

Discontinued some variations
Sales of ETS-05 to ETS-12 discontinued.

ETS

Stepper motor compatible
electric actuator
Motorless specifications

Slider type (ball screw drive)



CONTENTS

Product introduction	Intro
Series variation	584
● Specifications/How to order/Dimensions	
· ETS-05	588
· ETS-06	594
· ETS-10	600
· ETS-12	606
· ETS-13	612
· ETS-14	618
● Model selection	624
● Technical data	626
⚠ Safety precautions	686
Model Selection Check Sheet	708

Discontinued some variations
Sales of ETS-05 to ETS-12 discontinued.

Series variation											
Type	Model No.	Applicable motor size	Body width (mm)	Screw lead (mm)	Max. load capacity (kg) *2		50	100	150	200	250
					Horizontal *1	Vertical					
Slider		ETS-05	□42	51	2	10	7				
					5	10	3				
					10	5	1.5				
		ETS-06	□42	65	2	30	15				
					5	30	10				
					10	15	5				
		ETS-10	□56 □60	102	5	50	12				
					10	30	8				
					16	22	5				
					20	18	3				
		ETS-12	□56 □60	102	5	50	12				
					10	30	8				
					16	22	5				
					20	18	3				
		ETS-13	□56 □60	135	5	70	17				
					10	47	12				
					16	30	6				
					20	24	4				
		ETS-14	□56 □60	135	5	110	33				
					10	88	22				
					16	48	10				
					20	40	8				

*1: The load capacity when wall mounted is the same as for horizontal installation.

*2: 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 length (mm) and max. speed (mm/s) *3																												Page	EBS	EBR	ETS	ETS MultiAxis	ECS	ETV	ECV	EKS	EBS	EBR	ETS	ECS	Stepper motor compatible		Safe																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500 mm																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

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

The max. speed is restricted by the stroke. Do not move at speeds beyond the limit.

*4: ⌚ shows the positioning time. Maximum stroke when installed horizontally and operated at max. speed and max. acceleration/deceleration.
Note that this is not the value at maximum load capacity.

How to order

How to order

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

A

B

C

D

E

F

G

H

I

J

K

L

M

A Body size	
05	Body width 51 mm
06	Body width 65 mm
10	Body width 102 mm
12	Body width 102 mm
13	Body width 135 mm
14	Body width 135 mm

B Screw lead	
02	2 mm
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
R	Right mounting
D	Bottom mounting
L	Left mounting

E Mounted motor specification	
A	Refer to the list on the page at right
B	
C	

F Motor size	
A	☐ 42
B	☐ 56
C	☐ 60

G Brake	
N	None

H Origin sensor (1 pc) *1	
N	None
A	Inside motor side
B	Inside motor opposite side
C	Outside motor side (Included at shipment)
D	Outside motor opposite side (Included at shipment)

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

J Grease nipple	
N	None (Body mounting direction: Standard)
D	None (Body mounting direction: Bottom side)
R	Right
L	Counterclockwise

K Positioning pin hole	
N	None
P	Yes

L Magnet slider method *2	
	Standard
M	Yes

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

*1: The sensor dog is assembled at shipment regardless of sensor presence.

*2: ETS-05/06 uses the magnet slider method.
Other sizes use the standard.

Example of model No.

ETS-06-05040-EAANCBDP-M-X

A	Body size	: 06 Series
B	Screw lead	: 5 mm
C	Stroke length	: 400 mm
D	Motor mounting direction	: Straight
E	Mounted motor specification	: A (refer to the table on the page at right)
F	Motor size	: ☐ 42
G	Brake	: None
H	Origin sensor	: External motor side
I	Limit sensor	: Outside
J	Grease nipple	: None (Body mounting method: Bottom side)
K	Positioning pin hole	: Yes
L	Magnet slider method	: Yes
M	Metal stopper specifications (ETS-X)	: Yes

*This product is composed of an actuator (and motor mounting parts) only; there is no motor attached.
The user must prepare, mount, and adjust the motor and driver.

Discontinued some variations
Sales of ETS-05 to ETS-12 discontinued.

ETS Series

List of stepper motors recommended for mounting

List of stepper motors recommended for mounting

Code	Manufacturer	Series	□42	□56	□60
A	Oriental Motor Co., Ltd.	AZ	AZM46□0□	-	AZM66□0□ AZM69□0□
		AR	ARM46□0□	-	ARM66□0□ ARM69□0□
B	MinebeaMitsumi Inc.	A17PM/A23KM	A17PM□□□□CSTBCN	A23KM□□□□CSTBCN	-
B	Dyadic Systems Co., Ltd.	RMJ	RMJ0411	-	-
C		RMJ	-	RMJ0611/RMJ1211	-

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

Safety
precautions

Electric actuator Ball screw drive Slider

ETS-13 Series

Straight motor mounting

● Stepper motor size: ☐56, ☐60

Discontinued some variations
Sales of ETS-05 to ETS-12 discontinued.

How to order

ETS	-	13	-	05	005	-	E	A	B	N	N	N	N	N	X
		A		B	C		D	E	F	G	H	I	J	K	L
A Body size		13 Body width 135 mm		C Stroke length		005 50 mm to 105 1050 mm (In 50 mm increments)		E Mounted motor specification		H Origin sensor (1 pc) *1 *2 *3		L Metal stopper specifications (ETS-X)			
B Screw lead		05 5 mm 10 10 mm 16 16 mm 20 20 mm		D Motor mounting direction		E Straight mounting		F Motor size		N None A Inside motor side B Inside motor opposite side C Outside motor side D Outside motor opposite side		K Positioning pin hole		N None P Yes	
								G Brake		N None		I Limit sensor (2 pcs) *1 *2 *3		J Grease nipple *3 *4	
										N None A Inside B Outside		N None (Body mounting direction: Standard) R Right L Counterclockwise			

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.

*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.

Specifications

Applicable motor size *1	☐ 56, ☐ 60 stepper 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	Horizontal kg	70	47	30
*1	Vertical kg	17	12	6
Max. speed mm/s	250	500	800	1000
Rated thrust *1 N	1388	694	433	347
Repeatability mm	±0.01			
Lost motion mm	0.1 or less			
Drive system weight kg	1.0			
Other inertia kg·cm ²	0.074			
Coefficient of friction	0.03			
Mechanical efficiency	0.8			
Ball screw length	Stroke + 200			
Dynamic allowable load N	4822			
Static allowable moment N·m	MP: 175, MY: 174, MR: 153			
Dynamic allowable moment N·m	MP: 45.1, MY: 45.1, MR: 191.7			
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

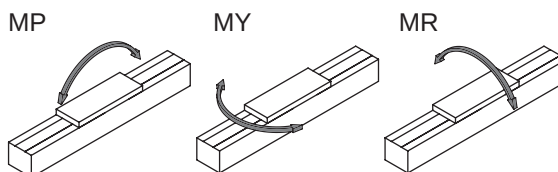
							(mm/s)
Stroke length Screw lead	100 to 750	800	850	900	950	1050	
5	250	225	200	175	150	125	
10	500	450	400	350	300	250	
16	800	720	640	560	480	400	
20	1000	900	800	700	600	500	

*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.

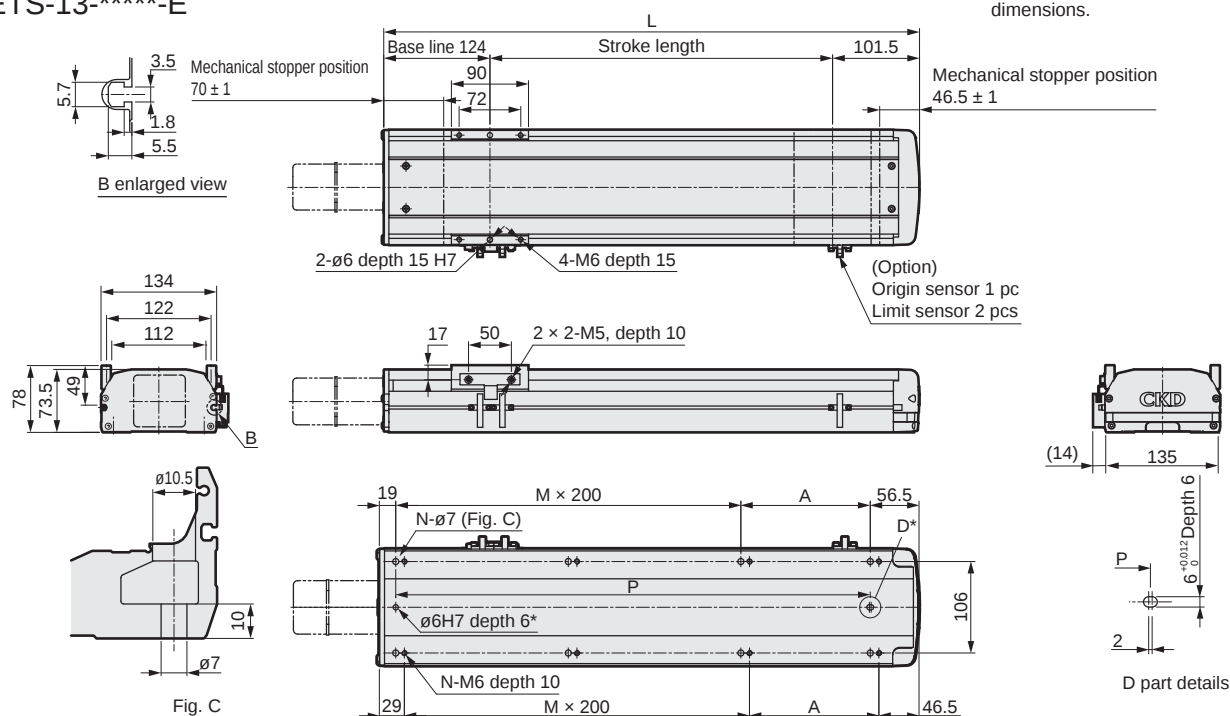
Moment direction



Dimensions Straight motor mounting

● ETS-13-****-E

· Refer to page 632 for grease nipple dimensions.



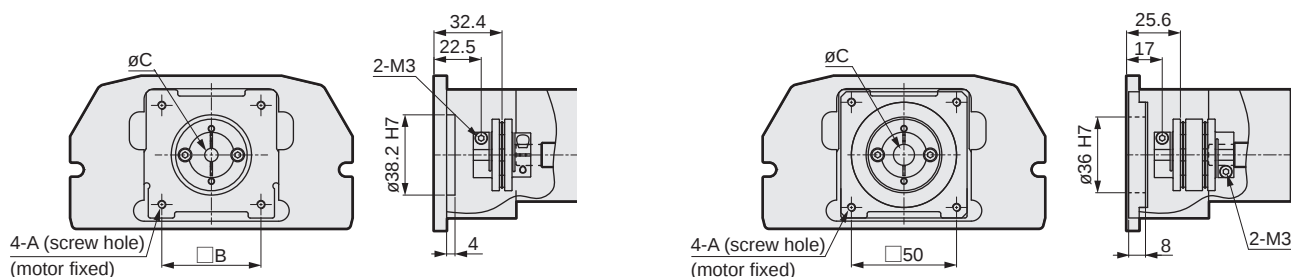
*Positioning pin hole (option)

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	275.5	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5	975.5	1025.5	1075.5	1125.5	1175.5	1225.5	1275.5
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
P	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
Weight (kg)	5.9	6.5	6.9	7.4	7.9	8.4	8.9	9.3	9.9	10.3	10.9	11.3	11.8	12.3	12.8	13.3	13.8	14.3	14.8	15.2	15.8

Motor mounting part

● ETS-13 (□56)

● ETS-13 (□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	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-13 Series

Motor side mounting (left, right, bottom)

● Stepper motor size: ☐56, ☐60

Discontinued some variations
Sales of ETS-05 to ETS-12 discontinued.

How to order

ETS - 13 - 05 005 - R A B N N N N N X

A Body size
13 Body width 135 mm

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

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

D Motor mounting direction *5
R Right mounting
D Bottom mounting
L Left mounting

E Mounted motor specification
A Select the mounted motor specification from the table below.
B ☐56
C ☐60

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 *5
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

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.

*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.

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

When selecting L, grease nipple L cannot be selected.

Specifications

Applicable motor size *1	☐ 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	70	47	30
	Vertical kg	17	12	6
Max. speed mm/s	250	500	800	1000
Rated thrust *1 N	1388	694	433	347
Repeatability mm	± 0.01			
Lost motion mm	0.1 or less			
Drive system weight kg	1.0			
Other inertia kg·cm ²	0.870			
Coefficient of friction	0.05			
Mechanical efficiency	0.8			
Ball screw length	Stroke + 200			
Dynamic allowable load N	4822			
Static allowable moment N·m	MP: 175, MY: 174, MR: 153			
Dynamic allowable moment N·m	MP: 45.1, MY: 45.1, MR: 191.7			
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

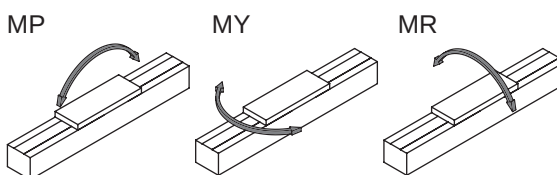
Stroke length	100 to 750	800	850	900	950	1050
Screw lead						
5	250	225	200	175	150	125
10	500	450	400	350	300	250
16	800	720	640	560	480	400
20	1000	900	800	700	600	500

*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.

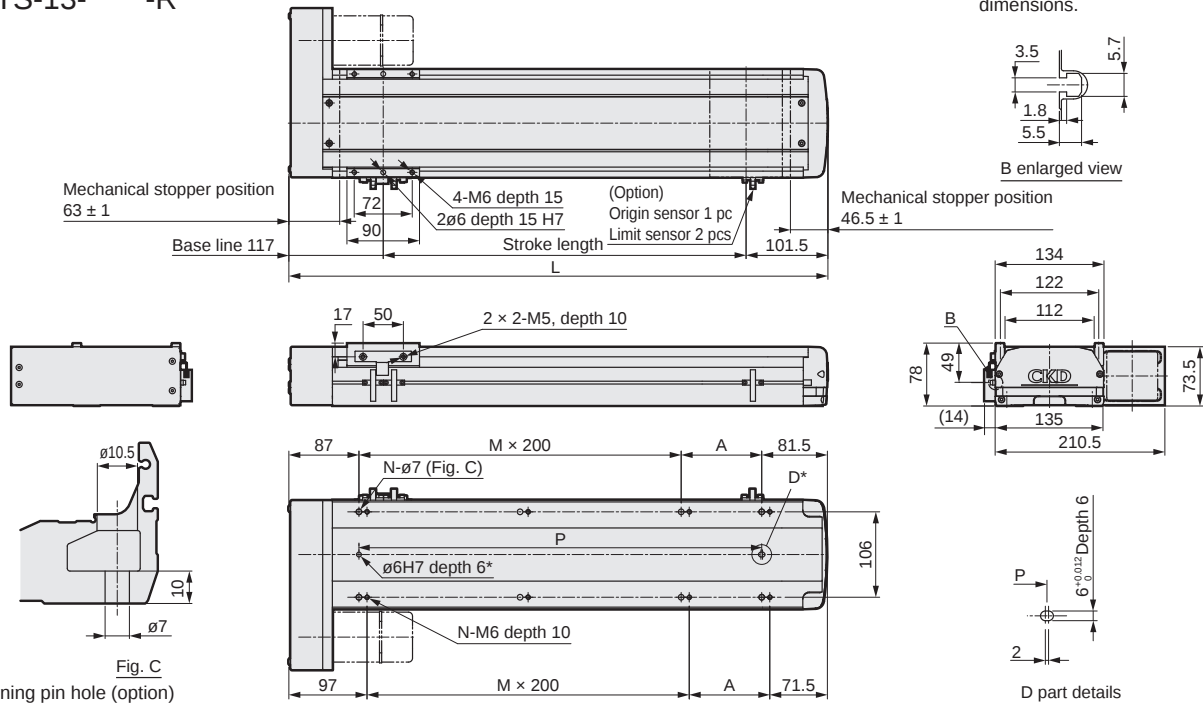
Moment direction



Dimensions Motor right-side mounting

● ETS-13-*****-R

Refer to page 632 for grease nipple dimensions.

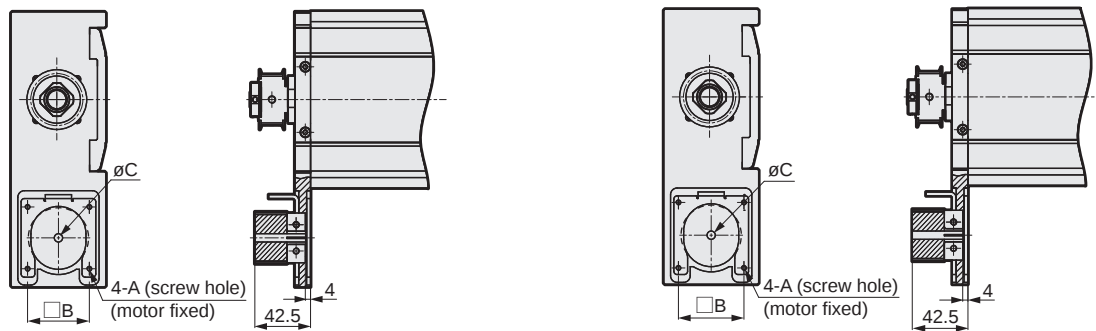


Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	268.5	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	4	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Weight (kg)	6.7	7.3	7.7	8.2	8.7	9.2	9.7	10.1	10.7	11.1	11.7	12.1	12.6	13.1	13.6	14.1	14.6	15.1	15.6	16.0	16.6

Motor mounting part

● ETS-13 (□56)

● ETS-13 (□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

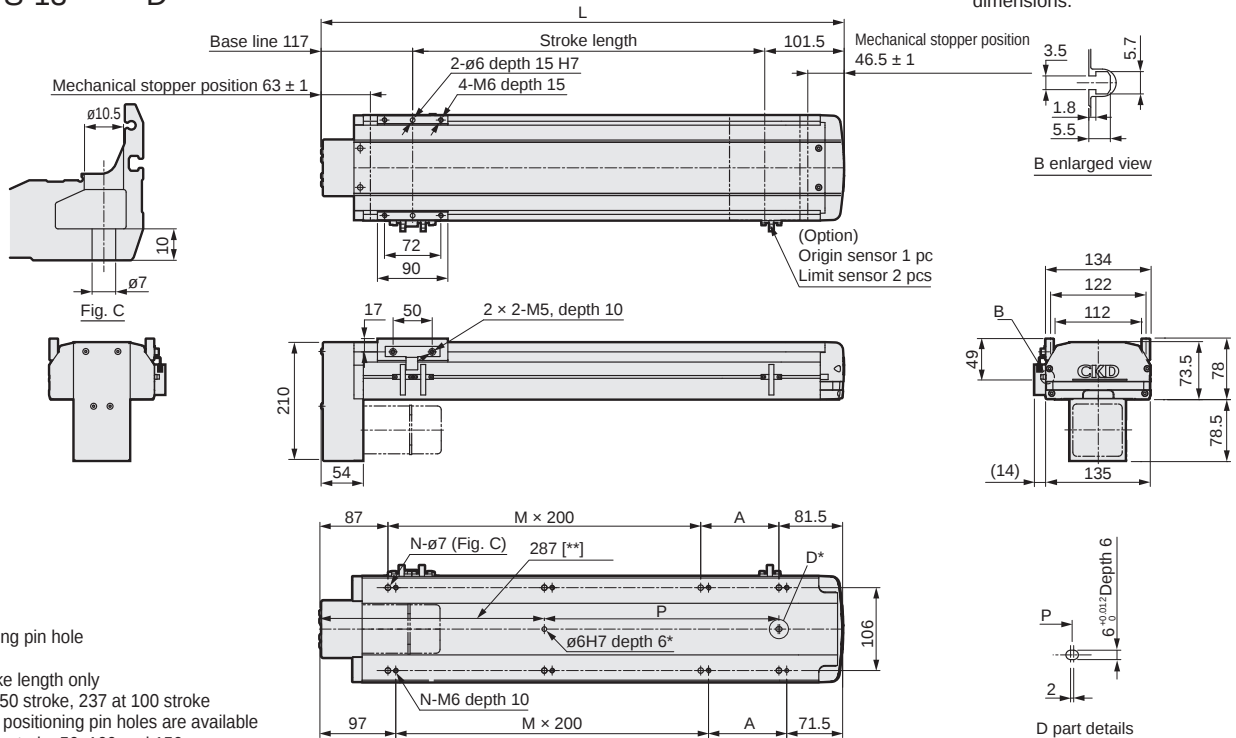
*Refer to page 630 for sensor specifications.

ETS-13 Series

Dimensions Motor bottom mounting

● ETS-13-*****-D

Refer to page 632 for grease nipple dimensions.



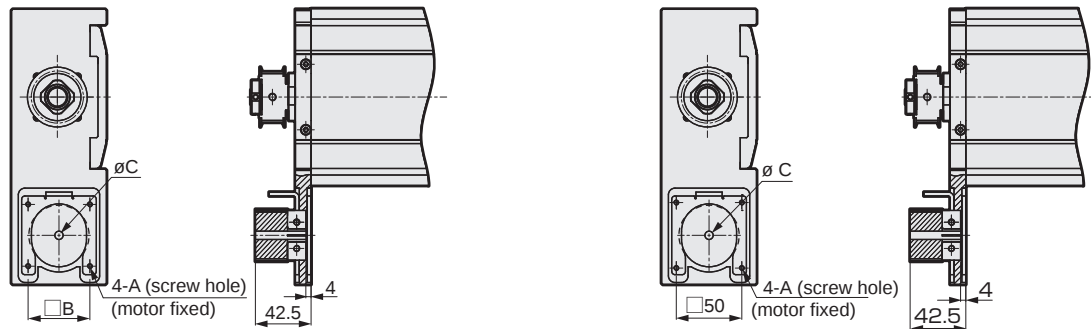
*Positioning pin hole (option)
 **50 stroke length only
 ** 187 at 50 stroke, 237 at 100 stroke
 Round positioning pin holes are available only for stroke 50, 100 and 150.

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	268.5	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5
A	0	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	4	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
P	0	0	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
Weight (kg)	6.7	7.3	7.7	8.2	8.7	9.2	9.7	10.1	10.7	11.1	11.7	12.1	12.6	13.1	13.6	14.1	14.6	15.1	15.6	16.0	16.6

Motor mounting part

● ETS-13 (□ 56)

● ETS-13 (□ 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]

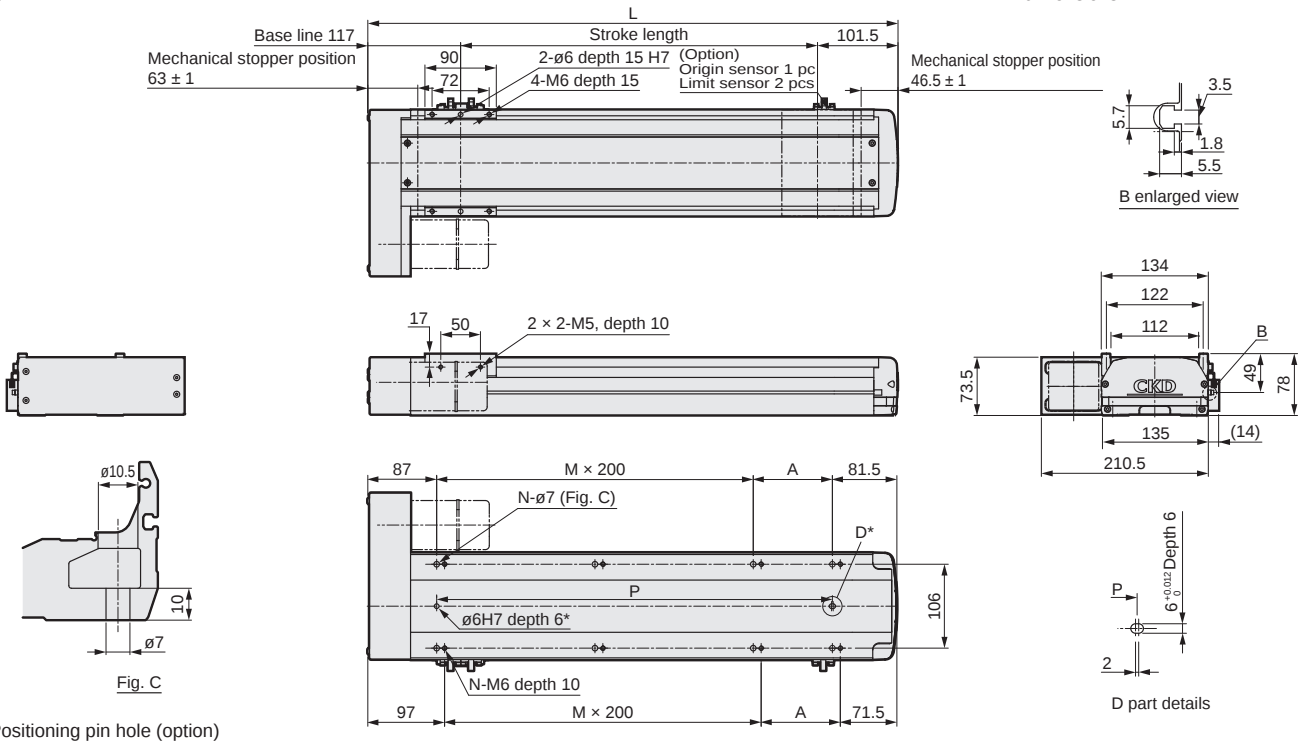
Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

Dimensions Motor left-side mounting

● ETS-13-*****-L

· Refer to page 632 for grease nipple dimensions.



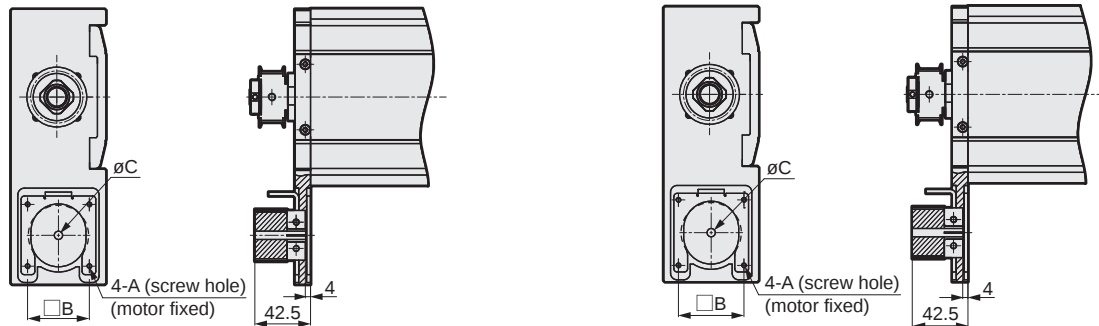
*Positioning pin hole (option)

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	268.5	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5
A	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	4	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
Weight (kg)	6.7	7.3	7.7	8.2	8.7	9.2	9.7	10.1	10.7	11.1	11.7	12.1	12.6	13.1	13.6	14.1	14.6	15.1	15.6	16.0	16.6

Motor mounting part

● ETS-13 (□56)

● ETS-13 (□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.

ETS-14 Series

Straight motor mounting

● Stepper motor size: ☐56, ☐60



How to order

ETS - 14 - 05 005 - E A B N N N N N - X

A Body size
14 Body width 135 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 Positioning pin hole
N None
P Yes

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

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	110	88	48
	Vertical kg	33	22	10
Max. speed mm/s	250	500	800	1000
Rated thrust *1 N	1388	694	433	347
Repeatability mm	± 0.01			
Lost motion mm	0.1 or less			
Drive system weight kg	1.6			
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	6567			
Static allowable moment N·m	MP: 552.0, MY: 551.0, MR: 485.0			
Dynamic allowable moment N·m	MP: 262.7, MY: 262.7, MR: 261.0			
Operating ambient temperature, humidity	0 to 40°C (no freezing) 35 to 80% RH (no condensation)			
Storage ambient temperature, humidity	-10 to 50°C (no freezing) 35 to 80% RH (no condensation)			
Atmosphere	No corrosive gas, explosive gas, or dust			

*1 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

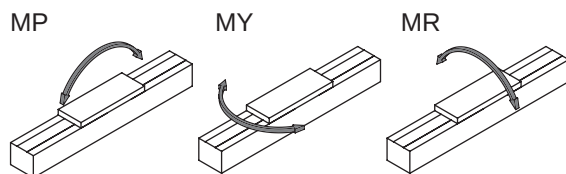
		(mm/s)					
Stroke length	Screw lead	100 to 750	800	850	900	950	1050
5		250	225	200	175	150	125
10		500	450	400	350	300	250
16		800	720	640	560	480	400
20		1000	900	800	700	600	500

*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.

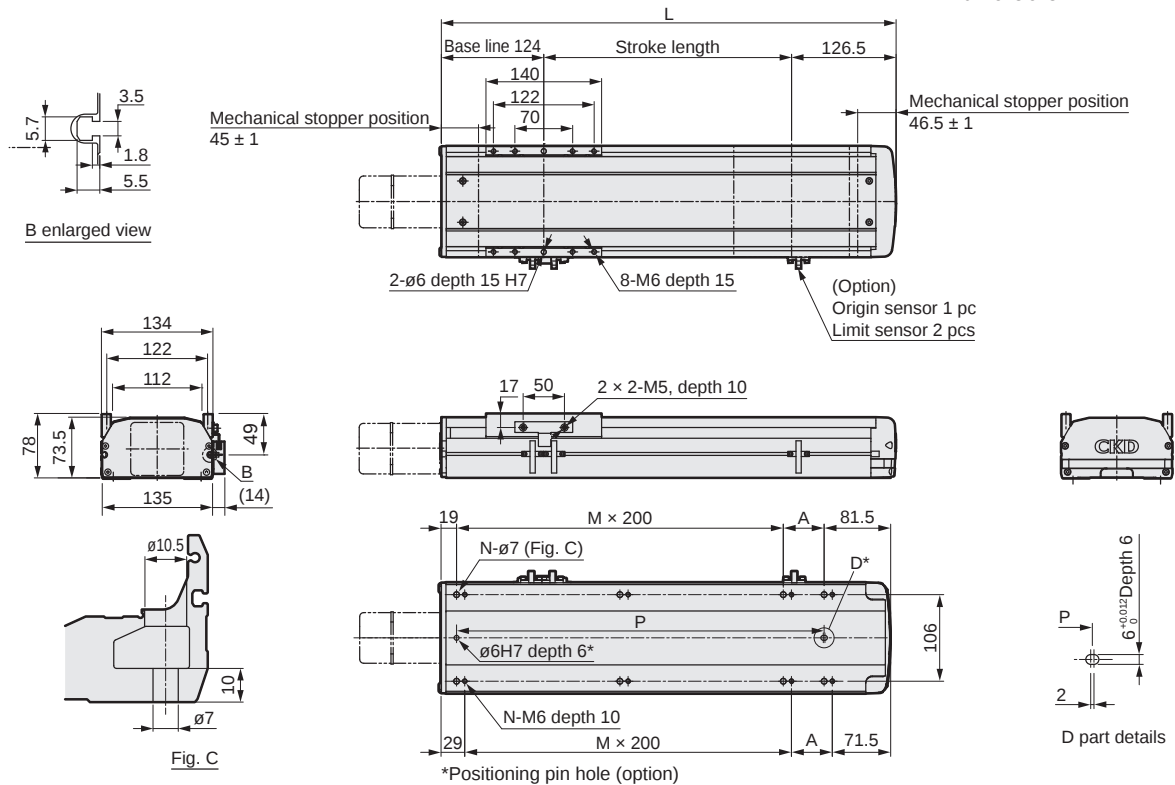
Moment direction



Dimensions Straight motor mounting

● ETS-14-*****-E

· Refer to page 632 for grease nipple dimensions.

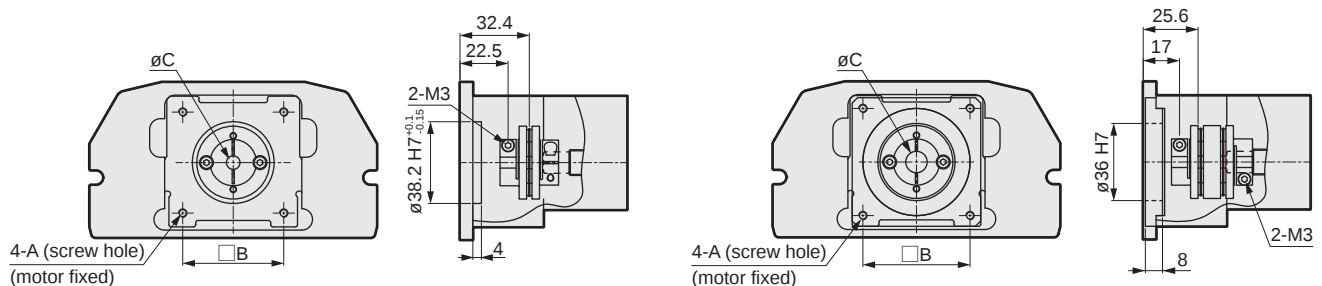


Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	300.5	350.5	400.5	450.5	500.5	550.5	600.5	650.5	700.5	750.5	800.5	850.5	900.5	950.5	1000.5	1050.5	1100.5	1150.5	1200.5	1250.5	1300.5
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
P	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
Weight (kg)	6.1	6.7	7.1	7.6	8.1	8.6	9.1	9.5	10.1	10.5	11.1	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.4	16.0

Motor mounting part

● ETS-14 (□56)

● ET4-14 (□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 × L16
C	□56	M4	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.

is ontin ed some ariations

Electric actuator Ball screw drive Slider

ETS-14 Series

Motor side mounting (left, right, bottom)

● Stepper motor size: ☐56, ☐60



How to order

ETS - 14 - 05 005 - R A B N N N N N - X

A Body size
14 Body width 135 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 *5
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
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 *5
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.

*5: 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 *1	50 to 1050			
Screw lead	mm	5	10	16
Max. load capacity	mm	5	10	16
*1	Horizontal kg	110	88	48
	Vertical kg	33	22	10
Max. speed	mm/s	250	500	800
Rated thrust *1	N	1388	694	433
Repeatability	mm	± 0.01		
Lost motion	mm	0.1 or less		
Drive system weight	kg	1.6		
Other inertia	kg·cm ²	0.870		
Coefficient of friction		0.05		
Mechanical efficiency		0.8		
Ball screw length		Stroke + 200		
Dynamic allowable load	N	6567		
Static allowable moment	N·m	MP: 552.0, MY: 551.0, MR: 485.0		
Dynamic allowable moment	N·m	MP: 262.7, MY: 262.7, MR: 261.0		
Operating ambient temperature, humidity		0 to 40°C (no freezing) 35 to 80% RH (no condensation)		
Storage ambient temperature, humidity		-10 to 50°C (no freezing) 35 to 80% RH (no condensation)		
Atmosphere		No corrosive gas, explosive gas, or dust		

*1 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

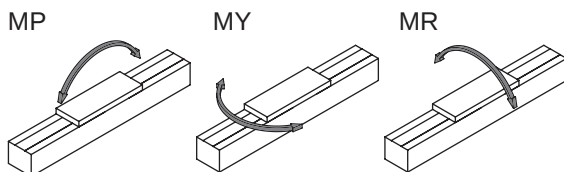
		(mm/s)					
Stroke length	Screw lead	100 to 750	800	850	900	950	1050
5	5	250	225	200	175	150	125
10	10	500	450	400	350	300	250
16	16	800	720	640	560	480	400
20	20	1000	900	800	700	600	500

*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.

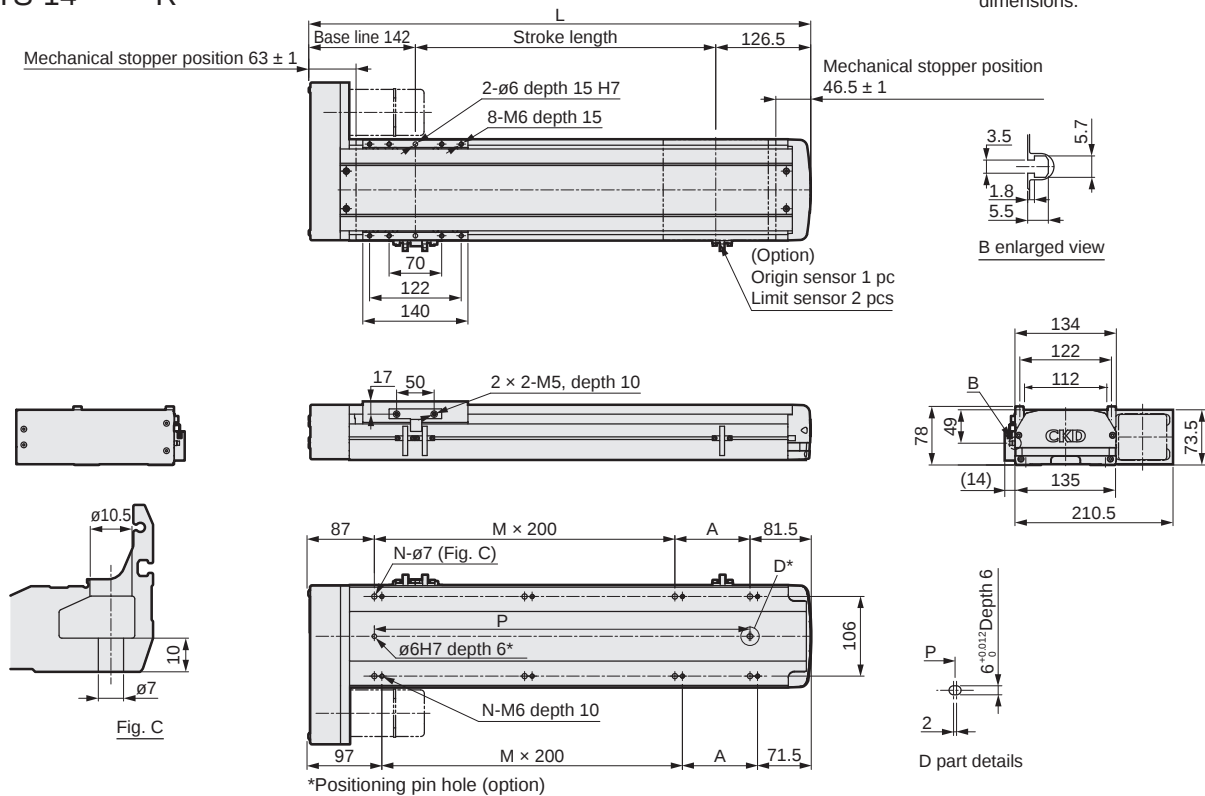
Moment direction



Dimensions Motor right-side mounting

● ETS-14-****-R

· Refer to page 632 for grease nipple dimensions.

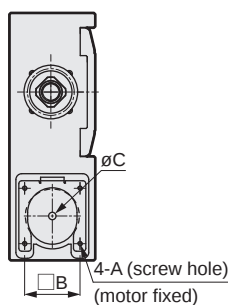


*Positioning pin hole (option)

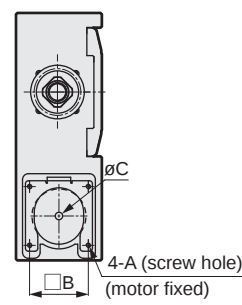
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5	1318.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	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)	6.9	7.5	7.9	8.4	8.9	9.4	9.9	10.3	10.9	11.3	11.9	12.3	12.8	13.3	13.8	14.3	14.8	15.3	15.8	16.2	16.8

Motor mounting part

● ETS-14 (□56)



● ETS-14 (□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

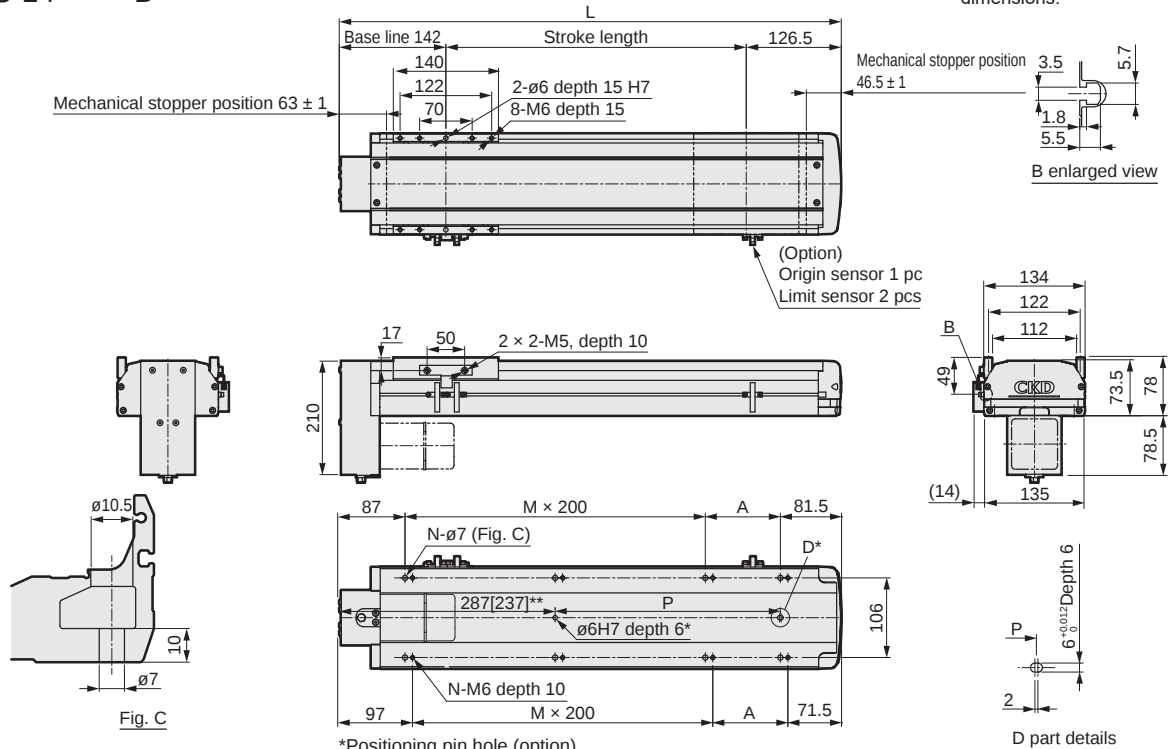
*Refer to page 630 for sensor specifications.

ETS-14 Series

Dimensions Motor bottom mounting

● ETS-14-*****-D

Refer to page 632 for grease nipple dimensions.



*Positioning pin hole (option)

** 50 stroke only

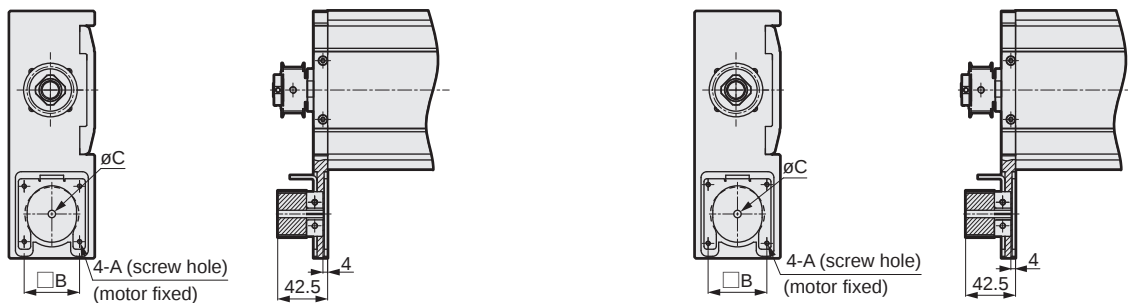
Only round positioning pin holes are available for strokes 50 and 100.

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	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5	1318.5
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	3	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)	6.9	7.5	7.9	8.4	8.9	9.4	9.9	10.3	10.9	11.3	11.9	12.3	12.8	13.3	13.8	14.3	14.8	15.3	15.8	16.2	16.8

Motor mounting part

● ETS-14 (□ 56)

● ETS-14 (□ 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]

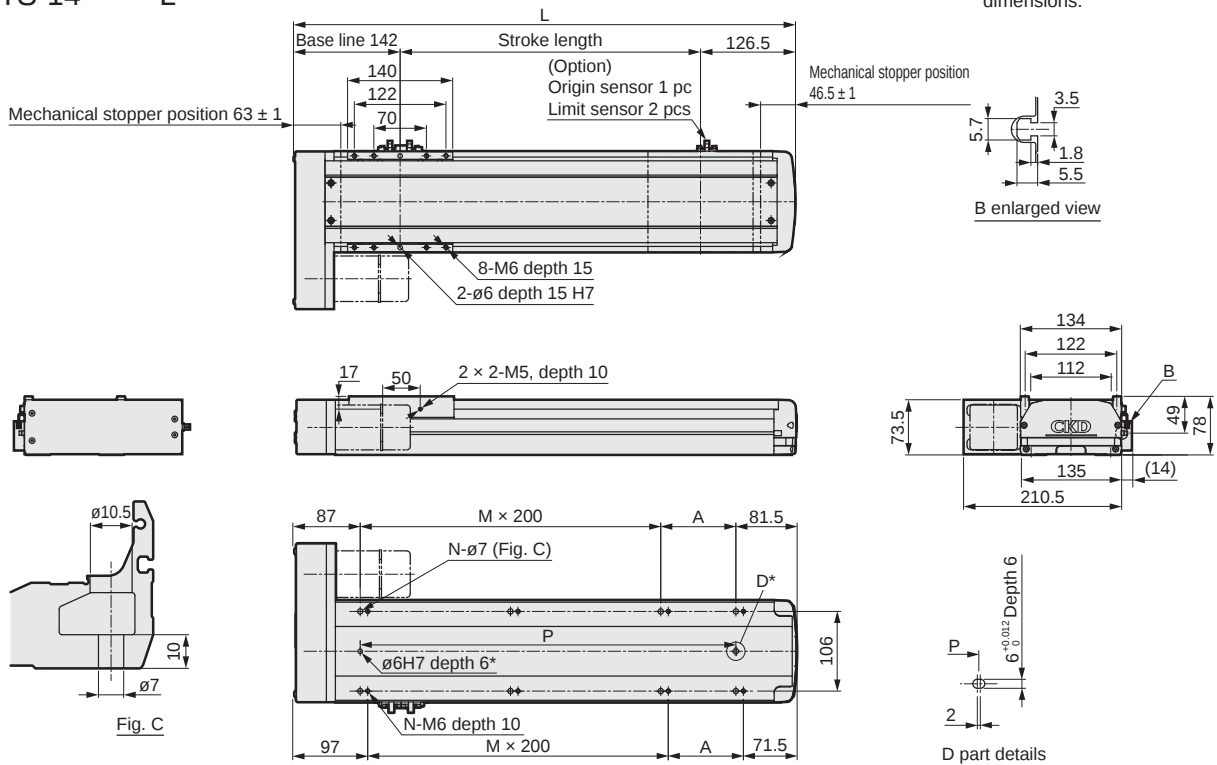
Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

Dimensions Motor left-side mounting

● ETS-14-*****-L

- Refer to page 632 for grease nipple dimensions.

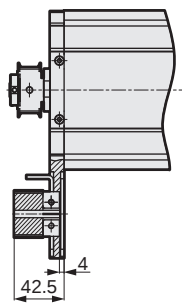
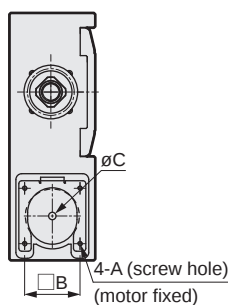


*Positioning pin hole (option)

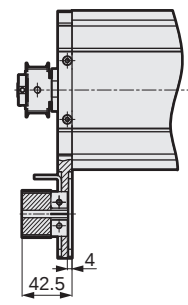
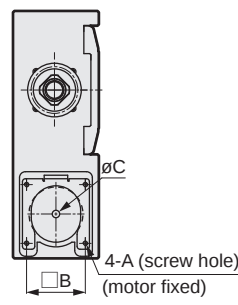
Stroke length (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5	1318.5
A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	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)	6.9	7.5	7.9	8.4	8.9	9.4	9.9	10.3	10.9	11.3	11.9	12.3	12.8	13.3	13.8	14.3	14.8	15.3	15.8	16.2	16.8

Motor mounting part

● ETS-14 (□56)



● ETS-14 (□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	M5	4
B			M5	4
C			M4	4

[Origin sensor/Limit sensor]

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

*Refer to page 630 for sensor specifications.

Model selection

STEP 1 Confirming load capacity

Load capacity varies with mounting orientation, screw lead and motor performance.

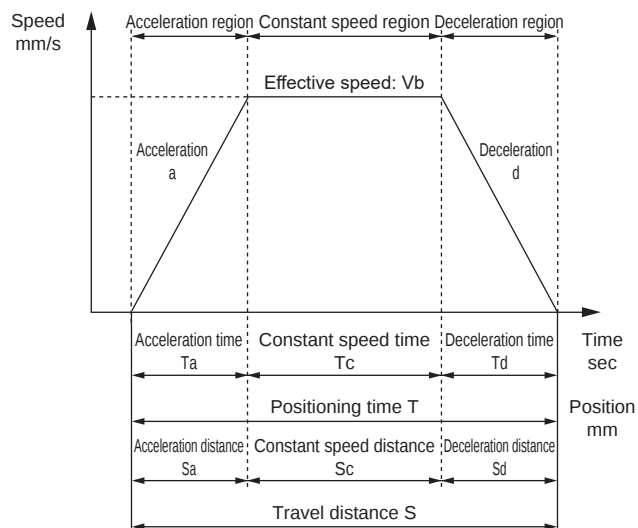
Refer to the selection table (page 584) and the specification table for each model to select the size and screw lead.

For motor performance, contact the motor manufacturer. For motor selection, use the actuator information (mechanical efficiency, etc.) in the specifications.

STEP 2 Confirming positioning time

Calculate the positioning time of the selected product according to the following example and confirm that the required tact is achievable.

Select the speed and acceleration/deceleration from the specification table for each model and the motor selected by the customer.



	Description	Code	Unit	Remarks
Set value	Set speed	V	mm/s	
	Set acceleration	a	mm/s ²	
	Set deceleration	d	mm/s ²	
	Travel distance	S	mm	
Calculated value	Achieved speed	Vmax	mm/s	$= \{2 \times a \times d \times S / (a + d)\}^{1/2}$
	Effective speed	Vb	mm/s	Smaller of V and Vmax
	Acceleration time	Ta	s	$= Vb/a$ [0.2 sec or more]
	Deceleration time	Td	s	$= Vb/d$ [0.2 sec or more]
	Constant speed time	Tc	s	$= Sc/Vb$
	Acceleration distance	Sa	mm	$= (a \times Ta^2)/2$
	Deceleration distance	Sd	mm	$= (d \times Td^2)/2$
	Constant speed distance	Sc	mm	$= S - (Sa + Sd)$
	Positioning time	T	s	$= Ta + Tc + Td$

*Do not use at speeds that exceed the specifications.

*The acceleration and deceleration settings related to the acceleration time and deceleration time change depending on the set speed and stroke.

*Depending on acceleration/deceleration and stroke length, the trapezoid speed waveform may not be formed (the set speed may not be achieved). In this case, select the effective speed (Vb) from the set speed (V) and the achieved speed (Vmax), whichever is smaller.

*Use with acceleration time/deceleration time of 0.2 sec or longer.

*1 G $\approx$ 9.8 m/s².

*Set the speed and acceleration/deceleration by the motor selected by the customer. For motor selection and calculation of speed and acceleration/deceleration, use the actuator information (mechanical efficiency, etc.) in the specifications.

STEP 3 Confirming allowable overhang length

Make sure that the load overhang length during operation is within the allowable range (pages 626 to 628).

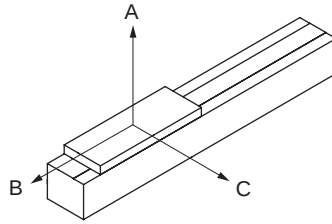
Contact CKD for selection details.

MEMO

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

Allowable overhang length (ETS Series)

[When installed horizontally]



[Allowable overhang length]

● ETS-05

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	2	5	750	45	105
			10	350	20	47
		5	4	480	45	105
			7	300	25	55
		10	3	300	55	110
			5	180	30	65

● ETS-06

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	2	10	400	65	150
			30	150	15	40
		5	10	520	50	110
			30	130	10	25
		10	3	800	145	330
			8	280	50	120
			15	140	23	55

● ETS-10

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	30	560	50	50
			50	310	27	27
		10	15	440	90	90
			25	250	50	50
		30	200	40	40	40
			5	950	270	230
		16	10	480	130	110
			22	200	55	45
		20	5	750	250	200
			10	370	120	95
		15	240	80	60	60
			15	240	80	60

● ETS-12

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	30	900	70	80
			50	420	30	40
		15	900	150	160	160
			25	490	80	85
		30	400	60	70	70
			5	1700	430	450
		16	10	800	200	220
			22	330	80	85
		5	1200	420	400	400
			10	580	200	190
		15	370	120	120	120
			15	370	120	120

● ETS-13

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	40	800	65	230
			55	560	45	160
			70	430	34	120
		10	25	600	100	280
			35	420	70	195
			47	300	50	145
		16	10	900	230	520
			20	440	115	250
			30	280	75	170
		20	5	1200	430	850
			15	400	140	270
			24	250	85	160

● ETS-14

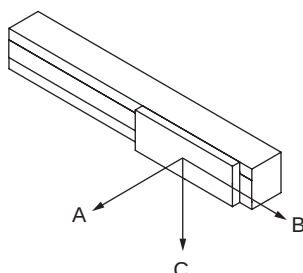
Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	60	2300	250	240
			80	1600	180	170
			110	1150	120	115
		10	30	2000	500	450
			50	1400	280	250
			88	700	140	125
		16	10	2200	1200	1000
			20	1600	600	500
			48	900	260	220
		20	10	2300	1200	1000
			20	1400	600	500
			40	850	280	230

*The above values are the allowable values for the actuator body; the actual load capacity is limited by the motor used.

*When suspending from above, use 1/3 of the dynamic allowable load, dynamic allowable moment, and overhang length. Use overhang length up to the center of gravity of the load within A, B and C directions.

Allowable overhang length (ETS Series)

[When wall-mounted]



[Allowable overhang length]

● ETS-05

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	2	5	105	45	750
			10	47	20	350
		5	4	100	45	450
			7	55	23	240
		10	3	110	55	400
			5	60	30	230

● ETS-06

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	2	15	110	42	400
			30	45	15	180
		5	5	240	95	1150
			10	115	50	540
		10	30	25	10	140
			3	320	150	700
			8	110	50	250
			15	50	25	120

● ETS-10

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	10	160	160	1400
			20	75	75	650
			30	45	45	400
		10	10	130	140	690
			20	60	65	330
			30	40	40	210
		16	5	230	250	750
			10	110	120	370
			22	45	50	160
		20	5	220	250	650
			10	105	120	320
			15	65	75	210

● ETS-12

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	10	330	270	2200
			20	145	120	1000
			30	90	70	600
		10	10	260	240	850
			20	115	110	520
			30	70	60	300
		16	5	450	450	1300
			10	210	210	600
			22	80	80	240
		20	5	410	410	1200
			10	190	195	600
			15	120	120	390

● ETS-13

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	40	240	70	850
			55	170	50	600
			70	125	35	450
		10	25	300	100	620
			35	210	70	420
			47	150	50	300
		16	10	530	230	900
			20	250	110	430
			30	170	70	280
		20	5	900	450	1300
			15	290	150	420
			24	170	90	260

● ETS-14

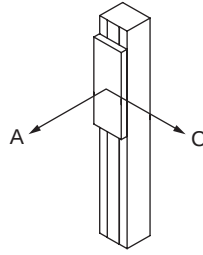
Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	60	240	250	1600
			80	170	180	1200
			110	115	120	1050
		10	30	420	460	1500
			50	240	250	1000
			88	120	130	700
		16	10	1050	1200	2650
			20	500	620	1450
			48	200	230	800
		20	10	1000	1200	1900
			20	500	600	1000
			40	230	290	600

*The above values are the allowable values for the actuator body; the actual load capacity is limited by the motor used.

*When suspending from above, use 1/3 of the dynamic allowable load, dynamic allowable moment, and overhang length. Use overhang length up to the center of gravity of the load within A, B and C directions.

Allowable overhang length (ETS Series)

[When installed vertically]



[Allowable overhang length]

● ETS-05

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	2	3	80	-	80
			7	35	-	35
		5	3	65	-	65
		10	1.5	120	-	120

● ETS-06

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	2	5	160	-	160
			15	53	-	53
		5	2	300	-	300
			4	150	-	150
			10	60	-	60
		10	1	410	-	410
			2	205	-	205
			5	82	-	82

● ETS-10

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	5	310	-	310
			10	155	-	155
			12	130	-	130
		10	4	360	-	360
			6	240	-	240
			8	180	-	180
		16	1	1050	-	1050
			2	525	-	525
			5	210	-	210
		20	1	850	-	850
			2	425	-	425
			3	283	-	283

● ETS-12

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	5	600	-	600
			10	300	-	300
			12	250	-	250
		10	4	650	-	650
			6	430	-	430
			8	320	-	320
		16	1	1050	-	1050
			2	525	-	525
			5	210	-	210
		20	3	650	-	700

● ETS-13

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	5	600	-	600
			10	300	-	300
			12	250	-	250
		10	4	650	-	650
			6	430	-	430
			8	320	-	320
		16	1	1350	-	1350
			2	900	-	900
			6	350	-	350
		20	1	1050	-	1050
			2	900	-	900
			4	550	-	550

● ETS-14

Motor mounted	Acceleration/deceleration time sec	Screw lead	Weight kg	Overhang mm		
				A	B	C
Straight / side/bottom	0.2	5	20	755	-	755
			25	605	-	605
			33	455	-	455
		10	10	1350	-	1350
			15	900	-	900
			22	650	-	650
		16	2	2400	-	2400
			4	1700	-	1700
			10	1000	-	1000
		20	4	1800	-	1800
			6	1200	-	1200
			8	900	-	900

*The above values are the allowable values for the actuator body; the actual load capacity is limited by the motor used.

*When suspending from above, use 1/3 of the dynamic allowable load, dynamic allowable moment, and overhang length. Use overhang length up to the center of gravity of the load within A, B and C directions.

MEMO

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

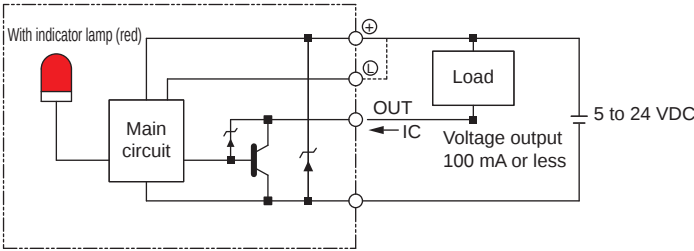
Origin sensor, limit sensor

Manufacturer	Model	Quantity
OMRON Corporation	EE-SX672	3

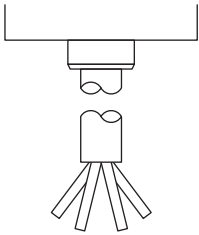
Performance

Item	Specifications
Hysteresis	0.025 mm or less
Light source (peak emission wavelength)	GaAs infrared LED (940 nm)
Indicator lamp	ON when receiving light (red)
Power supply voltage	5 to 24 VDC $\pm$ 10% ripple (P-P) 10% or less
Current consumption	35 mA or less (NPN)
Control output	NPN: NPN open collector output 5 to 24 VDC 100 mA or less OFF state current 0.5 mA or less Residual voltage 0.8 V or less (at load current 100 mA) Residual voltage 0.4 V or less (at load current 40 mA)
Operating ambient illumination	Light-receiving surface luminance Fluorescent light: 1,000 lx or less
Ambient temperature range	When operating: -25 to +55°C When stored: -30 to +80°C (no condensation or freezing)
Ambient humidity range	When operating: 5 to 85% RH When stored: 5 to 95% RH (no condensation or freezing)
Degree of protection	IP50 IEC 60529 Standards
Cord length	2 m (Connector with cord [EE-1006 2M])

Output circuit



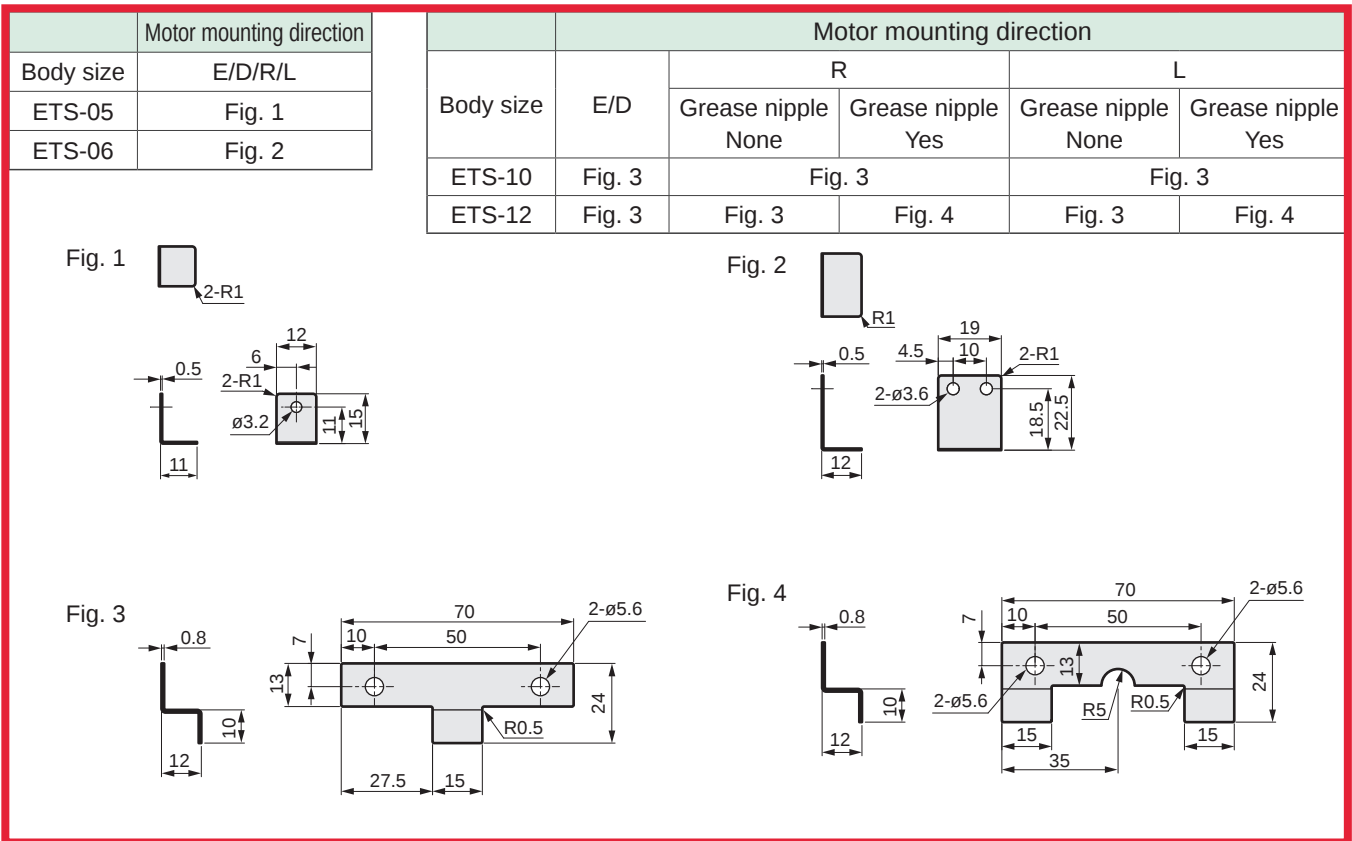
Wiring diagram



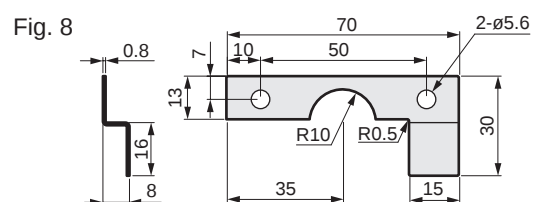
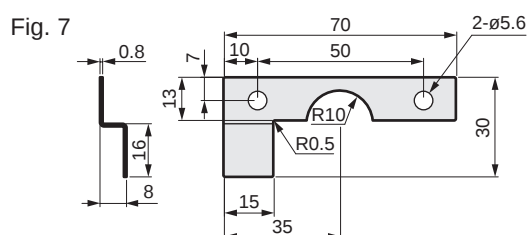
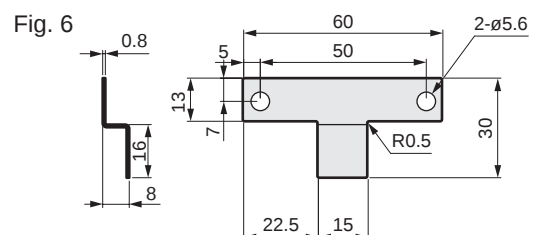
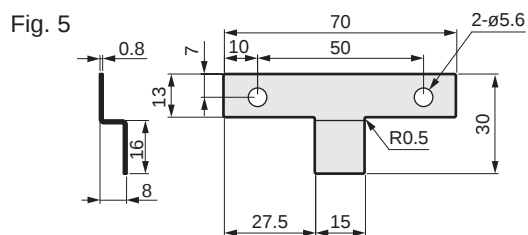
Terminal layout

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

Sensor dog dimensions



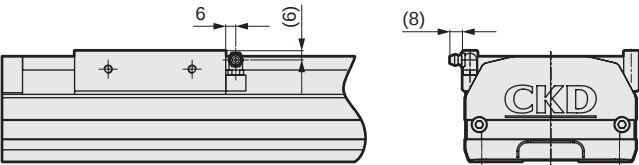
Motor mounting direction					
Body size	E/D	R		L	
		Grease nipple None	Grease nipple Yes	Grease nipple None	Grease nipple Yes
ETS-13	Fig. 5	Fig. 5	Fig. 6	Fig. 5	Fig. 6
ETS-14	Fig. 5	Fig. 5	Fig. 7	Fig. 5	Fig. 8



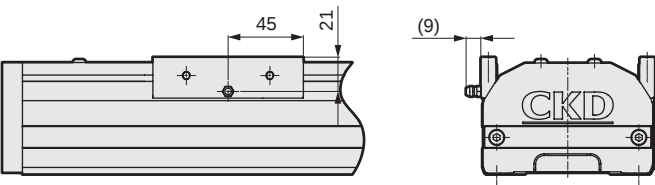
Grease nipple dimensions

*Horizontally symmetrical against the actuator.

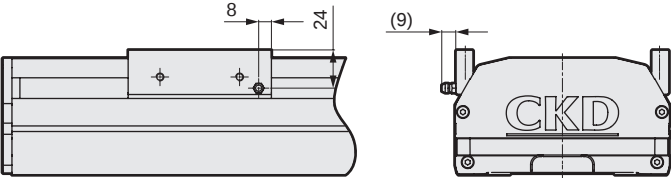
● ETS-10



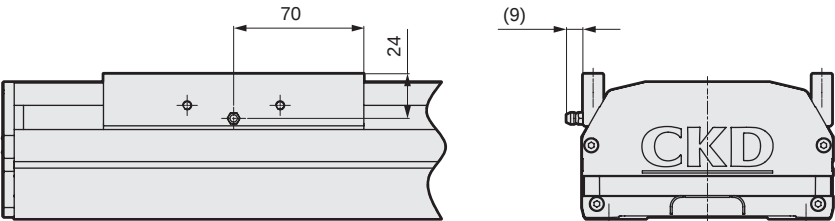
● ETS-12



● ETS-13



● ETS-14



Servo motor compatible

Stepper motor compatible

Safety precautions

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

Safety
precautions

MEMO

List of attachments

Basic

Motor mounting bolt (common motor mounting direction)

Model No.	Mounted motor specification	Motor size	Size	Quantity
ETS-05	A	□42	M3	4
ETS-06	B		M3	4
ETS-10	A	□56 □60	M4	4
ETS-12	B		M4	4
ETS-13				
ETS-14	C		M4	4

By motor mounting direction

Model No.	Attachment name	Quantity
E (external direct mounting)	Coupling (Assembled at shipment)	1
R (right-side mounting)	Timing belt	1
L (left-side mounting)		
D (bottom mounting)	Pulley	1

When origin/limit sensor is selected *1

Sensor mounting direction	Shipping format	Quantity
Inner sensor	Fixed position assembled at shipment	3 *2
Outer sensor	Included at shipment *3	

*1 Shipping format varies according to whether origin sensor and limit sensor are assembled inside or outside.

*2 When "None" is selected for origin sensor or limit sensor, the other sensor is also "None".

*3 Sensor mounting screws are also included.

Servo motor compatible

Stepper motor compatible

Safety
precautions

Maintenance parts

● Maintenance parts (external mounted sensor)

Basic price model No.	Compatibility	Part
		
ETS-22008-000001	All models	Body
ETS-22008-000006		Cable

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