Motorless Type

Electric Actuator Rod Type

LEY Series LEY25, 32, 63

RoHS

How to Order

LEY H 25 ❸ NZ B – 100 ❼ ❽ ❾

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

❶ Accuracy

—	Basic type
H	High-precision type

❷ Size

25
32
63

❸ Motor mounting position

—	Top side parallel
R	Right side parallel
L	Left side parallel
D	In-line

❹ Mounting type

NZ	NU
NY	NT
NX	NM1
NW	NM2
NV	NM3

❺ Lead [mm]

Symbol	LEY25	LEY32	LEY63
A	12	16 (20)	20
B	6	8 (10)	10
C	3	4 (5)	5
L	—	—	2.86∗1

∗1 Only available for top/right/left side parallel motor types (Equivalent leads which include the pulley ratio [4:7])

∗ The values shown in ( ) are the leads for the top/right/left side parallel motor types. Except mounting type NM1 (Equivalent leads which include the pulley ratio [1.25:1])

❻ Stroke [mm]

30	30
to	to
800	800

∗ Refer to the applicable stroke table.

❽ Rod end thread

—	Rod end female thread
M	Rod end male thread (1 rod end nut is included.)

❼ Dust-tight/Water-jet-proof <Only available for LEY63>

Symbol	LEY25/32	LEY63
—	IP4x equivalent	IP5x equivalent (Dust protected)
P	—	IP65 equivalent (Dust-tight/Water-jet-proof)/With vent hole tap

∗ When using the dust-tight/water-jet-proof (IP65 equivalent), correctly mount the fitting and tubing to the vent hole tap, and then place the end of the tubing in an area not exposed to dust or water.

∗ The fitting and tubing should be provided separately by the customer. Select [Applicable tubing O.D.: Ø 4 or more, Connection thread: Rc1/8].

∗ Cannot be used in environments exposed to cutting oil, etc. Take appropriate protective measures.

∗ For details on enclosure, refer to the "Enclosure" on pages 193 and 194.

❾ Mounting∗1

Symbol	Type	Motor mounting position: Parallel	Motor mounting position: In-line
—	Ends tapped/Body bottom tapped∗2	●	●
L	Foot	●	—
F	Rod flange∗2	●∗4	●
G	Head flange∗2	●∗5	—
D	Double clevis∗3	●	—

∗1 The mounting bracket is shipped together with the product but does not come assembled.

∗2 For the horizontal cantilever mounting with the ends tapped, rod flange, or head flange types, use the actuator within the following stroke range.
· LEY25: 200 mm or less, LEY32: 100 mm or less, LEY63: 400 mm or less

∗3 For the mounting with the double clevis type, use the actuator within the following stroke range.
· LEY25: 200 mm or less, LEY32: 200 mm or less

∗4 If the stroke of the LEY25 is 30 mm or less, the rod flange may interfere with the motor.

∗5 The head flange type is not available for the in-line type and the LEY32/63.

Applicable Stroke Table

●: Standard

Model \ Stroke [mm]	30	50	100	150	200	250	300	350	400	450	500	600	700	800	Manufacturable stroke range
LEY25	●	●	●	●	●	●	●	●	●	—	—	—	—	—	15 to 400
LEY32	●	●	●	●	●	●	●	●	●	●	●	—	—	—	20 to 500
LEY63	—	●	●	●	●	●	●	●	●	●	●	●	●	●	50 to 800

∗ Please contact SMC for non-standard strokes as they are produced as special orders.

Compatible Motors and Mounting Types∗4

Applicable motor model: Manufacturer	Applicable motor model: Series	Size/Mounting type: 25 NZ	25 NY	25 NX	25 NM1	25 NM2	25 NM3	32 NZ	32 NY	32 NX	32 NW	32 NV	32 NU	32 NT	32 NM1	32 NM2	63 NZ	63 NY	63 NX	63 NW	63 NV	63 NU	63 NT
Mitsubishi Electric Corporation	MELSERVO JN/J4/J5	●	—	—	—	—	—	●	—	—	—	—	—	—	—	—	●	—	—	—	—	—	—
YASKAWA Electric Corporation	Σ-V/7/X	●∗3	—	—	—	—	—	●	—	—	—	—	—	—	—	—	●	—	—	—	—	—	—
SANYO DENKI CO., LTD.	SANMOTION R	●	—	—	—	—	—	●	—	—	—	—	—	—	—	—	●	—	—	—	—	—	—
OMRON Corporation	OMNUC G5/1S	●	—	—	—	—	—	—	●	—	—	—	—	—	—	—	—	●	—	—	—	—	—
Panasonic Corporation	MINAS A5/A6	● (MHMF only)	●	—	—	—	—	—	●	—	—	—	—	—	—	—	—	●	—	—	—	—	—
FANUC CORPORATION	βis (-B)	●	—	—	—	—	—	● (β1 only)	—	—	●	—	—	—	—	—	● (β1 only)	—	—	●	—	—	—
NIDEC SANKYO CORPORATION	S-FLAG	●	—	—	—	—	—	●	—	—	—	—	—	—	—	—	●	—	—	—	—	—	—
KEYENCE CORPORATION	SV/SV2	●∗3	—	—	—	—	—	●	—	—	—	—	—	—	—	—	●	—	—	—	—	—	—
FUJI ELECTRIC CO., LTD.	ALPHA7	●	—	—	—	—	—	●	—	—	—	—	—	—	—	—	●	—	—	—	—	—	—
MinebeaMitsumi Inc.	Hybrid stepping motors	—	—	—	●∗1	—	●∗2	—	—	—	—	—	—	—	●	—	—	—	—	—	—	—	—
Shinano Kenshi Co., Ltd.	CSB-BZ	—	—	—	●∗1	—	●∗2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ORIENTAL MOTOR Co., Ltd.	α STEP AR/AZ	—	—	—	—	● AR/AZ (46 only)	—	—	—	—	—	—	—	—	—	●	—	—	—	—	—	—	—
FASTECH Co., Ltd.	Ezi-SERVO	—	—	—	●	—	—	—	—	—	—	—	—	—	●	—	—	—	—	—	—	—	—
Rockwell Automation, Inc. (Allen-Bradley)	Kinetix MP/VP/TL	● (TL only)	—	—	—	—	—	—	—	●∗1 (MP/VP only)	—	—	—	● (TL only)	—	—	—	—	●∗1 (MPVP only)	—	—	—	● (TL only)
Beckhoff Automation GmbH	AM 30/31/80/81	●	—	—	—	—	—	—	—	●∗1 (AM80/AM81 only)	—	●∗1 (AM30 only)	● (AM31 only)	—	—	—	—	—	●∗1 (AM80/AM81 only)	—	●∗1 (AM30 only)	●∗1 (AM31 only)	—
Siemens AG	SIMOTICS S-1FK7	—	—	●	—	—	—	—	—	●∗1	—	—	—	—	—	—	—	—	●∗1	—	—	—	—
Delta Electronics, Inc.	ASDA-A2	●	—	—	—	—	—	●	—	—	—	—	—	—	—	—	●	—	—	—	—	—	—
ANCA Motion	AMD2000	●	—	—	—	—	—	●	—	—	—	—	—	—	—	—	●	—	—	—	—	—	—

∗1 Motor mounting position: In-line only ∗2 Motor mounting position: Parallel only

∗3 For some motors, the connector may protrude from the motor body. Be sure to check for interference with the mounting surface before selecting a motor.

∗4 The compatible motors and mounting types are typical examples. Select the mounting type after referring to the "Motor Mounting, Applicable Motor Dimensions" tables on the following "Dimensions" pages.

For auto switches, refer to pages 189 to 192.

Specifications

- Values in this specifications table are the allowable values of the actuator body with the standard motor mounted.
- Do not use the actuator so that it exceeds these values.

Model				LEY25 (Parallel) LEY25D (In-line)			LEY32 (Parallel)			LEY32D (In-line)		
Actuator specifications	Work load [kg]		Horizontal∗1	18	50	50	30	60	60	30	60	60
			Vertical	8	16	30	9	19	37	12	24	46
	Force [N]∗2 (Set value: Rated torque 45 to 90 %)			65 to 131	127 to 255	242 to 485	79 to 157	154 to 308	294 to 588	98 to 197	192 to 385	368 to 736
	Max.∗3 speed [mm/s]	Stroke range	Up to 300	900	450	225	1200	600	300	1000	500	250
			305 to 400	600	300	150						
			405 to 500	—	—	—	800	400	200	640	320	160
	Pushing speed [mm/s]∗4			35 or less			30 or less					
	Max. acceleration/deceleration [mm/s²]			5000								
	Positioning repeatability [mm]		Basic type	±0.02								
			High-precision type	±0.01								
	Lost motion∗5 [mm]		Basic type	0.1 or less								
			High-precision type	0.05 or less								
	Ball screw specifications		Thread size [mm]	Ø 10			Ø 12					
			Lead [mm] ∗9 (including pulley ratio 1.25:1)	12	6	3	16 (20)∗9	8 (10)∗9	4 (5)∗9	16	8	4
			Shaft length [mm]	Stroke + 93.5			Stroke + 104.5					
	Impact/Vibration resistance [m/s²]∗6			50/20								
	Actuation type			Ball screw + Belt (Parallel) Ball screw (In-line)			Ball screw + Belt [Pulley ratio 1.25:1]			Ball screw		
	Guide type			Sliding bushing (Piston rod)								
	Operating temperature range [°C]			5 to 40								
	Operating humidity range [%RH]			90 or less (No condensation)								
Other specifications ∗7	Actuation unit weight [kg] (∗ [ST]: Stroke)			0.15 + (0.69 x 10^{-3}) x [ST]: 100 st or less 0.16 + (0.69 x 10^{-3}) x [ST]: Over 100 st			0.24 + (1.40 x 10^{-3}) x [ST]: 100 st or less 0.28 + (1.40 x 10^{-3}) x [ST]: Over 100 st					
	Other inertia [kg·cm²]			0.012 (LEY25), 0.015 (LEY25D)			0.035 (LEY32), 0.061 (LEY32D)					
	Friction coefficient			0.05								
	Mechanical efficiency			0.8								
Reference motor spec. ∗8	Motor type			AC servo motor								
	Rated output capacity [W]			100			200					
	Rated torque [N·m]			0.32			0.64					

∗1 This is the maximum value of the horizontal work load. An external guide is necessary to support the load (Friction coefficient of guide: 0.1 or less). The actual work load changes according to the condition of the external guide. Confirm the load using the actual device.

∗2 The force setting range for the force control (Speed control mode, Torque control mode)
The force changes according to the set value. Set it with reference to the "Force Conversion Graph (Guide)" on page 151.

∗3 The allowable speed changes according to the stroke.

∗4 The allowable collision speed for collision with the workpiece

∗5 A reference value for correcting errors in reciprocal operation

∗6 Impact resistance: No malfunction occurred when the actuator was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)
Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. The test was performed in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

∗7 Each value is only to be used as a guide to select a motor of the appropriate capacity.

∗8 For other specifications, refer to the specifications of the motor that is to be installed.

Weight

Product Weight

Series	LEY25 (Motor mounting position: Parallel)									LEY32 (Motor mounting position: Parallel)										
Stroke [mm]	30	50	100	150	200	250	300	350	400	30	50	100	150	200	250	300	350	400	450	500
Product weight [kg]	0.8	0.9	1.1	1.3	1.5	1.7	1.8	2.0	2.2	1.4	1.5	1.8	2.3	2.6	2.9	3.1	3.4	3.7	4.0	4.3

Series	LEY25D (Motor mounting position: In-line)									LEY32D (Motor mounting position: In-line)										
Stroke [mm]	30	50	100	150	200	250	300	350	400	30	50	100	150	200	250	300	350	400	450	500
Product weight [kg]	0.8	0.9	1.1	1.3	1.5	1.7	1.9	2.0	2.2	1.4	1.6	1.8	2.3	2.6	2.9	3.2	3.4	3.7	4.0	4.3

Additional Weight

[kg]

Size		25	32
Rod end male thread	Male thread	0.03	0.03
	Nut	0.02	0.02
Foot bracket (2 sets including mounting bolt)		0.08	0.14
Rod flange (including mounting bolt)		0.17	0.20
Head flange (including mounting bolt)			
Double clevis (including pin, retaining ring, and mounting bolt)		0.16	0.22

Specifications

- Values in this specifications table are the allowable values of the actuator body with the standard motor mounted.
- Do not use the actuator so that it exceeds these values.

Model				LEY63D (In-line)			LEY63 (Parallel)			
Actuator specifications	Work load [kg]		Horizontal∗1	40	70	80	40	70	80	200
			Vertical	19	38	72	19	38	72	115
	Force [N]∗2 (Set value: Rated torque 45 to 150 %)			156 to 521	304 to 1012	573 to 1910	156 to 521	304 to 1012	573 to 1910	1003 to 3343
	Max.∗3 speed [mm/s]	Stroke range	Up to 500	1000	500	250	1000	500	250	70
			505 to 600	800	400	200	800	400	200	
			605 to 700	600	300	150	600	300	150	
			705 to 800	500	250	125	500	250	125	
	Pushing speed [mm/s]∗4			30 or less						
	Max. acceleration/deceleration [mm/s²]			5000						3000
	Positioning repeatability [mm]		Basic type	±0.02						
			High-precision type	±0.01						
	Lost motion∗5 [mm]		Basic type	0.1 or less						
			High-precision type	0.05 or less						
	Ball screw specifications		Thread size [mm]	Ø 20						
			Lead [mm]	20	10	5	20	10	5	5 (2.86)
			Shaft length [mm]	Stroke + 147						
	Impact/Vibration resistance [m/s²]∗6			50/20						
	Actuation type			Ball screw			Ball screw + Belt [Pulley ratio 1:1]			Ball screw + Belt [Pulley ratio 4:7]
	Guide type			Sliding bushing (Piston rod)						
	Operating temperature range [°C]			5 to 40						
	Operating humidity range [%RH]			90 or less (No condensation)						
Other specifications ∗7	Actuation unit weight [kg] (∗ [ST]: Stroke)			0.84 + (2.77 x 10⁻³) x [ST]: 200 st or less 0.94 + (2.77 x 10⁻³) x [ST]: Over 200 st, 500 st or less 1.03 + (2.77 x 10⁻³) x [ST]: Over 500 st						
	Other inertia [kg·cm²]			0.056 (LEY63D)			0.110			0.053
	Friction coefficient			0.05						
	Mechanical efficiency			0.8						
Reference motor spec. ∗8	Motor type			AC servo motor						
	Rated output capacity [W]			400						
	Rated torque [N·m]			1.27						

∗1 This is the maximum value of the horizontal work load. An external guide is necessary to support the load (Friction coefficient of guide: 0.1 or less). The actual work load changes according to the condition of the external guide. Confirm the load using the actual device.

∗2 The force setting range for the force control (Speed control mode, Torque control mode)
The force changes according to the set value. Set it with reference to the "Force Conversion Graph (Guide)" on page 151.

∗3 The allowable speed changes according to the stroke.

∗4 The allowable collision speed for collision with the workpiece

∗5 A reference value for correcting errors in reciprocal operation

∗6 Impact resistance: No malfunction occurred when the actuator was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)
Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. The test was performed in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

∗7 Each value is only to be used as a guide to select a motor of the appropriate capacity.

∗8 For other specifications, refer to the specifications of the motor that is to be installed.

Weight

Product Weight

Model	LEY63D (Motor mounting position: In-line)												
Stroke [mm]	50	100	150	200	250	300	350	400	450	500	600	700	800
Product weight [kg]	3.7	4.2	4.8	5.3	6.5	7.0	7.6	8.2	8.8	9.3	11.0	12.1	13.3

Model	LEY63 (Motor mounting position: Parallel)												
Stroke [mm]	50	100	150	200	250	300	350	400	450	500	600	700	800
Product weight [kg]	3.5	4.0	4.7	5.2	6.4	6.9	7.5	8.0	8.6	9.1	10.8	12.0	13.1

Additional Weight

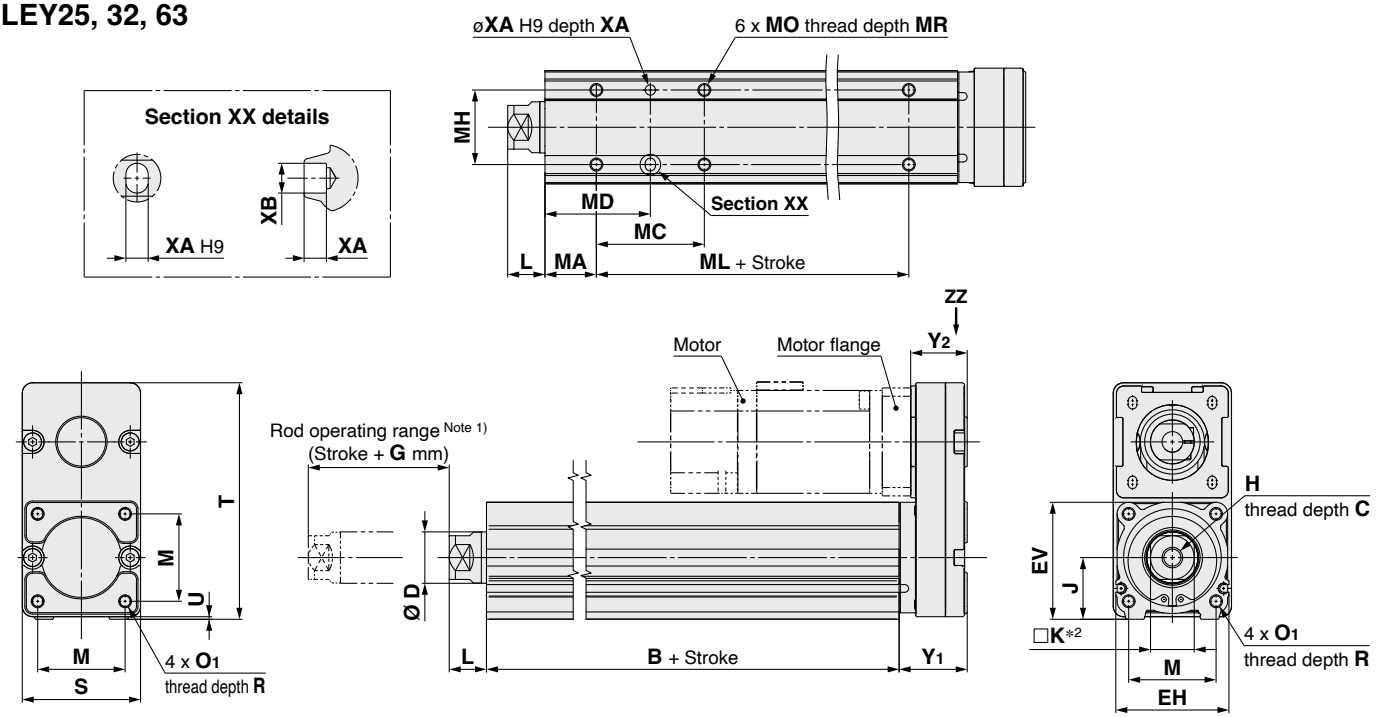
[kg]

Size		63
Rod end male thread	Male thread	0.12
	Nut	0.04
Rod flange (including mounting bolt)		0.51
Foot bracket (2 sets including mounting bolt)		0.26
Double clevis (including pin, retaining ring, and mounting bolt)		0.58

Refer to the "Motor Mounting" on pages 177 and 178 for details about motor mounting and included parts.

Dimensions: Top/Right/Left Side Parallel Motor

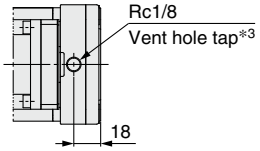
LEY25, 32, 63



*1 Do not allow collisions at either end of the rod operating range at a speed exceeding "pushing speed." Additionally, when running the positioning operation, do not set within 2 mm of both ends for size 25, 32, and do not set within 4 mm of both ends for size 63.

*2 The direction of rod end width across flats (□K) differs depending on the products.

IP65 equivalent (Dust-tight/Water-jet-proof): LEY63□□□-□P (View ZZ)



*3 When using the dust-tight/water-jet-proof (IP65 equivalent), correctly mount the fitting and tubing to the vent hole tap, and then place the end of the tubing in an area not exposed to dust or water. The fitting and tubing should be provided separately by the customer.
Select [Applicable tubing O.D.: Ø 4 or more, Connection thread: Rc1/8].

Dimensions

[mm]

Size	Stroke range [mm]	B	C	D	EH	EV	H	J	K	L	M	O1	R	S	T	U	Y1	Y2	G
25	30 to 100	89.5	13	20	44	45.5	M8 x 1.25	24	17	12.5	34	M5 x 0.8	8	46	92	1	26.5	22	4
	105 to 400	114.5																	
32	20 to 100	96	13	25	51	56.5	M8 x 1.25	31	22	16.5	40	M6 x 1.0	10	60	118	1	34	27	4
	105 to 500	126																	
63	50 to 200	123	21	40	76	82	M16 x 2	44	36	33.4	60	M8 x 1.25	16	80	146	4	32.2	29	8
	205 to 500	158																	
	505 to 800	193																	

* The L measurement is when the unit is at the retracted stroke end position.

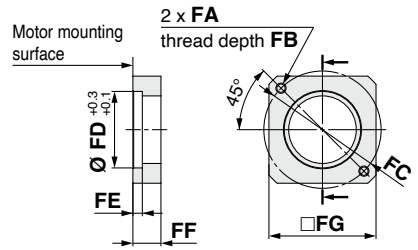
[mm]

Size	Stroke range [mm]	MA	MC	MD	MH	ML	MO	MR	XA	XB
25	30 to 35	20	24	32	29	50	M5 x 0.8	6.5	4	5
	40 to 100		42	41						
	105 to 120					75				
	125 to 200		59	49.5						
	205 to 400		76	58						
32	30 to 35	25	22	36	30	50	M6 x 1	8.5	5	6
	40 to 100		36	43						
	105 to 120					80				
	125 to 200		53	51.5						
	205 to 500		70	60						
63	50 to 70	38	24	50	44	65	M8 x 1.25	10	6	7
	75 to 120		45	60.5						
	125 to 200		58	67						
	205 to 500		86	81		100				
	505 to 800					135				

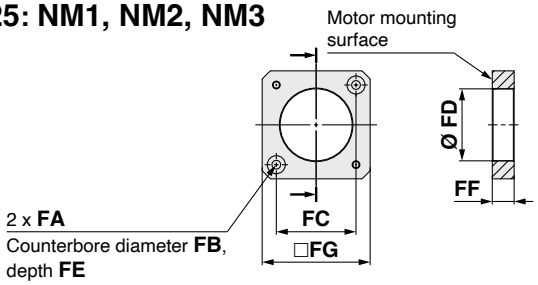
Dimensions: Top/Right/Left Side Parallel Motor

Refer to the "Motor Mounting" on pages 177 and 178 for details about motor mounting and included parts.

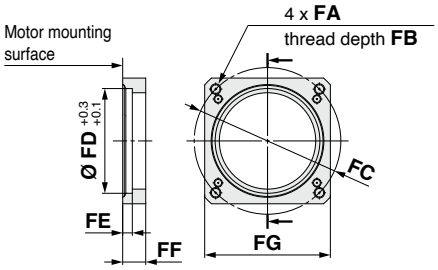
Motor flange dimensions
LEY25: NZ, NY, NX
LEY32: NZ, NY, NW, NU, NT



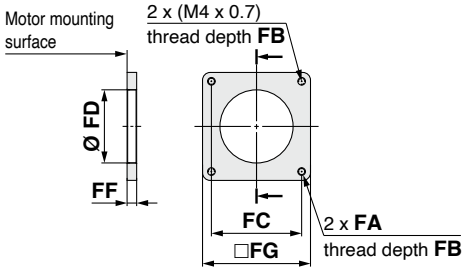
LEY25: NM1, NM2, NM3



LEY63: NZ, NY, NW, NT



LEY32: NM1, NM2



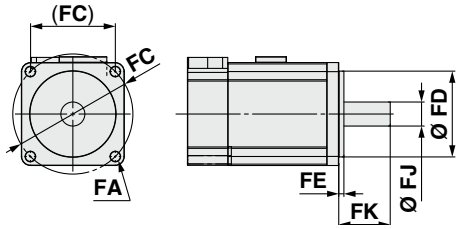
Motor Mounting, Applicable Motor Dimensions

[mm]

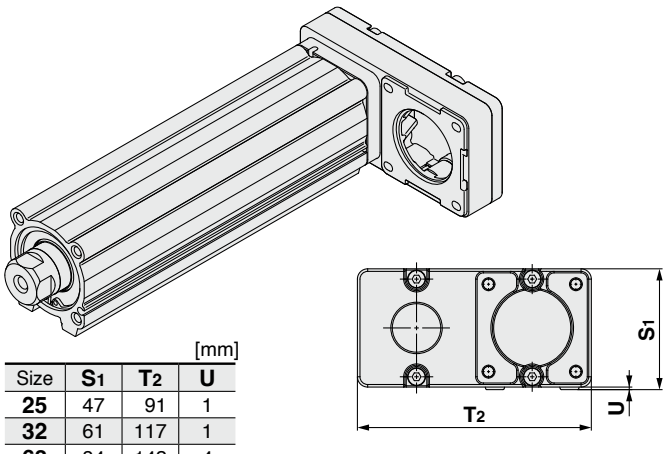
Size	Mounting type	FA		FB	FC	FD	FE (Max.)	FF	FG	FJ	FK
		Mounting type	Applicable motor								
25	NZ	M4 x 0.7	Ø 4.5	7.5	Ø 46	30	3.7	11	42	8	25 ±1
	NY	M3 x 0.5	Ø 3.4	5.5	Ø 45	30	5	11	38	8	25 ±1
	NX	M4 x 0.7	Ø 4.5	7	Ø 46	30	3.7	8	42	8	18 ±1
	NM1	Ø 3.4	M3	7	□31	28	3.5	8.5	42	5*1	24 ±1
	NM2	Ø 3.4	M3	7	□31	28	3.5	8.5	42	6	20 ±1
	NM3	Ø 3.4	M3	7	□31	28	3.5	5.5	42	5*1	20 ±1
32	NZ	M5 x 0.8	Ø 5.5	8.5	Ø 70	50	4.6	13	60	14	30 ±1
	NY	M4 x 0.7	Ø 4.5	7	Ø 70	50	4.6	13	60	11	30 ±1
	NW	M5 x 0.8	Ø 5.5	8.5	Ø 70	50	4.6	13	60	9	25 ±1
	NU	M5 x 0.8	Ø 5.5	8.5	Ø 70	50	4.6	13	60	11	23 ±1
	NT	M5 x 0.8	Ø 5.5	8.5	Ø 70	50	4.6	17	60	12	30 ±1
	NM1	M4 x 0.7	Ø 4.5	(5)	□47.1	38.1	—	5	56.4	6.35*1	20 ±1
	NM2	M4 x 0.7	Ø 4.5	8	□50	38.1	—	11.5	60	10	24 ±1
63	NZ	M5 x 0.8	Ø 5.5	8.5	Ø 70	50	4.6	11	60	14	30 ±1
	NW	M5 x 0.8	Ø 5.5	8.5	Ø 70	50	4.6	11	60	9	25 ±1
	NY	M4 x 0.7	Ø 4.5	8	Ø 70	50	4.6	11	60	14	30 ±1
	NT	M5 x 0.8	Ø 5.5	8.5	Ø 70	50	4.6	14.5	60	12	30 ±1

*1 Shaft type: D-cut shaft

Applicable motor dimensions



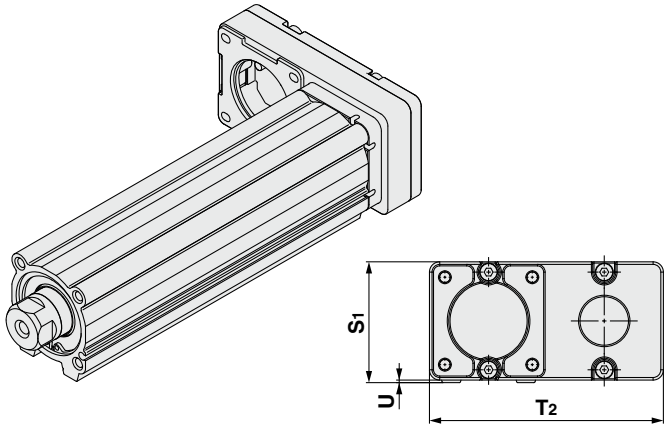
Left side parallel motor type: LEY 25/32/63 L



[mm]

Size	S1	T2	U
25	47	91	1
32	61	117	1
63	84	142	4

Right side parallel motor type: LEY 25/32/63 R

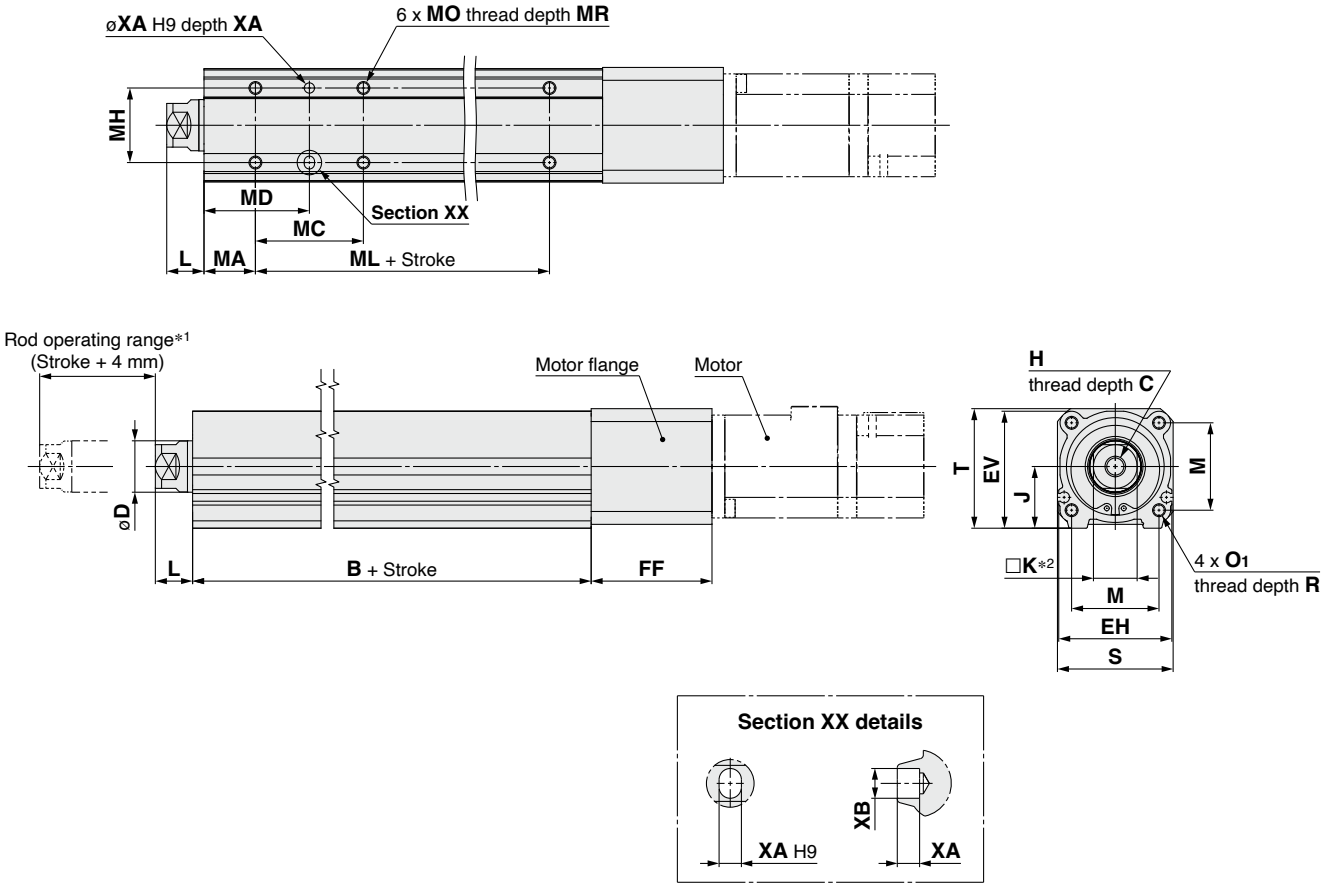


* When the motor is mounted on the left or right side in parallel, the groove for auto switch on the side to which the motor is mounted is hidden.

Refer to the "Motor Mounting" on page 181 for details about motor mounting and included parts.

Dimensions: In-line Motor

LEY25, 32



*1 Do not allow collisions at either end of the rod operating range at a speed exceeding "pushing speed." Additionally, when running the positioning operation, do not set within 2 mm of both ends.
*2 The direction of rod end width across flats (□K) differs depending on the products.

Dimensions

[mm]

Size	Stroke range [mm]	B	C	D	EH	EV	H	J	K	L	M	O1	R	S	T	U
25	30 to 100	89.5	13	20	44	45.5	M8 x 1.25	24	17	12.5	34	M5 x 0.8	8	45	46.5	1.5
	105 to 400	114.5														
32	30 to 100	96	13	25	51	56.5	M8 x 1.25	31	22	16.5	40	M6 x 1.0	10	60	61	1
	105 to 500	126														

* The L measurement is when the unit is at the retracted stroke end position.

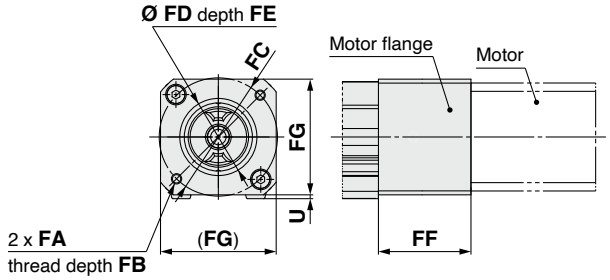
[mm]

Size	Stroke range [mm]	MA	MC	MD	MH	ML	MO	MR	XA	XB
25	30 to 35	20	24	32	29	50	M5 x 0.8	6.5	4	5
	40 to 100		42	41						
	105 to 120					75				
	125 to 200		59	49.5						
	205 to 400		76	58						
32	30 to 35	25	22	36	30	50	M6 x 1.0	8.5	5	6
	40 to 100		36	43						
	105 to 120					80				
	125 to 200		53	51.5						
	205 to 500		70	60						

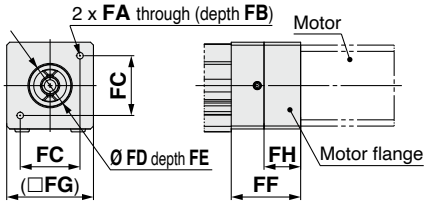
Refer to the "Motor Mounting" on page 181 for details about motor mounting and included parts.

Dimensions: In-line Motor

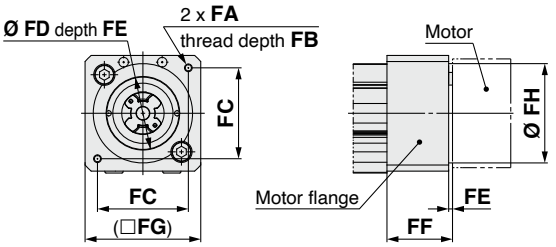
Motor flange dimensions
LEY25: NZ, NY, NX
LEY32: NZ, NY, NX, NW, NV, NU, NT



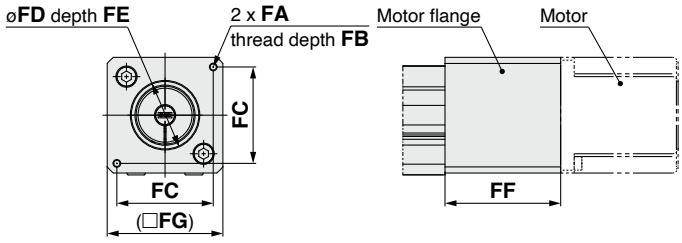
LEY25: NM1, NM2



LEY32: NM1



LEY32: NM2



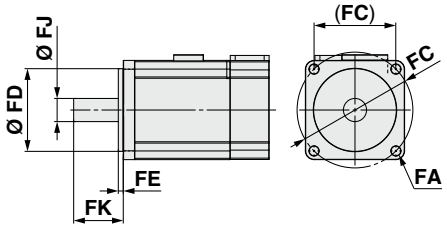
Motor Mounting, Applicable Motor Dimensions

[mm]

Size	Mounting type	FA		FB	FC	FD	FE (Max.)	FF	FG	FH	FJ	FK
		Mounting type	Applicable motor									
25	NZ	M4 x 0.7	Ø 4.5	7.5	Ø 46	30	3.7	47	45	—	8	25 ±1
	NY	M3 x 0.5	Ø 3.4	6	Ø 45	30	4	47	45	—	8	25 ±1
	NX	M4 x 0.7	Ø 4.5	7.5	Ø 46	30	3.7	47	45	—	8	18 ±1
	NM1	Ø 3.4	M3	17	□31	22	2.5	36	45	19	5*1	18 to 25
	NM2	Ø 3.4	M3	28	□31	22	2.5	47	45	30	6	20 ±1
32	NZ	M5 x 0.8	Ø 5.8	8.5	Ø 70	50	3.3	60	60	—	14	30 ±1
	NY	M4 x 0.7	Ø 4.5	8	Ø 70	50	3.3	60	60	—	11	30 ±1
	NX	M5 x 0.8	Ø 5.8	8.5	Ø 63	40	3.5	63	60	—	9	20 ±1
	NW	M5 x 0.8	Ø 5.8	8.5	Ø 70	50	3.3	60	60	—	9	25 ±1
	NV	M4 x 0.7	Ø 4.5	8	Ø 63	40	3.3	63	60	—	9	20 ±1
	NU	M5 x 0.8	Ø 5.8	8.5	Ø 70	50	3.3	60	60	—	11	23 ±1
	NT	M5 x 0.8	Ø 5.8	8.5	Ø 70	50	3.3	60	60	—	12	30 ±1
	NM1	M4 x 0.7	Ø 4.5	9.5	□47.1	38.1	2	34	60	51.5	6.35*1	20 ±1
	NM2	M4 x 0.7	Ø 4.5	8	□50	36	3.3	60	60	—	10	24 ±1

*1 Shaft type: D-cut shaft

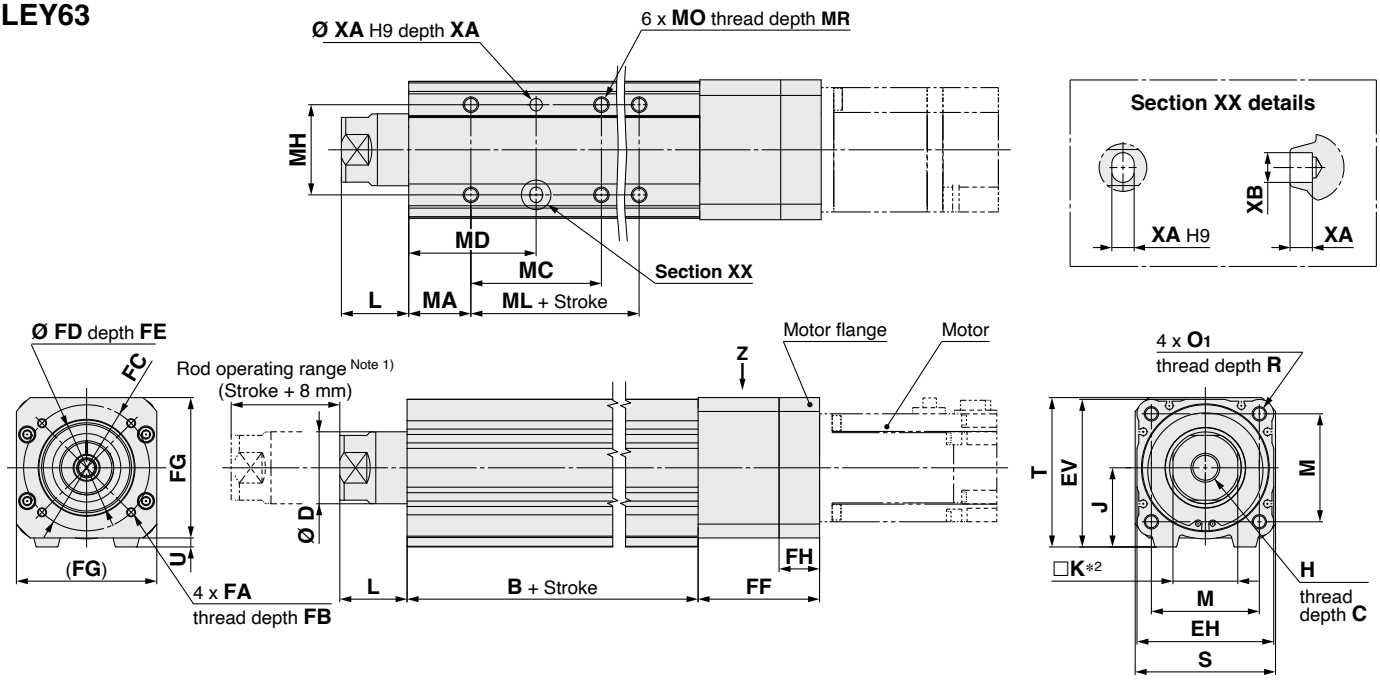
Applicable motor dimensions



Refer to the "Motor Mounting" on page 182 for details about motor mounting and included parts.

Dimensions: In-line Motor

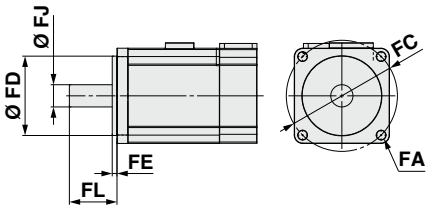
LEY63



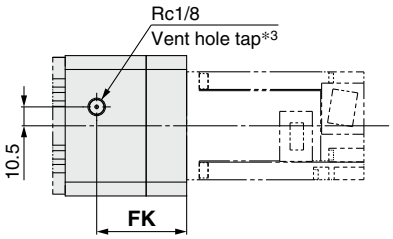
*1 Do not allow collisions at either end of the rod operating range at a speed exceeding "pushing speed." Additionally, when running the positioning operation, do not set within 4 mm of both ends.

*2 The direction of rod end width across flats (□K) differs depending on the products.

Applicable motor dimensions



IP65 equivalent (Dust-tight/Water-jet-proof): LEY63DN□□-□P (View Z)



*3 When using the dust-tight/water-jet-proof (IP65 equivalent), correctly mount the fitting and tubing to the vent hole tap, and then place the end of the tubing in an area not exposed to dust or water. The fitting and tubing should be provided separately by the customer.
Select [Applicable tubing O.D.: Ø 4 or more, Connection thread: Rc1/8].

Dimensions

[mm]

Size	Stroke range [mm]	B	C	D	EH	EV	H	J	K	L	M	O1	R	S	T	U
63	50 to 200	123	21	40	76	82	M16 x 2	44	36	33.4	60	M8 x 1.25	16	78	83	5
	205 to 500	158														
	505 to 800	193														

* The L measurement is when the unit is at the retracted stroke end position.

[mm]

Size	Stroke range [mm]	MA	MC	MD	MH	ML	MO	MR	XA	XB
63	50 to 70	38	24	50	44	65	M8 x 1.25	10	6	7
	75 to 120		45	60.5						
	125 to 200		58	67						
	205 to 500		86	81		100				
	505 to 800					135				

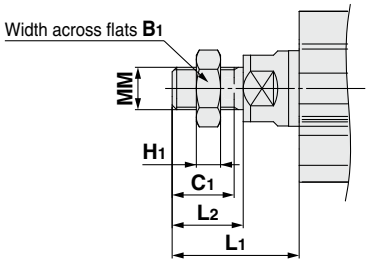
Motor Mounting, Applicable Motor Dimensions

[mm]

Size	Mounting type	FA		FB	FC	FD	FE (Max.)	FF	FG	FH	FK	FJ	FL
		Mounting type	Applicable motor										
63	NZ	M5 x 0.8	Ø 5.5	10	Ø 70	50	3.5	67.7	78	22.5	50	14	30 ±1
	NY	M4 x 0.7	Ø 4.5	8	Ø 70	50	3.5	67.7	78	22.5	50	14	30 ±1
	NX	M5 x 0.8	Ø 5.5	10	Ø 63	40	3.5	72.7	78	27.5	55	9	20 ±1
	NW	M5 x 0.8	Ø 5.5	10	Ø 70	50	3.5	67.7	78	22.5	50	9	25 ±1
	NV	M4 x 0.7	Ø 4.5	8	Ø 63	40	3.5	72.7	78	27.5	55	9	20 ±1
	NU	M5 x 0.8	Ø 5.5	10	Ø 70	50	3.5	67.7	78	22.5	50	11	23 ±1
	NT	M5 x 0.8	Ø 5.5	10	Ø 70	50	3.5	67.7	78	22.5	50	12	30 ±1

Dimensions

Rod end male thread: LEY32□□B-□□M (25, 63 / A, C)



* Refer to the **Web Catalogue** for details on the rod end nut and mounting bracket.
* Refer to the precautions on pages 194 and 195 when mounting end brackets such as knuckle joint or workpieces.

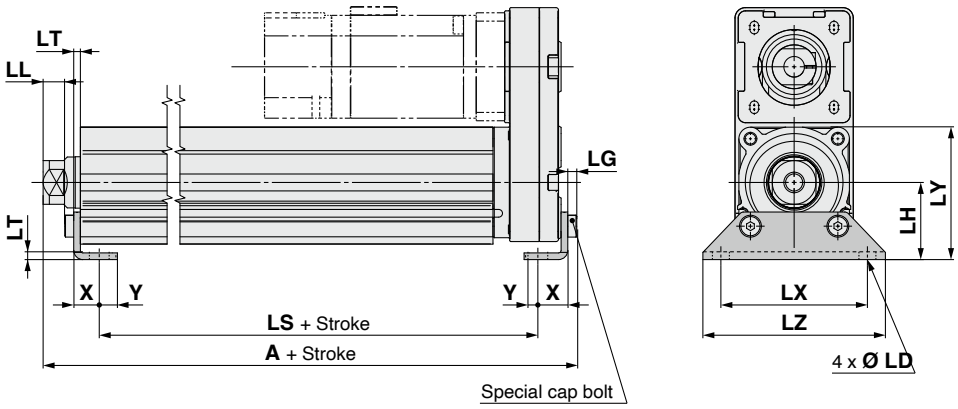
[mm]

Size	B1	C1	H1	L1	L2	MM
25	22	20.5	8	36	23.5	M14 x 1.5
32	22	20.5	8	40	23.5	M14 x 1.5
63	27	26	11	72.4	39	M18 x 1.5

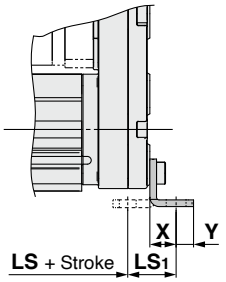
* The L1 measurement is when the unit is at the retracted stroke end position.

Foot: LEY32□□B-□□□L (25, 63 / A, C)

Included parts
· Foot bracket
· Body mounting bolt



Outward mounting



Foot

[mm]

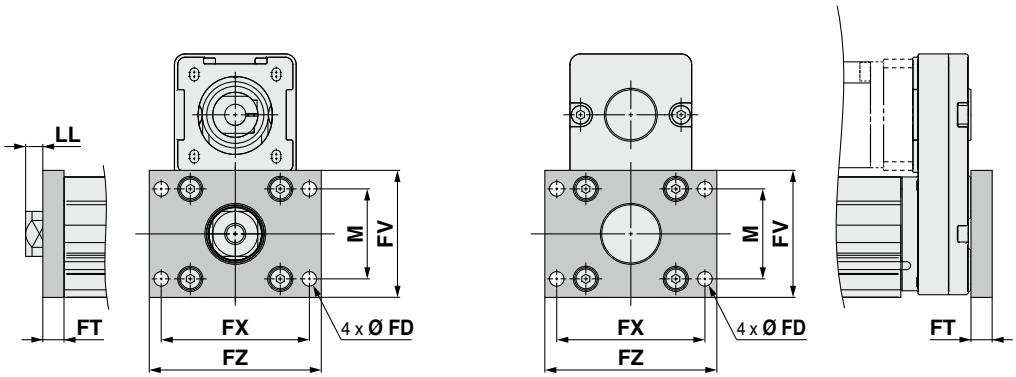
Size	Stroke range [mm]	A	LS	LS1	LL	LD	LG	LH	LT	LX	LY	LZ	X	Y
25	30 to 100	134.6	98.8	19.8	6.4	6.6	3.5	30	2.6	57	51.5	71	11.2	5.8
	105 to 400	159.6	123.8											
32	30 to 100	153.7	114	19.2	9.3	6.6	4	36	3.2	76	61.5	90	11.2	7
	105 to 500	183.7	144											
63	50 to 200	196.8	133.2	25.2	25.2	9	5	50	3.2	95	88	110	14.2	8
	205 to 500	231.8	168.2											
	505 to 800	266.8	203.2											

Material: Carbon steel (Chromating)
* The A and LL measurements are when the unit is at the retracted stroke end position.
* When the motor mounting is the right or left side parallel type, the head side foot bracket should be mounted outward.

Dimensions

Rod flange: LEY32(25/63)□□B(A/C)-□□□F

Head flange: LEY25□□B(A/C)-□□□G



∗ The head flange type is not available for the in-line type and the LEY32/63.

Included parts
- Flange
- Body mounting bolt

Rod/Head Flange

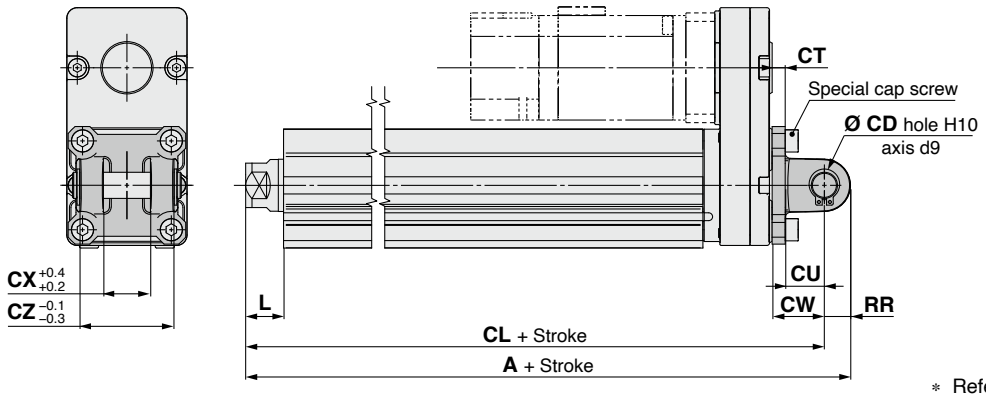
[mm]

Size	FD	FT	FV	FX	FZ	LL	M
25	5.5	8	48	56	65	4.5	34
32	5.5	8	54	62	72	8.5	40
63	9	9	80	92	108	24.4	60

Material: Carbon steel (Nickel plating)

∗ The LL measurement is when the unit is at the retracted stroke end position.

Double clevis: LEY32(25/63)□□B(A/C)-□□□D



Included parts
- Double clevis
- Body mounting bolt
- Clevis pin
- Retaining ring

∗ Refer to the **Web Catalogue** for details on the rod end nut and mounting bracket.

Double Clevis

[mm]

Size	Stroke range [mm]	A	CL	CD	CT	CU	CW	CX	CZ	L	RR
25	30 to 100	158.5	148.5	10	5	14	20	18	36	12.5	10
	105 to 200	183.5	173.5								
32	30 to 100	178.5	168.5	10	6	14	22	18	36	16.5	10
	105 to 200	208.5	198.5								
63	50 to 200	232.6	218.6	14	8	22	30	22	44	33.4	14
	205 to 300	267.6	253.6								

Material: Cast iron (Coating)

∗ The A, CL, and L measurements are when the unit is at the retracted stroke end position.