-M5 × L20

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor capacity	Motor mounting bolt
M	Included at shipment	100 W/200 W	Size
Y			Quantity
P			
F			

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 156 for sensor specifications.



Electric actuator Ball screw drive Slider

ETS-05 Series

Straight motor mounting

● Stepper motor size: □42

How to order

ETS - 05 - 05 040 - E A A N C B N P - M

A Body size
05 Body width 51 mm

B Screw lead
02 2 mm
05 5 mm
10 10 mm

C Stroke length
005 50 mm
to (In 50 mm increments)
080 800 mm

D Motor mounting direction
E Straight mounting

E Mounted motor specification
A Select the mounted motor specification from the table below.
B

F Motor size
A □42

G Brake
N None

H Origin sensor (1 pc) *1 *2
N None
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *1 *2
N None
B Outside

J Grease nipple *3
N None (Body mounting direction: Standard)

K Positioning pin hole
N None
P Yes

L Magnet slider method
M Yes

Manufacturer	□ 42
Oriental Motor Co., Ltd.	A
MinebeaMitsumi Inc.	B
Dyadic Systems Co., Ltd.	B

*Refer to page 587 for the motor model No.

*1: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*2: The user can adjust the sensor position. (Included at shipment)

*3: "Body mounting direction: Standard" here refers to mounting from the bottom side.

Specifications

Applicable motor sizes	□42 Stepper motor		
Drive method	Ball screw ø12		
Ball screw accuracy grade	C7		
Stroke length mm	50 to 800		
Screw lead mm	2	5	10
Max. load capacity *1	Horizontal kg	10	10
	Vertical kg	7	1.5
Max. speed mm/s	100	250	500
Rated thrust *1 N	854	341	170
Repeatability mm	±0.01		
Lost motion mm	0.1 or less		
Drive system weight kg	0.3		
Other inertia kg·cm ²	0.024		
Coefficient of friction	0.05		
Mechanical efficiency	0.8		
Ball screw length	Stroke + 200		
Dynamic allowable load N	551		
Static allowable moment N·m	MP: 20, MY: 16, MR: 19		
Dynamic allowable moment N·m	MP: 2.8, MY: 2.8, MR: 6.8		
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 The rated thrust and max. load capacity values are the allowable values for the actuator body; the actual thrust and load capacity are limited by the motor used.

Stroke and max. speed

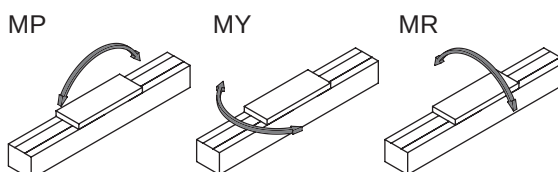
(mm/s)					
Stroke length Screw lead	100 to 600	650	700	750	800
2	100	90	80	70	60
5	250	225	200	175	150
10	500	450	400	350	300

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

Allowable overhang length

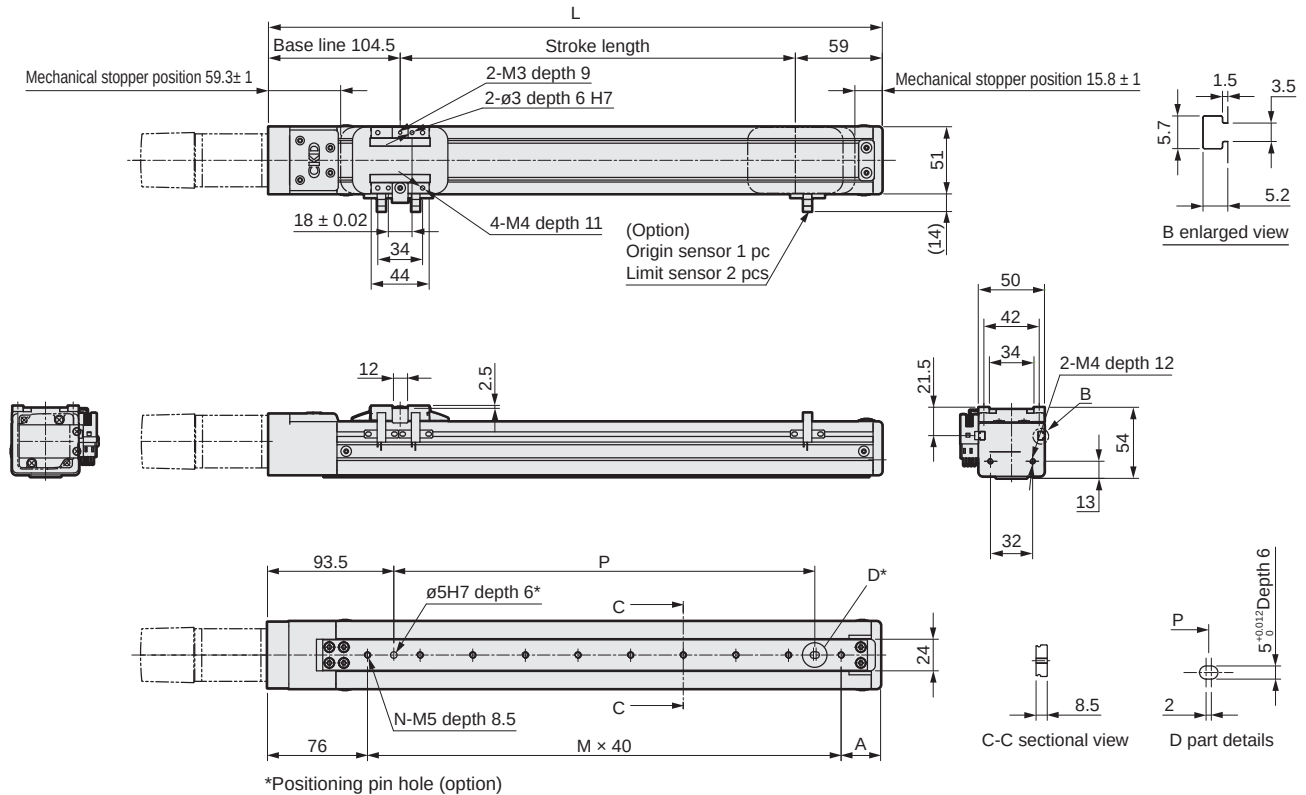
*Refer to page 626 for details.

Moment direction



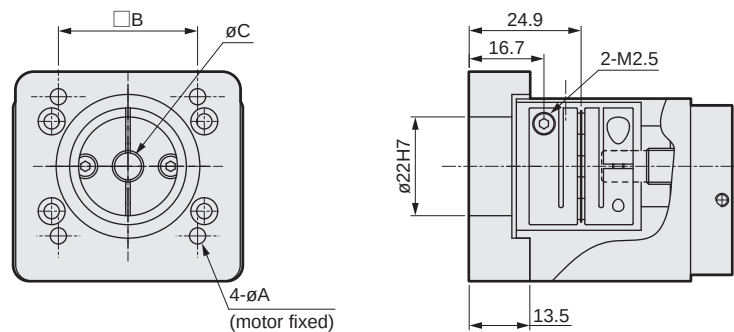
Dimensions Straight motor mounting

● ETS-05-*****-E



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	213.5	263.5	313.5	363.5	413.5	463.5	513.5	563.5	613.5	663.5	713.5	763.5	813.5	863.5	913.5	963.5
A	60	30	40	50	60	30	40	50	60	30	40	50	60	30	40	50
M	2	4	5	6	7	9	10	11	12	14	15	16	17	19	20	21
N	3	5	6	7	8	10	11	12	13	15	16	17	18	20	21	22
P	40	120	160	200	240	320	360	400	440	520	560	600	640	720	760	800
Weight (kg)	1.5	1.6	1.7	1.8	1.9	2.1	2.2	2.2	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1

Motor mounting part



Mounted motor specification	A	B	C	Motor mounting bolt
A	3.6	31	6	4-M3 × L16
B	3.6	31	5	4-M3 × L16

List of attachments

[Motor mounting parts]

Mounted motor specification	Coupling	Motor size	Motor mounting bolt	
			Size	Quantity
A	Assembled at shipment	□ 42	M3	4
B			M3	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.



Electric actuator Ball screw drive Slider

ETS-05 Series

Motor side mounting (left, right, bottom)

● Stepper motor size: ☐42

How to order

ETS	- 05	- 05	040	- R	A	A	N	C	B	N	P	- M
A	B	C	D	E	F	G	H	I	J	K	L	
A Body size 05 Body width 51 mm			E Mounted motor specification A Select the mounted motor specification from the table below. B			I Limit sensor (2 pcs) *1*2 N None B Outside			K Positioning pin hole N None P Yes			
B Screw lead 02 2 mm 05 5 mm 10 10 mm			F Motor size A ☐ 42			J Grease nipple *3 N None (Body mounting direction: Standard)			L Magnet slider method M Yes			
C Stroke length 005 50 mm to (In 50 mm increments) 080 800 mm			G Brake N None									
D Motor mounting direction R Right mounting D Bottom mounting L Left mounting			H Origin sensor (1 pc) *1 *2 N None C Outside motor side D Outside motor opposite side						Manufacturer ☐ 42 Oriental Motor Co., Ltd. A MinebeaMitsumi Inc. B Dyadic Systems Co., Ltd. B			

*1: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*2: The user can adjust the sensor position. (Included at shipment)

*3: "Body mounting direction: Standard" here refers to mounting from the bottom side.

Specifications

Applicable motor sizes	☐ 42 Stepper motor		
Drive method	Ball screw ø12		
Ball screw accuracy grade	C7		
Stroke length mm	50 to 800		
Screw lead mm	2	5	10
Max. load capacity *1	Horizontal kg	10	10
	Vertical kg	7	1.5
Max. speed mm/s	100	250	500
Rated thrust *1	N	854	170
Repeatability mm	±0.01		
Lost motion mm	0.1 or less		
Drive system weight kg	0.3		
Other inertia kg·cm ²	0.120		
Coefficient of friction	0.05		
Mechanical efficiency	0.8		
Ball screw length	Stroke + 200		
Dynamic allowable load N	551		
Static allowable moment N·m	MP: 20, MY: 16, MR: 19		
Dynamic allowable moment N·m	MP: 2.8, MY: 2.8, MR: 6.8		
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 The rated thrust and max. load capacity values are the allowable values for the actuator body; the actual thrust and load capacity are limited by the motor used.

Stroke and max. speed

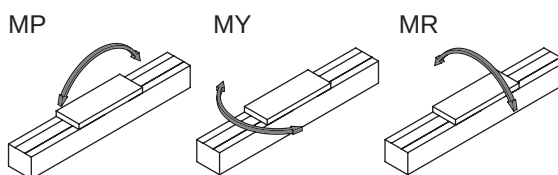
		(mm/s)				
Stroke length	Screw lead	100 to 600	650	700	750	800
2		100	90	80	70	60
5		250	225	200	175	150
10		500	450	400	350	300

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

Allowable overhang length

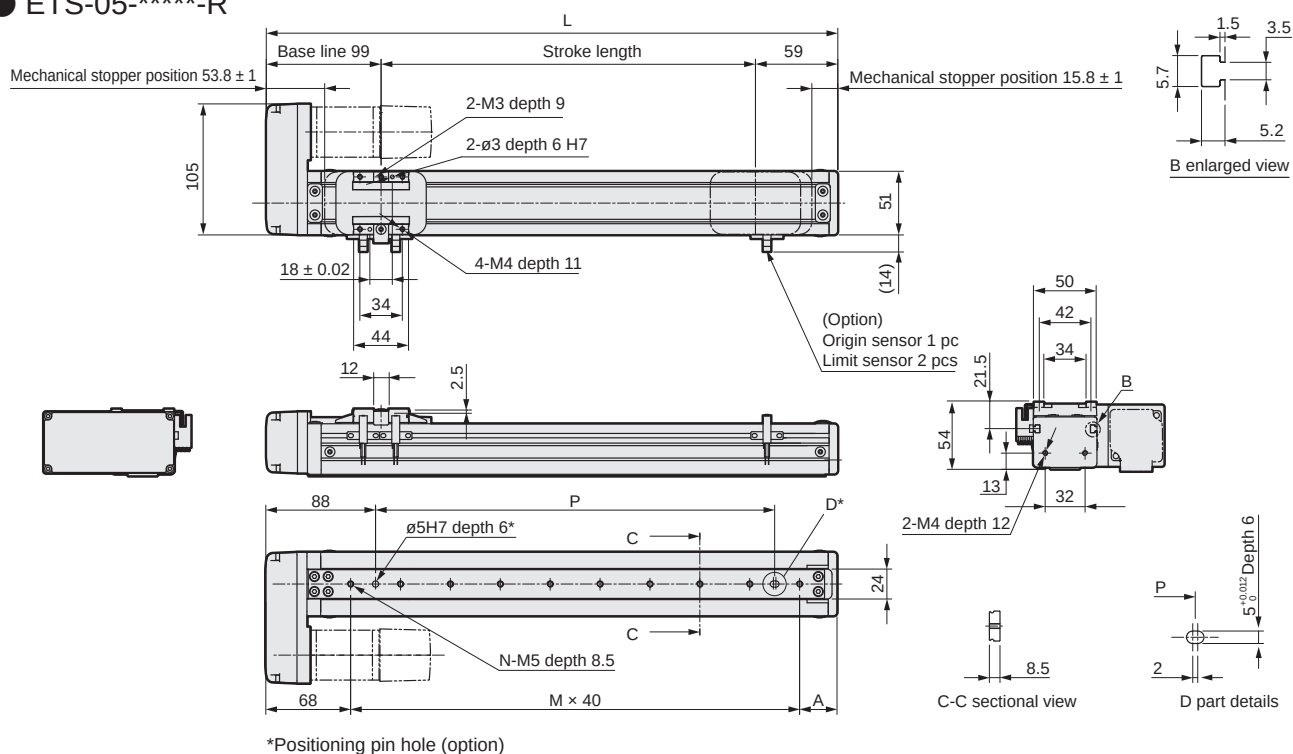
*Refer to page 626 for details.

Moment direction



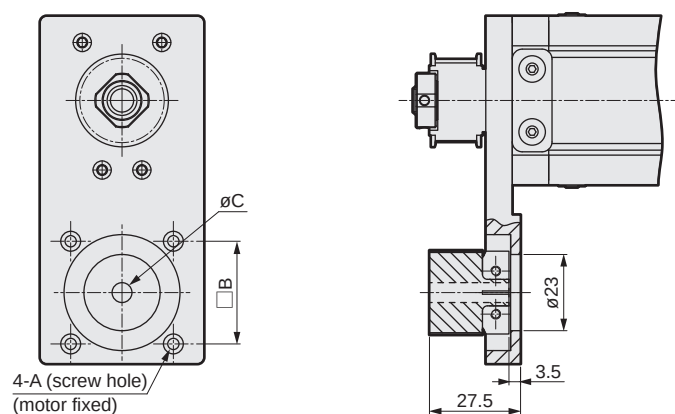
Dimensions Motor right-side mounting

● ETS-05-*****-R



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	208	258	308	358	408	458	508	558	608	658	708	758	808	858	908	958
A	60	30	40	50	60	30	40	50	60	30	40	50	60	30	40	50
M	2	4	5	6	7	9	10	11	12	14	15	16	17	19	20	21
N	3	5	6	7	8	10	11	12	13	15	16	17	18	20	21	22
P	40	120	160	200	240	320	360	400	440	520	560	600	640	720	760	800
Weight (kg)	1.7	1.8	1.9	2.0	2.1	2.3	2.4	2.4	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3

Motor mounting part



Mounted motor specification	A	B	C	Motor mounting bolt
A	ø3.4	31	6	4-M3 × L14
B	ø3.4	31	5	4-M3 × L14

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, Pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	□42	M3	4
B			M3	4

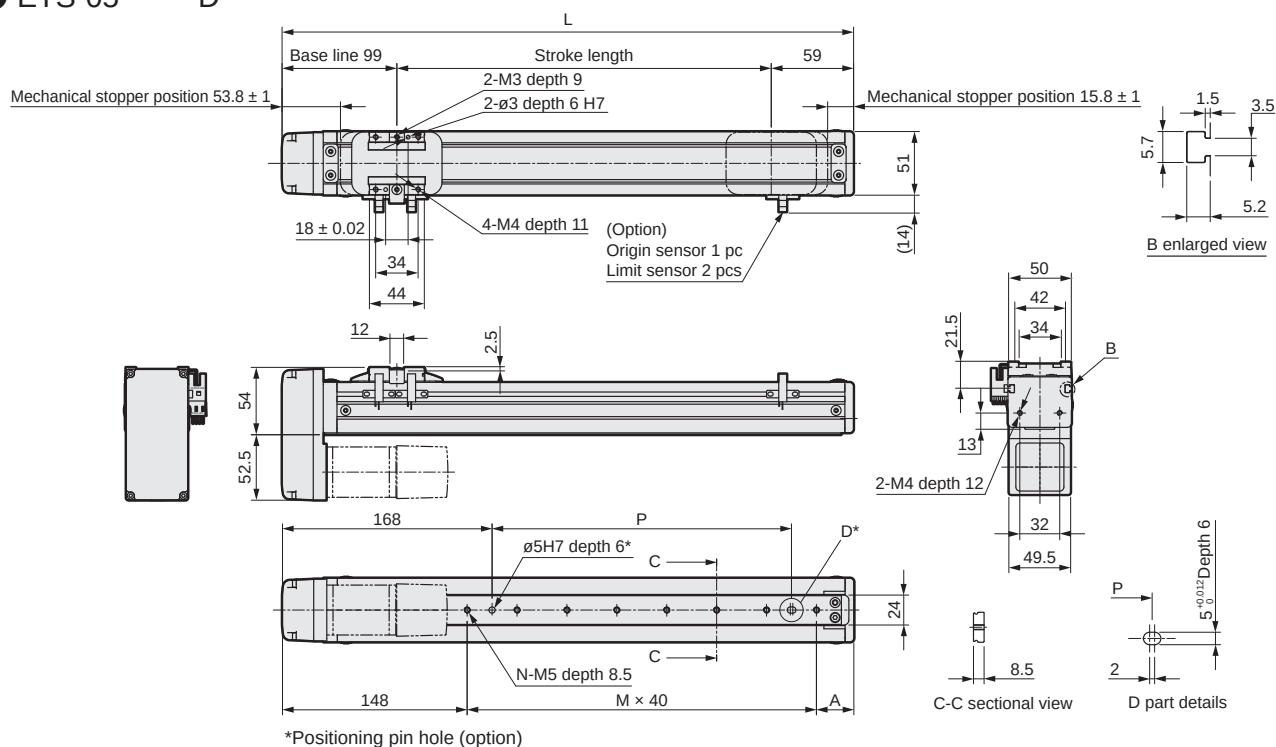
[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

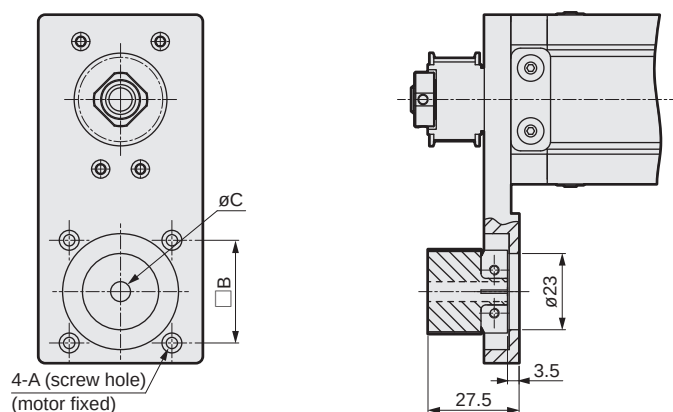
Dimensions Motor bottom mounting

● ETS-05-*****-D



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	208	258	308	358	408	458	508	558	608	658	708	758	808	858	908	958
A	60	30	40	50	60	30	40	50	60	30	40	50	60	30	40	50
M	0	2	3	4	5	7	8	9	10	12	13	14	15	17	18	19
N	1	3	4	5	6	8	9	10	11	13	14	15	16	18	19	20
P	0	40	80	120	160	240	280	320	360	440	480	520	560	640	680	720
Weight (kg)	1.7	1.8	1.9	2.0	2.1	2.3	2.4	2.4	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3

Motor mounting part



Mounted motor specification	A	B	C	Motor mounting bolt
A	$\phi 3.4$	31	6	4-M3 $\times$ L14
B	$\phi 3.4$	31	5	4-M3 $\times$ L14

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	$\square 42$	M3	4
B			M3	4

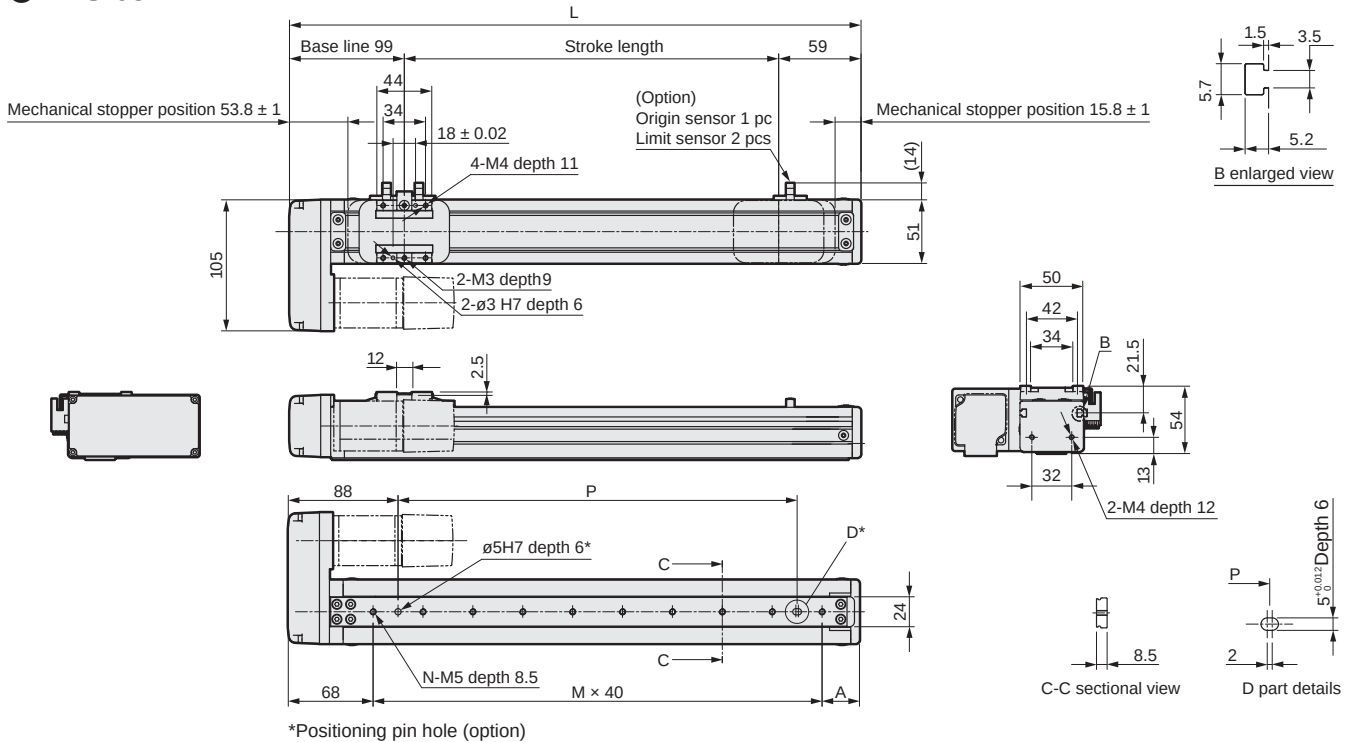
[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

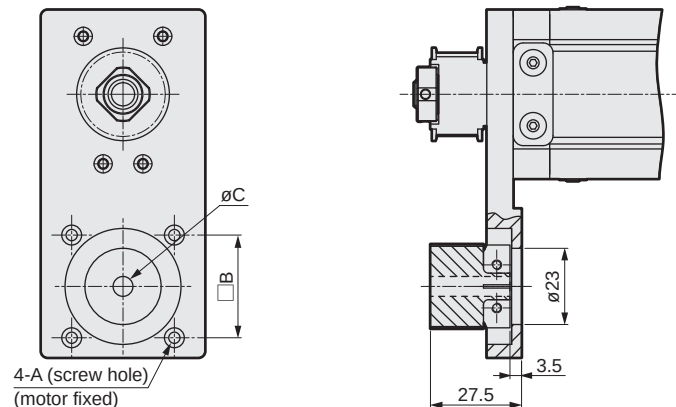
Dimensions Motor left-side mounting

● ETS-05-*****-L



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	208	258	308	358	408	458	508	558	608	658	708	758	808	858	908	958
A	60	30	40	50	60	30	40	50	60	30	40	50	60	30	40	50
M	2	4	5	6	7	9	10	11	12	14	15	16	17	19	20	21
N	3	5	6	7	8	10	11	12	13	15	16	17	18	20	21	22
P	40	120	160	200	240	320	360	400	440	520	560	600	640	720	760	800
Weight (kg)	1.7	1.8	1.9	2.0	2.1	2.3	2.4	2.4	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3

Motor mounting part



Mounted motor specification	A	B	C	Motor mounting bolt
A	ø3.4	31	6	4-M3 × L14
B	ø3.4	31	5	4-M3 × L14

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, Pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	□42	M3	4
B			M3	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.



Electric actuator Ball screw drive Slider

ETS-06 Series

Straight motor mounting

● Stepper motor size: □42

How to order

ETS - 06 - 05 040 - E A A N C B D P - M - X

A Body size
06 Body width 65 mm

B Screw lead
02 2 mm
05 5 mm
10 10 mm

C Stroke length
005 to 080 50 mm (In 50 mm increments) 800 mm

D Motor mounting direction
E Straight mounting

E Mounted motor specification
A Select the mounted motor specification from the table below.
B

F Motor size
A □42

G Brake
N None

H Origin sensor (1 pc) *1 *2
N None
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *1 *2
N None
B Outside

J Grease nipple *3 *4
N None (Body mounting direction: Standard)
D None (Body mounting direction: Bottom side)

K Positioning pin hole
N None
P Yes

L Magnet slider method
M Yes

M Metal stopper specifications (ETS-X)
Standard
X Yes

Manufacturer	□ 42
Oriental Motor Co., Ltd.	A
MinebeaMitsumi Inc.	B
Dyadic Systems Co., Ltd.	B

*1: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.
*2: The user can adjust the sensor position. (Included at shipment)
*3: Select the body mounting direction. N (top side ø4.5 spot face) or D (M5 from bottom side bottom surface)
*4: "Body mounting direction: Standard" here refers to mounting from the top.

*Refer to page 587 for the motor model No.

Specifications

Applicable motor sizes	□42 Stepper motor		
Drive method	Ball screw ø12		
Ball screw accuracy grade	C7		
Stroke length	mm	50 to 800	
Screw lead	mm	2	5 10
Max. load capacity *1	Horizontal kg	30	30 15
	Vertical kg	15	10 5
Max. speed	mm/s	100	250 500
Rated thrust *1	N	427	171 85
Repeatability	mm	±0.01	
Lost motion	mm	0.1 or less	
Drive system weight	kg	0.5	
Other inertia	kg·cm²	0.024	
Coefficient of friction		0.05	
Mechanical efficiency		0.8	
Ball screw length		Stroke + 200	
Dynamic allowable load	N	1209	
Static allowable moment	N·m	MP: 80, MY: 70, MR: 75	
Dynamic allowable moment	N·m	MP: 8.9, MY: 8.9, MR: 24.8	
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 The rated thrust and max. load capacity values are the allowable values for the actuator body; the actual thrust and load capacity are limited by the motor used.

Stroke and max. speed

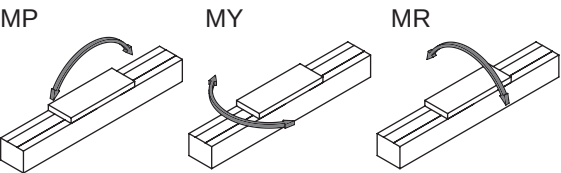
		(mm/s)				
Stroke length	Screw lead	100 to 600	650	700	750	800
	2	100	90	80	70	60
	5	250	225	200	175	150
	10	500	450	400	350	300

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

Allowable overhang length

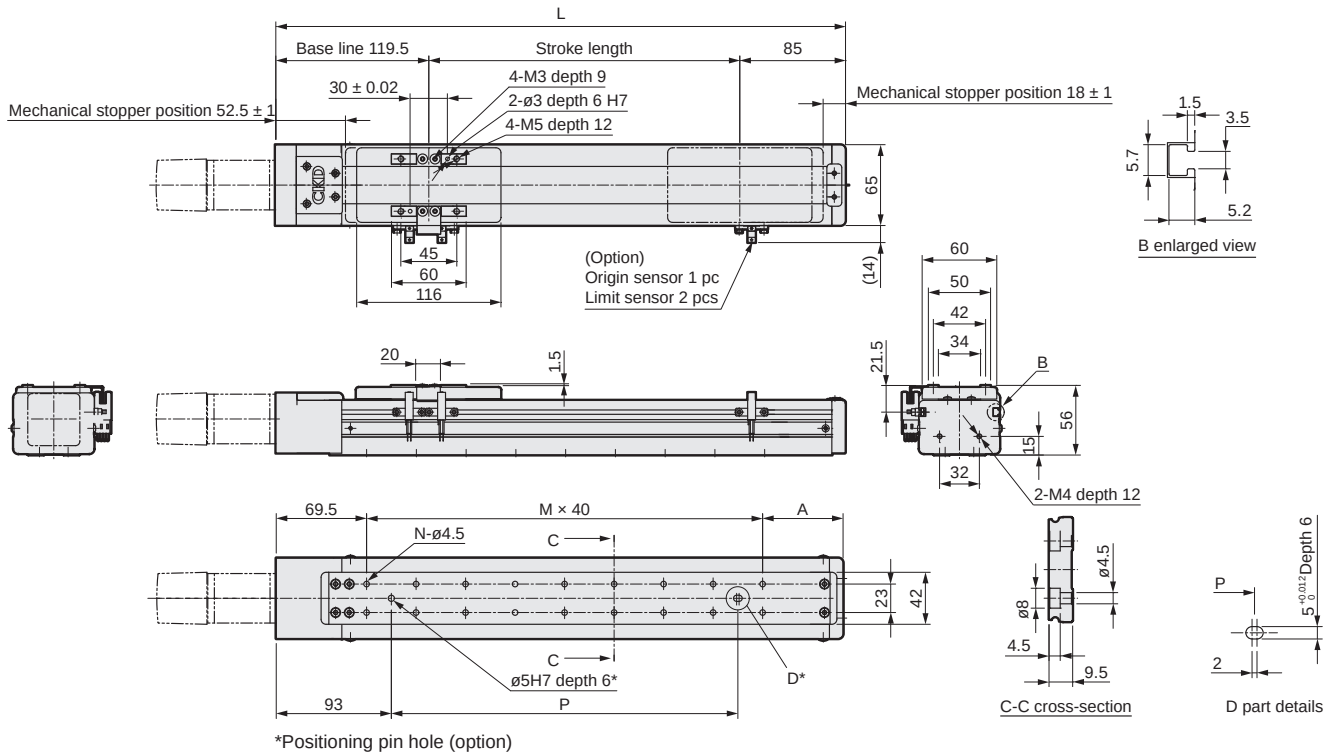
*Refer to page 626 for details.

Moment direction



Dimensions Straight motor mounting

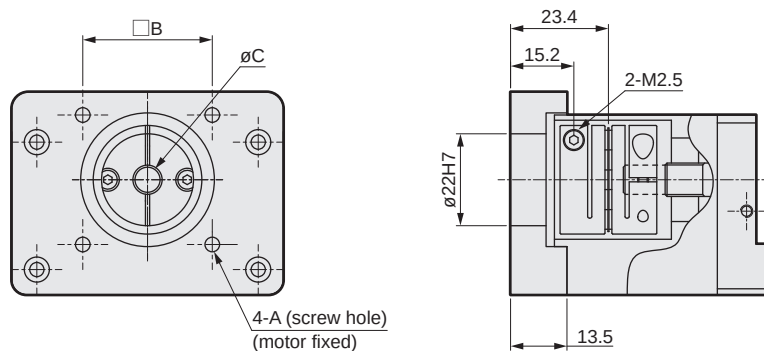
● ETS-06-****-E



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	254.5	304.5	354.5	404.5	454.5	504.5	554.5	604.5	654.5	704.5	754.5	804.5	854.5	904.5	954.5	1004.5
A	65	35	45	55	65	35	45	55	65	35	45	55	65	35	45	55
M	3	5	6	7	8	10	11	12	13	15	16	17	18	20	21	22
N	8	12	14	16	18	22	24	26	28	32	34	36	38	42	44	46
P	80	160	200	240	280	360	400	440	480	560	600	640	680	760	800	840
Weight (kg)	2.0	2.1	2.2	2.4	2.6	2.8	3.0	3.1	3.3	3.5	3.7	3.8	4.0	4.2	4.4	4.5

*N-M5 when ● Grease nipple is D.

Motor mounting part



Mounted motor specification	A	B	C	Motor mounting bolt
A	3.5	31	6	4-M3 × L16
B	3.5	31	5	4-M3 × L16

List of attachments

[Motor mounting parts]

Mounted motor specification	Coupling	Motor size	Motor mounting bolt	
			Size	Quantity
A	Assembled at shipment	□ 42	M3	4
B			M3	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.



Electric actuator Ball screw drive Slider

ETS-06 Series

Motor side mounting (left, right, bottom)

● Stepper motor size: ☐42

How to order

ETS-06-05040-RAA-N-C-B-D-P-M-X

A Body size

06	Body width 65 mm
----	------------------

B Screw lead

02	2 mm
05	5 mm
10	10 mm

C Stroke length

005 to 080	50 mm (In 50 mm increments) 800 mm
------------	------------------------------------

D Motor mounting direction

R	Right mounting
D	Bottom mounting
L	Left mounting

E Mounted motor specification

A	Select the mounted motor specification from the table below.
B	

F Motor size *1

A	☐ 42
---	-----------------------------

G Brake

N	None
---	------

H Origin sensor (1 pc) *1 *2

N	None
C	Outside motor side
D	Outside motor opposite side

I Limit sensor (2 pcs) *1 *2

N	None
B	Outside

J Grease nipple *3 *4

N	None (Body mounting direction: Standard)
D	None (Body mounting direction: Bottom side)

K Positioning pin hole

N	None
P	Yes

L Magnet slider method

M	Yes
---	-----

M Metal stopper specifications (ETS-X)

	Standard
X	Yes

Manufacturer

☐ 42	
Oriental Motor Co., Ltd.	A
MinebeaMitsumi Inc.	B
Dyadic Systems Co., Ltd.	B

*1: Origin sensor and limit sensor are available as a set.
As it is both-or-nothing, select "None" for both.

*2: The user can adjust the sensor position. (Included at shipment)

*3: Select the body mounting direction. N (top side ø4.5 spot face) or D (M5 from bottom side bottom surface)

*4: "Body mounting direction: Standard" here refers to mounting from the top.

*Refer to page 587 for the motor model No.

Specifications

Applicable motor sizes	☐ 42 Stepper motor		
Drive method	Ball screw ø12		
Ball screw accuracy grade	C7		
Stroke length mm	50 to 800		
Screw lead mm	2	5	10
Max. load capacity *1	Horizontal kg	30	30
	Vertical kg	15	5
Max. speed mm/s	100	250	500
Rated thrust *1	N	427	85
Repeatability mm	±0.01		
Lost motion mm	0.1 or less		
Drive system weight kg	0.5		
Other inertia kg·cm²	0.120		
Coefficient of friction	0.05		
Mechanical efficiency	0.8		
Ball screw length	Stroke + 200		
Dynamic allowable load N	1209		
Static allowable moment N·m	MP: 80, MY: 70, MR: 75		
Dynamic allowable moment N·m	MP: 8.9, MY: 8.9, MR: 24.8		
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 The rated thrust and max. load capacity values are the allowable values for the actuator body; the actual thrust and load capacity are limited by the motor used.

Stroke and max. speed

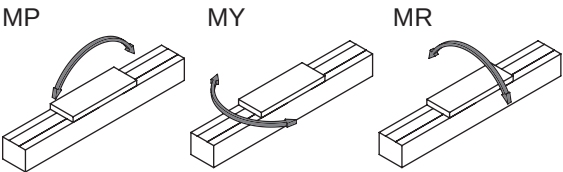
		(mm/s)				
Screw lead	Stroke length	100 to 600	650	700	750	800
	2	100	90	80	70	60
	5	250	225	200	175	150
	10	500	450	400	350	300

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

Allowable overhang length

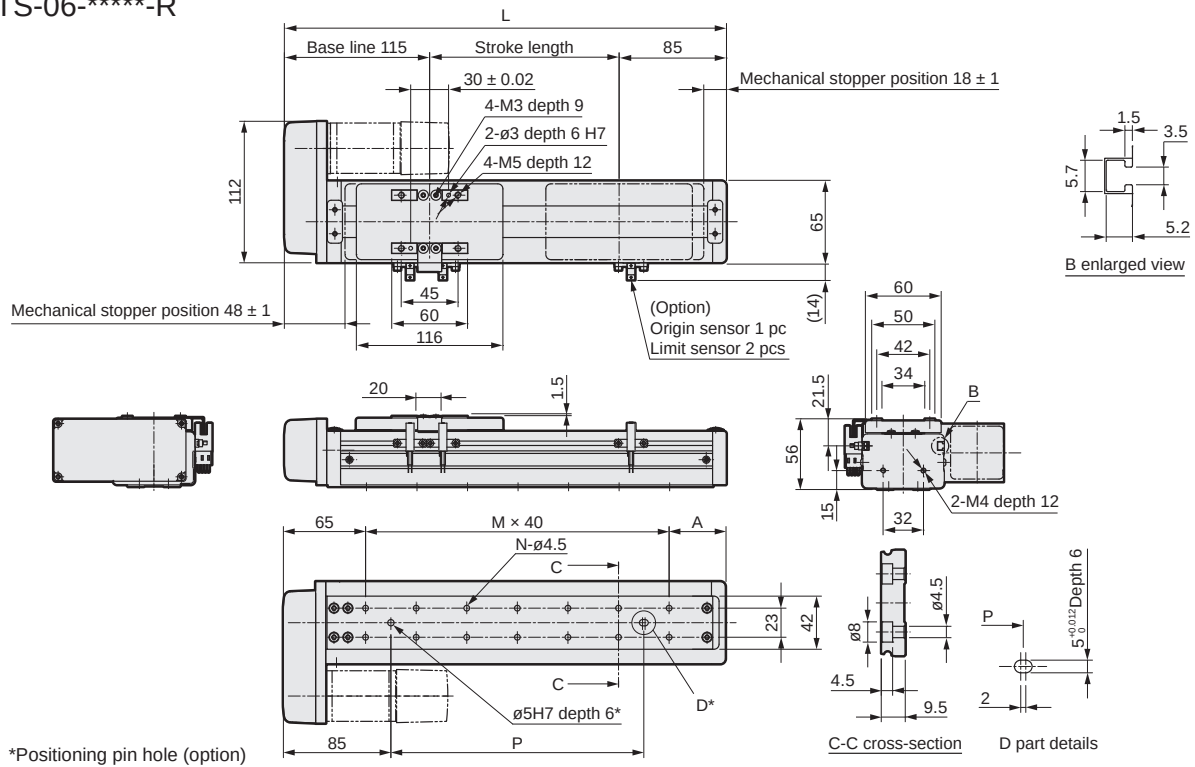
*Refer to page 626 for details.

Moment direction



Dimensions Motor right-side mounting

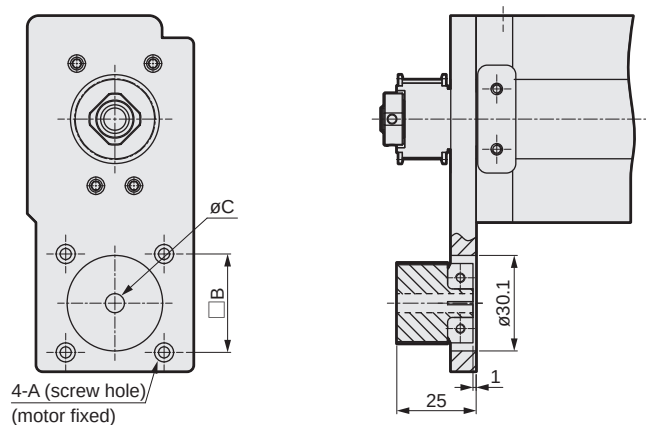
● ETS-06-****-R



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
A	65	35	45	55	65	35	45	55	65	35	45	55	65	35	45	55
M	3	5	6	7	8	10	11	12	13	15	16	17	18	20	21	22
N	8	12	14	16	18	22	24	26	28	32	34	36	38	42	44	46
P	80	160	200	240	280	360	400	440	480	560	600	640	680	760	800	840
Weight (kg)	2.1	2.3	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.7	3.9	4.0	4.2	4.4	4.6	4.7

*N-M5 when ① Grease nipple is D.

Motor mounting part



Mounted motor specification	A	B	C	Motor mounting bolt
A	ø3.5	31	6	4-M3 × L12
B	ø3.5	31	5	4-M3 × L12

List of attachments

[Motor mounting parts]

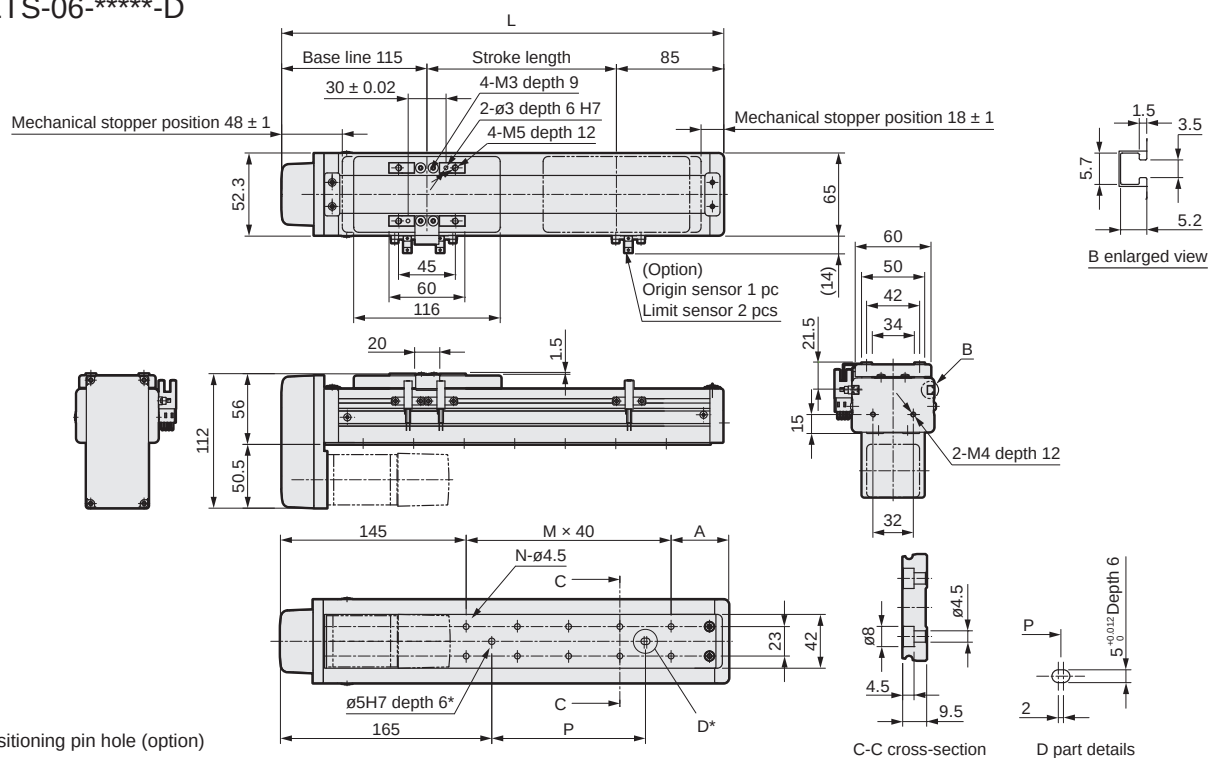
Mounted motor specification	Timing belt, pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	□42	M3	4
B			M3	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

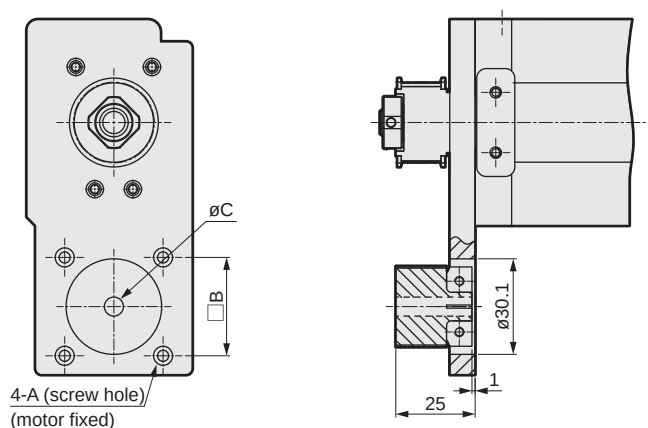
● ETS-06-*****-D



Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
A	65	35	45	55	65	35	45	55	65	35	45	55	65	35	45	55
M	1	3	4	5	6	8	9	10	11	13	14	15	16	18	19	20
N	4	8	10	12	14	18	20	22	24	28	30	32	34	38	40	42
P	0	80	120	160	200	280	320	360	400	480	520	560	600	680	720	760
Weight (kg)	2.1	2.3	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.7	3.9	4.0	4.2	4.4	4.6	4.7

*N-M5 when **J** Grease nipple is D.

Motor mounting part



Mounted motor specification	A	B	C	Motor mounting bolt
A	ø3.5	31	6	4-M3 × L12
B	ø3.5	31	5	4-M3 × L12

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	□42	M3	4
B			M3	4

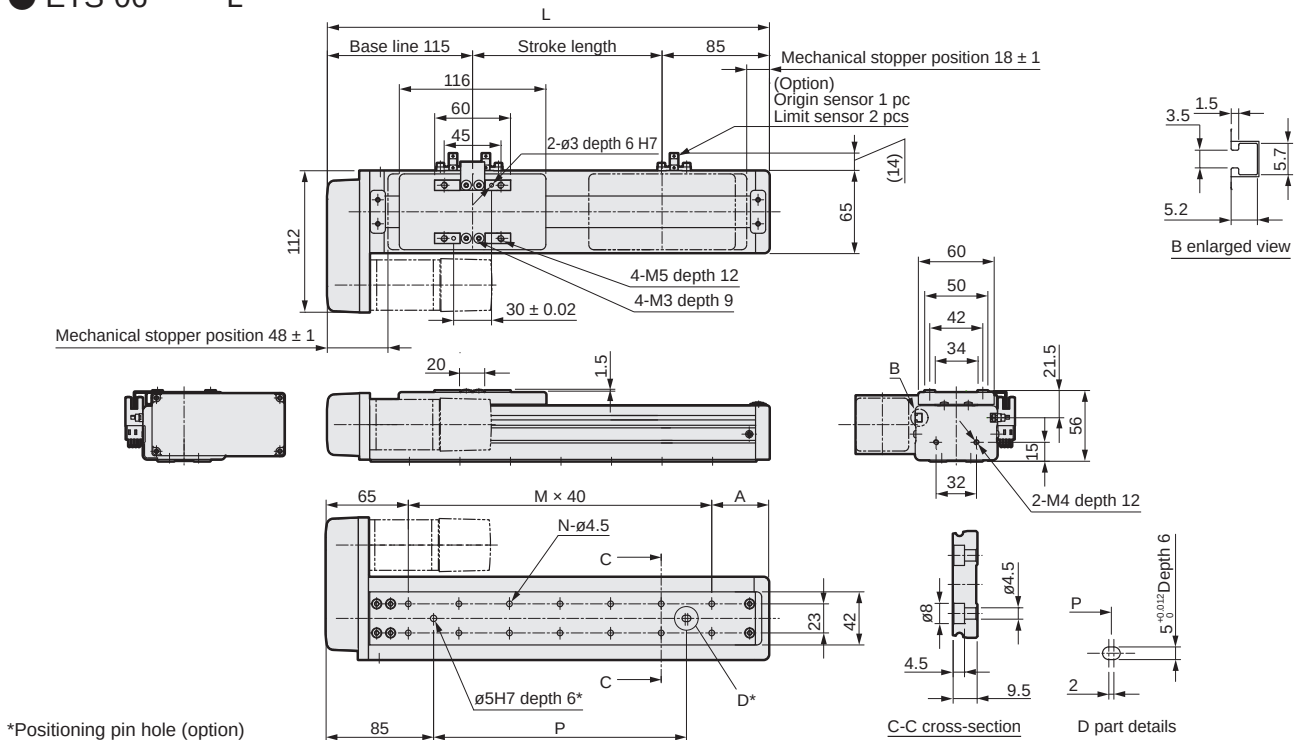
[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

Dimensions Motor left-side mounting

● ETS-06-*****-L

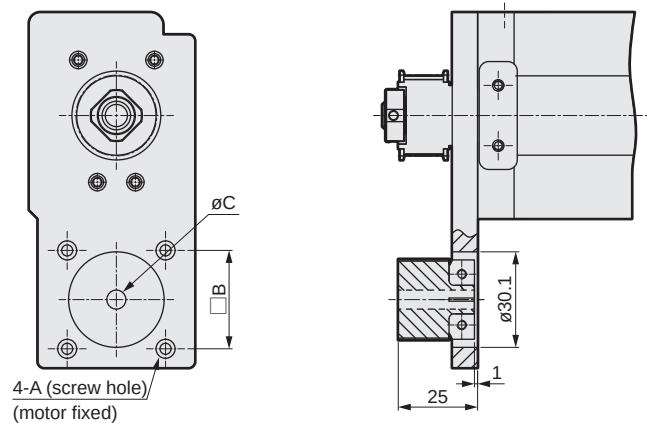


*Positioning pin hole (option)

Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
A	65	35	45	55	65	35	45	55	65	35	45	55	65	35	45	55
M	3	5	6	7	8	10	11	12	13	15	16	17	18	20	21	22
N	8	12	14	16	18	22	24	26	28	32	34	36	38	42	44	46
P	80	160	200	240	280	360	400	440	480	560	600	640	680	760	800	840
Weight (kg)	2.1	2.3	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.7	3.9	4.0	4.2	4.4	4.6	4.7

*N-M5 when **J** Grease nipple is D.

Motor mounting part



Mounted motor specification	A	B	C	Motor mounting bolt
A	ø3.5	31	6	4-M3 × L12
B	ø3.5	31	5	4-M3 × L12

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	□42	M3	4
B			M3	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

ETS-10 Series

Straight motor mounting

● Stepper motor size: ☐56, ☐60

How to order

ETS - 10 - 05 005 - E A A N N N N N - X

A Body size
10 Body width 102 mm

B Screw lead
05 5 mm
10 10 mm
16 16 mm
20 20 mm

C Stroke length
005 50 mm
to (In 50 mm increments)
105 1050 mm

D Motor mounting direction
E Straight mounting

E Mounted motor specification
A Select the mounted motor specification from the table below.
B
C

F Motor size
B ☐56
C ☐60

G Brake
N None

H Origin sensor (1 pc) *1 *2 *3 *4 *6
N None
A Inside motor side
B Inside motor opposite side
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *1 *2 *3 *4 *6
N None
A Inside
B Outside

J Grease nipple *4 *5 *6
N None (Body mounting direction: Standard)
R Right
L Counterclockwise

K Positioning pin hole
N None
P Yes

L Metal stopper specifications (ETS-X)
Standard
X Yes

*1: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*2: Origin sensor B and limit sensor A cannot be combined.

*3: For sensor inside mounting, the user cannot adjust the position. (Assembled at shipment)
For sensor outside mounting, the user can adjust the position. (Included at shipment)

*4: Contact CKD to use the origin sensor, limit sensor and grease nipple in the same direction.

*5: "Body mounting direction: Standard" here indicates that either top or bottom mounting is possible.

*6: For sensor interior mounting, select "None" for the grease nipple.

Manufacturer	☐ 56	☐ 60
Oriental Motor Co., Ltd.	-	A
MinebeaMitsumi Inc.	B	-
Dyadic Systems Co., Ltd.	C	-

*Refer to page 587 for the motor model No.

Specifications

Applicable motor sizes		☐ 56, ☐ 60 stepper motor			
Drive method		Ball screw $\phi 16$			
Ball screw accuracy grade		C7			
Stroke length mm		50 to 1050			
Screw lead mm		5	10	16	20
Max. load capacity *1	Horizontal kg	50	30	22	18
	Vertical kg	12	8	5	3
Max. speed mm/s		250	500	800	1000
Rated thrust *1 N		683	341	213	174
Repeatability mm		± 0.01			
Lost motion mm		0.1 or less			
Drive system weight kg		0.9			
Other inertia kg·cm ²		0.074			
Coefficient of friction		0.05			
Mechanical efficiency		0.8			
Ball screw length		Stroke + 200			
Dynamic allowable load N		2651			
Static allowable moment N·m		MP: 110, MY: 110, MR: 120			
Dynamic allowable moment N·m		MP: 24.1, MY: 24.1, MR: 24.8			
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 The rated thrust and max. load capacity values are the allowable values for the actuator body; the actual thrust and load capacity are limited by the motor used.

Stroke and max. speed

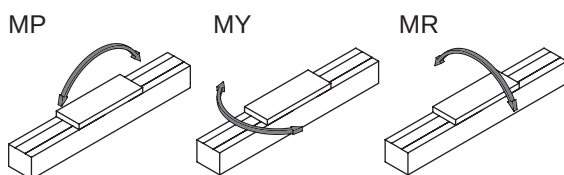
		(mm/s)					
Stroke length	Screw lead	100 to 750	800	850	900	950	1050
	5	250	225	200	175	150	125
	10	500	450	400	350	300	250
	16	800	720	640	560	480	400
	20	1000	900	800	700	600	500

*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 page 626 for details.

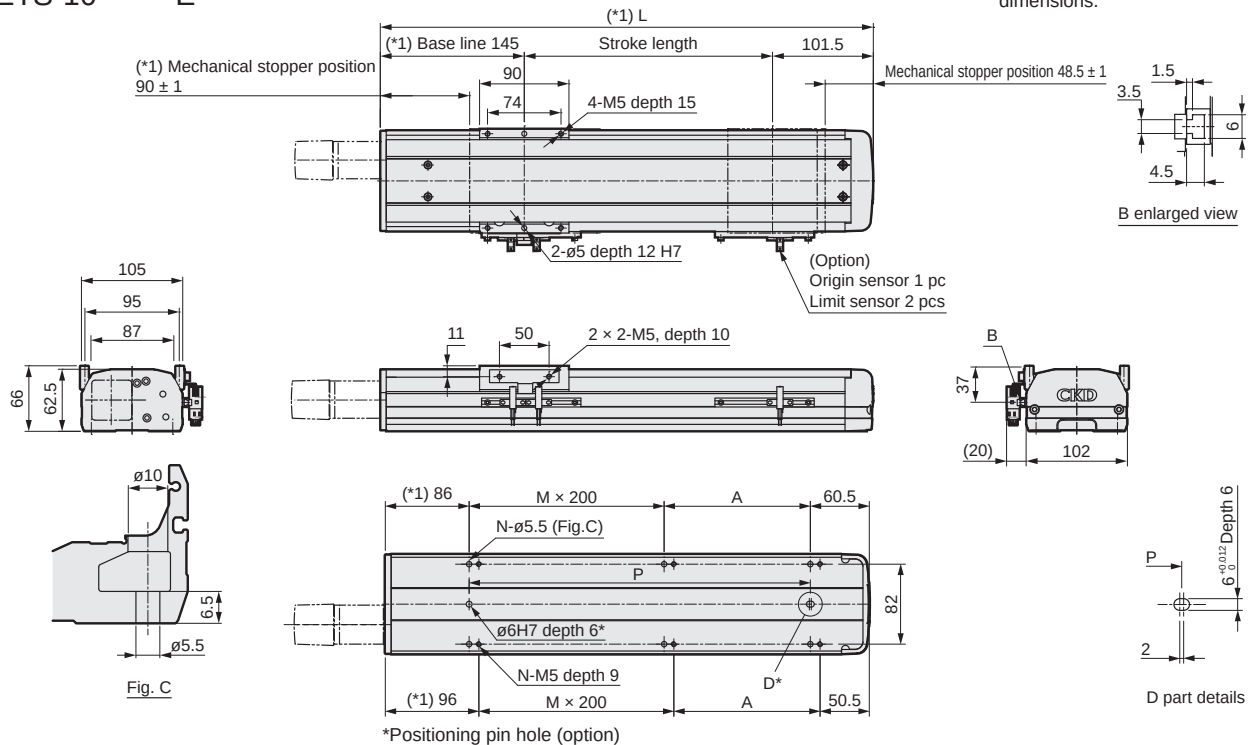
Moment direction



Dimensions Straight motor mounting

● ETS-10-*****-E

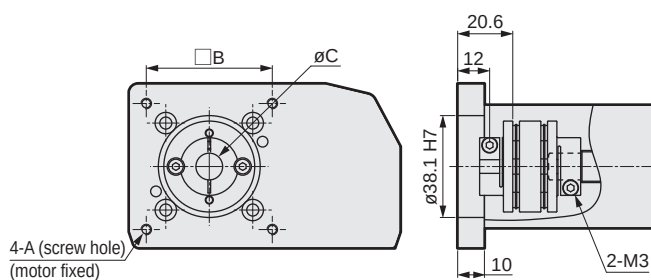
- Refer to page 632 for grease nipple dimensions.



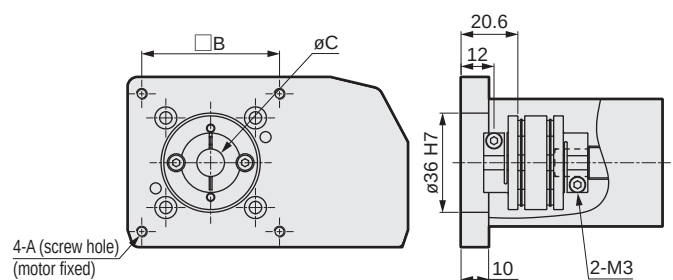
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	296.5	346.5	396.5	446.5	496.5	546.5	596.5	646.5	696.5	746.5	796.5	846.5	896.5	946.5	996.5	1046.5	1096.5	1146.5	1196.5	1246.5	1296.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
Weight (kg)	4.5	4.9	5.2	5.6	6.0	6.4	6.8	7.2	7.6	7.9	8.3	8.7	9.1	9.5	9.9	10.3	10.6	11.0	11.4	11.8	12.2

Motor mounting part

● ETS-10 (□56)



● ETS-10 (□60)



Mounted motor specification		A	B	C	Motor mounting bolt
A	□60	M4 depth 10	50	10	4-M4 × L12
B	□56	M4 depth 10	47.14	6.35	4-M4 × L12
C	□56	M4 depth 10	47.14	8	4-M4 × L12

List of attachments

[Motor mounting parts]

Mounted motor specification	Coupling	Motor size	Motor mounting bolt	
			Size	Quantity
A	Assembled at shipment	☐ 56 ☐ 60	M4	4
B			M4	4
C			M4	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.



Electric actuator Ball screw drive Slider

ETS-10 Series

Motor side mounting (left, right, bottom)

● Stepper motor size: ☐56, ☐60

How to order

ETS - 10 - 05 005 - R A A N N N L N - X

A Body size
10 Body width 102 mm

B Screw lead
05 5 mm
10 10 mm
16 16 mm
20 20 mm

C Stroke length
005 50 mm
to (In 50 mm increments)
105 1050 mm

D Motor mounting direction *6
R Right mounting
D Bottom mounting
L Left mounting

E Mounted motor specification
A Select the mounted motor specification from the table below.
B
C

F Motor size
B ☐ 56
C ☐ 60

G Brake
N None

H Origin sensor (1 pc) *1 *2 *3 *4 *7
N None
A Inside motor side
B Inside motor opposite side
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *1 *2 *3 *4 *7
N None
A Inside
B Outside

J Grease nipple *4 *5 *6 *7
N None (Body mounting direction: Standard)
R Right
L Counterclockwise

K Positioning pin hole
N None
P Yes

L Metal stopper specifications (ETS-X)
Standard
X Yes

*1: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*2: Origin sensor B and limit sensor A cannot be combined.

*3: For sensor inside mounting, the user cannot adjust the position. (Assembled at shipment)

For sensor outside mounting, the user can adjust the position. (Included at shipment)

*4: Contact CKD to use the origin sensor, limit sensor and grease nipple in the same direction.

*5: "Body mounting direction: Standard" here indicates that either top or bottom mounting is possible.

*6: When selecting motor mounting direction R, grease nipple R cannot be selected. When selecting L, grease nipple L cannot be selected.

*7: For sensor interior mounting, select "None" for the grease nipple.

Manufacturer	☐ 56	☐ 60
Oriental Motor Co., Ltd.	-	A
MinebeaMitsumi Inc.	B	-
Dyadic Systems Co., Ltd.	C	-

*Refer to page 587 for the motor model No.

Specifications

Applicable motor sizes	☐ 56, ☐ 60 stepper motor			
Drive method	Ball screw ϕ 16			
Ball screw accuracy grade	C7			
Stroke length mm	50 to 1050			
Screw lead mm	5	10	16	20
Max. load capacity *1	Horizontal kg	50	30	22
	Vertical kg	12	8	5
Max. speed mm/s	250	500	800	1000
Rated thrust *1 N	683	341	213	174
Repeatability mm	± 0.01			
Lost motion mm	0.1 or less			
Drive system weight kg	0.9			
Other inertia kg·cm ²	0.73			
Coefficient of friction	0.05			
Mechanical efficiency	0.8			
Ball screw length	Stroke + 200			
Dynamic allowable load N	2651			
Static allowable moment N·m	MP: 110, MY: 110, MR: 120			
Dynamic allowable moment N·m	MP: 24.1, MY: 24.1, MR: 24.8			
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 The rated thrust and max. load capacity values are the allowable values for the actuator body; the actual thrust and load capacity are limited by the motor used.

Stroke and max. speed

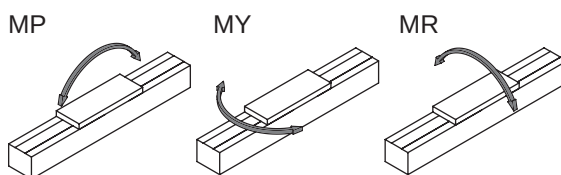
		(mm/s)					
Stroke length	Screw lead	100 to 750	800	850	900	950	1050
5		250	225	200	175	150	125
10		500	450	400	350	300	250
16		800	720	640	560	480	400
20		1000	900	800	700	600	500

*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 page 626 for details.

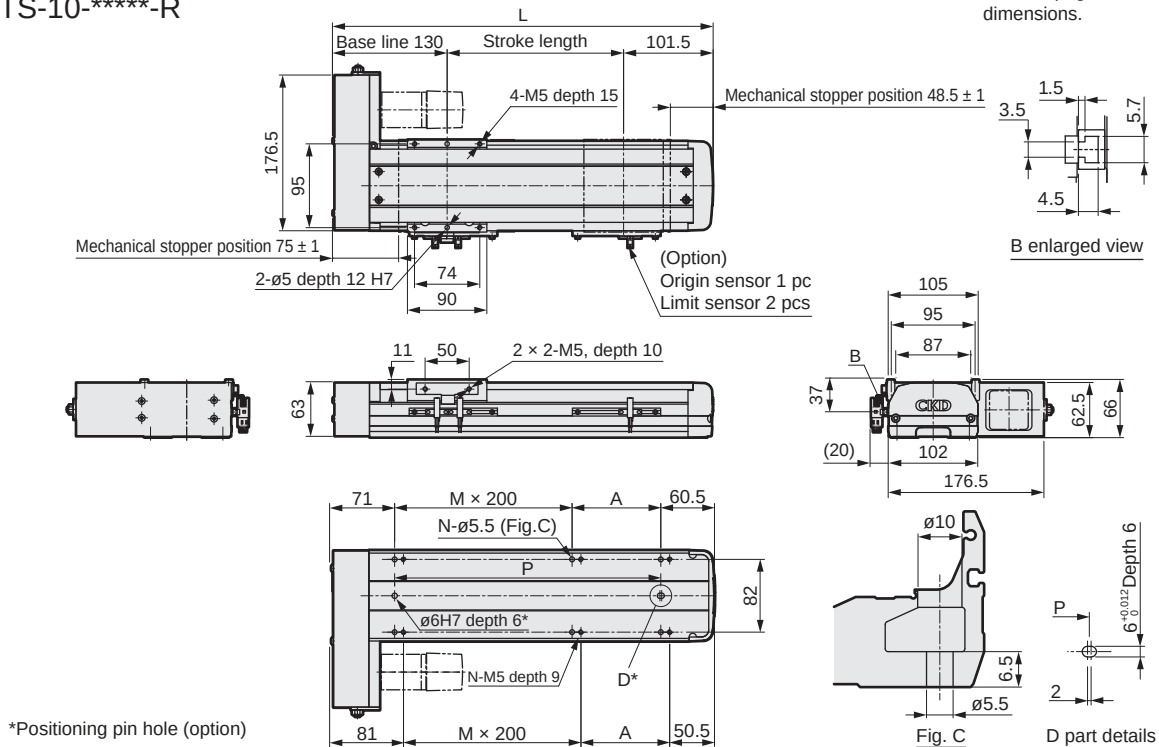
Moment direction



Dimensions Motor right-side mounting

● ETS-10-*****-R

· Refer to page 632 for grease nipple dimensions.

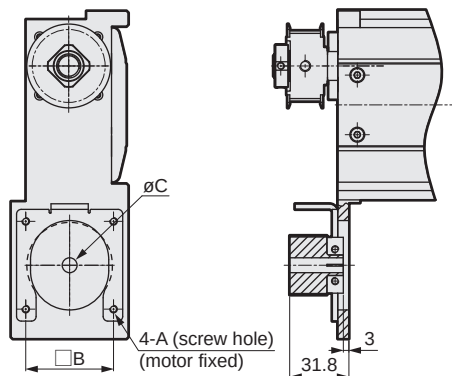


*Positioning pin hole (option)

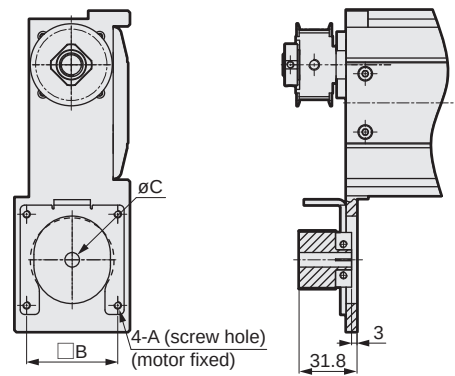
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	281.5	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5	981.5	1031.5	1081.5	1131.5	1181.5	1231.5	1281.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
Weight (kg)	5.2	5.5	5.8	6.2	6.6	7.0	7.4	7.8	8.2	8.5	8.9	9.3	9.7	10.1	10.5	10.9	11.2	11.6	12.0	12.4	12.8

Motor mounting part

● ETS-10 (□56)



● ETS-10 (□60)



Mounted motor specification		A	B	C	Motor mounting bolt
A	□60	M4	50	10	4-M4 × L12
B	□56	M4	47.14	6.35	4-M4 × L12
C	□56	M4	47.14	8	4-M4 × L12

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	□56 □60	M4	4
B			M4	4
C			M4	4

[Origin sensor/Limit sensor]

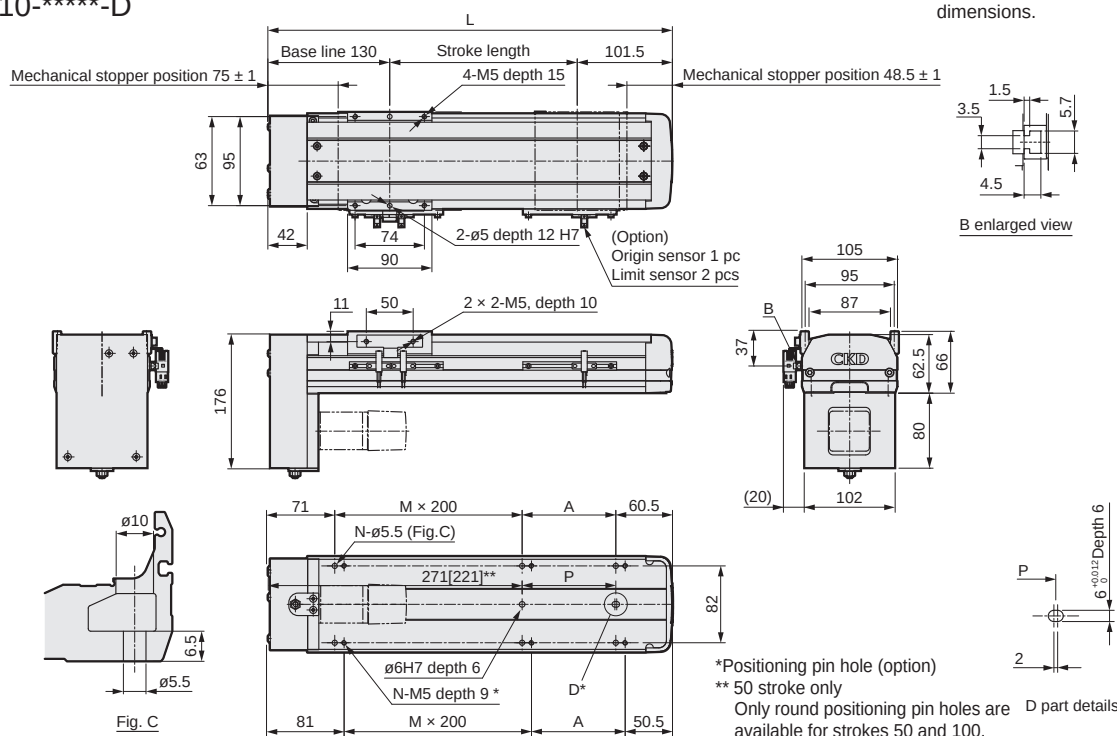
Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

Dimensions Motor bottom mounting

● ETS-10-*****-D

Refer to page 632 for grease nipple dimensions.

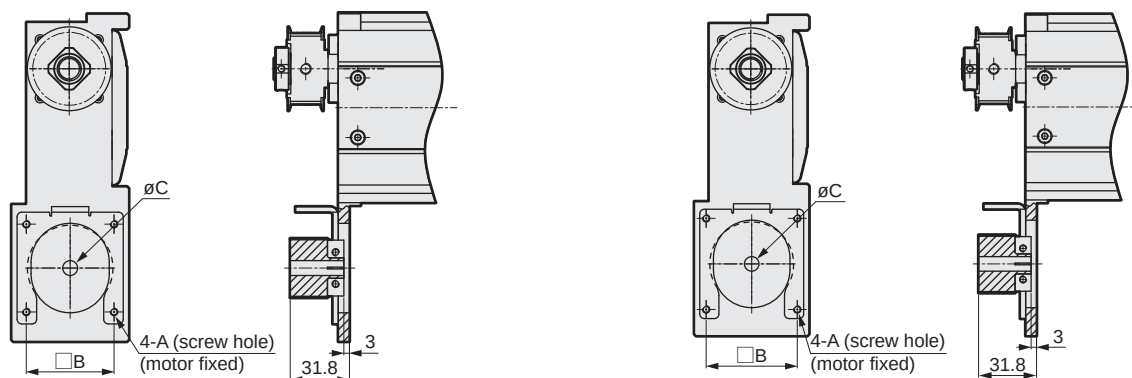


Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	281.5	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5	981.5	1031.5	1081.5	1131.5	1181.5	1231.5	1281.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	0	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
Weight (kg)	5.2	5.7	6.0	6.4	6.6	7.0	7.6	8.0	8.4	8.7	9.1	9.5	9.9	10.3	10.7	11.1	11.4	11.8	12.2	12.6	13.0

Motor mounting part

● ETS-10 (□ 56)

● ETS-10 (□ 60)



Mounted motor specification		A	B	C	Motor mounting bolt
A	□ 60	M4	50	10	4-M4 $\times$ L12
B	□ 56	M4	47.14	6.35	4-M4 $\times$ L12
C	□ 56	M4	47.14	8	4-M4 $\times$ L12

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	□ 56 □ 60	M4	4
B			M4	4
C			M4	4

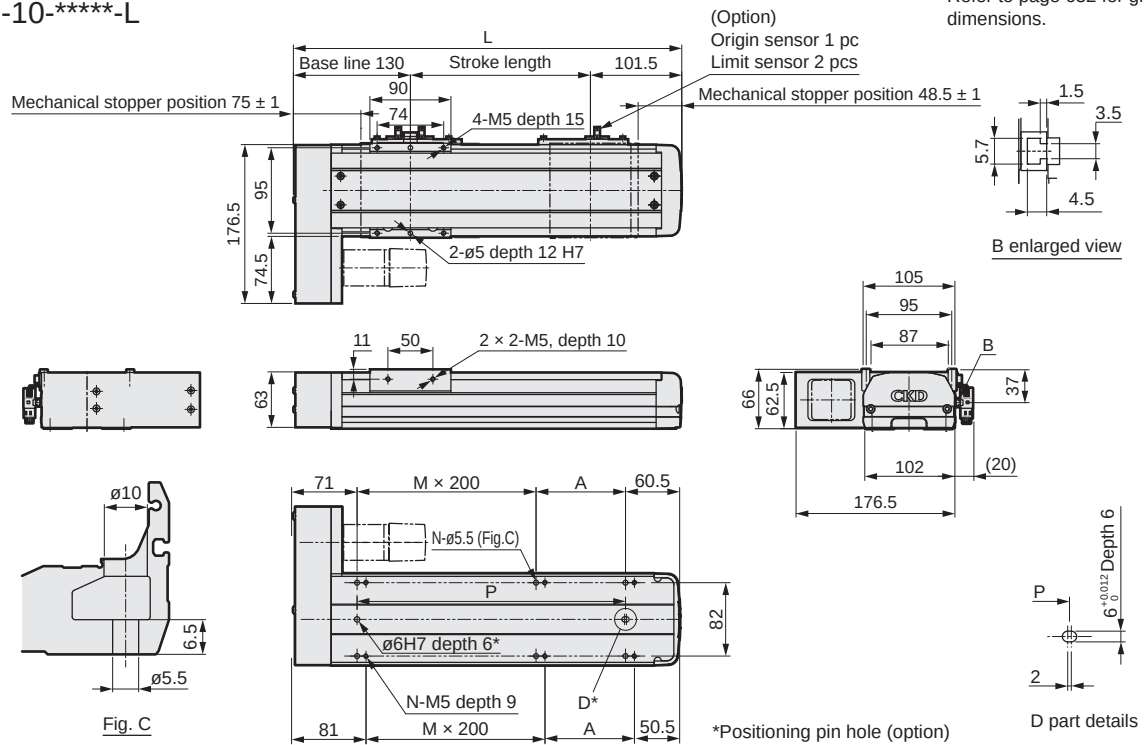
[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

Dimensions Motor left-side mounting

● ETS-10-*****-L

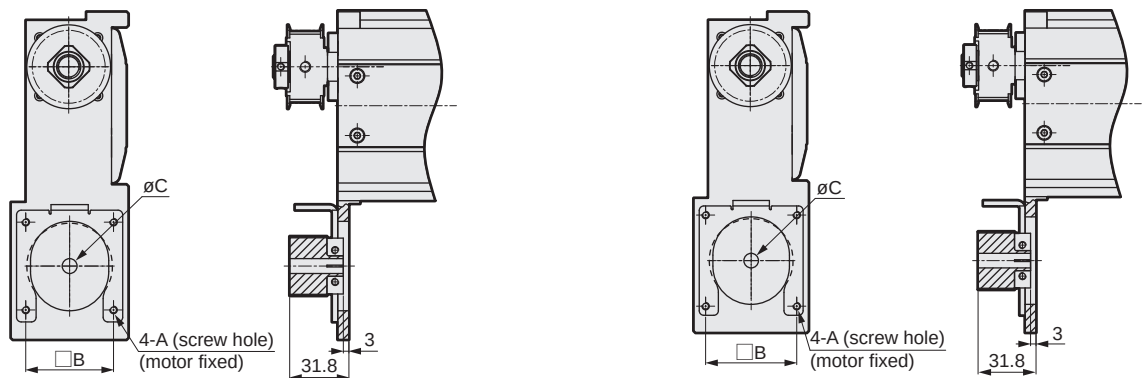


Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	281.5	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5	981.5	1031.5	1081.5	1131.5	1181.5	1231.5	1281.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
Weight (kg)	5.2	5.5	5.8	6.2	6.6	7.0	7.4	7.8	8.2	8.5	8.9	9.3	9.7	10.1	10.5	10.9	11.2	11.6	12.0	12.4	12.8

Motor mounting part

● ETS-10 (□56)

● ETS-10 (□60)



Mounted motor specification		A	B	C	Motor mounting bolt
A	□60	M4	50	10	4-M4 × L12
B	□56	M4	47.14	6.35	4-M4 × L12
C	□56	M4	47.14	8	4-M4 × L12

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	□56 □60	M4	4
B			M4	4
C			M4	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.



Electric actuator Ball screw drive Slider

ETS-12 Series

Straight motor mounting

● Stepper motor size: ☐56, ☐60

How to order

ETS - 12 - 05 005 - E A B N N N N N - X

A Body size
12 Body width 102 mm

B Screw lead
05 5 mm
10 10 mm
16 16 mm
20 20 mm

C Stroke length
005 50 mm
to (In 50 mm increments)
105 1050 mm

D Motor mounting direction
E Straight mounting

E Mounted motor specification
A Select the mounted motor specification from the table below.
B
C

F Motor size
B ☐56
C ☐60

G Brake
N None

H Origin sensor (1 pc) *1 *2 *3
N None
A Inside motor side
B Inside motor opposite side
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *1 *2 *3
N None
A Inside
B Outside

J Grease nipple *3 *4
N None (Body mounting direction: Standard)
R Right
L Counterclockwise

K Positioning pin hole
N None
P Yes

L Metal stopper specifications (ETS-X)
Standard
X Yes

*1: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*2: For sensor inside mounting, the user cannot adjust the position. (Assembled at shipment)
For sensor outside mounting, the user can adjust the position. (Included at shipment)

*3: Contact CKD to use the origin sensor, limit sensor and grease nipple in the same direction.

*4: "Body mounting direction: Standard" here indicates that either top or bottom mounting is possible.

Manufacturer	☐ 56	☐ 60
Oriental Motor Co., Ltd.	-	A
MinebeaMitsumi Inc.	B	-
Dyadic Systems Co., Ltd.	C	-

*Refer to page 587 for the motor model No.

Specifications

Applicable motor sizes	☐ 56, ☐ 60 stepper motor			
Drive method	Ball screw ϕ 16			
Ball screw accuracy grade	C7			
Stroke length mm	50 to 1050			
Screw lead mm	5	10	16	20
Max. load capacity *1	Horizontal kg	50	30	22
	Vertical kg	12	8	5
Max. speed mm/s	250	500	800	1000
Rated thrust *1 N	683	341	213	174
Repeatability mm	± 0.01			
Lost motion mm	0.1 or less			
Drive system weight kg	0.8			
Other inertia kg·cm ²	0.040			
Coefficient of friction	0.05			
Mechanical efficiency	0.8			
Ball screw length	Stroke + 200			
Dynamic allowable load N	1660			
Static allowable moment N·m	MP: 150, MY: 150, MR: 130			
Dynamic allowable moment N·m	MP: 42.3, MY: 42.3, MR: 53.1			
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 The rated thrust and max. load capacity values are the allowable values for the actuator body; the actual thrust and load capacity are limited by the motor used.

Stroke and max. speed

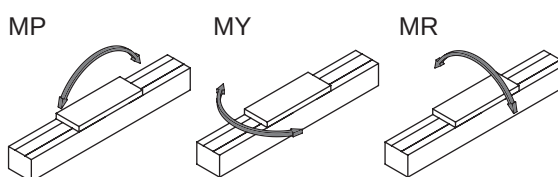
		(mm/s)					
Stroke length	Screw lead	100 to 750	800	850	900	950	1050
5	5	250	225	200	175	150	125
10	10	500	450	400	350	300	250
16	16	800	720	640	560	480	400
20	20	1000	900	800	700	600	500

*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 page 626 for details.

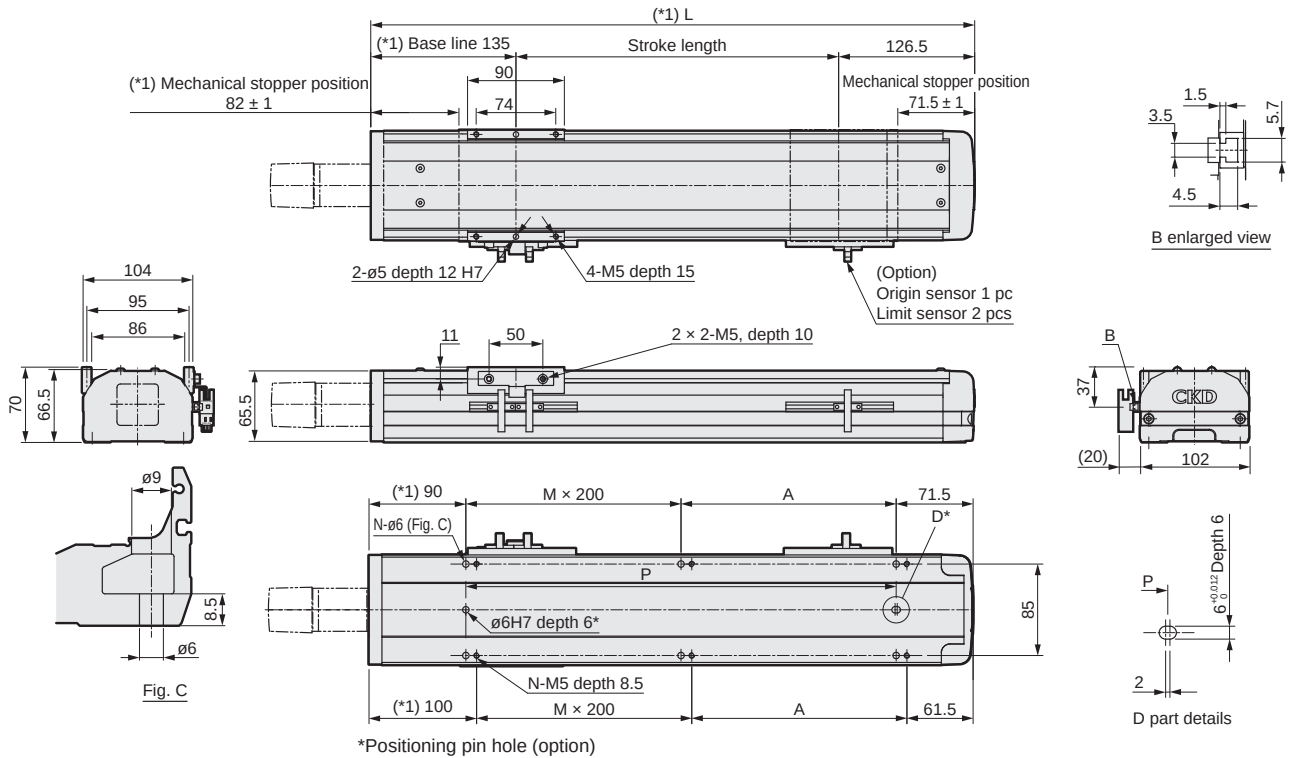
Moment direction



Dimensions Straight motor mounting

● ETS-12-*****-E

Refer to page 632 for grease nipple dimensions.

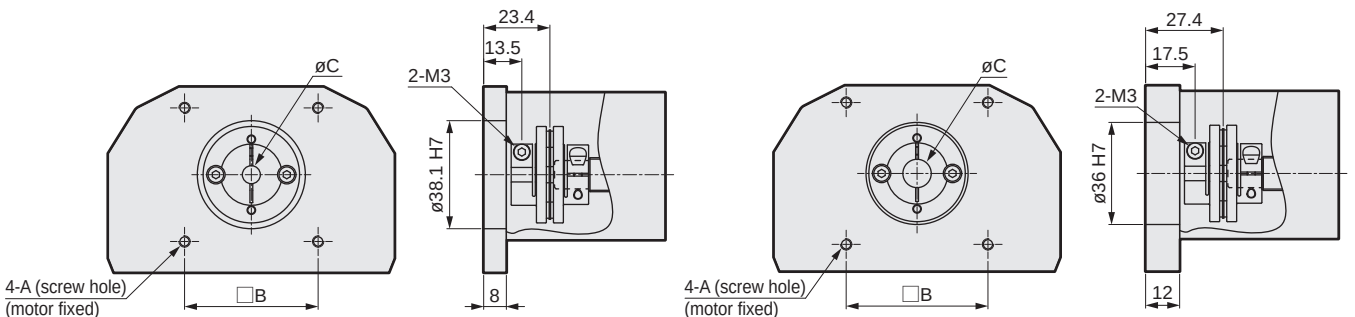


Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	311.5	361.5	411.5	461.5	511.5	561.5	611.5	661.5	711.5	761.5	811.5	861.5	911.5	961.5	1011.5	1061.5	1111.5	1161.5	1211.5	1261.5	1311.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
Weight (kg)	5.6	6.0	6.4	6.8	7.2	7.6	8.0	8.4	8.8	9.1	9.5	9.9	10.3	10.7	11.1	11.5	11.8	12.2	12.6	13.0	13.4

Motor mounting part

● ETS-12 (□56)

● ETS-12 (□60)



Mounted motor specification		A	B	C	Motor mounting bolt
A	□60	M4 depth 8	50	10	4-M4 × L16
B	□56	M4 depth 8	47.14	6.35	4-M4 × L16
C	□56	M4 depth 8	47.14	8	4-M4 × L16

List of attachments

[Motor mounting parts]

Mounted motor specification	Coupling	Motor size	Motor mounting bolt	
			Size	Quantity
A	Assembled at shipment	□56 □60	M4	4
B			M4	4
C			M4	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.



Electric actuator Ball screw drive Slider

ETS-12 Series

Motor side mounting (left, right, bottom)

● Stepper motor size: ☐56, ☐60

How to order

ETS - 12 - 05 005 - R A B N N N L N - X

A Body size
12 Body width 102 mm

B Screw lead
05 5 mm
10 10 mm
16 16 mm
20 20 mm

C Stroke length
005 50 mm
to (In 50 mm increments)
105 1050 mm

D Motor mounting direction *3*6
R Right mounting
D Bottom mounting
L Left mounting

E Mounted motor specification
A Select the mounted motor specification from the table below.
B
C

F Motor size
B ☐56
C ☐60

G Brake
N None

H Origin sensor (1 pc) *1 *2 *3 *4
N None
A Inside motor side
B Inside motor opposite side
C Outside motor side
D Outside motor opposite side

I Limit sensor (2 pcs) *1 *2 *3 *4
N None
A Inside
B Outside

J Grease nipple *4 *5 *6
N None (Body mounting direction: Standard)
R Right
L Counterclockwise

K Positioning pin hole
N None
P Yes

L Metal stopper specifications (ETS-X)
Standard
X Yes

*1: Origin sensor and limit sensor are available as a set. As it is both-or-nothing, select "None" for both.

*2: For sensor inside mounting, the user cannot adjust the position. (Assembled at shipment)
For sensor outside mounting, the user can adjust the position. (Included at shipment)

*3: When the motor mounting direction is R or L, origin sensor A and limit sensor A cannot be combined.

*4: Contact CKD to use the origin sensor, limit sensor and grease nipple in the same direction.

*5: "Body mounting direction: Standard" here indicates that either top or bottom mounting is possible.

*6: When selecting motor mounting direction R, grease nipple R cannot be selected. When selecting L, grease nipple L cannot be selected.

Manufacturer	☐ 56	☐ 60
Oriental Motor Co., Ltd.	-	A
MinebeaMitsumi Inc.	B	-
Dyadic Systems Co., Ltd.	C	-

*Refer to page 587 for the motor model No.

Specifications

Applicable motor sizes	☐ 56, ☐ 60 stepper motor			
Drive method	Ball screw ϕ 16			
Ball screw accuracy grade	C7			
Stroke length mm	50 to 1050			
Screw lead mm	5	10	16	20
Max. load capacity *1	Horizontal kg	50	30	22
	Vertical kg	12	8	5
Max. speed *2	mm/s	250	500	800
Rated thrust *1	N	683	341	213
Repeatability	mm	± 0.01		
Lost motion	mm	0.1 or less		
Drive system weight	kg	0.8		
Other inertia	kg·cm ²	0.730		
Coefficient of friction		0.05		
Mechanical efficiency		0.8		
Ball screw length		Stroke + 200		
Dynamic allowable load	N	1660		
Static allowable moment	N·m	MP: 150, MY: 150, MR: 130		
Dynamic allowable moment	N·m	MP: 42.3, MY: 42.3, MR: 53.1		
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 The rated thrust and max. load capacity values are the allowable values for the actuator body; the actual thrust and load capacity are limited by the motor used.

Stroke and max. speed

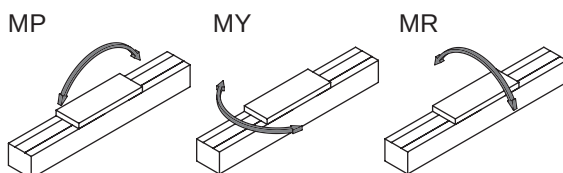
		(mm/s)					
Stroke length	Screw lead	100 to 750	800	850	900	950	1050
5	5	250	225	200	175	150	125
10	10	500	450	400	350	300	250
16	16	800	720	640	560	480	400
20	20	1000	900	800	700	600	500

*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 page 626 for details.

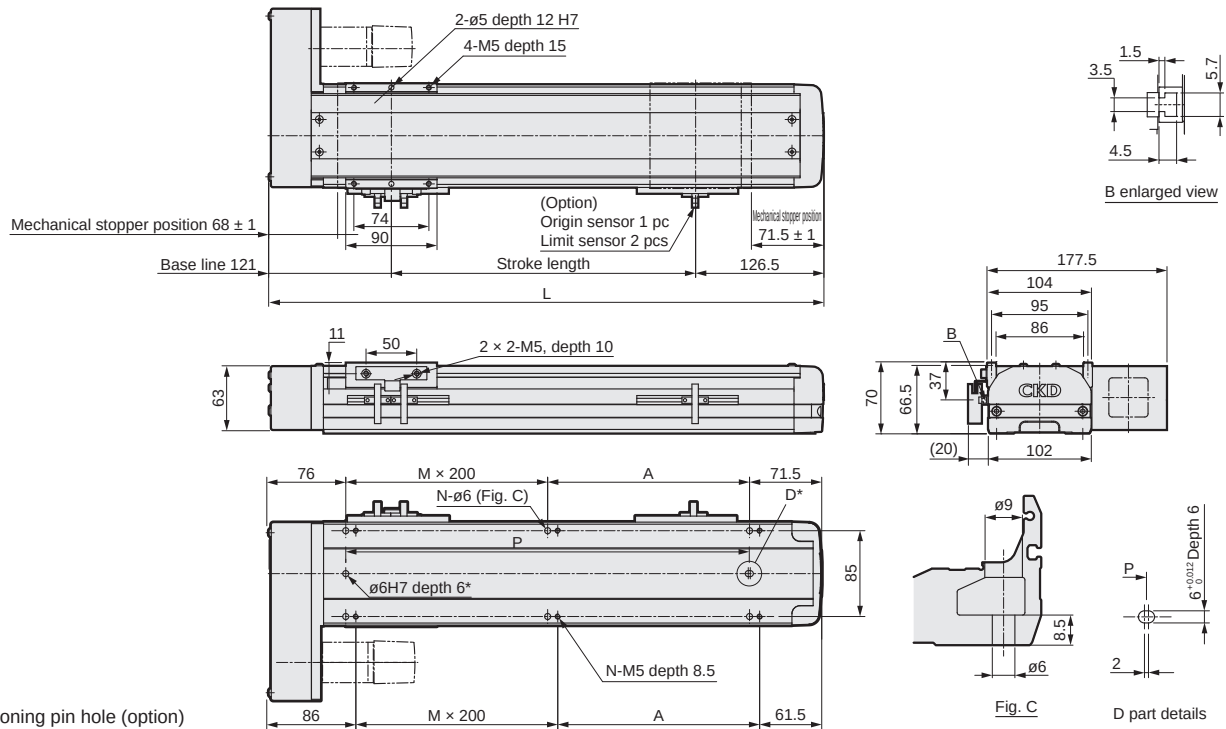
Moment direction



Dimensions Motor right-side mounting

● ETS-12-*****-R

· Refer to page 632 for grease nipple dimensions.

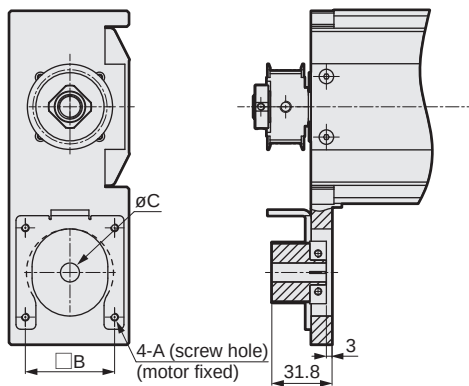


*Positioning pin hole (option)

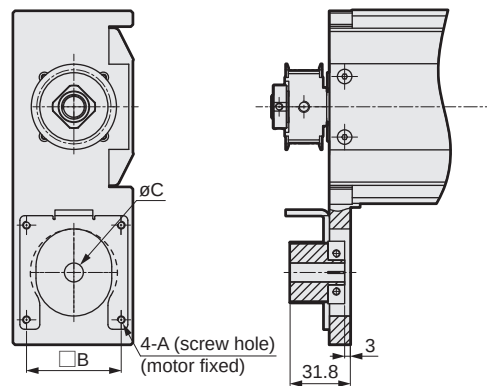
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	297.5	347.5	397.5	447.5	497.5	547.5	597.5	647.5	697.5	747.5	797.5	847.5	897.5	947.5	997.5	1047.5	1097.5	1147.5	1197.5	1247.5	1297.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
Weight (kg)	6.2	6.6	7.0	7.4	7.8	8.2	8.6	9.0	9.4	9.7	10.1	10.5	10.9	11.3	11.7	12.1	12.4	12.8	13.2	13.6	14.0

Motor mounting part

● ETS-12 (□56)



● ETS-12 (□60)



Mounted motor specification		A	B	C	Motor mounting bolt
A	□60	M4	50	10	4-M4 $\times$ L20
B	□56	M4	47.14	6.35	4-M4 $\times$ L20
C	□56	M4	47.14	8	4-M4 $\times$ L20

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	□56 □60	M4	4
B			M4	4
C			M4	4

[Origin sensor/Limit sensor]

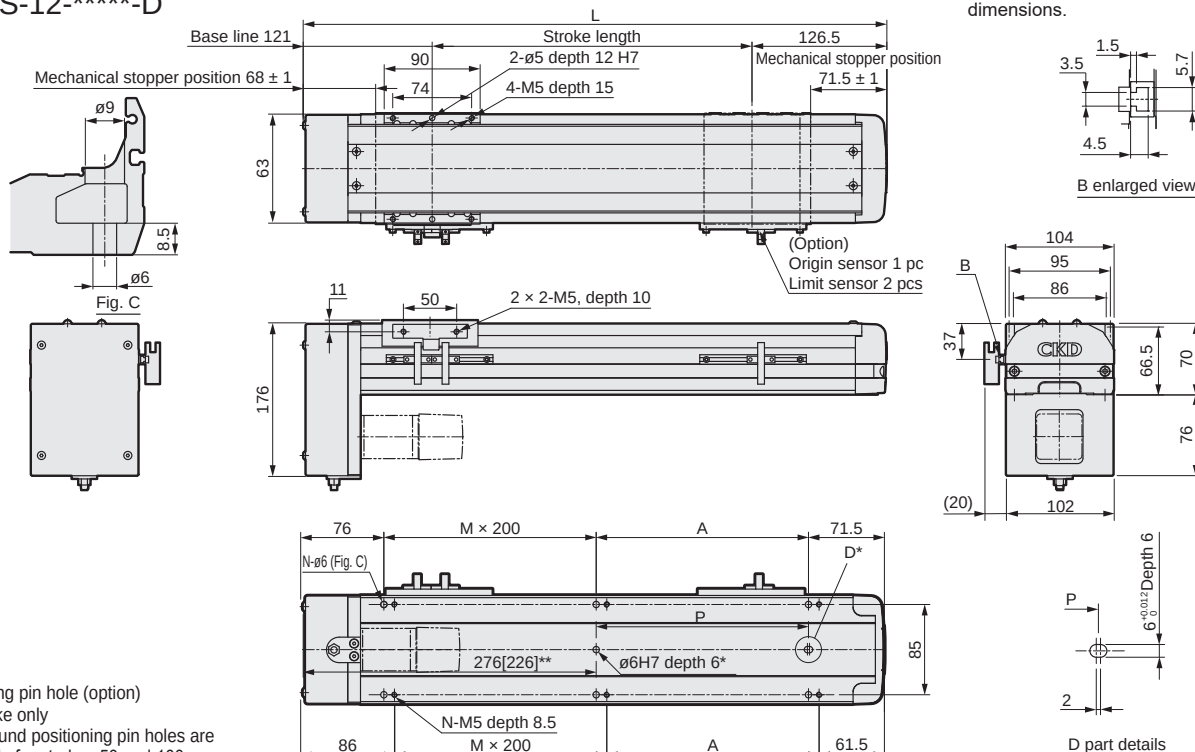
Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

Dimensions Motor bottom mounting

● ETS-12-*****-D

Refer to page 632 for grease nipple dimensions.



*Positioning pin hole (option)

** 50 stroke only

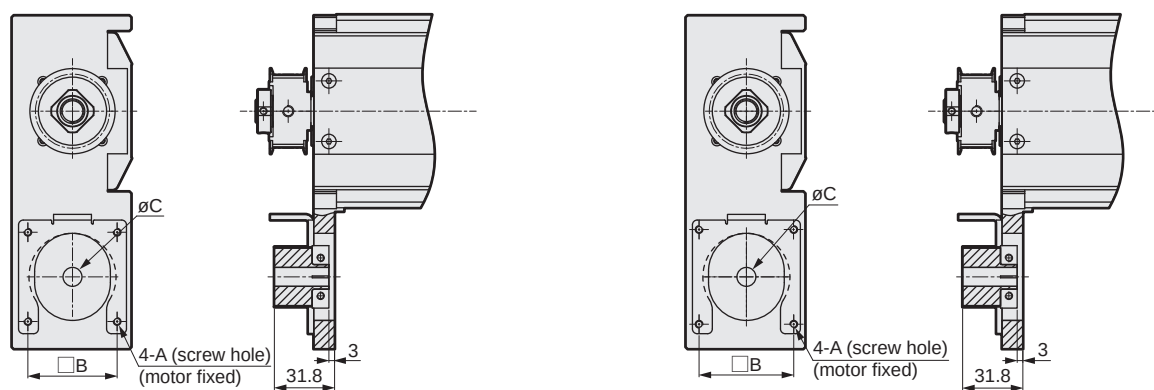
Only round positioning pin holes are available for strokes 50 and 100.

Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	297.5	347.5	397.5	447.5	497.5	547.5	597.5	647.5	697.5	747.5	797.5	847.5	897.5	947.5	997.5	1047.5	1097.5	1147.5	1197.5	1247.5	1297.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	0	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
Weight (kg)	6.4	6.8	7.2	7.6	7.8	8.2	8.8	9.2	9.6	9.9	10.3	10.7	11.1	11.5	11.9	12.3	12.6	13.0	13.4	13.8	14.2

Motor mounting part

● ETS-12 (□ 56)

● ETS-12 (□ 60)



Mounted motor specification		A	B	C	Motor mounting bolt
A	□ 60	M4	50	10	4-M4 × L20
B	□ 56	M4	47.14	6.35	4-M4 × L20
C	□ 56	M4	47.14	8	4-M4 × L20

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	□ 56 □ 60	M4	4
B			M4	4
C			M4	4

[Origin sensor/Limit sensor]

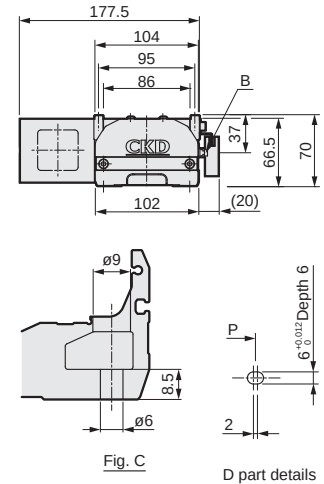
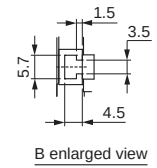
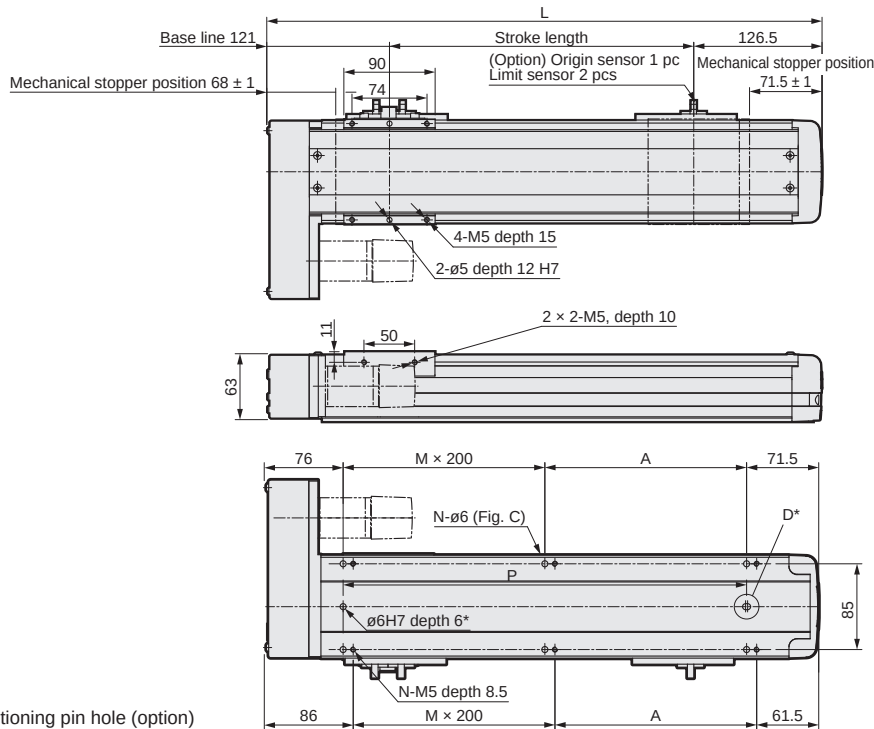
Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

Dimensions Motor left-side mounting

● ETS-12-*****-L

- Refer to page 632 for grease nipple dimensions.

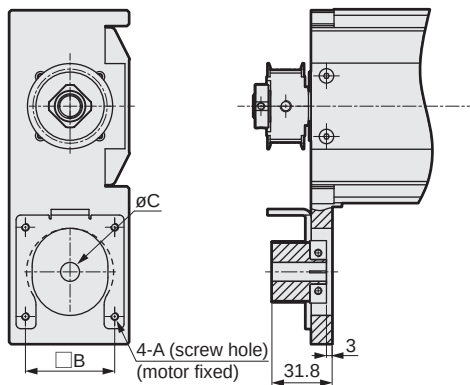


*Positioning pin hole (option)

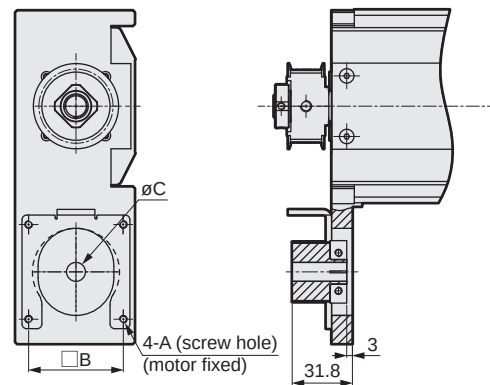
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	297.5	347.5	397.5	447.5	497.5	547.5	597.5	647.5	697.5	747.5	797.5	847.5	897.5	947.5	997.5	1047.5	1097.5	1147.5	1197.5	1247.5	1297.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
P	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
Weight (kg)	6.2	6.6	7.0	7.4	7.8	8.2	8.6	9.0	9.4	9.7	10.1	10.5	10.9	11.3	11.7	12.1	12.4	12.8	13.2	13.6	14.0

Motor mounting part

● ETS-12 (□56)



● ETS-12 (□60)



Mounted motor specification		A	B	C	Motor mounting bolt
A	□60	M4	50	10	4-M4 × L20
B	□56	M4	47.14	6.35	4-M4 × L20
C	□56	M4	47.14	8	4-M4 × L20

List of attachments

[Motor mounting parts]

Mounted motor specification	Timing belt, pulley	Motor size	Motor mounting bolt	
			Size	Quantity
A	Included at shipment	☐ 56 ☐ 60	M4	4
B			M4	4
C			M4	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.