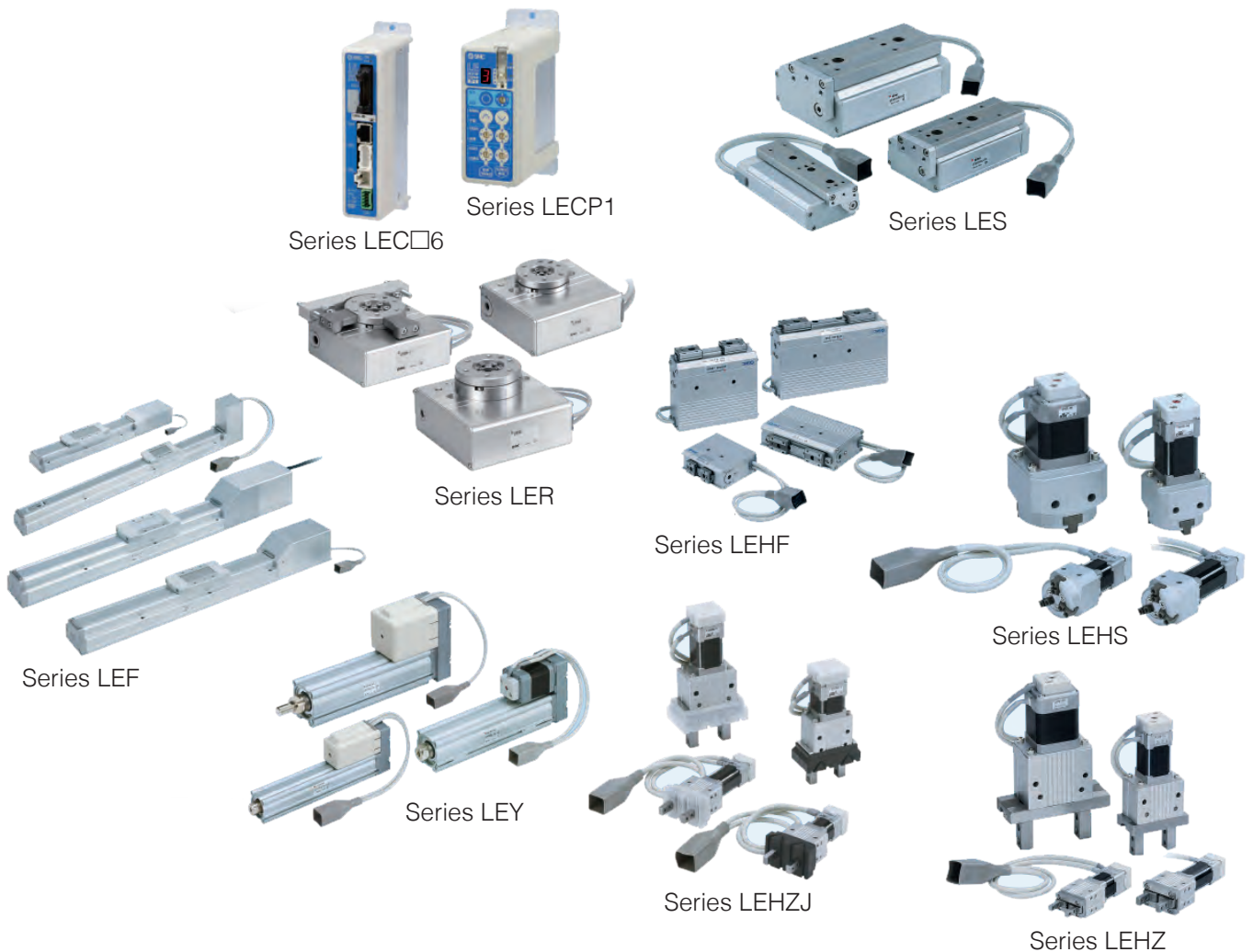







A new generation of electric actuators to meet all your application needs.

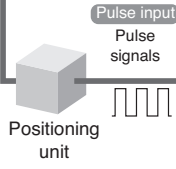
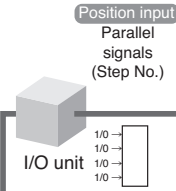
- **Series LEF** - a slider type electric actuator suitable for all transfer type applications
- **Series LEY** - excellent speed control system and positioning rod type actuator, specially developed for pushing and pulling applications
- **Series LES** - compact slide table for fast, controlled, and pick and place applications
- **Series LER** - compact, high performance and easy setting electric rotary table with position, speed and acceleration/deceleration control
- **Series LEH** - a comprehensive electric gripper range which are extremely lightweight

And, what's more, transfer load and velocity can now be significantly improved with new AC servomotor driver series LECS, a different idea for controlling the electric actuation which expands borders and offers outstanding performance with remarkable high resolutions.



A new generation of controllers to help your electric actuators meet all your application needs

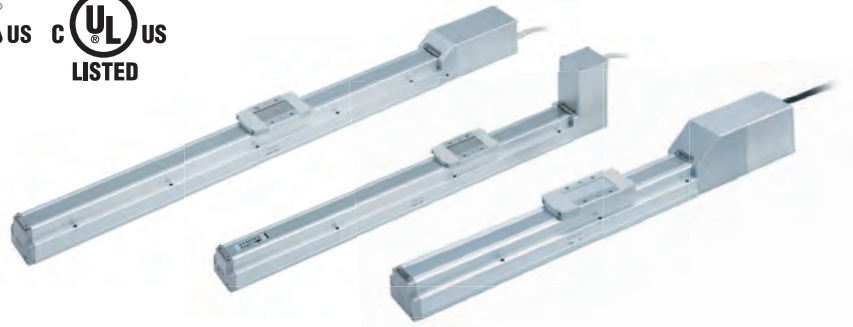
Controller type	Compatible motor	Power voltage	Interface					Encoder	
			Control method	Positioning points	Parallel inputs	Parallel outputs	Position & speed setting method	Type	Resolution
 Programless Controller Series LECP1	Step 24 VDC	24 VDC	Position input	14	6	6	Operation buttons	Incremental	800
 Controller Series LECP6	Step 24 VDC	24 VDC	Position input	64	11	13	Software (controller setting kit) / Teaching box	Incremental	800
 Controller Series LECA6	Servo 24 VDC	24 VDC	Position input	64	11	13	Software (controller setting kit) / Teaching box	Incremental	800
 AC Servo Motor Driver Incremental Type Series LECSA	AC servo	100 VAC 200 VAC	Position input	7	6	4	Software	Incremental	131072
 AC Servo Motor Driver Absolute Type Series LECSB	AC servo	100 VAC 200 VAC	Pulse input	Pulse signal input though PLC (setup software – MR configurator)			Absolute		



- Controller type activated by parallel signals - Position input
Step data indicating movement (position, speed, etc) are set in the controller.
By indicating the number of the step data using parallel signals (1/0), movement is implemented.
- Controller type activated by pulse signals - Pulse input
When 1 pulse signal is input, the actuator moves 1 position of 1 pulse.
Various movements can be made by inputting the pulse signals.
Numbers indicate positions and the frequency indicates speed.

Electric Actuator Slider Type Series LEF

ø16, ø25, ø32, ø40

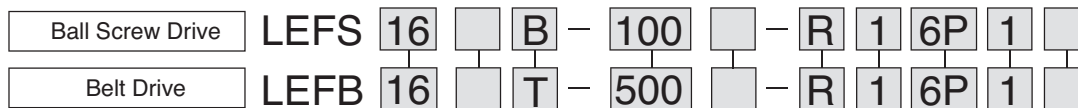


Features

- 3 motor types available.
- Adjustable force, speed and positioning.
- Easy setting and operation.
- 2 driving methods.

How to Order

Step motor / DC Servo motor



Size

16
25
32
40*

* Only for LEFS

Motor Type

Symbol	Type	Applicable size				Compatible controllers
		LEF□16	LEF□25	LEF□32	LEFS40	
-	Step motor (Servo/24 VDC)	●	●	●	●	LECP6 LECP1
A	Servo motor (24 VDC)	●	●	—	—	LECA6

Lead [mm]

Symbol	LEFS16	LEFS25	LEFS32	LEFS40	LEFB□
A	10	12	16	20	—
B	5	6	8	10	—
T	—	—	—	—	48

Stroke [mm]

LEFS	100 ~ 1000
LEFB	300 ~ 2000

* Refer to the stroke table.

Motor option

—	Without lock
B	With lock

Actuator cable type ^{Note 1)}

—	Without cable
S	Standard cable ^{Note 2)}
R	Robotic cable (Flexible cable)

Note 1) The standard cable should be used on fixed parts. For using on moving parts, select the robotic cable.
 Note 2) Only available for the motor type "Step motor."

Caution
 Note) CE-compliant products
 ① EMC compliance was tested by combining the electric actuator LEF series and the controller LEC series. The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore conformity to the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result it is necessary for the customer to verify conformity to the EMC directive for the machinery and equipment as a whole.
 ② For the servo motor (24 VDC) specification, EMC compliance was tested by installing a noise filter set (LEC-NFA). Refer to the LECA Operation Manual for installation.

Controller mounting

—	Screw mounting
D	DIN rail mounting*

* Only available for the controller types "6N" and "6P.". DIN rail is not included. Order it separately.

I/O cable length [m]

—	Without cable
1	1.5*
3	3*
5	5*

* If "Without controller" is selected for controller types, I/O cable is not included.

Controller type

—	Without controller	
6N	LECP6/LECA6	NPN
6P	(Step data input type)	PNP
1N	LECP1*	NPN
1P	(Programless type)	PNP

Only available for the motor type "Step motor."

Actuator cable length [m]

—	Without cable
1	1.5
3	3
5	5

Other lengths produced upon receipt of order (Robotic cable only).

* Stroke table

Model	Stroke [mm]	100	200	300	400	500	600	700	800	900	1000	1200	1500	1800	2000	Manufacturable stroke range [mm]
		●	●	●	○	—	—	—	—	—	—	—	—	—	—	
LEFS16		●	●	●	○	—	—	—	—	—	—	—	—	—	—	100 to 400
LEFS25		●	●	●	○	●	○	—	—	—	—	—	—	—	—	100 to 600
LEFS32		●	●	●	○	●	○	○	○	—	—	—	—	—	—	100 to 800
LEFS40		—	●	●	○	●	○	○	●	○	○	—	—	—	—	200 to 1000
LEFB16		—	—	○	—	●	○	○	●	○	●	—	—	—	—	300 to 1000
LEFB25		—	—	○	—	●	○	○	●	○	●	○	○	○	○	300 to 2000
LEFB32		—	—	○	—	●	○	○	●	○	●	○	○	○	○	

* Strokes other than those mentioned above are available as a special order.
 * Consult with SMC for the manufacture of intermediate strokes.



Product Recommendation



Stocked items for fast delivery




LEFS16A-300-R36P1	LEFS32B-100-R36P1	LEFS25B-500-R36P1
LEFS25A-100-R36P1	LEFS32B-300-R36P1	LEFS32A-300-R36P1
LEFS25A-300-R36P1	LEFS25A-200-R36P1	LEFS32B-500-R36P1
LEFS32A-100-R36P1	LEFS25A-500-R36P1	LEFB16T-500-R36P1
LEFS32B-200-R36P1	LEFS32A-200-R36P1	LEFB25T-500-R36P1
LEFS25B-100-R36P1	LEFS32A-500-R36P1	LEFB32T-500-R36P1
LEFS25B-300-R36P1	LEFS25B-200-R36P1	



Related Products

- Series LEC - Controller - page 906
- Series LECP1 - Controller - page 902
- Series LEH - Electric Grippers - page 887
- Series LES - Electric Slide Tables - page 857
- Series LEY - Electric Actuators (rod type) - page 831
- Series LER - Electric Rotary Actuators - page 881

Compatible controllers

Type	Step data input type 	Step data input type 	Programless type 
Series	LECP6	LECA6	LECP1
Feature(s)	Value input Standard controller		Capable of setting up operation without using a PC or teaching box
Compatible motor	Step motor (Servo/24 VDC)	Servo motor (24 VDC)	Step motor (Servo/24 VDC)
Maximum number of step data	64 points		14 points
Power supply voltage	24 VDC		
Reference page	Page XXX	Page XXX	Page XXX

Specifications LEFS Step Motor (Servo/24 VDC)

Model		LEFS16		LEFS25		LEFS32		LEFS40		
Actuator specifications	Stroke [mm] ^{Note 1)}	100, 200, 300 (400)		100, 200, 300 (400), 500, (600)		100, 200, 300, (400) 500, (600, 700, 800)		200, 300, (400), 500, (600) (700), 800, (900), (1000)		
	Work load [kg] ^{Note 2)}	Horizontal	9	10	20	20	40	45	50	60
		Vertical	2	4	7.5	15	10	20	—	23
	Speed [mm/s] ^{Note 2)}	10 to 500	5 to 250	12 to 500	6 to 250	16 to 500	8 to 250	20 to 500	10 to 250	
	Max. acceleration/deceleration [mm/s ²]	3000								
	Positioning repeatability [mm]	±0.02								
	Lead [mm]	10	5	12	6	16	8	20	10	
	Impact/Vibration resistance [m/s ²] ^{Note 3)}	50/20								
	Actuation type	Ball screw								
	Guide type	Linear guide								
Operating temp. range [°C]	5 to 40									
Operating humidity range [%RH]	90 or less (No condensation)									
Electric specifications	Motor size	□28		□42		□56.4				
	Motor type	Step motor (Servo/24 VDC)								
	Encoder	Incremental A/B phase (800 pulse/rotation)								
	Rated voltage [V]	24 VDC ±10%								
	Power consumption [W] ^{Note 4)}	22		38		50		100		
Standby power consumption when operating [W] ^{Note 5)}	18		16		44		43			
Momentary max. power consumption [W] ^{Note 6)}	51		57		123		141			
Lock unit specifications	Type ^{Note 7)}	Non-magnetizing operation type								
	Holding force [N]	20	39	78	157	108	216	113	225	
	Power consumption [W] ^{Note 8)}	2.9		5		5		5		
	Rated voltage [V]	24 VDC ±10%								

Note 1) Strokes shown in () are produced upon receipt of order.
 Note 2) Speed is dependent on the work load. Check "Speed-Work Load Graph (Guide)".
 Furthermore, if the cable length exceeds 5 m then it will decrease by up to 10% for each 5 m.
 Note 3) 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. (Test was performed with the actuator in the initial state.)
 Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)
 Note 4) Power consumption (including the controller) is for when the actuator is operating.
 Note 5) Standby power consumption when operating (including the controller) is for when the actuator is stopped in the set position during operation.
 Note 6) Momentary max. power consumption (including the controller) is for when the actuator is operating. This value can be used for the selection of the power supply.
 Note 7) With lock only.
 Note 8) For an actuator with lock, add the power consumption for the lock.

Specifications LEFS

Servo Motor (24 VDC)

Model		LEFS16A		LEFS25A		
Actuator specifications	Stroke [mm] ^{Note 1)}	100, 200, 300 (400)		100, 200, 300 (400), 500, (600)		
	Work load [kg] ^{Note 2)}	Horizontal	7	10	11	18
		Vertical	2	4	2.5	5
	Speed [mm/s] ^{Note 2)}	10 to 500	5 to 250	12 to 500	6 to 250	
	Max. acceleration/deceleration [mm/s ²]	3000				
	Positioning repeatability [mm]	±0.02				
	Lead [mm]	10	5	12	6	
	Impact/Vibration resistance [m/s ²] ^{Note 3)}	50/20				
	Actuation type	Ball screw				
	Guide type	Linear guide				
Operating temp. range [°C]	5 to 40					
Operating humidity range [%RH]	90 or less (No condensation)					
Electric specifications	Motor size	□28		□42		
	Motor output [W]	30		36		
	Motor type	Servo motor (24 VDC)				
	Encoder	Incremental A/B (800 pulse/rotation)/Z phase				
	Rated voltage [V]	24 VDC ±10%				
	Power consumption [W] ^{Note 4)}	63		102		
	Standby power consumption when operating [W] ^{Note 5)}	Horizontal 4/Vertical 9		Horizontal 4/Vertical 9		
Lock unit specifications	Momentary max. power consumption [W] ^{Note 6)}	70		113		
	Type ^{Note 7)}	Non-magnetizing operation type				
	Holding force [N]	20	39	78	157	
	Rated voltage [V]	24 VDC ±10%				

Note 1) Strokes shown in () are produced upon receipt of order.

Note 2) Check "Speed-Work Load Graph (Guide)".

Furthermore, if the cable length exceeds 5 m then it will decrease by up to 10% for each 5 m.

Note 3) 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. (Test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)

Note 4) Power consumption (including the controller) is for when the actuator is operating.

Note 5) Standby power consumption when operating (including the controller) is for when the actuator is stopped in the set position during operation.

Note 6) Momentary max. power consumption (including the controller) is for when the actuator is operating. This value can be used for the selection of the power supply.

Note 7) With lock only.

Note 8) For an actuator with lock, add the power consumption for the lock.

Weight

Model	LEFS16			
Stroke [mm]	100	200	300	(400)
Product weight [kg]	0.90	1.05	1.20	1.35
Additional weight with lock [kg]	0.12			

Model	LEFS25					
Stroke [mm]	100	200	300	(400)	500	(600)
Product weight [kg]	1.84	2.12	2.40	2.68	2.96	3.24
Additional weight with lock [kg]	0.26					

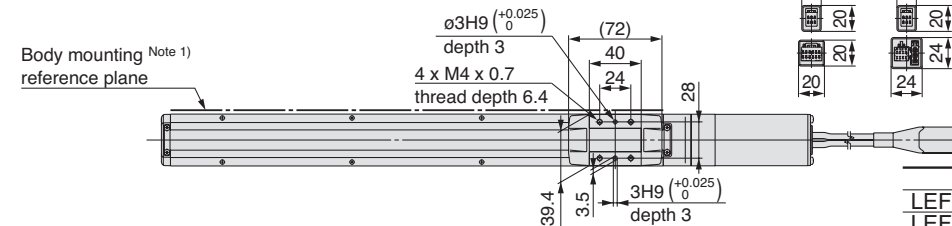
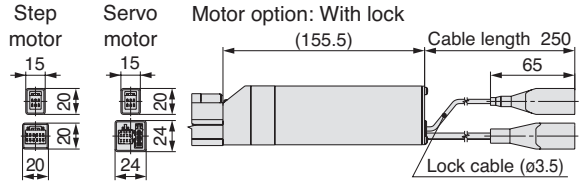
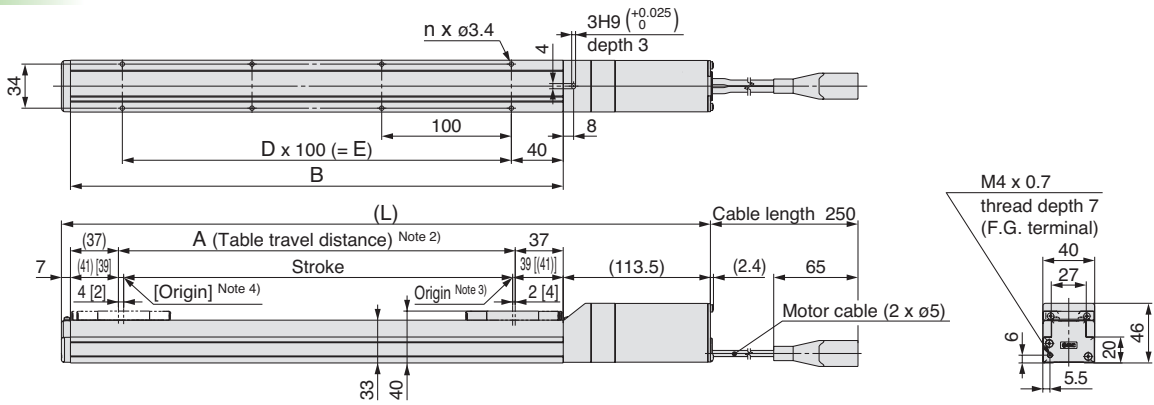
Model	LEFS32							
Stroke [mm]	100	200	300	(400)	500	(600)	(700)	(800)
Product weight [kg]	3.35	3.75	4.15	4.55	4.95	5.35	5.75	6.15
Additional weight with lock [kg]	0.53							

Model	LEFS40									
Stroke [mm]	200	300	(400)	500	(600)	(700)	800	(900)	(1000)	
Product weight [kg]	5.65	6.21	6.77	7.33	7.89	8.45	9.01	9.57	10.13	
Additional weight with lock [kg]	0.53									



Dimensions: Ball Screw Drive

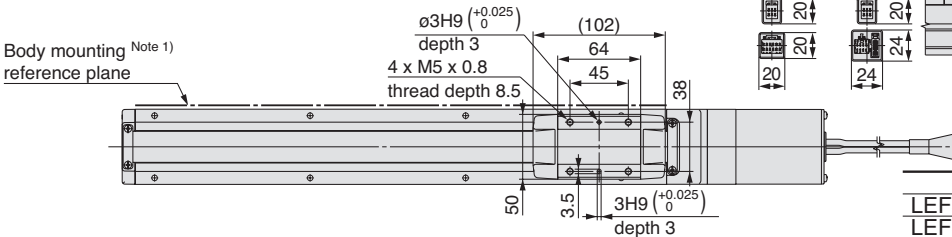
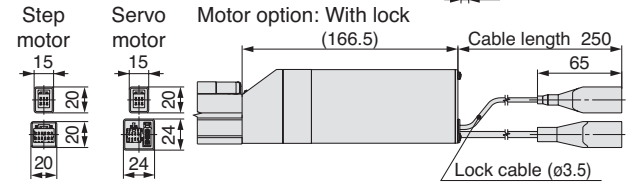
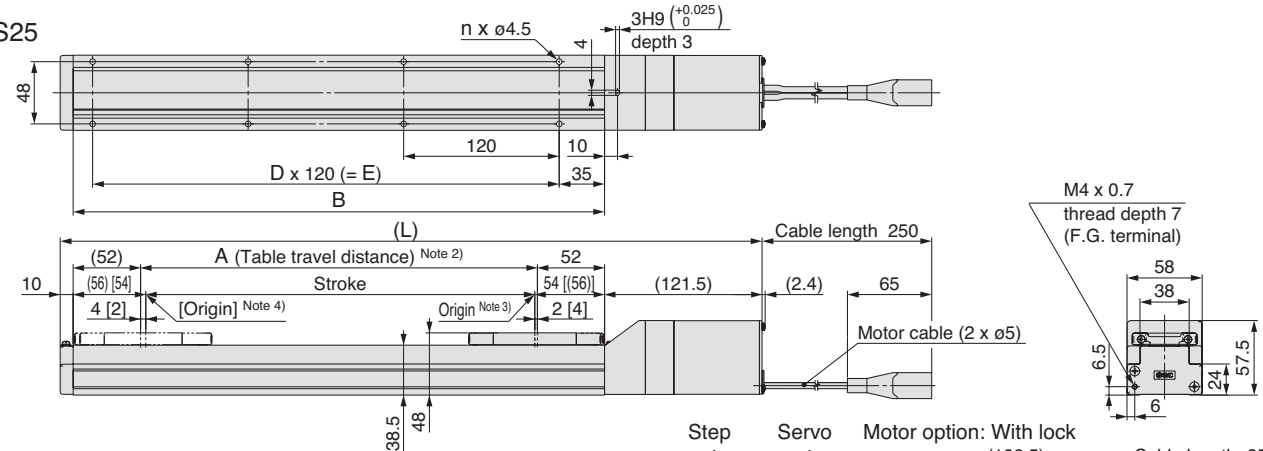
LEFS16



- Note 1) When mounting the electric actuator using the body mounting reference plane, set the height of the opposite surface or pin to 2 mm or more because of R chamfering. (Recommended height: 5 mm)
- Note 2) Distance within which the table can move when it returns to origin. Make sure a workpiece mounted on the table does not interfere with the work pieces and facilities around the table.
- Note 3) Position after return to origin.
- Note 4) The number in brackets indicates when the direction of return to origin has changed.

Model	L	A	B	n	D	E
LEFS16□-100	300.5	106	180	4	—	—
LEFS16□-100B	342.5	—	—	—	—	—
LEFS16□-200	400.5	206	280	6	2	200
LEFS16□-200B	442.5	—	—	—	—	—
LEFS16□-300	500.5	306	380	8	3	300
LEFS16□-300B	542.5	—	—	—	—	—
LEFS16□-400	600.5	406	480	10	4	400
LEFS16□-400B	642.5	—	—	—	—	—

LEFS25

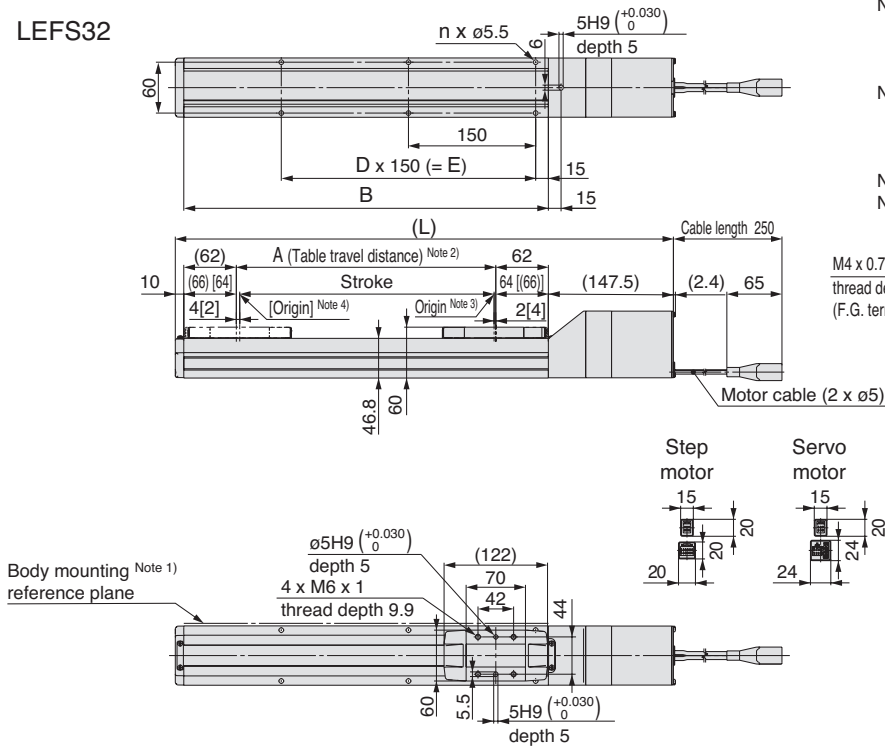


- Note 1) When mounting the electric actuator using the body mounting reference plane, set the height of the opposite surface or pin to 3 mm or more because of R chamfering. (Recommended height: 5 mm)
- Note 2) Distance within which the table can move when it returns to origin. Make sure a workpiece mounted on the table does not interfere with the work pieces and facilities around the table.
- Note 3) Position after return to origin.
- Note 4) The number in brackets indicates when the direction of return to origin has changed.

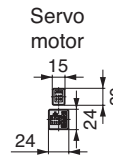
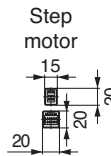
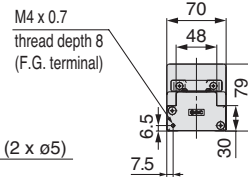
Model	L	A	B	n	D	E
LEFS25□-100	341.5	106	210	4	—	—
LEFS25□-100B	386.5	—	—	—	—	—
LEFS25□-200	441.5	206	310	6	2	240
LEFS25□-200B	486.5	—	—	—	—	—
LEFS25□-300	541.5	306	410	8	3	360
LEFS25□-300B	586.5	—	—	—	—	—
LEFS25□-400	641.5	406	510	8	3	360
LEFS25□-400B	686.5	—	—	—	—	—
LEFS25□-500	741.5	506	610	10	4	480
LEFS25□-500B	786.5	—	—	—	—	—
LEFS25□-600	841.5	606	710	12	5	600
LEFS25□-600B	886.5	—	—	—	—	—

Dimensions: Ball Screw Drive

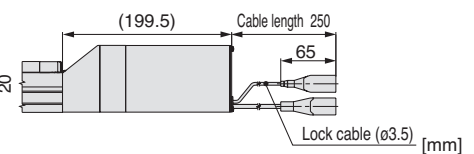
LEFS32



- Note 1) When mounting the electric actuator using the body mounting reference plane, set the height of the opposite surface or pin to 3 mm or more because of R chamfering. (Recommended height: 5 mm)
- Note 2) Distance within which the table can move when it returns to origin. Make sure a workpiece mounted on the table does not interfere with the work pieces and facilities around the table.
- Note 3) Position after return to origin.
- Note 4) The number in brackets indicates when the direction of return to origin has changed.



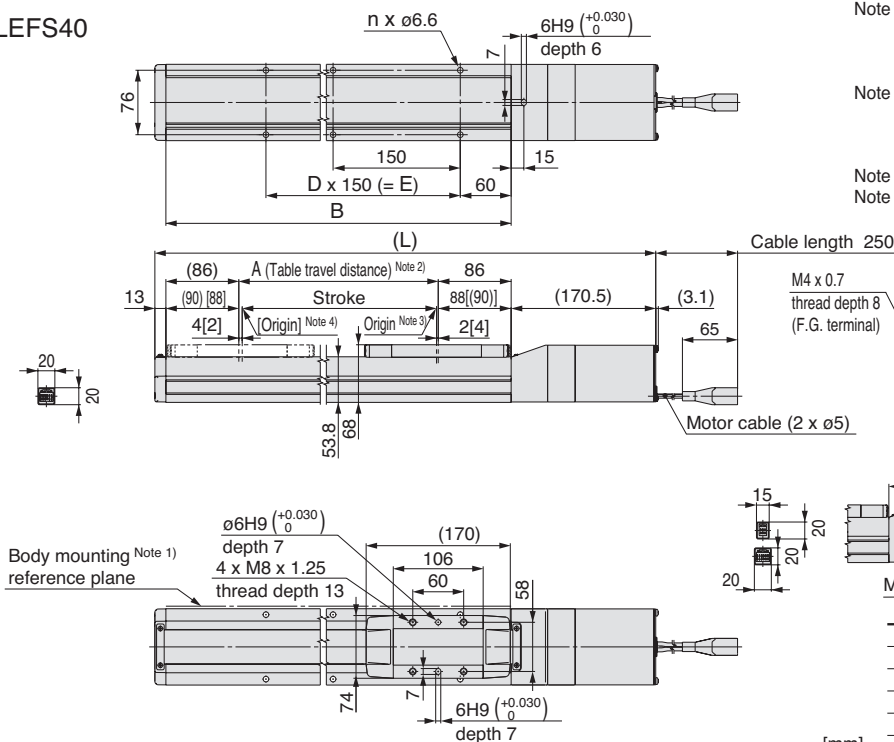
Motor option: With lock



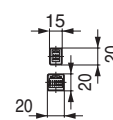
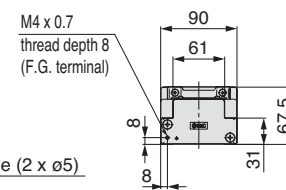
Model	L	A	B	n	D	E
LEFS32□-100	387.5					
LEFS32□-100B	439.5	106	230	4	—	—
LEFS32□-200	487.5					
LEFS32□-200B	539.5	206	330	6	2	300

Model	L	A	B	n	D	E
LEFS32□-300	587.5					
LEFS32□-300B	639.5	306	430	6	2	300
LEFS32□-400	687.5					
LEFS32□-400B	739.5	406	530	8	3	450
LEFS32□-500	787.5					
LEFS32□-500B	839.5	506	630	10	4	600
LEFS32□-600	887.5					
LEFS32□-600B	939.5	606	730	10	4	600
LEFS32□-700	987.5					
LEFS32□-700B	1039.5	706	830	12	5	750
LEFS32□-800	1087.5					
LEFS32□-800B	1139.5	806	930	14	6	900

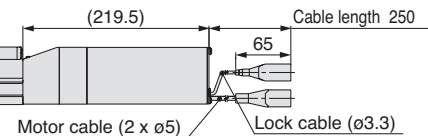
LEFS40



- Note 1) When mounting the electric actuator using the body mounting reference plane, set the height of the opposite surface or pin to 3 mm or more because of R chamfering. (Recommended height: 5 mm)
- Note 2) Distance within which the table can move when it returns to origin. Make sure a workpiece mounted on the table does not interfere with the work pieces and facilities around the table.
- Note 3) Position after return to origin.
- Note 4) The number in brackets indicates when the direction of return to origin has changed.



Motor option: With lock



Model	L	A	B	n	D	E
LEFS40□-200	561.5					
LEFS40□-200B	610.5	206	378	6	2	300
LEFS40□-300	661.5					
LEFS40□-300B	710.5	306	478	6	2	300
LEFS40□-400	761.5					
LEFS40□-400B	810.5	406	578	8	3	450

Model	L	A	B	n	D	E
LEFS40□-500	861.5					
LEFS40□-500B	910.5	506	678	10	4	600
LEFS40□-600	961.5					
LEFS40□-600B	1010.5	606	778	10	4	600
LEFS40□-700	1061.5					
LEFS40□-700B	1110.5	706	878	12	5	750
LEFS40□-800	1161.5					
LEFS40□-800B	1210.5	806	978	14	6	900
LEFS40□-900	1261.5					
LEFS40□-900B	1310.5	906	1078	14	6	900
LEFS40□-1000	1361.5					
LEFS40□-1000B	1410.5	1006	1178	16	7	1050



Specifications LEFB

Step Motor (Servo/24 VDC)

Model		LEFB16	LEFB25	LEFB32
Actuator specifications	Stroke [mm] ^{Note 1)}	(300), 500, (600, 700) 800, (900), 1000	(300), 500, (600, 700), 800, (900) 1000, (1200, 1500, 1800, 2000)	(300), 500, (600, 700), 800, (900) 1000, (1200, 1500, 1800, 2000)
	Work load [kg] ^{Note 2)} Horizontal	1	5	14
	Speed [mm/s] ^{Note 2)}	48 to 1100	48 to 1400	48 to 1500
	Max. acceleration/deceleration [mm/s ²]	3000		
	Positioning repeatability [mm]	±0.1		
	Equivalent lead [mm]	48	48	48
	Impact/Vibration resistance [m/s ²] ^{Note 3)}	50/20		
	Actuation type	Belt		
	Guide type	Linear guide		
	Operating temp. range [°C]	5 to 40		
Operating humidity range [%RH]	90 or less (No condensation)			
Electric specifications	Motor size	□28	□42	□56.4
	Motor type	Step motor (Servo/24 VDC)		
	Encoder	Incremental A/B phase (800 pulse/rotation)		
	Rated voltage [V]	24 VDC ±10%		
	Power consumption [W] ^{Note 4)}	24	32	52
	Standby power consumption when operating [W] ^{Note 5)}	18	16	44
	Momentary max. power consumption [W] ^{Note 6)}	51	60	127
Lock unit specifications	Controller weight [kg]	0.15 (Screw mounting), 0.17 (DIN rail mounting)		
	Type ^{Note 7)}	Non-magnetizing operation type		
	Holding force [N]	4	19	36
	Rated voltage [V]	24 VDC ±10%		

Note 1) Strokes shown in () are produced upon receipt of order.

Note 2) Speed is dependent on the work load. Check "Speed-Work Load Graph (Guide)".

Furthermore, if the cable length exceeds 5 m then it will decrease by up to 10% for each 5 m.

Note 3) 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. (Test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)

Note 4) Power consumption (including the controller) is for when the actuator is operating.

Note 5) Standby power consumption when operating (including the controller) is for when the actuator is stopped in the set position during operation.

Note 6) Momentary max. power consumption (including the controller) is for when the actuator is operating. This value can be used for the selection of the power supply.

Note 7) With lock only.

Note 8) For an actuator with lock, add the power consumption for the lock.

Specifications LEFB

Servo Motor (24 VDC)

Model		LEFB16A	LEFB25A
Actuator specifications	Stroke [mm] ^{Note 1)}	(300), 500, (600, 700) 800, (900), 1000	(300), 500, (600, 700), 800, (900) 1000, (1200, 1500, 1800, 2000)
	Work load [kg] ^{Note 2)}	Horizontal	1
	Speed [mm/s] ^{Note 2)}	48 to 2000	48 to 2000
	Max. acceleration/deceleration [mm/s ²]	3000	
	Positioning repeatability [mm]	±0.1	
	Equivalent lead [mm]	48	48
	Impact/Vibration resistance [m/s ²] ^{Note 3)}	50/20	
	Actuation type	Belt	
	Guide type	Linear guide	
	Operating temp. range [°C]	5 to 40	
Operating humidity range [%RH]	90 or less (No condensation)		
Electric specifications	Motor size	□28	□42
	Motor output [W]	30	36
	Motor type	Servo motor (24 VDC)	
	Encoder	Incremental A/B (800 pulse/rotation)/Z phase	
	Rated voltage [V]	24 VDC ±10%	
	Power consumption [W] ^{Note 4)}	78	69
	Standby power consumption when operating [W] ^{Note 5)}	Horizontal 4	Horizontal 5
	Momentary max. power consumption [W] ^{Note 6)}	87	120
Lock unit specifications	Controller weight [kg]	0.15 (Screw mounting), 0.17 (DIN rail mounting)	
	Type ^{Note 7)}	Non-magnetizing operation type	
	Holding force [N]	4	19
	Power consumption [W] ^{Note 8)}	2.9	5
	Rated voltage [V]	24 VDC ±10%	

Note 1) Strokes shown in () are produced upon receipt of order.

Note 2) Check "Speed-Work Load Graph (Guide)". Furthermore, if the cable length exceeds 5 m then it will decrease by up to 10% for each 5 m.

Note 3) 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. (Test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)

Note 4) Power consumption (including the controller) is for when the actuator is operating.

Note 5) Standby power consumption when operating (including the controller) is for when the actuator is stopped in the set position during operation.

Note 6) Momentary max. power consumption (including the controller) is for when the actuator is operating. This value can be used for the selection of the power supply.

Note 7) With lock only.

Note 8) For an actuator with lock, add the power consumption for the lock.

Weight

Model	LEFB16						
Stroke [mm]	(300)	500	(600)	(700)	800	(900)	1000
Product weight [kg]	1.19	1.45	1.58	1.71	1.84	1.97	2.10
Additional weight with lock [kg]	0.12						

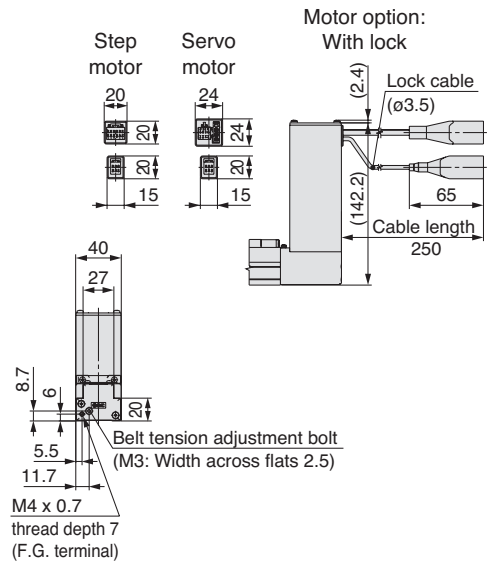
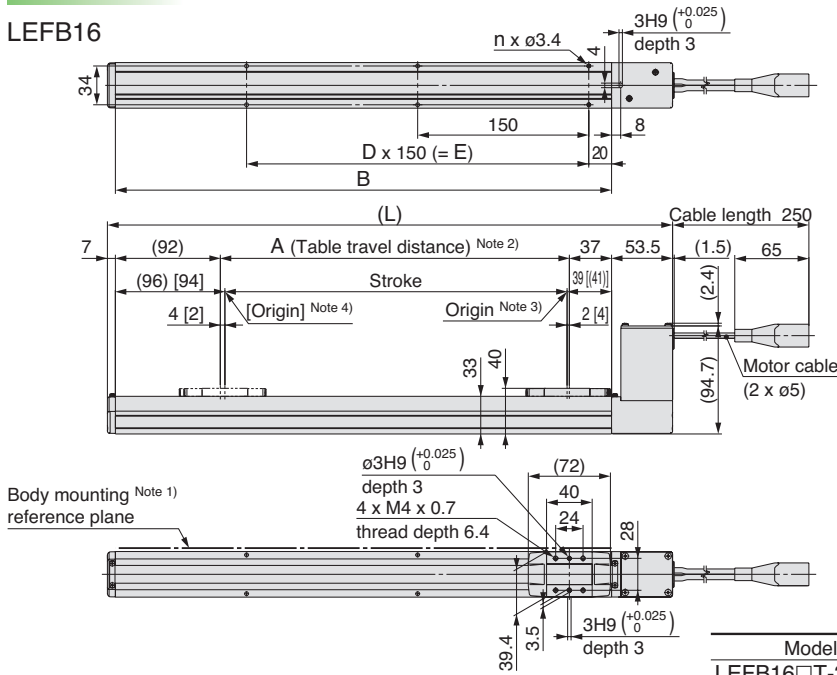
Model	LEFB25										
Stroke [mm]	(300)	500	(600)	(700)	800	(900)	1000	(1200)	(1500)	(1800)	(2000)
Product weight [kg]	2.39	2.85	3.08	3.31	3.54	3.77	4.00	4.46	5.15	5.84	6.30
Additional weight with lock [kg]	0.26										

Model	LEFB32										
Stroke [mm]	(300)	500	(600)	(700)	800	(900)	1000	(1200)	(1500)	(1800)	(2000)
Product weight [kg]	4.12	4.80	5.14	5.48	5.82	6.16	6.50	7.18	8.20	9.22	9.90
Additional weight with lock [kg]	0.53										



Dimensions: Belt Drive

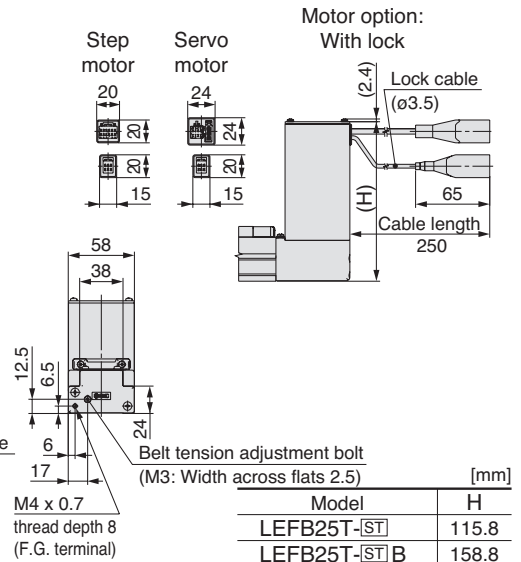
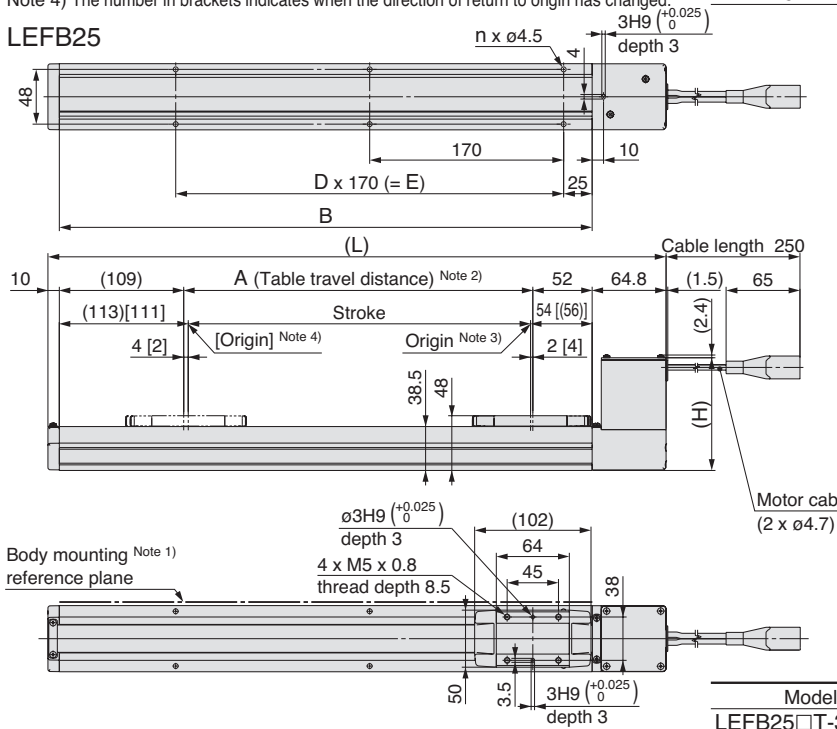
LEFB16



- Note 1) When mounting the electric actuator using the body mounting reference plane, set the height of the opposite surface or pin to 2 mm or more because of R chamfering. (Recommended height: 5 mm)
- Note 2) Distance within which the table can move when it returns to origin. Make sure a workpiece mounted on the table does not interfere with the work pieces and facilities around the table.
- Note 3) Position after return to origin.
- Note 4) The number in brackets indicates when the direction of return to origin has changed.

Model	L	A	B	n	D	E
LEFB16□T-300□	495.5	306	435	6	2	300
LEFB16□T-500□	695.5	506	635	10	4	600
LEFB16□T-600□	795.5	606	735	10	4	600
LEFB16□T-700□	895.5	706	835	12	5	750
LEFB16□T-800□	995.5	806	935	14	6	900
LEFB16□T-900□	1095.5	906	1035	14	6	900
LEFB16□T-1000□	1195.5	1006	1135	16	7	1050

LEFB25

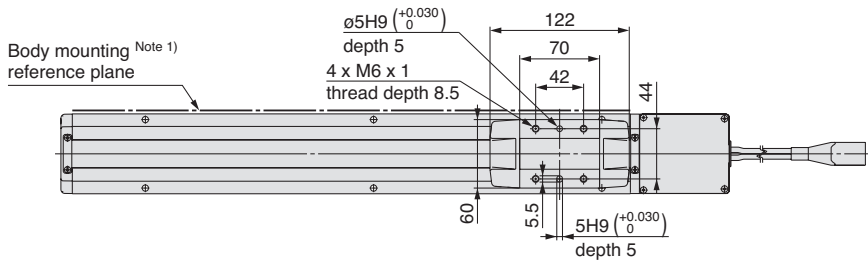
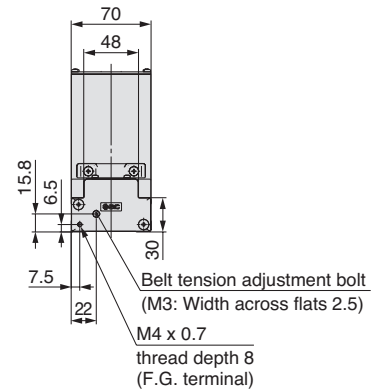
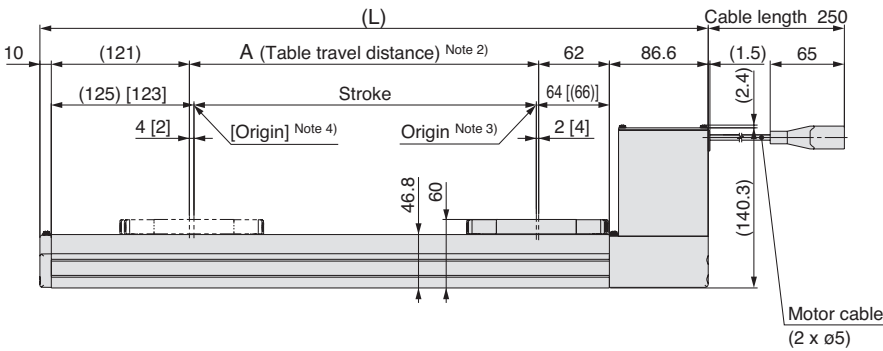
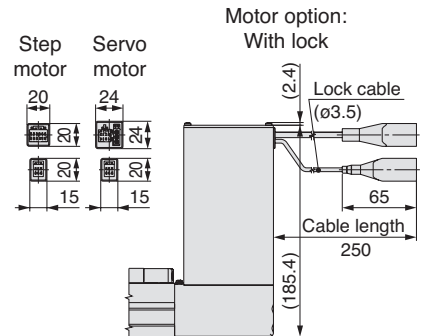
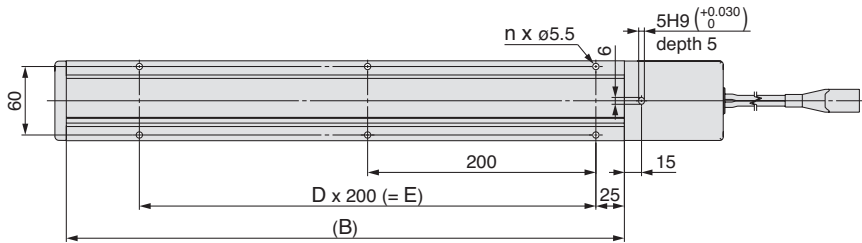


- Note 1) When mounting the electric actuator using the body mounting reference plane, set the height of the opposite surface or pin to 3 mm or more because of R chamfering. (Recommended height: 5 mm)
- Note 2) Distance within which the table can move when it returns to origin. Make sure a workpiece mounted on the table does not interfere with the work pieces and facilities around the table.
- Note 3) Position after return to origin.
- Note 4) The number in brackets indicates when the direction of return to origin has changed.

Model	L	A	B	n	D	E
LEFB25□T-300□	541.8	306	467	6	2	340
LEFB25□T-500□	741.8	506	667	8	3	510
LEFB25□T-600□	841.8	606	767	10	4	680
LEFB25□T-700□	941.8	706	867	10	4	680
LEFB25□T-800□	1041.8	806	967	12	5	850
LEFB25□T-900□	1141.8	906	1067	14	6	1020
LEFB25□T-1000□	1241.8	1006	1167	14	6	1020
LEFB25□T-1200□	1441.8	1206	1367	16	7	1190
LEFB25□T-1500□	1741.8	1506	1667	20	9	1530
LEFB25□T-1800□	2041.8	1806	1967	24	11	1870
LEFB25□T-2000□	2241.8	2006	2167	26	12	2040

Dimensions: Belt Drive

LEFB32



Note 1) When mounting the electric actuator using the body mounting reference plane, set the height of the opposite surface or pin to 3 mm or more because of R chamfering. (Recommended height: 5 mm)

Note 2) Distance within which the table can move when it returns to origin. Make sure a workpiece mounted on the table does not interfere with the work pieces and facilities around the table.

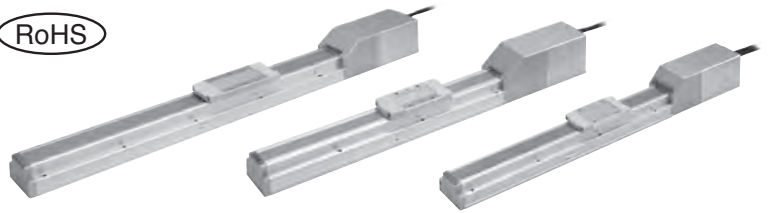
Note 3) Position after return to origin.

Note 4) The number in brackets indicates when the direction of return to origin has changed.

Model	L	A	B	n	D	E
LEFB32□T-300□	585.6	306	489	6	2	400
LEFB32□T-500□	785.6	506	689	8	3	600
LEFB32□T-600□	885.6	606	789	8	3	600
LEFB32□T-700□	985.6	706	889	10	4	800
LEFB32□T-800□	1085.6	806	989	10	4	800
LEFB32□T-900□	1185.6	906	1089	12	5	1000
LEFB32□T-1000□	1285.6	1006	1189	12	5	1000
LEFB32□T-1200□	1485.6	1206	1389	14	6	1200
LEFB32□T-1500□	1785.6	1506	1689	18	8	1600
LEFB32□T-1800□	2085.6	1806	1989	20	9	1800
LEFB32□T-2000□	2285.6	2006	2189	22	10	2000



RoHS



How to Order

AC Servo Motor (100/200/400 W)

Ball Screw Drive **LEFS** **25** **S2** **B** - **100** - **S** **2** **A1**

Size
 25
 32
 40

Motor Type

Symbol	Type	Output [W]	Actuator size	Compatible controllers
S2*	AC servo motor (Incremental encoder)	100	25	LECSA□-S1
S3		200	32	LECSA□-S3
S4		400	40	LECSA2-S4
S6*	AC servo motor (Absolute encoder)	100	25	LECSB□-S5
S7		200	32	LECSB□-S7
S8		400	40	LECSB2-S8

* Motor types: For S2 and S6 only, the compatible controller part number suffix will be S1 and S5.

Stroke [mm]
 100 ~ 1000

* Refer to the table below for details.

Motor option

-	Without lock
B	With lock

I/O connector

-	Without connector
H	With connector

Controller type

	Compatible controllers	Power supply voltage
-	Without controller	
A1	LECSA1	100 V to 120 V
A2	LECSA2	200 V to 230 V
B1	LECSB1	100 V to 120 V
B2	LECSB2	200 V to 230 V

Cable length* [m]

-	Without cable
2	2
5	5
A	10

* Common to encoder/ motor/lock cable

Actuator cable type*

-	Without cable
S	Standard cable
R	Robotic cable (Flexible cable)

* Motor cable and encoder cable are included. (Lock cable is also included if motor option "With lock" is selected.)

Lead [mm]

Symbol	LEFS25	LEFS32	LEFS40
A	12	16	20
B	6	8	10

* Applicable stroke table

Model	Stroke [mm]									
	100	200	300	400	500	600	700	800	900	1000
LEFS25	●	●	●	○	●	○	-	-	-	-
LEFS32	●	●	●	○	●	○	○	○	-	-
LEFS40	-	●	●	○	●	○	○	○	●	○

● Standard ○ Produced upon receipt of order

* Consult with SMC for the manufacture of intermediate strokes.

Product Recommendation



Related Products

- Series LECS - Controller - page 910
- Series LEH - Electric Grippers - page 887
- Series LES - Electric Slide Tables - page 857
- Series LEY - Electric Actuators (rod type) - page 831
- Series LER - Electric Rotary Actuators - page 881

Compatible drivers

Type	Pulse input type (For incremental encoder)	Pulse input type (For absolute encoder)
Series	LECSA1, LECSA2	LECSB1, LECSB2
Feature(s)	<ul style="list-style-type: none"> 17-bit incremental encoder compatible Positioning function (Max. 7 inputs) Servo adjustment switch 	<ul style="list-style-type: none"> 18-bit absolute encoder compatible With RS422 communication port (compatible with Mitsubishi Electric's touch panel) Analogue input for speed and torque command
Compatible motor	AC servo motor (Incremental encoder) S2, S3, S4	AC servo motor (Absolute encoder) S6, S7, S8
Power supply voltage	100 to 120 VAC (50/60 Hz), 200 to 230 VAC (50/60 Hz)	100 to 120 VAC (50/60 Hz), 200 to 230 VAC (50/60 Hz)
Reference page	Page 910	Page 910

Electric Actuators

Specifications LEFS

LEFS25, 32, 40 AC Servo Motor (100/200/400 W)

Model		LEFS25S ²⁶		LEFS32S ³⁷		LEFS40S ⁴⁸			
Actuator specifications	Stroke [mm] ^{Note 1)}	100, 200, 300, (400) 500, (600)		100, 200, 300, (400) 500, (600), (700), (800)		200, 300, (400), 500 (600), (700), 800, (900) (1000)			
	Work load [kg] ^{Note 2)}	Horizontal	20	20	40	45	50	60	
		Vertical	8	15	10	20	15	30	
	Max. speed ^{Note 3)} [mm/s]	Stroke range	to 400	900	450	1000	500	1000	500
			401 to 500	720	360	1000	500	1000	500
			501 to 600	540	270	800	400	1000	500
			601 to 700	—	—	620	310	940	470
			701 to 800	—	—	500	250	760	380
			801 to 900	—	—	—	—	620	310
	901 to 1000	—	—	—	—	520	260		
	Max. acceleration/deceleration [mm/s ²]	5000							
	Positioning repeatability [mm]	±0.02							
	Lead [mm]	12	6	16	8	20	10		
Impact/Vibration resistance [m/s ²] ^{Note 4)}	50/20								
Actuation type	Ball screw								
Guide type	Linear guide								
Operating temperature range [°C]	5 to 40								
Operating humidity range [%RH]	90 or less (No condensation)								
Motor output/Size	100 W/□40		200 W/□60		400 W/□60				
Motor type	AC servo motor (100/200 VAC)								
Encoder	Motor type S2, S3, S4: Incremental 17-bit encoder (Resolution: 131072 p/rev) Motor type S6, S7, S8: Absolute 18-bit encoder(Resolution: 262144 p/rev)								
Type ^{Note 5)}	Non-magnetizing operation type								
Holding force [N]	131	255	197	385	330	660			
Power consumption at 20C [W] ^{Note 6)}	6.3		7.9		7.9				
Rated voltage [V]	24 VDC ⁰ / _{-10%}								

Note 1) Consult with SMC for the manufacture of intermediate strokes other than those specified on the above.

Note 2) For details, refer to "Speed-Work Load Graph (Guide)".

Note 3) The allowable speed will change depending on the stroke.

Note 4) 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. (Test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)

Note 5) Only when motor option "With lock" is selected.

Note 6) For an actuator with lock, add the power consumption for the lock.

Weight

Model	LEFS25					
Stroke [mm]	100	200	300	(400)	500	(600)
Product weight [kg]	2.20	2.50	2.75	3.05	3.30	3.60
Additional weight with lock [kg]	0.35					

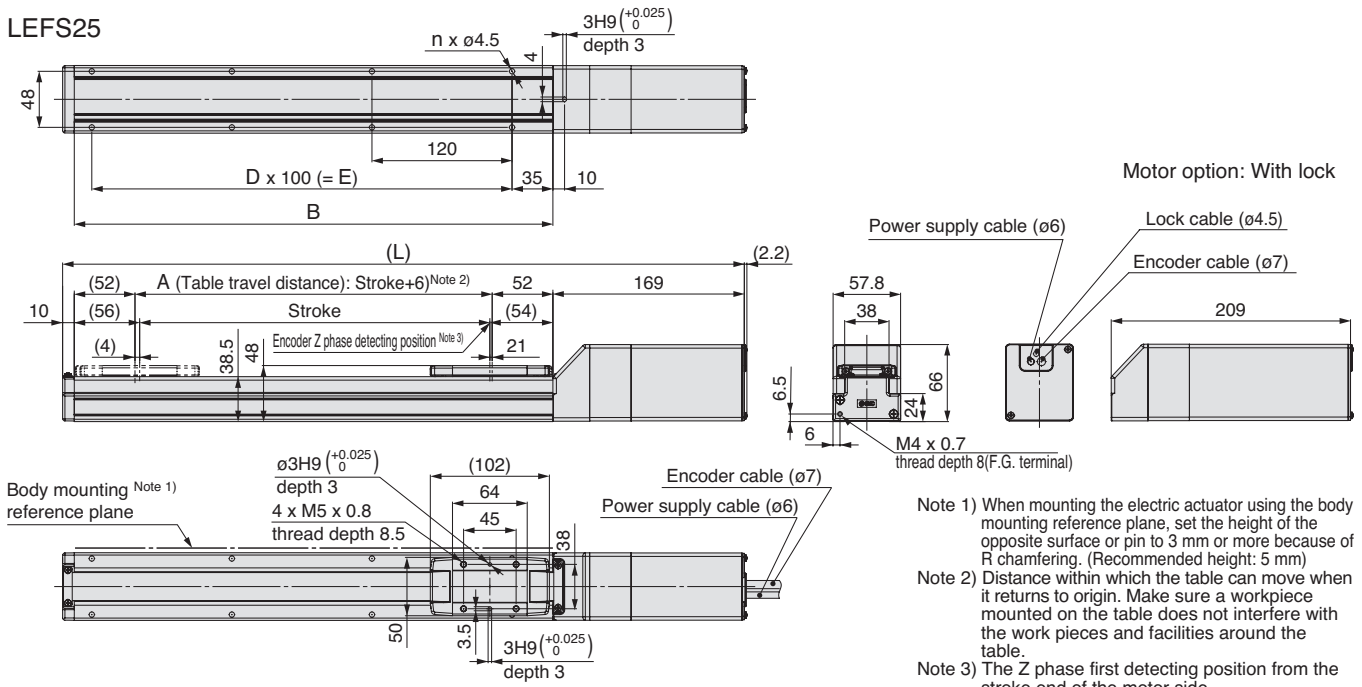
Model	LEFS32							
Stroke [mm]	100	200	300	(400)	500	(600)	(700)	(800)
Product weight [kg]	3.60	4.00	4.40	4.80	5.20	5.60	6.00	6.40
Additional weight with lock [kg]	0.70							

Model	LEFS40									
Stroke [mm]	200	300	(400)	500	(600)	(700)	800	(900)	(1000)	
Product weight [kg]	6.20	6.75	7.35	7.90	8.35	9.00	9.55	10.15	10.70	
Additional weight with lock [kg]	0.70									



Dimensions: Ball Screw Drive

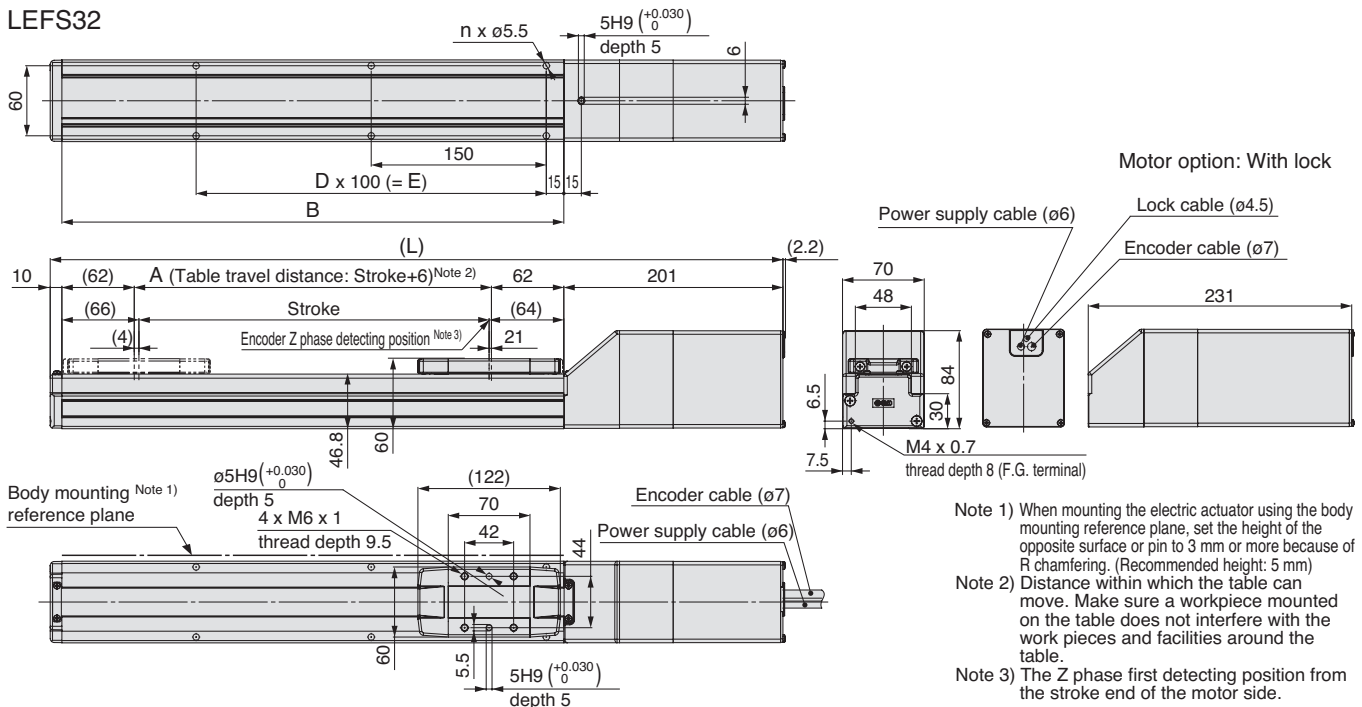
LEFS25



Model	L	A	B	n	D	E
LEFS25□□-100-□□□□	389	106	210	4	—	—
LEFS25□□-100B-□□□□	429	—	—	—	—	—
LEFS25□□-200-□□□□	489	206	310	6	2	240
LEFS25□□-200B-□□□□	529	—	—	—	—	—
LEFS25□□-300-□□□□	589	306	410	8	3	360
LEFS25□□-300B-□□□□	629	—	—	—	—	—

Model	L	A	B	n	D	E
LEFS25□□-400-□□□□	689	406	510	8	3	360
LEFS25□□-400B-□□□□	729	—	—	—	—	—
LEFS25□□-500-□□□□	789	506	610	10	4	480
LEFS25□□-500B-□□□□	829	—	—	—	—	—
LEFS25□□-600-□□□□	889	606	710	12	5	600
LEFS25□□-600B-□□□□	929	—	—	—	—	—

LEFS32



Model	L	A	B	n	D	E
LEFS32□□-100-□□□□	441	106	230	4	—	—
LEFS32□□-100B-□□□□	471	—	—	—	—	—
LEFS32□□-200-□□□□	541	206	330	6	2	300
LEFS32□□-200B-□□□□	571	—	—	—	—	—
LEFS32□□-300-□□□□	641	306	430	6	2	300
LEFS32□□-300B-□□□□	671	—	—	—	—	—
LEFS32□□-400-□□□□	741	406	530	8	3	450
LEFS32□□-400B-□□□□	771	—	—	—	—	—

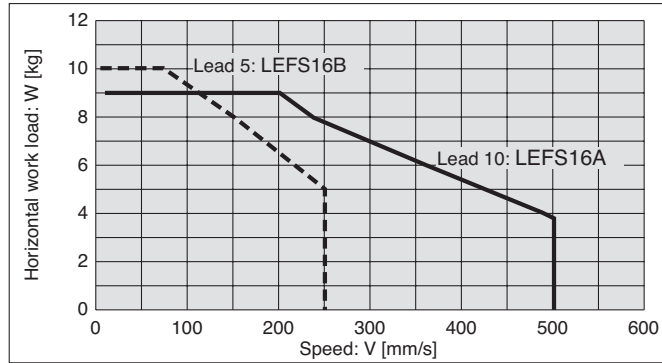
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LEFS32□□-500-□□□□	841	506	630	10	4	600
LEFS32□□-500B-□□□□	871	—	—	—	—	—
LEFS32□□-600-□□□□	941	606	730	10	4	600
LEFS32□□-600B-□□□□	971	—	—	—	—	—
LEFS32□□-700-□□□□	1041	706	830	12	5	750
LEFS32□□-700B-□□□□	1071	—	—	—	—	—
LEFS32□□-800-□□□□	1141	806	930	14	6	900
LEFS32□□-800B-□□□□	1171	—	—	—	—	—

Speed–Work Load Graph (Guide), Step Motor (Servo/24 VDC)

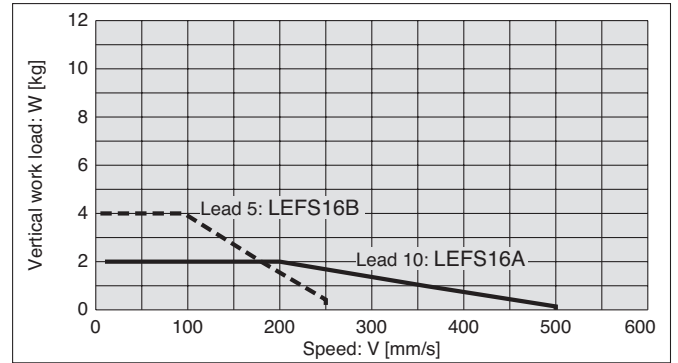
LEFS16/Ball Screw Drive

* The following graph shows the values when positioning force is 100%.

Horizontal

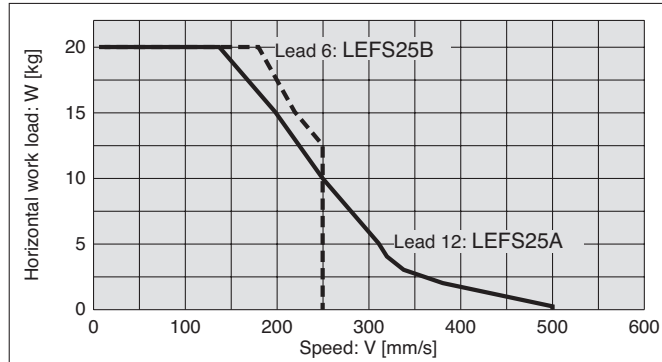


Vertical

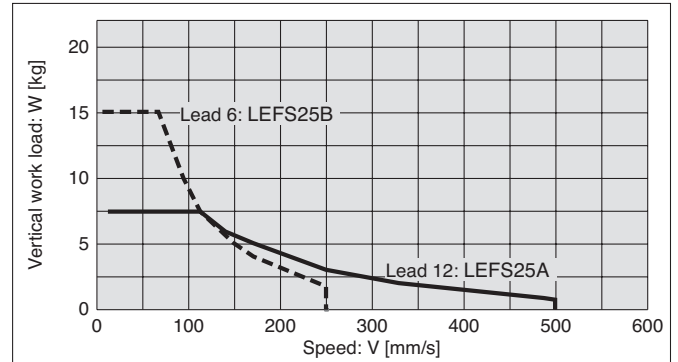


LEFS25/Ball Screw Drive

Horizontal

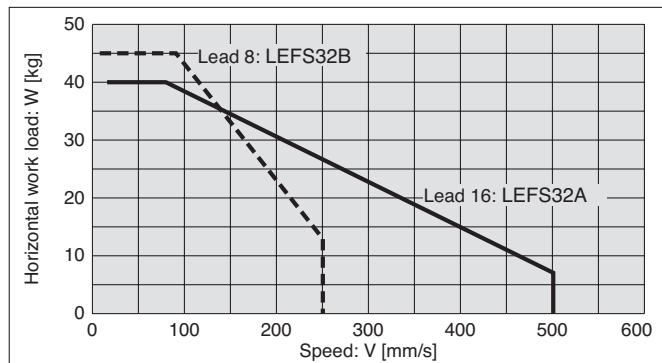


Vertical

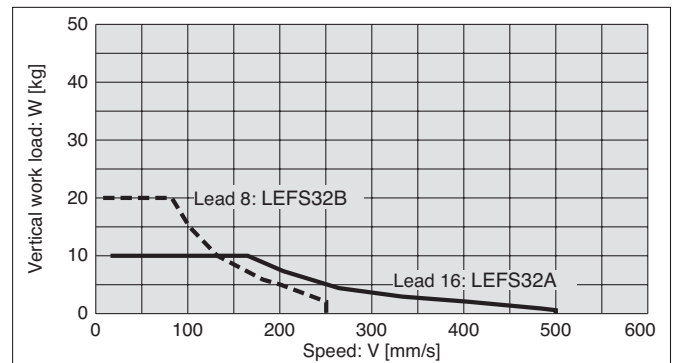


LEFS32/Ball Screw Drive

Horizontal

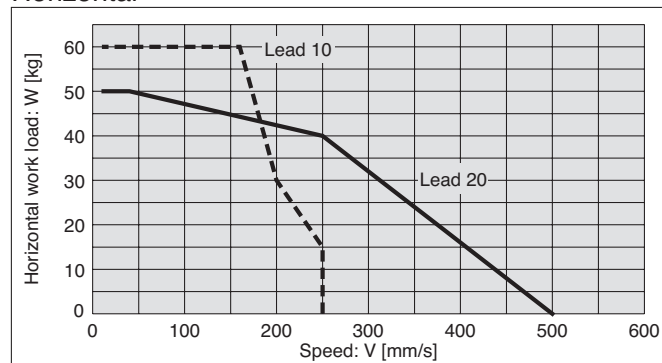


Vertical

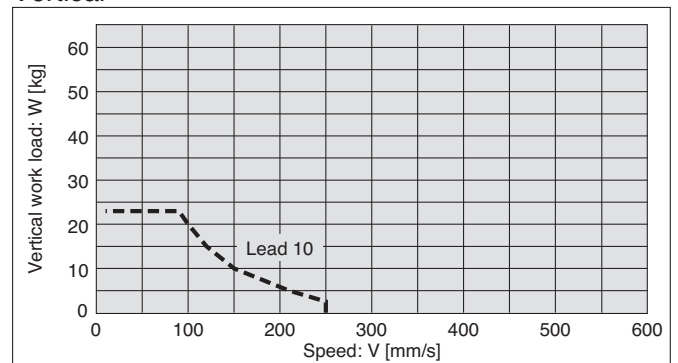


LEFS40/Ball Screw Drive

Horizontal



Vertical



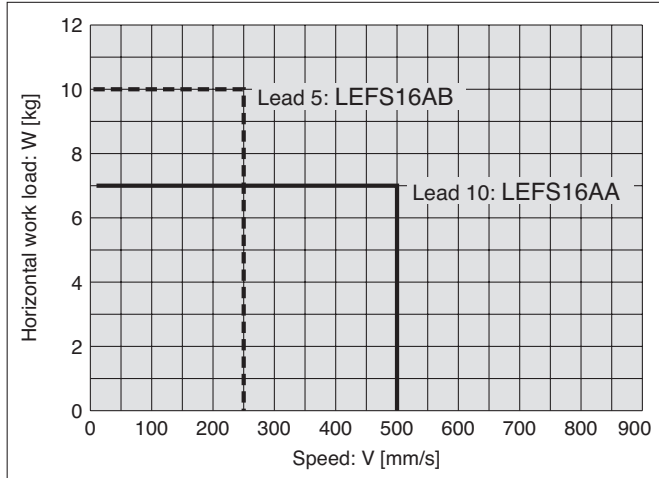
Electric Actuators

Speed–Work Load Graph (Guide), Servo Motor (Servo/24 VDC)

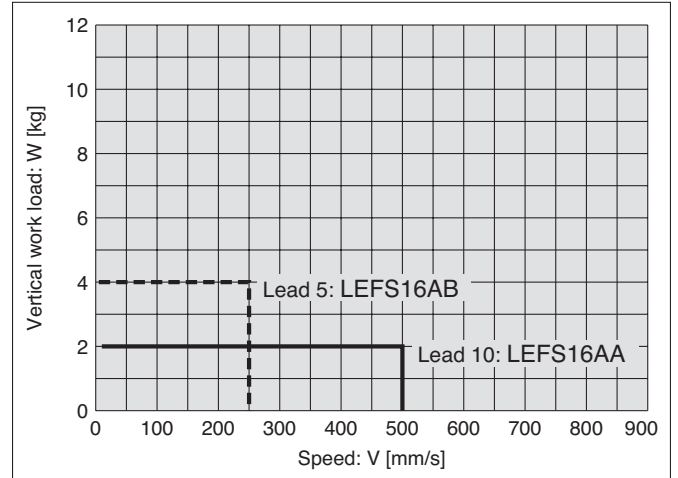
LEFS16A/Ball Screw Drive

* The following graph shows the values when positioning force is 250%.

Horizontal

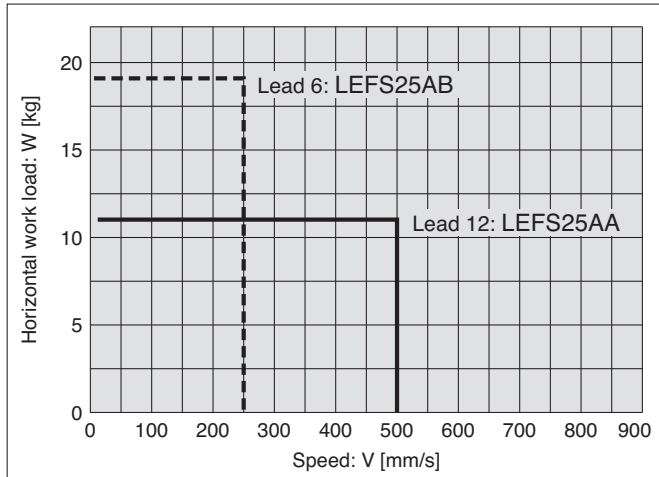


Vertical

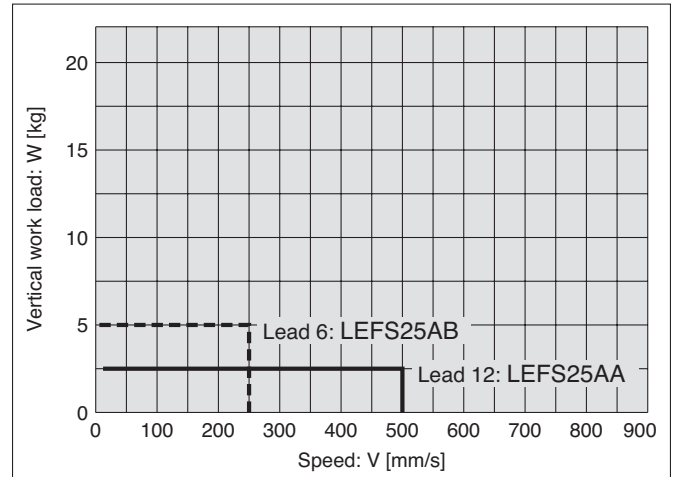


LEFS25A/Ball Screw Drive

Horizontal



Vertical

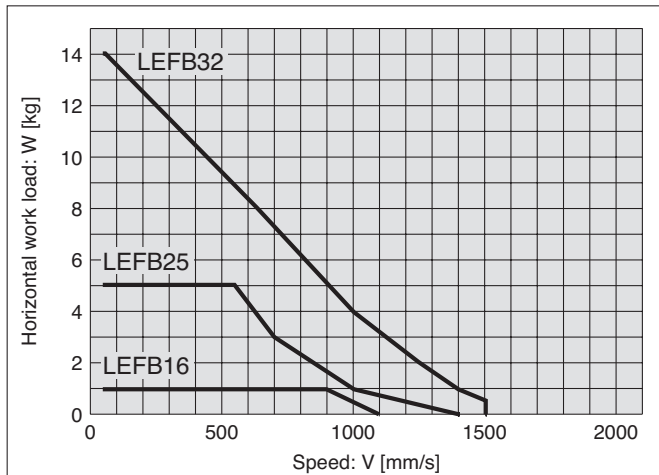


Step Motor (Servo/24 VDC)

LEFB/Belt Drive

* When positioning force is 100%

Horizontal

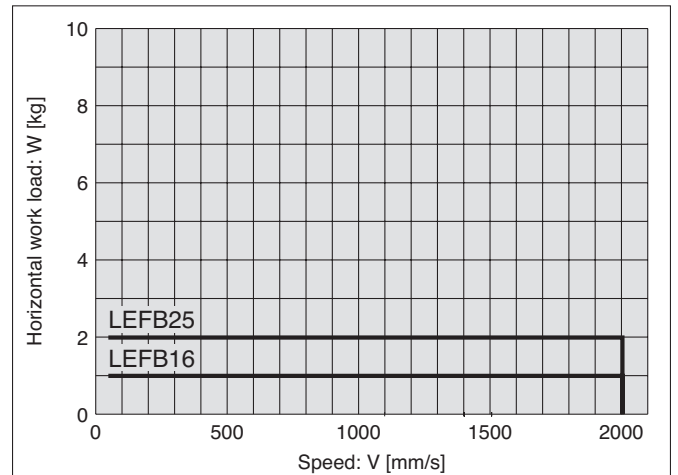


Servo Motor (24 VDC)

LEFB/Belt Drive

* When positioning force is 250%

Horizontal



Dynamic Allowable Moment

* This graph shows the amount of allowable overhang when the centre of gravity of the workpiece overhangs in one direction. When the centre of gravity of the workpiece overhangs in two directions, refer to the Electric Actuator Selection Software for confirmation. <http://www.smcworld.com>

Acceleration ——— 1000 mm/s² - - - 3000 mm/s² 5000 mm/s²

Orientation	Load overhanging direction m : Work load [kg] Me: Dynamic allowable moment [N·m] L : Amount of overhang to the centre of gravity of the workpiece [mm]	Model			
		LEF16	LEF25	LEF32	LEFS40
Horizontal	<p>Pitching</p>				
	<p>Yawing</p>				
	<p>Rolling</p>				
	<p>Pitching</p>				
Vertical	<p>Yawing</p>				

Electric Actuators

Electric Actuator Series LEY

ø16, ø25, ø32

Features

- LEY (Rod type)
 - Adjustable force, speed and positioning. 64 points
 - Easy setting, operation and installation.
 - 3 motor types available. Step motor and Servo motor DC, AC.
 - Drop prevention function (Self-lock mechanism).
- LEYG (Guide Rod Type)
 - Available with both slide-bearing and ball-bushing bearing.
 - Compatible with moment load and applicable as stopper (Slide bearing).
 - Adjustable position, speed and force: 64 points



How to Order Step motor / DC Servo motor

Bearing type

M	Slide bearing
L	Ball bushing bearing

Guide Rod type LEYG 16 M [] [] B - 50 [] [] [] [] - R 1 6P 1 []

Rod type LEY 16 [] [] B - 50 [] [] [] [] - R 1 6P 1 []

Size

16
25
32

Motor mounting position

-	Top mounting type
R*	Right side parallel type
L*	Left side parallel type
D	In-line

* Not available for LEYG□.

Motor Type

Symbol	Type	Size			Compatible controllers
		LEY□16	LEY□25	LEY□32	
-	Step motor (Servo/24 VDC)	●	●	●	LECP6 LECP1
A	Servo motor (24 VDC)	●	●	-	LECA6

Stroke [mm]

LEY	30 ~ 500
LEYG	30 ~ 300

* Refer to the below table for details.

Lead [mm]

Symbol	LEY□16	LEY□25	LEY□32
A	10	12	16
B	5	6	8
C	2.5	3	4

Motor option Note 1)

-	Without option
C	With motor cover
B	With lock Note 2)

Note 1) When [With lock] is selected, [With motor cover] cannot be selected.
Note 2) For 30 stroke or less of size 16 with [Motor mounting position: Top mounting type or right/left side parallel type], when [With lock] is selected, the motor projects through the end of the body. Select after confirming interface with such as work pieces.

Guide option

-	Without guide
F	With grease holding function

* Application for only size 25 and 32 slide bearings.

Controller mounting

-	Screw mounting
D	DIN rail mounting*

* Only available for the controller types "6N" and "6P". DIN rail is not included. Order it separately.

I/O cable length [m]

-	Without cable
1	1.5*
3	3*
5	5*

* If "Without controller" is selected for controller types, I/O cable is not included.

Controller type

-	Without controller	
6N	LECP6/LECA6	NPN
6P	(Step data input type)	PNP
1N	LECP1*	NPN
1P	(Programless type)	PNP

* Only available for the motor type "Step motor."

Actuator cable length [m]

-	Without cable
1	1.5
3	3
5	5

* Other lengths produced upon receipt of order (Robotic cable only).

Actuator cable type Note 1)

-	Without cable
S	Standard cable Note 2)
R	Robotic cable (Flexible cable)

Note 1) The standard cable should be used on fixed parts.
For using on moving parts, select the robotic cable.
Note 2) Only available for the motor type "Step motor."

Mounting Note 1)

Symbol	Type	Motor mounting position	
		Parallel	In-line
-	Ends tapped (Standard) Note 2)	●	●
U	Body bottom tapped	●	●
L	Foot	●	-
F	Rod flange Note 2)	●	●
G	Head flange Note 2)	● Note 4)	-
D	Double clevis Note 3)	●	-

Note 1) Mounting bracket is shipped together, (but not assembled).
Note 2) When mounting types are [Rod flange], [Head flange] or [Ends tapped] with horizontal cantilever, use it within the following stroke.
· LEY25: 200 or less, · LEY32: 100 or less
Note 3) In case of [Double clevis], use the actuator within the following stroke limit.
· LEY16: 100 or less, · LEY25: 200 or less, · LEY32: 200 or less
Note 4) "G" Head flange is not available for LEY32.

Stroke table

Model	Stroke [mm]	30	50	100	150	200	250	300	350	400	450	500	Manufacturable stroke range [mm]
		LEY16	●	●	●	●	●	●	●	-	-	-	
LEY25	●	●	●	●	●	●	●	●	●	-	-	15 to 400	
LEY32	●	●	●	●	●	●	●	●	●	●	●	20 to 500	
LEYG16	●	●	●	●	●	-	-	-	-	-	-	10 to 200	
LEYG25	●	●	●	●	●	●	●	-	-	-	-	15 to 300	
LEYG32	●	●	●	●	●	●	●	-	-	-	-	20 to 300	

* Consult with SMC for the manufacture of intermediate strokes.



For more product options and details see our specific catalogues or on-line information.

Product Recommendation



Stocked items for fast delivery

LEY16A-100-R36P1	LEY16B-100-R36P1	LEYG16LA-50-R36P1	LEYG16LB-50-R36P1
LEY25A-100-R36P1	LEY25B-100-R36P1	LEYG25LA-100-R36P1	LEYG25LB-100-R36P1
LEY32A-100-R36P1	LEY32C-100-R36P1	LEYG32LA-200-R36P1	LEYG32LB-200-R36P1
LEY16A-50-R36P1	LEY16B-50-R36P1	LEYG16MA-50-R36P1	LEYG16MB-50-R36P1
LEY25A-200-R36P1	LEY25B-200-R36P1	LEYG25MA-100-R36P1	LEYG25MB-100-R36P1
LEY32A-500-R36P1	LEY32C-500-R36P1	LEYG32MA-100-R36P1	LEYG32MB-100-R36P1



Auto Switches

- D-M9PWL (PNP 2-colour indication)




Note) For more options see the Auto Switch section, page XXX



Related Products

- Series LEC - Controller - page 906
- Series LECP1 - Controller - page 902
- Series LEH - Electric Grippers - page 887
- Series LEF - Electric Actuators (slider type) - page 815
- Series LEY - Electric Actuators (rod type) - page 831
- Series LER - Electric Rotary Actuators - page 881

Compatible controllers

Type	Step data input type 	Step data input type 	Programless type 
Series	LECP6	LECA6	LECP1
Feature(s)	Value input Standard controller		Capable of setting up operation without using a PC or teaching box
Compatible motor	Step motor (Servo/24 VDC)	Servo motor (24 VDC)	Step motor (Servo/24 VDC)
Maximum number of step data	64 points		14 points
Power supply voltage	24 VDC		
Reference page	Page 906	Page 906	Page 902

Specifications LEY Rod type

Step Motor (Servo/24 VDC)

Model		LEY16			LEY25			LEY32				
Actuator specifications	Stroke [mm] ^{Note 1)}	30, 50, 100, 150 200, 250, 300			30, 50, 100, 150, 200 250, 300, 350, 400			30, 50, 100, 150, 200, 250 300, 350, 400, 450, 500				
	Work load [kg] ^{Note 2)}	Horizontal	(3000 [mm/s ²])	4	11	20	12	30	30	20	40	40
		Vertical	(2000 [mm/s ²])	6	17	30	18	50	50	30	60	60
		Vertical	(3000 [mm/s ²])	2	4	8	8	16	30	11	22	43
	Pushing force [N] ^{Note 3) 4) 5)}	14 to 38	27 to 74	51 to 141	63 to 122	126 to 238	232 to 452	80 to 189	156 to 370	296 to 707		
	Speed [mm/s] ^{Note 5)}	15 to 500	8 to 250	4 to 125	18 to 500	9 to 250	5 to 125	24 to 500	12 to 250	6 to 125		
	Max. acceleration/deceleration [mm/s ²]	3000										
	Pushing speed [mm/s] ^{Note 6)}	50 or less			35 or less			30 or less				
	Positioning repeatability [mm]	±0.02										
	Screw lead [mm]	10	5	2.5	12	6	3	16	8	4		
Impact/Vibration resistance [m/s ²] ^{Note 7)}	50/20											
Actuation type	Ball screw + Belt (Motor parallel)											
Guide type	Sliding bushing (Piston rod)											
Operating temp. range [°C]	5 to 40											
Operating humidity range [%RH]	90 or less (No condensation)											
Electric specifications	Motor size	□28			□42			□56.4				
	Motor type	Step motor (Servo/24 VDC)										
	Encoder	Incremental A/B phase (800 pulse/rotation)										
	Rated voltage [V]	24 VDC ±10%										
	Power consumption [W] ^{Note 8)}	23			40			50				
	Standby power consumption when operating [W] ^{Note 9)}	16			15			48				
Momentary max. power consumption [W] ^{Note 10)}	43			48			104					
Lock unit specifications	Type ^{Note 10)}	Non-magnetizing operation type										
	Holding force [N]	20	39	78	78	157	294	108	216	421		
	Power consumption [W] ^{Note 11)}	3.6			5			5				
Rated voltage [V]	24 VDC ±10%											

Note 1) The intermediate strokes are produced upon receipt of order.

Note 2) Horizontal: The maximum value of the work load for the positioning operation. For the pushing operation, the maximum work load is equal to the "Vertical work load". An external guide is necessary to support the load. The actual work load and transfer speed will depend on the condition of the external guide.

Vertical: Speed is dependent on the work load.

The figures shown in () are the maximum acceleration/deceleration values.

Set these values to be 3000 [mm/s²] or less.

Note 3) Pushing force accuracy is ±20% (F.S.).

Note 4) Setting range of "Pushing force" for LEY16 is from 35% to 85%, for LEY25 is from 35% to 65%, and for LEY32 is from 35% to 85%. It is possible that "Pushing force" and "Duty ratio" changes dependent on the set value. Check "Model Selection" on page 2.

Note 5) The speed and force may change depending on the cable length, load and mounting conditions. Furthermore, if the cable length exceeds 5 m then it will decrease by up to 10% for each 5 m. (At 15 m: Reduced by up to 20%)

Note 6) This is the allowable pushing speed. When pushing conveying work please operate at less than the possible vertical load.

Note 7) 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. (Test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)

Note 8) Power consumption (including the controller) is for when the actuator is operating.

Note 9) Standby power consumption when operating (including the controller) is for when the actuator is stopped in the set position during operation. Except during pushing operation.

Note 10) Momentary max. power consumption (including the controller) is for when the actuator is operating. This value can be used for the selection of the power supply.

Note 11) With lock only.

Note 12) For an actuator with lock, add the power consumption for the lock.



Specifications LEY Rod type

- Note 1) The intermediate strokes are produced upon receipt of order.
- Note 2) Horizontal: The maximum value of the work load for the positioning operation. For the pushing operation, the maximum work load is equal to the "Vertical work load". An external guide is necessary to support the load. The actual work load and transfer speed will depend on the condition of the external guide. The figures shown in () are the maximum acceleration/deceleration values. Set these values to be 3000 [mm/s²] or less.
- Note 3) Pushing force accuracy is ±20% (F.S.).
- Note 4) Setting range of "Pushing force" for LEY16A is from 50% to 95% and for LEY25A is from 50% to 95%. It is possible that "Pushing force" and "Duty ratio" changes dependent on the set value. Check "Model Selection" on page 2.
- Note 5) This is the allowable pushing speed. When pushing conveying work please operate at less than the possible vertical load.
- Note 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. (Test was performed with the actuator in the initial state.)
Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)
- Note 7) Power consumption (including the controller) is for when the actuator is operating.
- Note 8) Standby power consumption when operating (including the controller) is for when the actuator is stopped in the set position during operation, except during pushing operation.
- Note 9) Momentary max. power consumption (including the controller) is for when the actuator is operating. This value can be used for the selection of the power supply.
- Note 10) With lock only.
- Note 11) For an actuator with lock, add the power consumption for the lock.

Servo motor (24 VDC)

Model		LEY16A				LEY25A			
Stroke [mm] ^{Note 1)}		30, 50, 100, 150 200, 250, 300				30, 50, 100, 150, 200 250, 300, 350, 400			
Work load [kg] ^{Note 2)}	Horizontal (3000 [mm/s ²])	3	6	12	7	15	30		
	Vertical (3000 [mm/s ²])	2	4	8	3	6	12		
Pushing force [N] ^{Note 3) 4)}		16 to 30	30 to 58	57 to 111	18 to 35	37 to 72	66 to 130		
Speed [mm/s]		15 to 500	8 to 250	4 to 125	18 to 500	9 to 250	5 to 125		
Max. acceleration/deceleration [mm/s ²]		3000							
Pushing speed [mm/s] ^{Note 5)}		50 or less				35 or less			
Positioning repeatability [mm]		±0.02							
Screw lead [mm]		10	5	2.5	12	6	3		
Impact/Vibration resistance [m/s ²] ^{Note 6)}		50/20							
Actuation type		Ball screw + Belt (Motor parallel)							
Guide type		Sliding bushing (Piston rod)							
Operating temp. range [°C]		5 to 40							
Operating humidity range [%RH]		90 or less (No condensation)							
Motor size		□28				□42			
Motor output [W]		30				36			
Motor type		Servo motor (24 VDC)							
Encoder		Incremental A/B (800 pulse/rotation)/Z phase							
Rated voltage [V]		24 VDC ±10%							
Power consumption [W] ^{Note 7)}		40				86			
Standby power consumption when operating [W] ^{Note 8)}		4 (Horizontal)/6 (Vertical)				4 (Horizontal)/12 (Vertical)			
Momentary max. power consumption [W] ^{Note 9)}		59				96			
Type ^{Note 10)}		Non-magnetizing operation type							
Holding force [N]		20	39	78	78	157	294		
Power consumption [W] ^{Note 11)}		3.6				5			
Rated voltage [V]		24 VDC ±10%							

Electric Actuators

Weight

Weight/Motor parallel

Series		LEY16							LEY25							LEY32												
Stroke [mm]		30	50	100	150	200	250	300	30	50	100	150	200	250	300	350	400	30	50	100	150	200	250	300	350	400	450	500
Product	Step motor	0.58	0.62	0.73	0.87	0.98	1.09	1.20	1.18	1.25	1.42	1.68	1.86	2.03	2.21	2.38	2.56	2.09	2.20	2.49	2.77	3.17	3.46	3.74	4.03	4.32	4.60	4.89
Weight [kg]	Servo motor	0.58	0.62	0.73	0.87	0.98	1.09	1.20	1.14	1.21	1.38	1.64	1.82	1.99	2.17	2.34	2.52	—	—	—	—	—	—	—	—	—	—	—

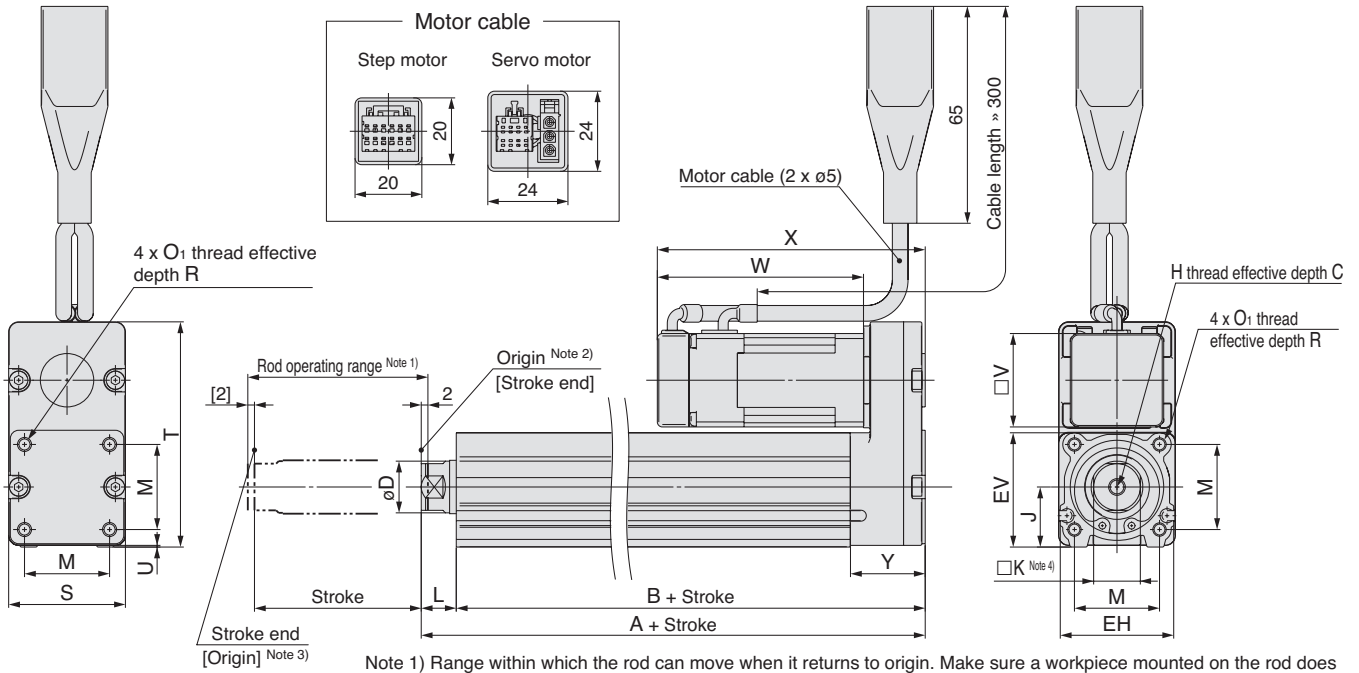
Weight/In-line motor

Series		LEY16D							LEY25D							LEY32D												
Stroke [mm]		30	50	100	150	200	250	300	30	50	100	150	200	250	300	350	400	30	50	100	150	200	250	300	350	400	450	500
Product	Step motor	0.58	0.62	0.73	0.87	0.98	1.09	1.20	1.17	1.24	1.41	1.67	1.85	2.02	2.20	2.37	2.55	2.08	2.19	2.48	2.76	3.16	3.45	3.73	4.02	4.31	4.59	4.88
Weight [kg]	Servo motor	0.58	0.62	0.73	0.87	0.98	1.09	1.20	1.13	1.20	1.37	1.63	1.81	1.98	2.16	2.33	2.51	—	—	—	—	—	—	—	—	—	—	—

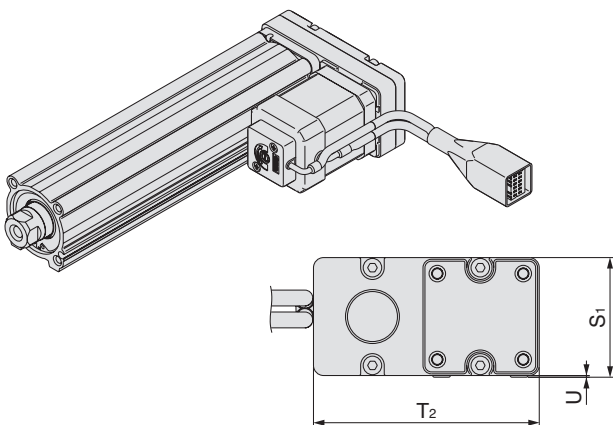
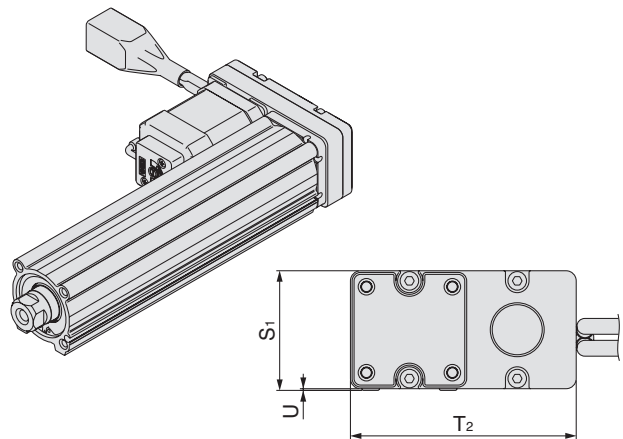
Additional Weight

Size		16	25	32
Lock		0.12	0.26	0.53
Motor cover		0.02	0.03	0.04
Rod end male thread	Male thread	0.01	0.03	0.03
	Nut	0.01	0.02	0.02
Foot (2 sets including mounting bolts)		0.06	0.08	0.14
Rod flange (including mounting bolts)		0.13	0.17	0.20
Head flange (including mounting bolts)				
Double clevis (including pin, retaining ring and mounting bolts)		0.08	0.16	0.22

Dimensions: Motor Parallel



Size	Stroke range [mm]	A	B	C	D	EH	EV	H	J	K	L	M	O_1	R	S	T	U	V	Step motor				Servo motor		Y
																			W	X	W	X			
16	10 to 100	101	90.5	10	16	34	34.3	M5 x 0.8	18	14	10.5	25.5	M4 x 0.7	7	35	67.5	0.5	28	61.8	80.3	62.5	81	22.5		
	101 to 300	121	110.5																						
25	15 to 100	130.5	116	13	20	44	45.5	M8 x 1.25	24	17	14.5	34	M5 x 0.8	8	46	92	1	42	63.4	85.4	59.6	81.6	26.5		
	101 to 400	155.5	141																						
32	20 to 100	148.5	130	13	25	51	56.5	M8 x 1.25	31	22	18.5	40	M6 x 1.0	10	60	118	1	56.4	68.4	95.4	—	—	34		
	101 to 500	178.5	160																						

 Motor left side parallel type/LEY 25 L
 16
 32

 Motor right side parallel type/LEY 25 R
 16
 32


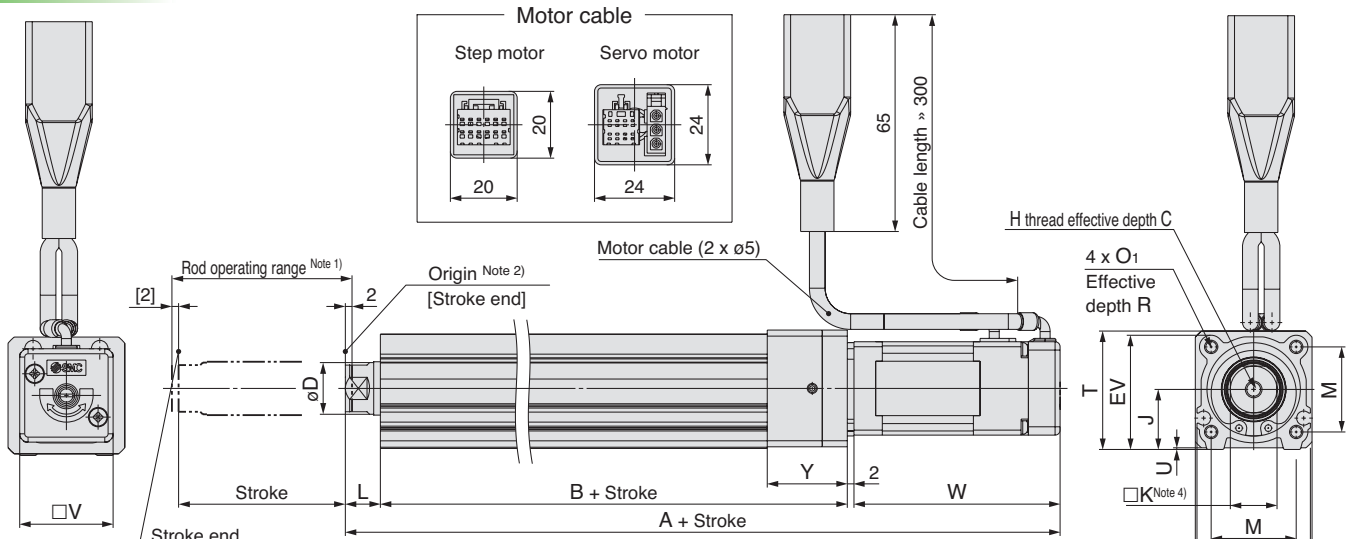
Size	S_1	T_2	U
16	35.5	67	0.5
25	47	91	1
32	61	117	1

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



For more product options and details see our specific catalogues or on-line information.

Dimensions: In-line Motor



Note 1) Range within which the rod can move when it returns to origin. Make sure a workpiece mounted on the rod does not interfere with the work pieces and facilities around the rod.
 Note 2) Position after return to origin.
 Note 3) The number in brackets indicates when the direction of return to origin has changed.
 Note 4) The direction of rod end width across flats (□K) differs depending on the products.

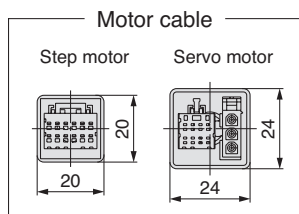
[mm]

Size	Stroke range [mm]	Step motor	Servo motor	B	C	D	EH	EV	H	J	K	L	M	O ₁	R	S	T	U
		A																
16	10 to 100	166.3	167	92	10	16	34	34.3	M5 x 0.8	18	14	10.5	25.5	M4 x 0.7	7	35	35.5	0.5
	101 to 300	186.3	187	112														
25	15 to 100	195.4	191.6	115.5	13	20	44	45.5	M8 x 1.25	24	17	14.5	34	M5 x 0.8	8	45	46.5	1.5
	101 to 400	220.4	216.6	140.5														
32	20 to 100	216.9	—	128	13	25	51	56.5	M8 x 1.25	31	22	18.5	40	M6 x 1	10	60	61	1
	101 to 500	246.9	—	158														

Size	Stroke range [mm]	V	Step motor	Servo motor	Y
			W		
16	10 to 100	28	61.8	62.5	24
	101 to 300				
25	15 to 100	42	63.4	59.6	26
	101 to 400				
32	20 to 100	56.4	68.4	—	32
	101 to 500				

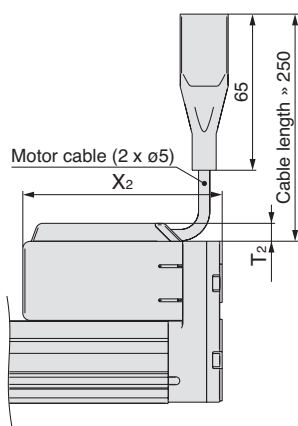
Dimensions:

Motor parallel 16 A
 With motor cover/LEY25□□B-□C 32 C

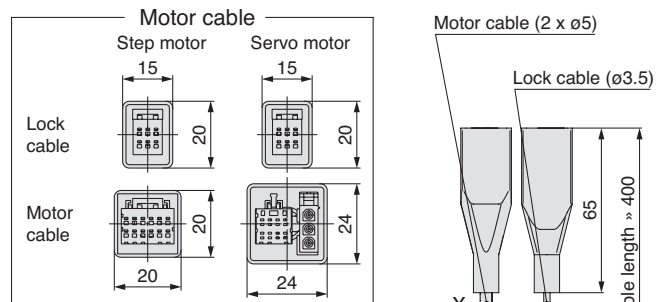


Size	T ₂	X ₂
16	7.5	83
25	7.5	88.5
32	7.5	98.5

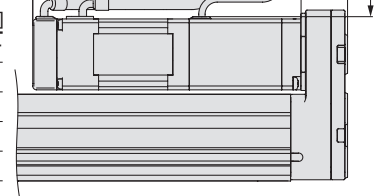
Motor cover material: Synthetic resin



16 A
 With lock/LEY25□□B-□B 32 C



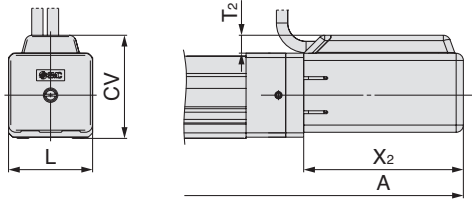
Size	Step motor		Servo motor	
	W	X	W	X
16	105.8	124.3	106.5	125
25	103.9	125.9	100.1	122.1
32	111.4	138.4	—	—



Dimensions

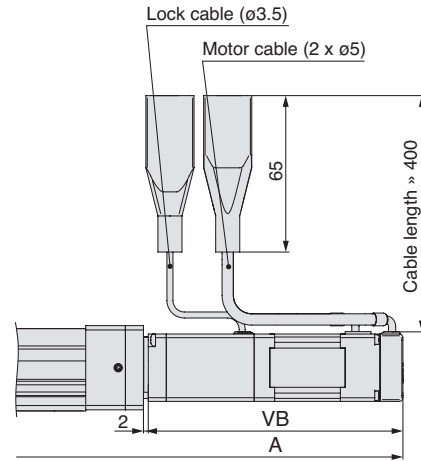
In-line motor

With motor cover/LEY25□□B-□□C
 16 A
 32 C



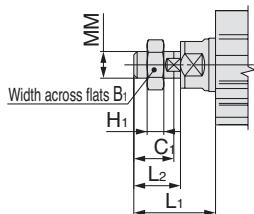
[mm]						
Size	Stroke range	A	T ₂	X ₂	L	CV
16	100st or less	169	7.5	66.5	35	43
	101st or more, 200st or less	189				
25	100st or less	198.5	7.5	68.5	46	54.5
	101st or more, 300st or less	223.5				
32	100st or less	220	7.5	73.5	60	68.5
	101st or more, 300st or less	250				

With lock/LEY25□□B-□□C
 16 A
 32 C



[mm]					
Size	Stroke range	Step motor		Servo motor	
		A		VB	
16	100st or less	210.3	211	105.8	106.5
	101st or more, 200st or less	230.3	231		
25	100st or less	235.9	232.1	103.9	100.1
	101st or more, 300st or less	260.9	257.1		
32	100st or less	259.9	—	111.4	—
	101st or more, 300st or less	289.9	—		

End male thread/LEY25□□B-□□M
 16 A
 32 C

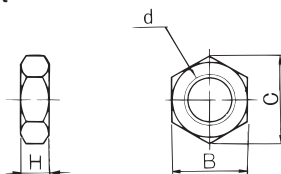


[mm]						
Size	B ₁	C ₁	H ₁	L ₁	L ₂	MM
16	13	12	5	24.5	14	M8 x 1.25
25	22	20.5	8	38	23.5	M14 x 1.5
32	22	20.5	8	42.0	23.5	M14 x 1.5

* The L₁ measurement is when the unit is in the original position. At this position, 2 mm at the end.

Accessories

Rod End Nut



Material: Carbon steel (Nickel plated)
 [mm]

Part no.	Applicable size	d	H	B	C
NT-02	16	M8 x 1.25	5	13	15.0
NT-04	25, 32	M14 x 1.5	8	22	25.4

Mounting Bracket/Part No.

Applicable size	Foot	Flange	Double clevis
16	LEY-L016	LEY-F016	LEY-D016
25	LEY-L025	LEY-F025	LEY-D025
32	LEY-L032	LEY-F032	LEY-D032

* When ordering foot brackets, order 2 brackets for one cylinder.

* The following parts will be included with each type of bracket.

Foot: Body mounting bolt

Flange: Body mounting bolt

Double clevis: Clevis pin, Type C retaining ring for axis, Body mounting bolt



Accessories

Simple Joint Brackets * The joint is not included in type A and type B mounting brackets. Therefore, it must be ordered separately.

Joint and Mounting Bracket (Type A/B)/Part No.

Joint LEY – U025

Applicable size
025 25, 32

Mounting bracket YA – 03

Applicable size
03 25, 32

● Mounting bracket

YA	Type A mounting bracket
YB	Type B mounting bracket

Allowable Eccentricity [mm]

Applicable size	25	32
Eccentricity tolerance	±1	
Backlash	0.5	

<How to Order>
 ● The joint is not included in type A and type B mounting brackets. Therefore, it must be ordered separately.
 Example)
 ● Joint LEY-U025
 ● Type A mounting bracket YA-03

Joint and Mounting Bracket (Type A/B)/Part No.

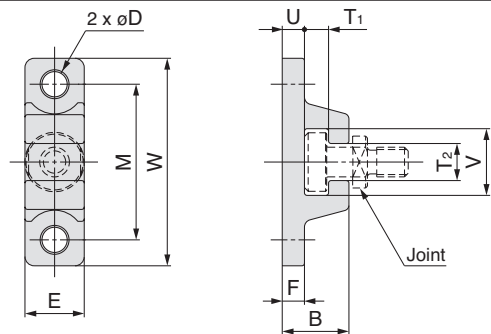
Applicable size	Joint part no.	Applicable mounting bracket part no.	
		Type A mounting bracket	Type B mounting bracket
25, 32	LEY-U025	YA-03	YB-03

Joint

Material: Stainless steel [mm]

Part no.	Applicable size	UA	C	d ₁	d ₂	H	K	L	UT	Weight [g]
LEY-U025	25, 32	17	11	16	8	M8 x 1.25	14	7	6	22

Type A Mounting Bracket

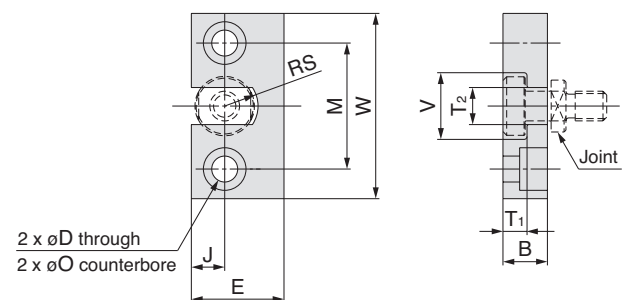


Material: Chromium molybdenum steel (Nickel plated) [mm]

Part no.	Applicable size	B	D	E	F	M	T ₁	T ₂
YA-03	25, 32	18	6.8	16	6	42	6.5	10

Part no.	Applicable size	U	V	W	Weight [g]
YA-03	25, 32	6	18	56	55

Type B Mounting Bracket



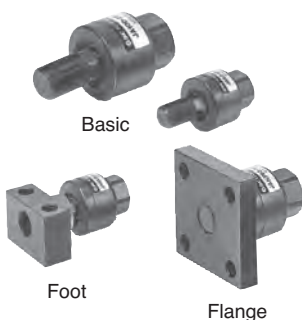
Material: Stainless steel [mm]

Part no.	Applicable size	B	D	E	J	M	øO
YB-03	25, 32	12	7	25	9	34	11.5 depth 7.5

Part no.	Applicable size	T ₁	T ₂	V	W	RS	Weight [g]
YB-03	25, 32	6.5	10	18	50	9	80

Floating Joints

● For Male Thread/JA



● For Male Thread/JS (Stainless steel)

- Stainless steel 304 (Appearance)
- Dust cover
- Fluororubber/Silicone rubber



Applicable size	Thread size
16	M8 x 1.25
25, 32	M14 x 1.5

● For Female Thread/JB

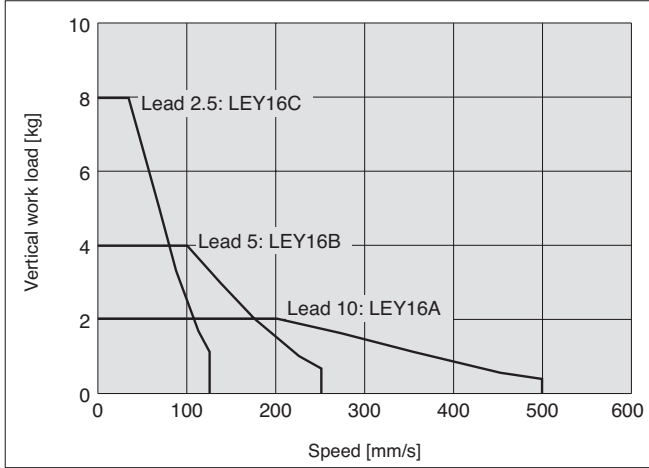


Applicable size	Thread size
16	M5 x 0.8
25, 32	M8 x 1.25

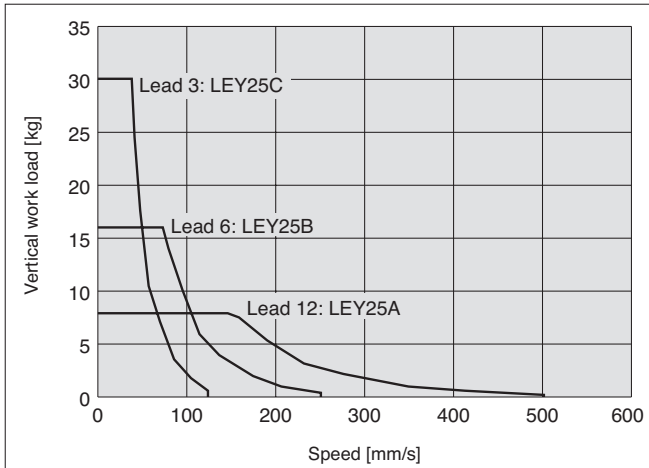
Speed-Vertical Work Load Graph (Guide)

Step Motor (Servo/24 VDC)

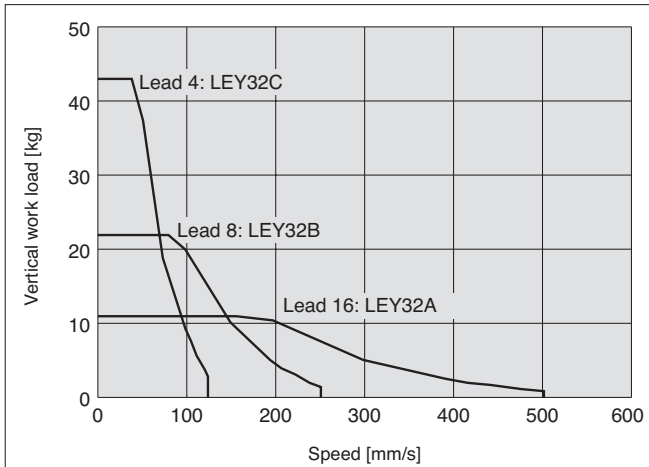
LEY16



LEY25

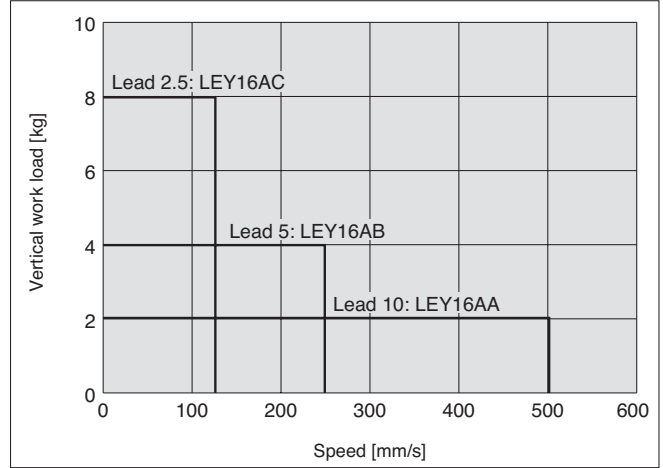


LEY32

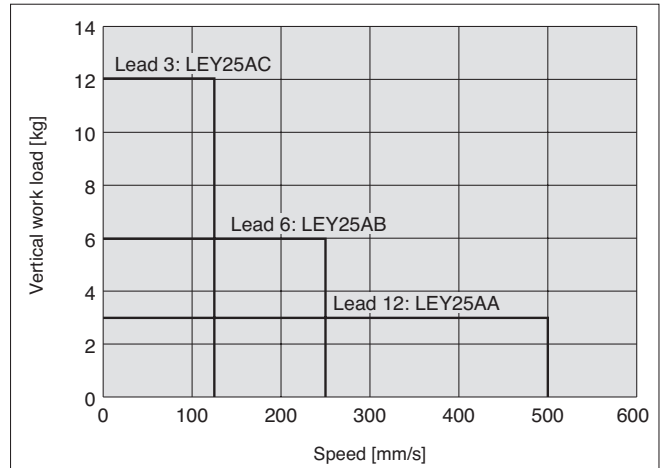


Servo Motor (24 VDC)

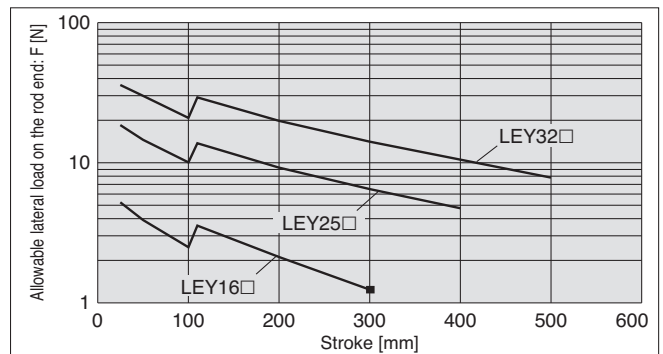
LEY16



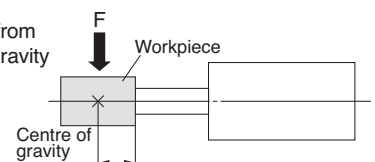
LEY25



Allowable Lateral Load on the Rod End (Guide)



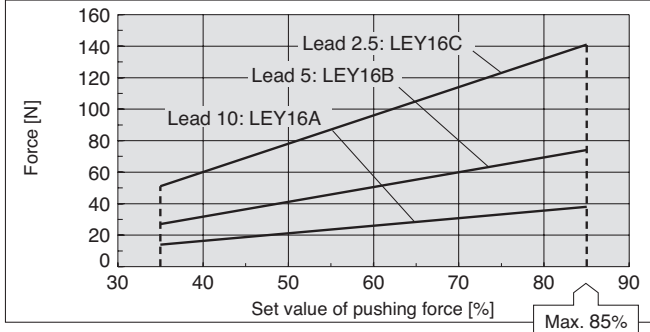
[Stroke]
= [Product stroke] + [Distance from the rod end to the centre of gravity of the workpiece]



Force Conversion Graph (Guide)

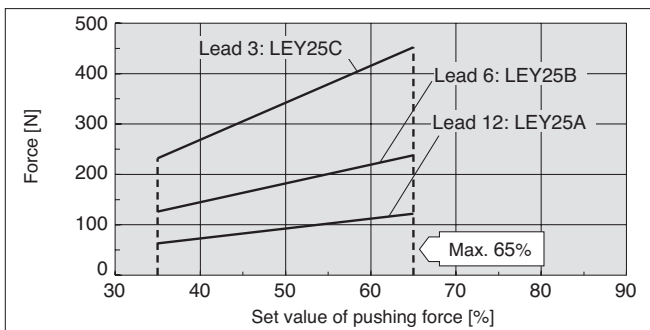
Step Motor (Servo/24 VDC)

LEY16



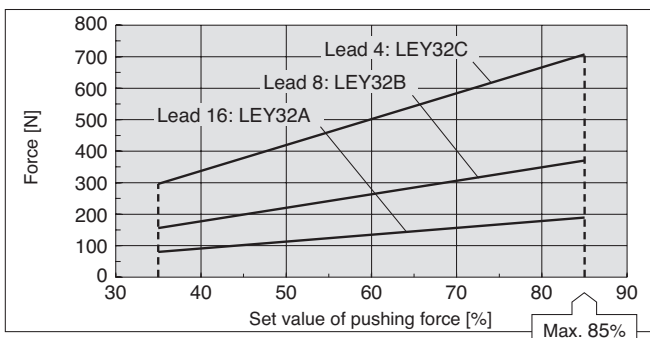
Ambient temperature	Set value of pushing force [%]	Duty ratio [%]	Continuous pushing time [minute]
25°C or less	85 or less	100	—
	40 or less	100	—
40°C	50	70	12
	70	20	1.3
	85	15	0.8

LEY25



Ambient temperature	Set value of pushing force [%]	Duty ratio [%]	Continuous pushing time [minute]
40°C or less	65 or less	100	—

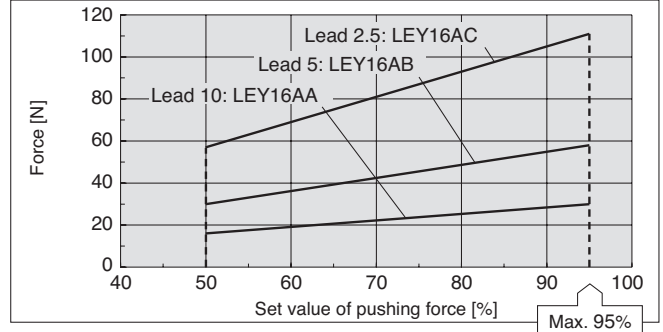
LEY32



Ambient temperature	Set value of pushing force [%]	Duty ratio [%]	Continuous pushing time [minute]
25°C or less	85 or less	100	—
	65 or less	100	—
40°C	85	50	15

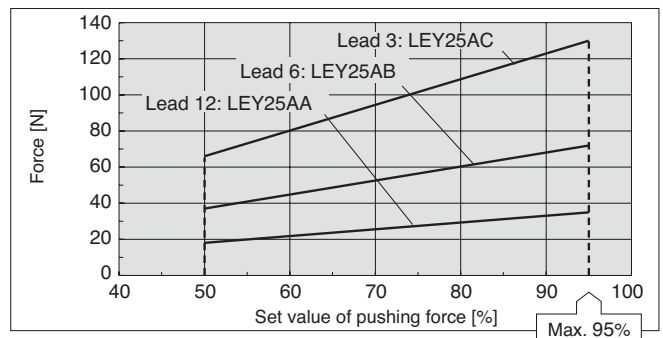
Servo Motor (24 VDC)

LEY16



Ambient temperature	Set value of pushing force [%]	Duty ratio [%]	Continuous pushing time [minute]
40°C or less	95 or less	100	—

LEY25



Ambient temperature	Set value of pushing force [%]	Duty ratio [%]	Continuous pushing time [minute]
40°C or less	95 or less	100	—

<Pushing Force and Trigger Level Range> Without Load

Model	Pushing speed [mm/s]	Pushing force (Setting input value)	Model	Pushing speed [mm/s]	Pushing force (Setting input value)
LEY16□	1 to 4	30% to 85%	LEY16□A	1 to 4	40% to 95%
	5 to 20	35% to 85%		5 to 20	60% to 95%
	21 to 50	60% to 85%		21 to 50	80% to 95%
LEY25□	1 to 4	20% to 65%	LEY25□A	1 to 4	40% to 95%
	5 to 20	35% to 65%		5 to 20	60% to 95%
	21 to 35	50% to 65%		21 to 35	80% to 95%
LEY32□	1 to 4	20% to 85%			
	5 to 20	35% to 85%			
	21 to 30	60% to 85%			

Note) For the vertical load (upward), the pushing force (maximum) must be set as shown below, and the device should be operated with a work load less than that shown below.

Model	LEY16□			LEY25□			LEY32□			LEY16□A			LEY25□A		
Lead	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Work load [kg]	1	1.5	3	2.5	5	10	4.5	9	18	1	1.5	3	1.2	2.5	5
Pushing force	85%			65%			85%			95%			95%		

Specifications LEYG Guide rod type

Step Motor (Servo/24 VDC)

Model			LEYG16 ^M			LEYG25 ^M			LEYG32 ^M		
Stroke [mm] ^{Note 1)}			30, 50, 100, 150, 200			30, 50, 100, 150, 200, 250, 300			30, 50, 100, 150, 200, 250, 300		
Work load [kg]	Horizontal	Acceleration/Deceleration at 3000 [mm/s ²]	4	11	20	12	30	30	20	40	40
		Acceleration/Deceleration at 2000 [mm/s ²]	6	17	30	18	50	50	30	60	60
	Vertical	Acceleration and deceleration at 3000 [mm/s ²]	1.5	3.5	7.5	7	15	29	9	20	41
Pushing force [N] ^{Note 3) 4) 5)}			14 to 38	27 to 74	51 to 141	63 to 122	126 to 238	232 to 452	80 to 189	156 to 370	296 to 707
Speed [mm/s] ^{Note 5)}			15 to 500	8 to 250	4 to 125	18 to 500	9 to 250	5 to 125	24 to 500	12 to 250	6 to 125
Max. acceleration/deceleration [mm/s ²]			3000								
Pushing speed [mm/s] ^{Note 6)}			50 or less			35 or less			30 or less		
Positioning repeatability [mm]			±0.02								
Screw lead [mm]			10	5	2.5	12	6	3	16	8	4
Impact/Vibration resistance [m/s ²] ^{Note 7)}			50/20								
Actuation type			Ball screw + Belt (Motor parallel)								
Guide type			Sliding bearing (LEYG□M), Ball bushing bearing (LEYG□L)								
Operating temp. range [°C]			5 to 40								
Operating humidity range [%RH]			90 or less (No condensation)								
Motor size			□28			□42			□56.4		
Motor type			Step motor (Servo/24 VDC)								
Encoder			Incremental A/B phase (800 pulse/rotation)								
Rated voltage [V]			24 VDC ±10%								
Power consumption [W] ^{Note 8)}			23			40			50		
Standby power consumption when operating [W] ^{Note 9)}			16			15			48		
Momentary max. power consumption [W] ^{Note 10)}			43			48			104		
Controller weight [kg]			0.15 (Screw mounting), 0.17 (DIN rail mounting)								
Type ^{Note 11)}			Non-magnetizing operation type								
Holding force [N]			20	39	78	78	157	294	108	216	421
Power consumption [W] ^{Note 12)}			3.6			5			5		
Rated voltage [V]			24 VDC ±10%								

Note 1) The intermediate strokes are produced upon receipt of order.

Note 2) Horizontal: The maximum value of the work load for the positioning operation. For the pushing operation, the maximum work load is equal to the "Vertical work load". An external guide is necessary to support the load. The actual work load and transfer speed will depend on the condition of the external guide.
Vertical: Speed is dependent on the work load.
Set acceleration/deceleration values to be 3000 [mm/s²] or less.

Note 3) Pushing force accuracy is ±20% (F.S.).

Note 4) Setting range of "Pushing force" for LEYG16 is from 35% to 85%, for LEYG25 is from 35% to 65%, and for LEYG32 is from 35% to 85%. It is possible that "Pushing force" and "Duty ratio" changes dependent on the set value. Check "Model Selection" on page 2.

Note 5) The speed and force may change depending on the cable length, load and mounting conditions. Furthermore, if the cable length exceeds 5 m then it will decrease by up to 10% for each 5 m. (At 15 m: Reduced by up to 20%)

Note 6) Pushing speed is the allowable speed for the pushing operation.

Note 7) Impact resistance: No malfunction occurred when it was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)

Note 8) Power consumption (including the controller) is for when the actuator is operating.

Note 9) Standby power consumption when operating (including the controller) is for when the actuator is stopped in the set position during operation, except during pushing operation.

Note 10) Momentary max. power consumption (including the controller) is for when the actuator is operating. This value can be used for the selection of the power supply.

Note 11) With lock only.

Note 12) For an actuator with lock, add the power consumption for the lock.



Specifications LEYG Guide rod type

- Note 1) Strokes shown in () and the intermediate strokes are produced upon receipt of order.
- Note 2) Horizontal: The maximum value of the work load for the positioning operation. For the pushing operation, the maximum work load is equal to the "Vertical work load".
The external guide is necessary to support the load. The actual work load and transfer speed will depend on the condition of the external guide.
Set acceleration/deceleration values to be 3000 [mm/s²] or less.
- Note 3) Pushing force accuracy is ±20% (F.S.).
- Note 4) Setting range of "Pushing force" for LEYG16A is from 50% to 95% and for LEYG25A is from 50% to 95%. It is possible that "Pushing force" and "Duty ratio" changes dependent on the set value. Check "Model Selection" on page 2.
- Note 5) Pushing speed is the allowable speed for the pushing operation.
- Note 6) Impact resistance: No malfunction occurred when it was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)
Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)
- Note 7) Power consumption (including the controller) is for when the actuator is operating.
- Note 8) Standby power consumption when operating (including the controller) is for when the actuator is stopped in the set position during operation, except during pushing operation.
- Note 9) Momentary max. power consumption (including the controller) is for when the actuator is operating. This value can be used for the selection of the power supply.
- Note 10) With lock only.
- Note 11) For an actuator with lock, add the power consumption for the lock.

Servo Motor (24 VDC)

Model		LEYG16 ^M A					LEYG25 ^M A						
Actuator specifications	Stroke [mm] ^{Note 1)}	30, 50, 100, 150, 200					30, 50, 100, 150, 200, 250, 300						
	Work load [kg] ^{Note 2)}	Horizontal	Acceleration/Deceleration at 3000 [mm/s ²]					3	6	12	7	15	30
		Vertical	Acceleration/Deceleration at 3000 [mm/s ²]					1.5	3.5	7.5	2	5	11
	Pushing force [N] ^{Note 3) 4)}		16 to 30	30 to 58	57 to 111	18 to 35	37 to 72	66 to 130					
	Speed [mm/s]		15 to 500	8 to 250	4 to 125	18 to 500	9 to 250	5 to 125					
	Max. acceleration/deceleration [mm/s ²]		3000										
	Pushing speed [mm/s] ^{Note 5)}		50 or less					35 or less					
	Positioning repeatability [mm]		±0.02										
	Screw lead [mm]		10	5	2.5	12	6	3					
	Impact/Vibration resistance [m/s ²] ^{Note 6)}		50/20										
Actuation type		Ball screw + Belt (Motor parallel)											
Guide type		Sliding bearing (LEYG□M), Ball bushing bearing (LEYG□L)											
Operating temp. range [°C]		5 to 40											
Operating humidity range [%]		90 RH or less (No condensation)											
Electric specifications	Motor size	□28					□42						
	Motor output [W]	30					36						
	Motor type	Servo motor (24 VDC)											
	Encoder	Incremental A/B (800 pulse/rotation)/Z phase											
	Rated voltage [V]	24 VDC ±10%											
	Power consumption [W] ^{Note 7)}	40					86						
	Standby power consumption when operating [W] ^{Note 8)}	4 (Horizontal)/6 (Vertical)					4 (Horizontal)/12 (Vertical)						
	Momentary max. power consumption [W] ^{Note 9)}	59					96						
Controller weight [kg]		0.15 (Screw mounting), 0.17 (DIN rail mounting)											
Lock unit specifications	Type ^{Note 10)}	Non-magnetizing operation type											
	Holding force [N]	20	39	78	78	157	294						
	Power consumption [W] ^{Note 11)}	3.6					5						
	Rated voltage [V]	24 VDC ±10%											

Weight

Weight/Motor parallel

Model		LEYG16M					LEYG25M							LEYG32M						
Stroke [mm]		30	50	100	150	200	30	50	100	150	200	250	300	30	50	100	150	200	250	300
Product weight [kg]	Step motor	0.83	0.97	1.20	1.49	1.66	1.67	1.86	2.18	2.60	2.94	3.28	3.54	2.91	3.17	3.72	4.28	4.95	5.44	5.88
	Servo motor	0.83	0.97	1.20	1.49	1.66	1.63	1.82	2.14	2.56	2.90	3.24	3.50	—	—	—	—	—	—	—

Model		LEYG16L					LEYG25L							LEYG32L						
Stroke [mm]		30	50	100	150	200	30	50	100	150	200	250	300	30	50	100	150	200	250	300
Product weight [kg]	Step motor	0.84	0.97	1.14	1.43	1.58	1.68	1.89	2.13	2.56	2.82	3.14	3.38	2.91	3.18	3.57	4.12	4.66	5.17	5.56
	Servo motor	0.84	0.97	1.14	1.43	1.58	1.64	1.85	2.09	2.52	2.78	3.10	3.34	—	—	—	—	—	—	—

Weight/In-line motor

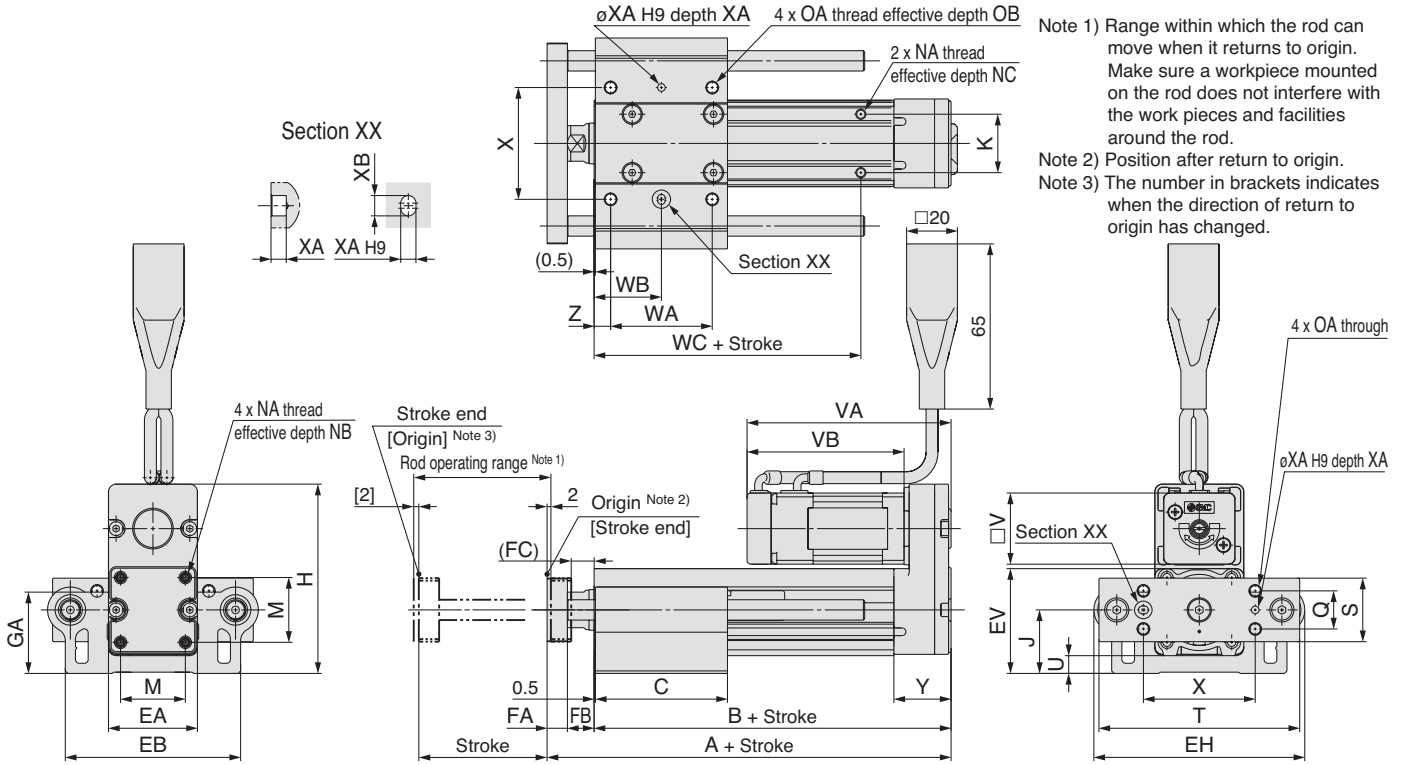
Model		LEYG16M					LEYG25M							LEYG32M						
Stroke [mm]		30	50	100	150	200	30	50	100	150	200	250	300	30	50	100	150	200	250	300
Product weight [kg]	Step motor	0.83	0.97	1.20	1.49	1.66	1.66	1.85	2.17	2.59	2.93	3.27	3.53	2.90	3.16	3.71	4.27	4.94	5.43	5.87
	Servo motor	0.83	0.97	1.20	1.49	1.66	1.62	1.81	2.13	2.55	2.89	3.23	3.49	—	—	—	—	—	—	—

Model		LEYG16L					LEYG25L							LEYG32L						
Stroke [mm]		30	50	100	150	200	30	50	100	150	200	250	300	30	50	100	150	200	250	300
Product weight [kg]	Step motor	0.84	0.97	1.14	1.43	1.58	1.67	1.88	2.12	2.55	2.81	3.13	3.37	2.90	3.17	3.56	4.11	4.65	5.16	5.55
	Servo motor	0.84	0.97	1.14	1.43	1.58	1.63	1.84	2.08	2.51	2.77	3.09	3.33	—	—	—	—	—	—	—

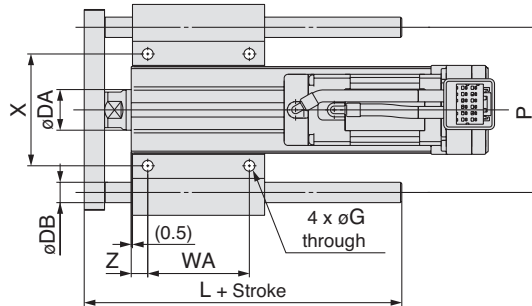
Additional Weight [kg]

Size	16	25	32
Lock	0.12	0.26	0.53
Motor cover	0.02	0.03	0.04

Dimensions: Motor Parallel LEYG


 LEYG□L (Ball Bushing Bearing)
 Standard Stroke: 50, 100, 200

Size	Stroke range	L	DB
16	90st or less	75	8
	101st or more, 200st or less	105	
	114st or less	91	
25	115st or more, 190st or less	115	10
	191st or more, 300st or less	133	
	114st or less	97.5	
32	115st or more, 190st or less	116.5	13
	191st or more, 300st or less	134	


 LEYG□M (Sliding Bearing)
 Standard Stroke: 30, 50, 100

Size	Stroke range	L	DB
16	64st or less	51.5	10
	65st or more, 90st or less	74.5	
	91st or more, 200st or less	105	
25	59st or less	67.5	12
	60st or more, 185st or less	100.5	
	186st or more, 300st or less	138	
32	54st or less	74	16
	55st or more, 180st or less	107	
	181st or more, 300st or less	144	

LEYG□M, LEYG□L Common

Size	Stroke range	A	B	C	DA	EA	EB	EH	EV	FA	FB	FC	G	GA	H	J	K	M	NA	NB	NC
16	39st or less	109	90.5	37	16	35	69	83	41.3	8	10.5	8.5	4.3	32	74.5	25	23	25.5	M4 x 0.7	7	5.5
	40st or more, 100st or less			52																	
	101st or more, 200st or less			82																	
25	39st or less	141.5	116	50	20	46	85	103	52.5	11	14.5	12.5	5.4	40.5	99	31	29	34	M5 x 0.8	8	6.5
	40st or more, 100st or less			67.5																	
	101st or more, 124st or less			84.5																	
	125st or more, 200st or less			102																	
32	39st or less	190.5	160	55	25	60	101	123	64	12	18.5	16.5	5.4	50.5	125.5	38.5	30	40	M6 x 1.0	10	8.5
	40st or more, 100st or less			68																	
	101st or more, 124st or less			85																	
	125st or more, 200st or less			102																	
Size	Stroke range	OA	OB	P	Q	S	T	U	V	Step motor VA	Servo motor VB	VA	VB	WA	WB	WC	X	XA	XB	Y	Z
16	39st or less	M5 x 0.8	10	65	15	25	79	7	28	80.3	61.8	81	62.5	25	19	55	44	3	4	22.5	6.5
	40st or more, 100st or less													40	26.5						
	101st or more, 200st or less													70	41.5						
														35	26						
25	39st or less	M6 x 1.0	12	80	18	30	95	7	42	85.4	63.4	81.6	59.6	50	33.5	95	54	4	5	26.5	8.5
	40st or more, 100st or less													70	43.5						
	101st or more, 124st or less													85	51						
	125st or more, 200st or less													85	51						
32	39st or less	M6 x 1.0	12	95	28	40	117	7.5	56.4	95.4	68.4	-	-	40	28.5	75	64	5	6	34	8.5
	40st or more, 100st or less													50	33.5						
	101st or more, 124st or less													70	43.5						
	125st or more, 200st or less													85	51						



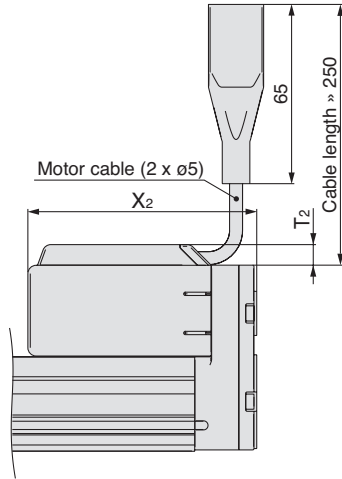
Dimensions

Motor parallel

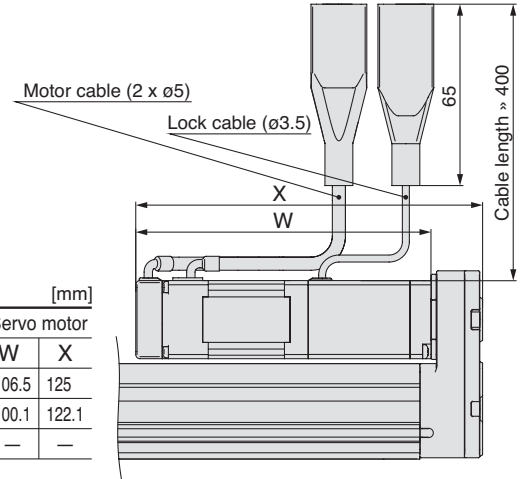
 With motor cover/LEYG25□□B-□C
 Size 16 A
 25 A
 32 C

[mm]		
Size	T ₂	X ₂
16	7.5	83
25	7.5	88.5
32	7.5	98.5

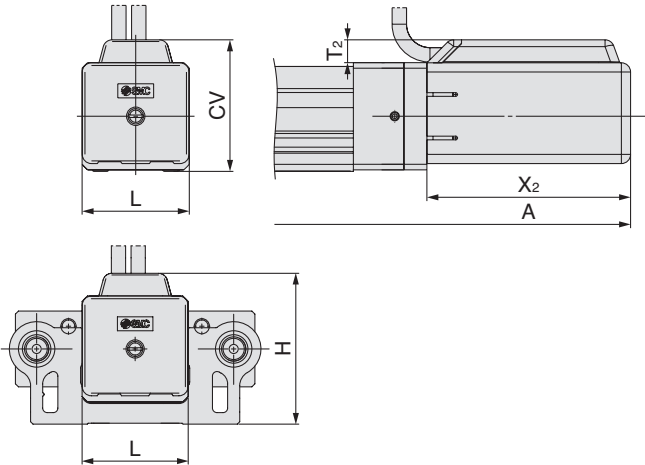
Motor cover material: Synthetic resin


 With lock/LEYG25□□B-□B
 Size 16 A
 25 A
 32 C

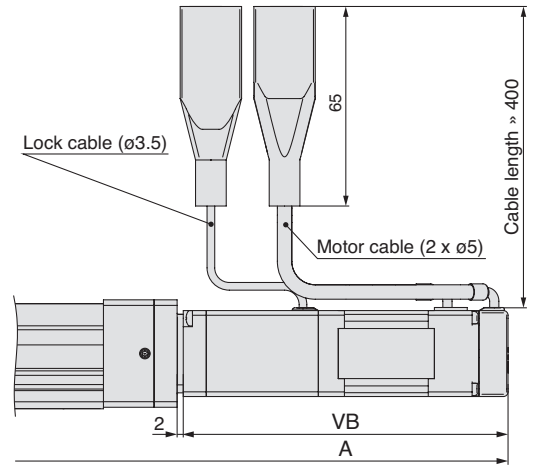
Size	[mm]			
	Step motor		Servo motor	
	W	X	W	X
16	105.8	124.3	106.5	125
25	103.9	125.9	100.1	122.1
32	111.4	138.4	—	—



In-line motor

 With motor cover/LEYG25□□B-□B
 Size 16 A
 25 A
 32 C


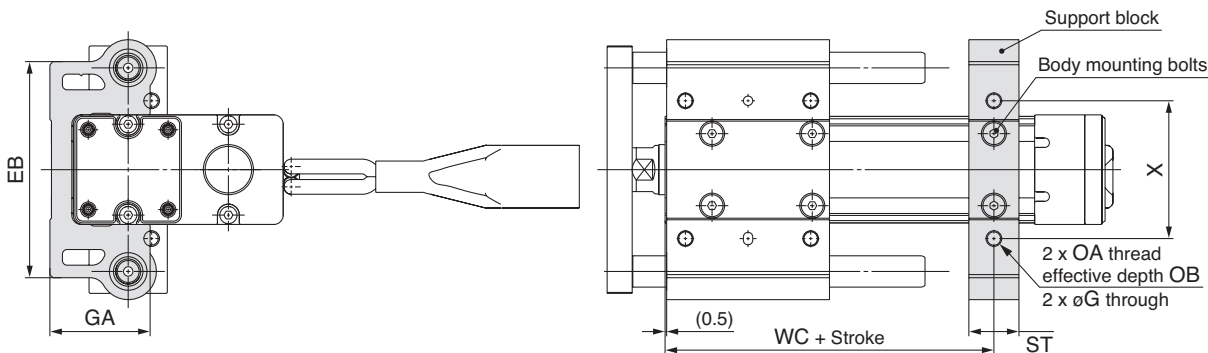
[mm]							
Size	Stroke range	A	T ₂	X ₂	L	H	CV
16	100st or less	177	7.5	66.5	35	50	43
	101st or more, 200st or less	197					
25	100st or less	209.5	7.5	68.5	46	61.5	54.5
	101st or more, 300st or less	234.5					
32	100st or less	232	7.5	73.5	60	76	68.5
	101st or more, 300st or less	262					

 With lock/LEYG25□□B-□B
 Size 16 A
 25 A
 32 C


[mm]					
Size	Stroke range	Step motor	Servo motor	Step motor	Servo motor
		A		VB	
16	100st or less	218.3	219	105.8	106.5
	101st or more, 200st or less	238.3	239		
25	100st or less	246.9	243.1	103.9	100.1
	101st or more, 300st or less	271.9	268.1		
32	100st or less	271.9	—	111.4	—
	101st or more, 300st or less	301.9	—		



Accessories



⚠ Caution

Do not install the body using only a support block.
The support block should be used only for support.

[mm]										
Size	Model	Stroke range	EB	G	GA	OA	OB	ST	WC	X
16	LEYG-S016	100st or less	69	4.3	32	M5 x 0.8	10	16	55	44
		101st or more, 200st or less							75	
25	LEYG-S025	100st or less	85	5.4	40.5	M6 x 1.0	12	20	70	54
		101st or more, 300st or less							95	
32	LEYG-S032	100st or less	101	5.4	50.5	M6 x 1.0	12	22	75	64
		101st or more, 300st or less							105	

* Two body mounting bolts are included with the support block.

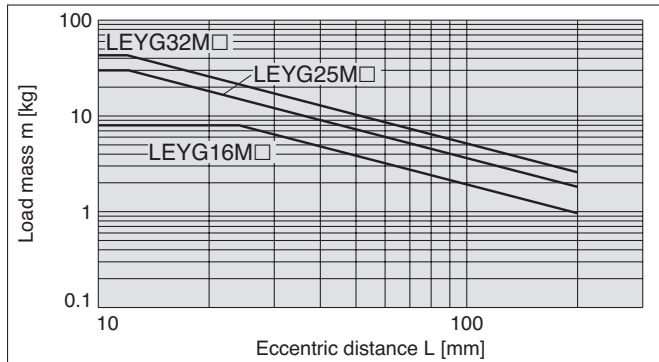
Moment Load Graph

Selection conditions

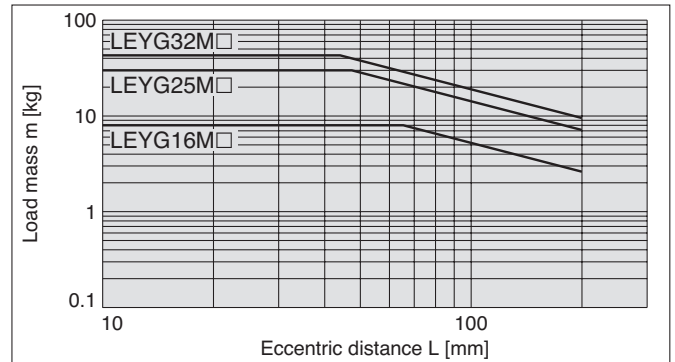
Mounting position	Vertical		Horizontal	
Max. speed [mm/s]	200 or less		200 or less	400
Graph (sliding bearing type)	①, ②		⑤, ⑥	—
Graph (ball bushing bearing type)	③, ④		⑦, ⑧	⑨, ⑩

Vertical Mounting, Sliding Bearing

① 50 stroke or less



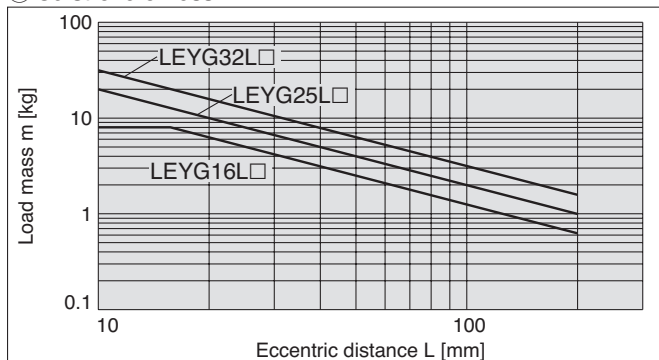
② Over 50 stroke



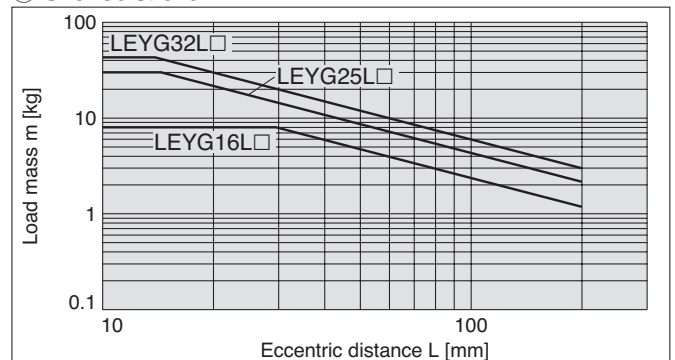
* The limit of vertical load mass varies depending on “lead” and “speed”.
Check “Speed–Vertical Work Load Graph”.

Vertical Mounting, Ball Bushing Bearing

③ 30 stroke or less



④ Over 30 stroke



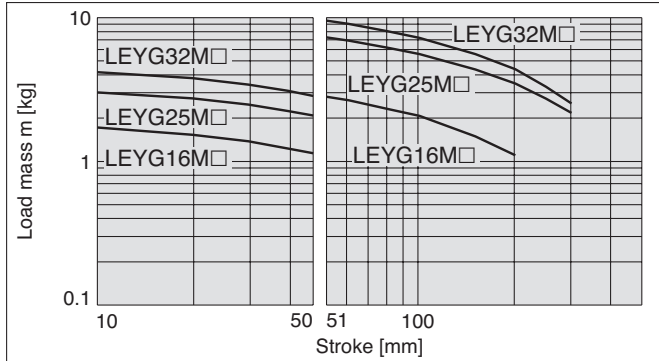
* The limit of vertical load mass varies depending on “lead” and “speed”.
Check “Speed–Vertical Work Load Graph”.



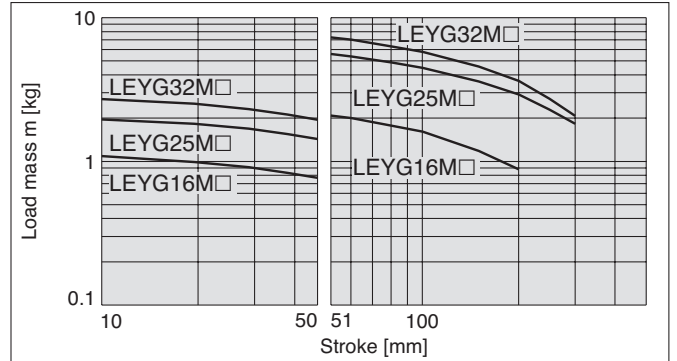
Moment Load Graph

Horizontal Mounting, Sliding Bearing

⑤ L = 50 mm



⑥ L = 100 mm



* Set the speed to less than or equal to the values shown below.

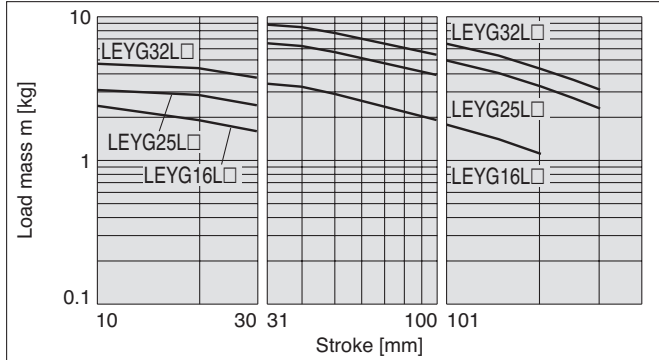
Motor type	LEYG□M□A	LEYG□M□B	LEYG□M□C
Step motor (Servo/24 VDC)	200 mm/s	125 mm/s	75 mm/s
Servo motor (24 VDC)	200 mm/s	200 mm/s	125 mm/s

* For the specifications below, operate the system at the "load mass" shown in the graph x 80%.

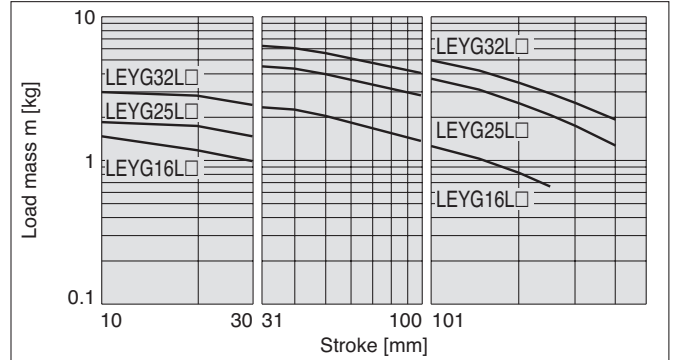
• LEYG25MAA/Servo motor (24 VDC), Lead 12

Horizontal Mounting, Ball Bushing Bearing

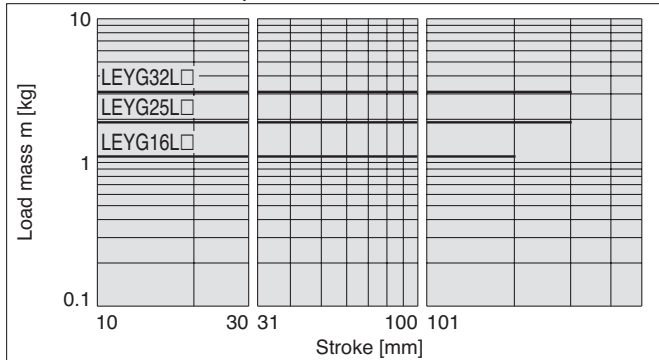
⑦ L = 50 mm Max. speed = 200 mm/s or less



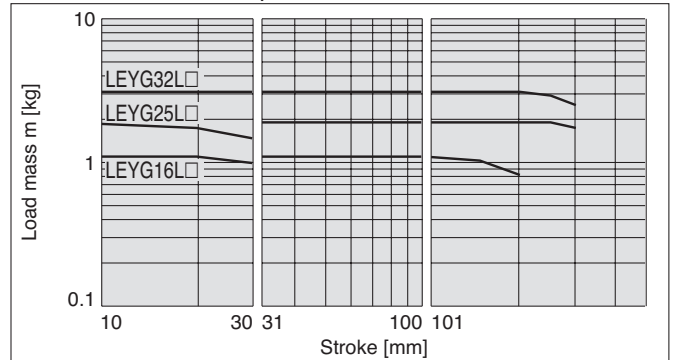
⑧ L = 100 mm Max. speed = 200 mm/s or less



⑨ L = 50 mm Max. speed = Over 200 mm/s

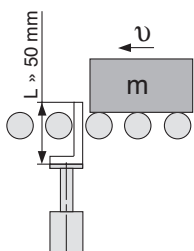


⑩ L = 100 mm Max. speed = Over 200 mm/s



Operating Range when Used as Stopper

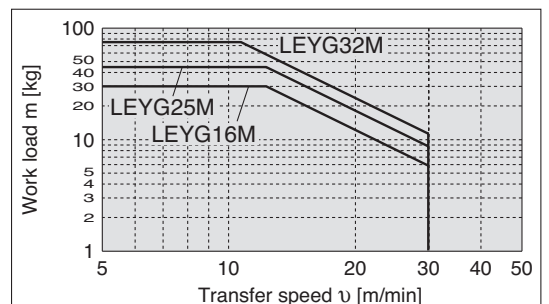
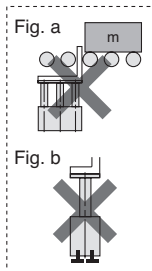
LEYG□M (Sliding bearing)



⚠ Caution

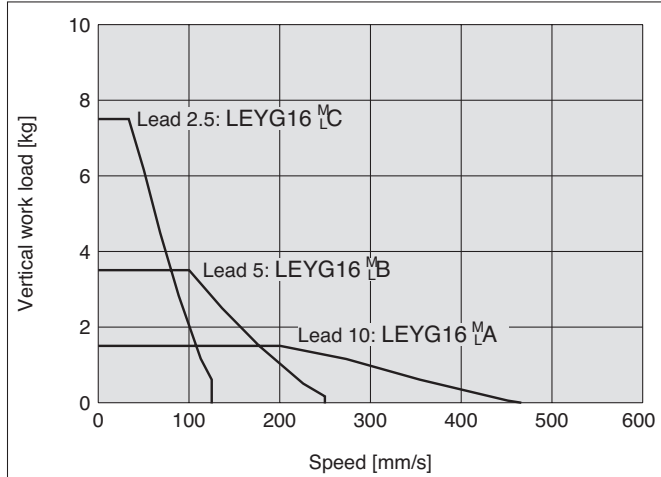
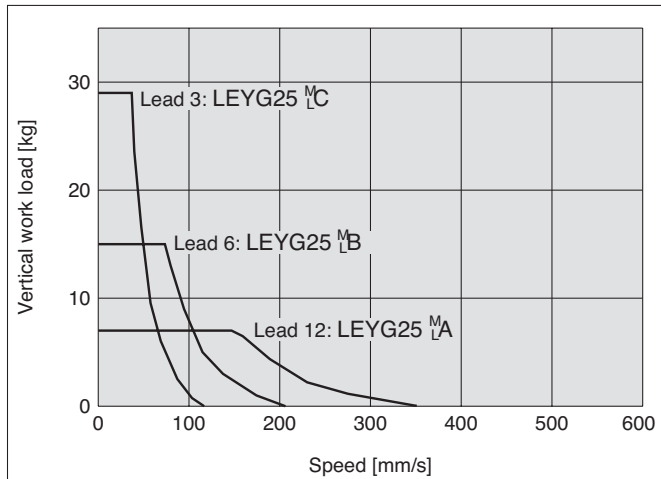
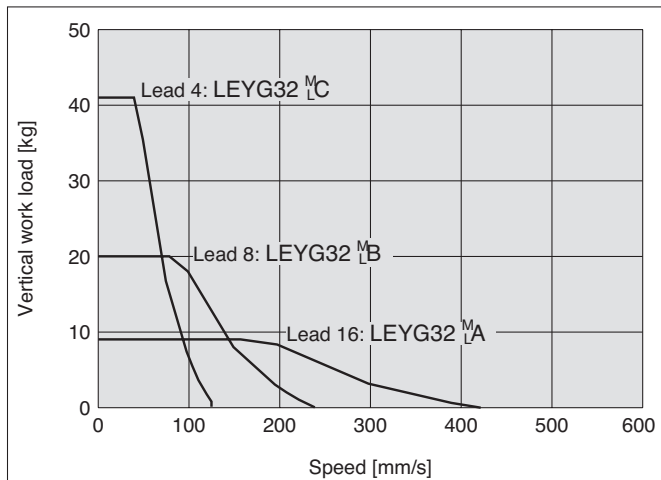
Handling Precautions

- Note 1) When using as a stopper, select a model with 30 stroke or less.
- Note 2) LEYG□L (ball bushing bearing) cannot be used as a stopper.
- Note 3) Work collision in series with guide rod cannot be permitted (Fig. a).
- Note 4) The body should not be mounted on the end. It must be mounted on the top or bottom (Fig. b).

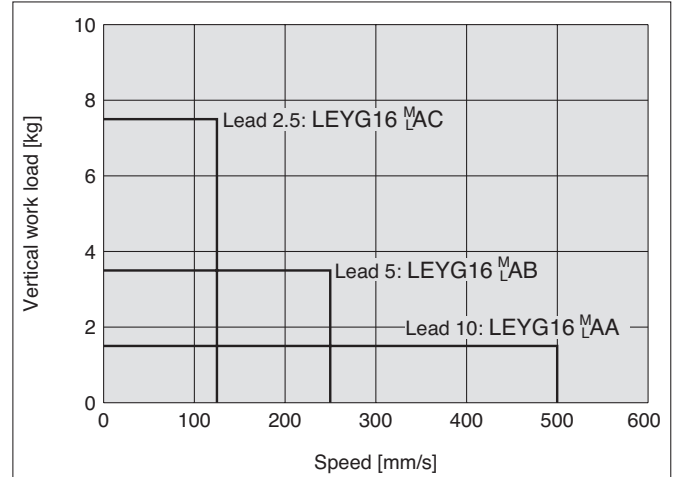
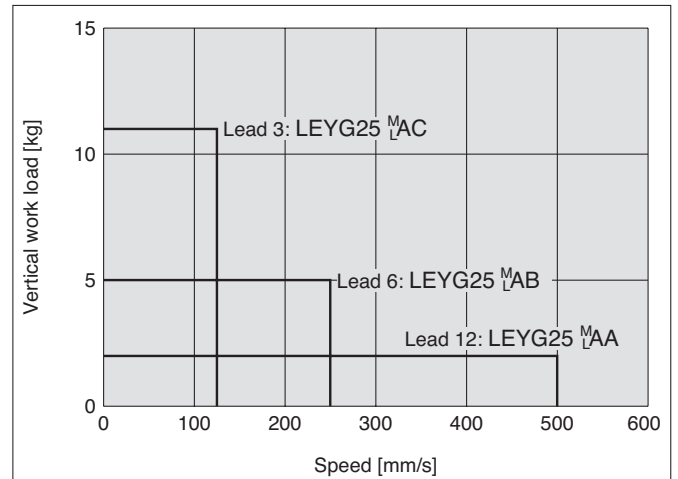


Speed–Vertical Work Load Graph

Step Motor (Servo/24 VDC)

 LEYG16^M_L□

 LEYG25^M_L□

 LEYG32^M_L□


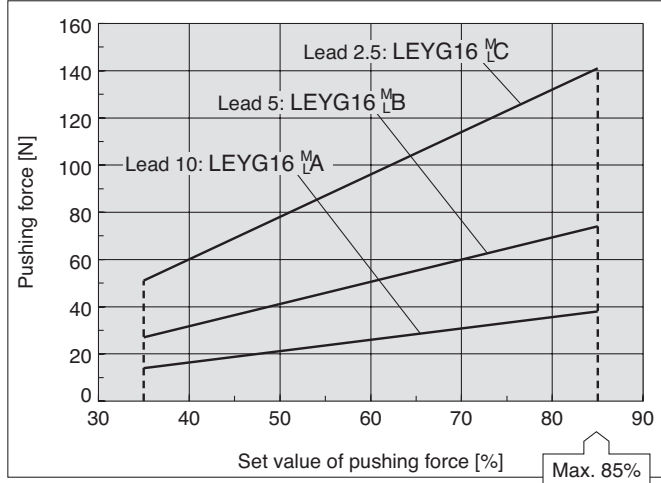
Servo Motor (24 VDC)

 LEYG16^M_LA□

 LEYG25^M_LA□


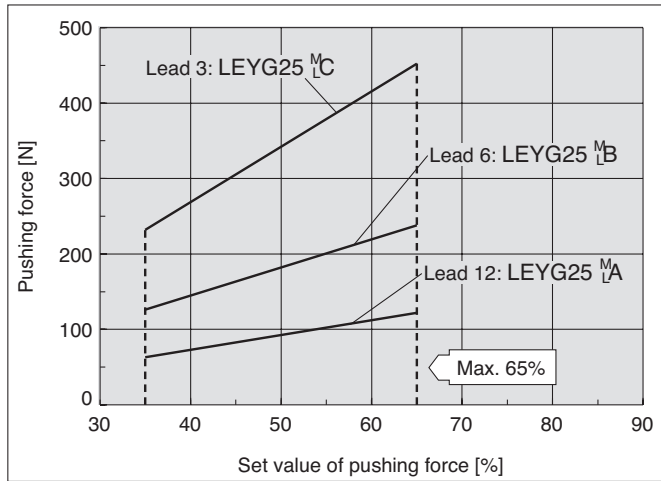
Force Conversion Graph

Step Motor (Servo/24 VDC)

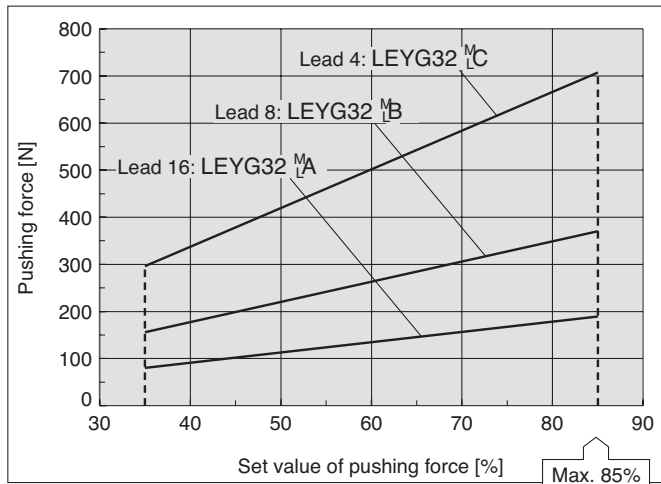
LEYG16^M_L□



LEYG25^M_L□

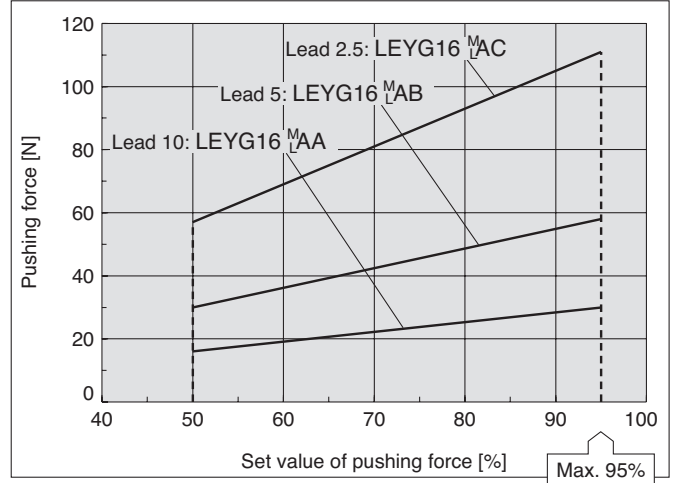


LEYG32^M_L□

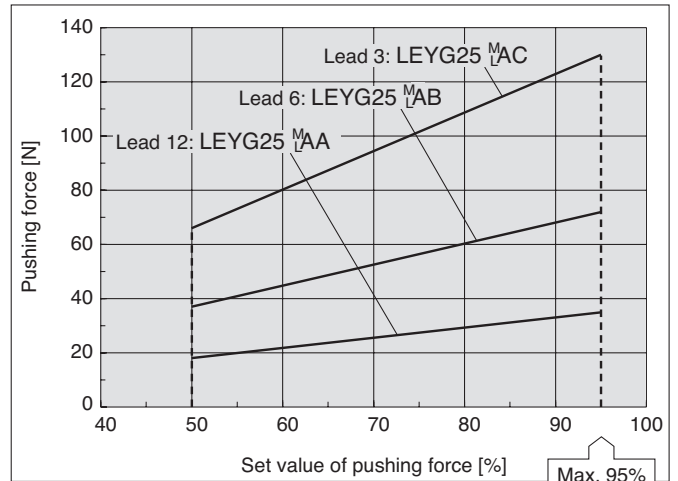


Servo Motor (24 VDC)

LEYG16^M_LA□



LEYG25^M_LA□



<Pushing Force and Trigger Level Range> Without Load

Model	Pushing speed [mm/s]	Pushing force (Setting input value)	Model	Pushing speed [mm/s]	Pushing force (Setting input value)
LEYG16 ^M _L □	1 to 4	30% to 85%	LEYG16 ^M _L A□	1 to 4	40% to 95%
	5 to 20	35% to 85%		5 to 20	60% to 95%
	21 to 50	60% to 85%		21 to 50	80% to 95%
LEYG25 ^M _L □	1 to 4	20% to 65%	LEYG25 ^M _L A□	1 to 4	40% to 95%
	5 to 20	35% to 65%		5 to 20	60% to 95%
	21 to 35	50% to 65%		21 to 35	80% to 95%
LEYG32 ^M _L □	1 to 4	20% to 85%			
	5 to 20	35% to 85%			
	21 to 30	60% to 85%			

Note) For the vertical load (upward), the pushing force (maximum) must be set as shown below, and the device should be operated with a work load less than that shown below.

Model	LEYG16 ^M _L □			LEYG25 ^M _L □			LEYG32 ^M _L □			LEYG16 ^M _L A□			LEYG25 ^M _L A□		
Lead	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Work load [kg]	0.5	1	2.5	1.5	4	9	2.5	7	16	0.5	1	2.5	0.5	1.5	4
Pushing force	85%			65%			85%			95%			95%		

How to order

AC Servo Motor (100/200 W)

Rod type **LEY** **25** **S2** **B** - **100** **S** **2** **A1**

Size
25
32

Motor mounting position

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

Stroke [mm]

30 to 500

* Refer to the table below for details.

Rod end thread

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

Motor option

—	Without option
B	With lock*

* For 30 stroke or less of size 25 with [Motor mounting position: Top mounting type or right/left side parallel type], when [With lock] is selected, the motor projects through the end of the body. Select after confirming interface with such as work pieces.

Lead [mm]

Symbol	LEY25	LEY32*
A	12	16 (20)
B	6	8 (10)
C	3	4 (5)

* The value in () is size 32 when selecting [Motor mounting position: Top mounting type or right/left side parallel type]. (Equivalent lead including pulley ratio [1.25:1])

Motor type

Symbol	Type	Output [W]	Actuator size	Compatible controllers
S2*	AC servo motor (Incremental encoder)	100	25	LECSA□-S1
S3		200	32	LECSA□-S3
S6*	AC servo motor (Absolute encoder)	100	25	LECSB□-S5
S7		200	32	LECSB□-S6

* Motor types: For S2 and S6 only, the compatible controller part number suffix. will be S1 and S5.

* Applicable stroke table

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

* Consult with SMC for the manufacture of intermediate strokes.

Cable length* [m]

—	Without cable
2	2
5	5
A	10

* Common to encoder/motor/lock cable

Controller type

—	Compatible controllers		Power supply voltage
	Without controller		
A1	LECSA1		100 V to 120 V
A2	LECSA2		200 V to 230 V
B1	LECSB1		100 V to 120 V
B2	LECSB2		200 V to 230 V

I/O connector

—	Without connector
H	With connector



Mounting

—	Ends tapped (Standard)
U	Body bottom tapped
L	Foot
F	Rod flange
G	Head flange
D	Double clevis

* When motor mounting position [In-line type] is selected, [Foot], [Head flange] or [Double clevis] cannot be selected.

* Mounting bracket is shipped together, (but not assembled).

* When mounting styles are [Rod flange], [Head flange] or [Ends tapped] with horizontal cantilever, use it within the following stroke.

• LEY25: 200 or less • LEY32: 100 or less

* In case of [Double clevis], use the actuator within the following stroke limit.

• LEY25: 200 or less • LEY32: 200 or less

* "G" Head flange is not available for LEY32.

Actuator cable type*

—	Without cable
S	Standard cable
R	Robot cable (Flexible cable)

* Motor cable and encoder cable are included. (Lock cable is also included if motor option "With lock" is selected.)

Compatible controllers

Type	Pulse input type (For incremental encoder)	Pulse input type (For absolute encoder)
Series	LECSA1, LECSA2	LECSB1, LECSB2
Feature(s)	<ul style="list-style-type: none"> 17-bit incremental encoder compatible Positioning function (Max.7 inputs) Servo adjustment switch 	<ul style="list-style-type: none"> 18-bit absolute encoder compatible With RS422 communication port (compatible with Mitsubishi Electric's touch panel) Analogue input for speed and torque command
Compatible motor	AC servo motor (Incremental encoder) S2, S3	AC servo motor (Absolute encoder) S6, S7
Power supply voltage	100 to 120 VAC (50/60 Hz) 200 to 230 VAC (50/60 Hz)	100 to 120 VAC (50/60 Hz) 200 to 230 VAC (50/60 Hz)
Reference page	Page 910	Page 910

Product Recommendation

Related Products

- Series LECS - Controller - page 910
- Series LEH - Electric Grippers - page 887
- Series LEF - Electric Actuators (slider type) - page 815
- Series LES - Electric Slide Tables - page 857
- Series LER - Electric Rotary Actuators - page 881



For more product options and details see our specific catalogues or on-line information.



Specifications LEY AC Servo motor

Model		LEY25S ² (Parallel)/LEY25DS ² (In-line)			LEY32S ³⁷ (Parallel)			LEY32DS ³⁷ (In-line)			
Stroke [mm] ^{Note 1)}		30, 50, 100, 150, 200, 250, 300, 350, 400			30, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500			30, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500			
Work load[kg]	Horizontal ^{Note 2)}	18	50	50	30	60	60	30	60	60	
	Vertical	8	16	30	9	19	37	12	24	46	
Pushing force [N] ^{Note 3)} (Set value: 15 to 30%)		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. speed ^{Note 4)} [mm/s]	Stroke range	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] ^{Note 5)}		35 or less			30 or less			30 or less			
Max. acceleration/deceleration [mm/s ²]		5000			5000			5000			
Positioning repeatability [mm]		±0.02			±0.02			±0.02			
Lead [mm] (including pulley ratio)		12	6	3	20	10	5	16	8	4	
Impact/Vibration resistance [m/s ²] ^{Note 6)}		50/20			50/20			50/20			
Actuation type		Ball screw + Belt [1:1]/Ball screw			Ball screw + Belt [1.25:1]			Ball screw			
Guide type		Sliding bushing (Piston rod)			Sliding bushing (Piston rod)			Sliding bushing (Piston rod)			
Operating temp. range [°C]		5 to 40			5 to 40			5 to 40			
Operating humidity range [%RH]		90 or less (No condensation)			90 or less (No condensation)			90 or less (No condensation)			
Motor size		100 W/□40			200 W/□60			200 W/□60			
Motor type		AC servo motor (100/200 VAC)			AC servo motor (100/200 VAC)			AC servo motor (100/200 VAC)			
Encoder		Motor type S2, S3: Incremental 17-bit encoder (Resolution: 131072 p/rev) Motor type S6, S7: Absolute 18-bit encoder (Resolution: 262144 p/rev)									
Type ^{Note 7)}		Non-magnetizing operation type									
Holding force [N]		131	255	485	157	308	588	197	385	736	
Power consumption [W] at 20°C ^{Note 8)}		6.3			7.9			7.9			
Rated voltage [V]		24 VDC ⁰ / _{-10%}									

- Note 1) Consult with SMC for the manufacture of intermediate strokes other than those specified on the above.
- Note 2) This is the maximum value for the horizontal work load (outside guide required). Actual work load depends on outside guide conditions. Please confirm using actual device.
- Note 3) The force setting range for "Pushing operation" with the torque control mode etc. Set it referring to "Force Conversion Graph".
- Note 4) The allowable speed will change depending on the stroke.
- Note 5) The allowable collision speed for "Pushing operation" with the torque control mode etc.
- Note 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. (Test was performed with the actuator in the initial state.)
Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)
- Note 7) Only when motor option "With lock" is selected.
- Note 8) For an actuator with lock, add the power consumption for the lock.

Weight

Product Weight

Series		LEY25S□ (Motor mounting position: Parallel)									LEY32S□ (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
Motor type	Incremental encoder	1.31	1.38	1.55	1.81	1.99	2.16	2.34	2.51	2.69	2.42	2.53	2.82	3.29	3.57	3.85	4.14	4.42	4.70	4.98	5.26
	Absolute encoder	1.37	1.44	1.61	1.87	2.05	2.22	2.40	2.57	2.75	2.36	2.47	2.76	3.23	3.51	3.79	4.08	4.36	4.64	4.92	5.20

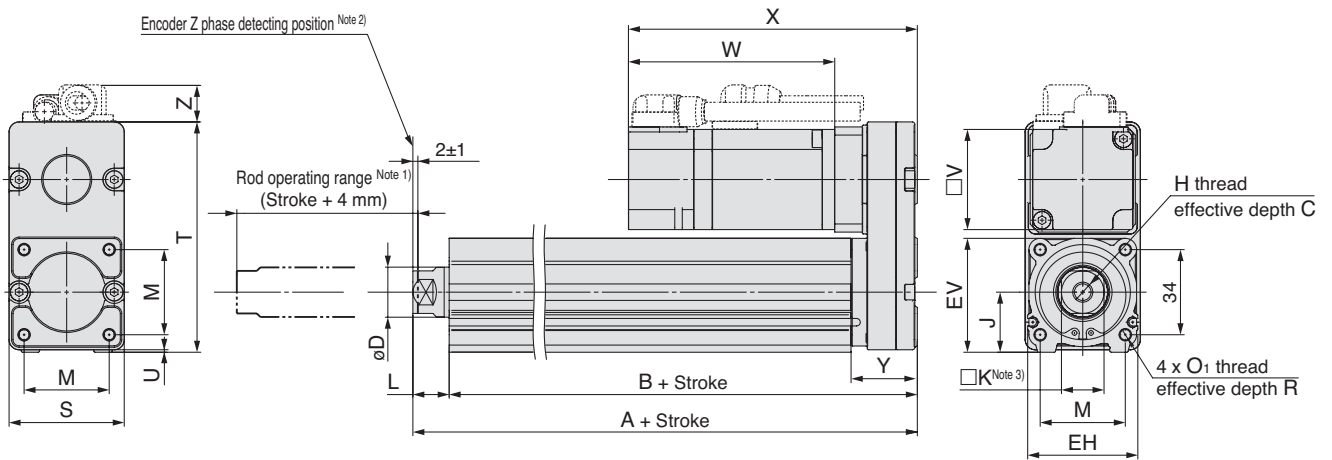
Series		LEY25DS□ (Motor mounting position: In-line)									LEY32DS□ (Motor mounting position: In-line)										
Stroke [mm]		30	50	100	150	200	250	300	350	400	30	50	100	150	200	250	300	350	400	450	500
Motor type	Incremental encoder	1.34	1.41	1.58	1.84	2.02	2.19	2.37	2.54	2.72	2.44	2.55	2.84	3.31	3.59	3.87	4.16	4.44	4.72	5.00	5.28
	Absolute encoder	1.40	1.47	1.64	1.90	2.08	2.25	2.43	2.60	2.78	2.38	2.49	2.78	3.25	3.53	3.81	4.10	4.38	4.66	4.94	5.22

Additional Weight

Size		25	32
Lock	Incremental encoder	0.20	0.40
	Absolute encoder	0.30	0.66
Rod end male thread	Male thread	0.03	0.03
	Nut	0.02	0.02
Foot (2 sets including mounting bolts)		0.08	0.14
Rod flange (including mounting bolts)		0.17	0.20
Head flange (including mounting bolts)			
Double clevis (including pin, retaining ring and mounting bolts)		0.16	0.22

Electric Actuators

Dimensions: Motor Parallel



Note 1) Range within which the rod can move when it returns to origin. Make sure a workpiece mounted on the rod does not interfere with the work pieces and facilities around the rod.

Note 2) The Z phase first detecting position from the stroke end of the motor side.

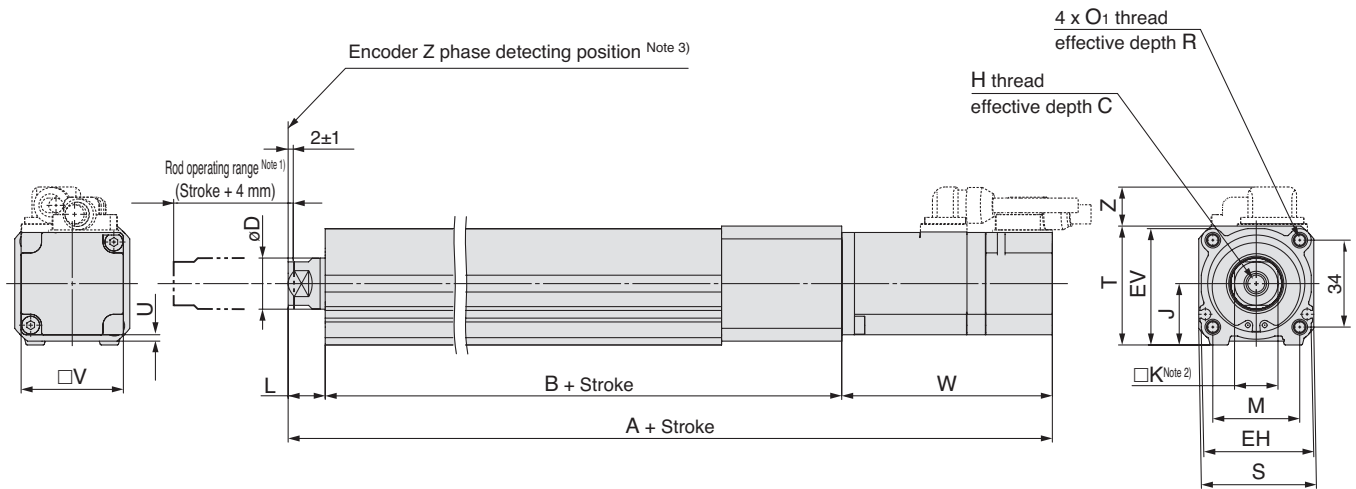
Note 3) The direction of rod end width across flats (□K) differs depending on the products.

[mm]															
Size	Stroke range [mm]	A	B	C	D	EH	EV	H	J	K	L	M	O ₁	R	S
25	15 to 100	130.5	116	13	20	44	45.5	M8 x 1.25	24	17	14.5	34	M5 x 0.8	8	46
	105 to 400	155.5	141												
32	20 to 100	148.5	130	13	25	51	56.5	M8 x 1.25	31	22	18.5	40	M6 x 1.0	10	60
	105 to 500	178.5	160												

Size	Stroke range [mm]	T	U	Y	V	Incremental encoder						Absolute encoder					
						Without lock			With lock			Without lock			With lock		
						W	X	Z	W	X	Z	W	X	Z	W	X	Z
25	15 to 100	92	1	26.5	40	87	120	14.1	123.9	156.9	15.8	82.4	115.4	14.1	123.5	156.5	15.8
	105 to 400					87	120	14.1	123.9	156.9	15.8	82.4	115.4	14.1	123.5	156.5	15.8
32	20 to 100	118	1	34	60	88.2	128.2	17.1	116.8	156.8	17.1	76.6	116.6	17.1	116.1	156.1	17.1
	105 to 500					88.2	128.2	17.1	116.8	156.8	17.1	76.6	116.6	17.1	116.1	156.1	17.1



Dimensions: In-line Motor



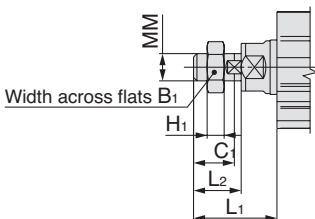
- Note 1) Range within which the rod can move when it returns to origin. Make sure a workpiece mounted on the rod does not interfere with the work pieces and facilities around the rod.
- Note 2) The direction of rod end width across flats (□K) differs depending on the products.
- Note 3) The Z phase first detecting position from the stroke end of the motor side.

[mm]

Size	Stroke range [mm]	C	D	EH	EV	H	J	K	L	M	O ₁	R	S	T	U
25	15 to 100	13	20	44	45.5	M8 x 1.25	24	17	14.5	34	M5 x 0.8	8	45	46.5	1.5
	105 to 400														
32	20 to 100	13	25	51	56.5	M8 x 1.25	31	22	18.5	40	M6 x 1.0	10	60	61	1
	105 to 500														

Size	Stroke range [mm]	B	V	Incremental encoder						Absolute encoder					
				Without lock			With lock			Without lock			With lock		
				A	W	Z	A	W	Z	A	W	Z	A	W	Z
25	15 to 100	136.5	40	238	87	14.6	274.9	123.9	16.3	233.4	82.4	14.6	274.5	123.5	16.3
	105 to 400			263			299.9			258.4			304.5		
32	20 to 100	156	60	262.7	88.2	17.1	291.3	116.8	17.1	251.1	76.6	17.1	290.6	116.1	17.1
	105 to 500			186			292.7			321.3			281.1		

End male thread/LEY 25 32 □□ B-□□ M



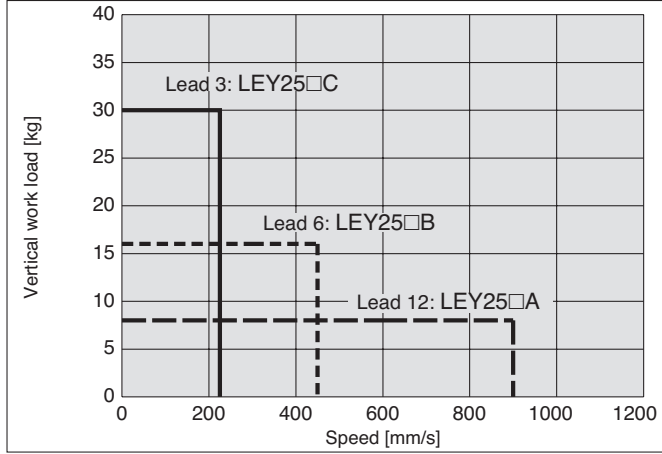
[mm]

Size	B ₁	C ₁	H ₁	L ₁	L ₂	MM
25	22	20.5	8	38	23.5	M14 x 1.5
32	22	20.5	8	42.0	23.5	M14 x 1.5

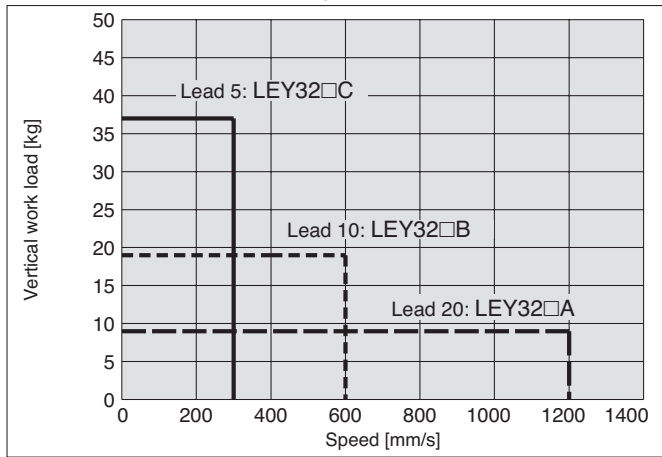
* The L₁ measurement is when the unit is in the original position. At this position, 2 mm at the end.

Speed–Vertical Work Load Graph

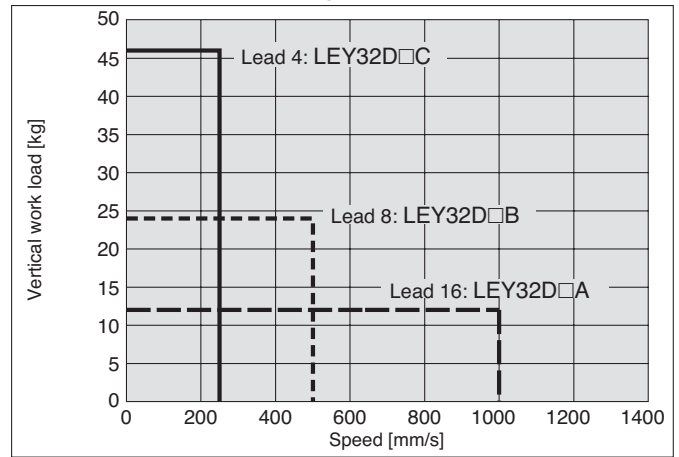
LEY25□ (Motor mounting position: Parallel/In-line)



LEY32□ (Motor mounting position: Parallel)



LEY32D (Motor mounting position: In-line)



* When transferring load mass vertically, “Regeneration option” is required under the work load conditions shown below. Order “Regeneration option” separately.

Required Conditions for “Regeneration Option”

Model	LEY25S ₆ ² /LEY25DS ₆ ²			LEY32S ₇ ³ (Parallel)			LEY32DS ₇ ³ (In-line)			
	A	B	C	A	B	C	A	B	C	
Vertical work load [kg]	8	16	30	9	19	37	12	24	46	
Vertical work load conditions [kg]	Required ^{Note)}			Not required			20 or more	Not required		20 or more

Note) For vertical transfer, “Regeneration option” is required regardless of load mass.

Allowable Stroke Speed

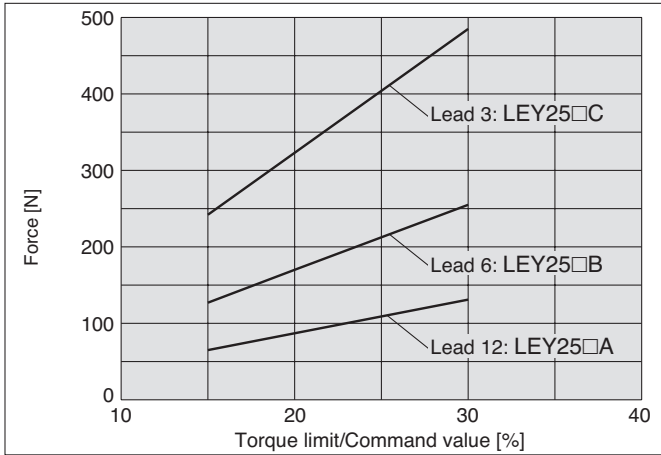
[mm/s]

Model	AC servo motor	Lead		Stroke [mm]											
		Symbol	[mm]	30	50	100	150	200	250	300	350	400	450	500	
LEY25□ (Motor mounting position: Parallel/In-line)	100 W /□40	A	12	900						600					
		B	6	450						300					
		C	3	225						150					
		(Motor rotation speed)		(4500 rpm)						(3000 rpm)					
LEY32□ (Motor mounting position: Parallel)	200 W /□60	A	20	1200						800					
		B	10	600						400					
		C	5	300						200					
		(Motor rotation speed)		(3600 rpm)						(2400 rpm)					
LEY32D (Motor mounting position: In-line)	200 W /□60	A	16	1000						640					
		B	8	500						320					
		C	4	250						160					
		(Motor rotation speed)		(3750 rpm)						(2400 rpm)					

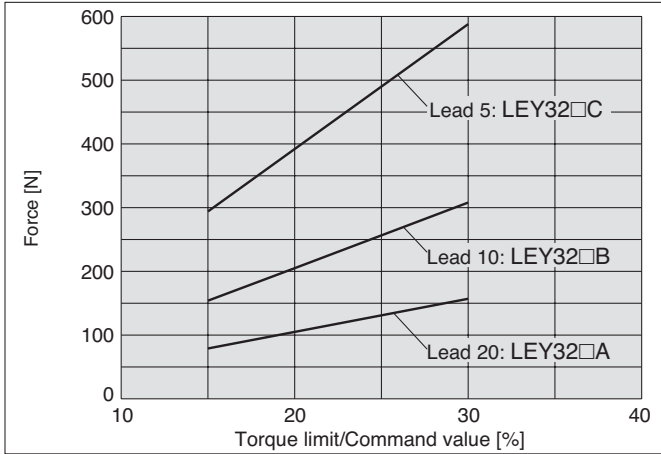


Force Conversion Graph

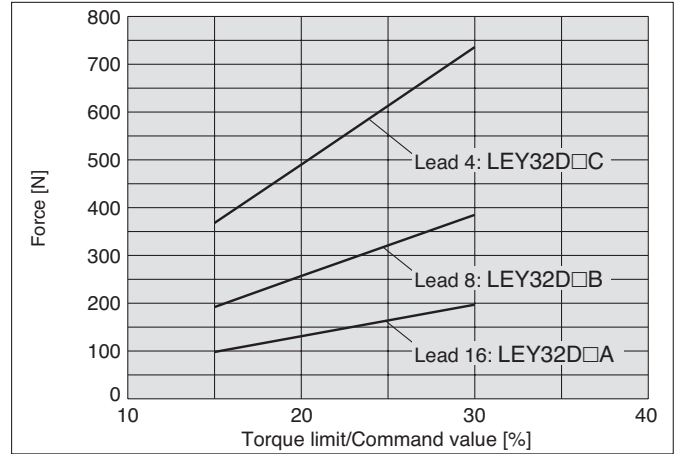
LEY25□ (Motor mounting position: Parallel/In-line)



LEY32□ (Motor mounting position: Parallel)

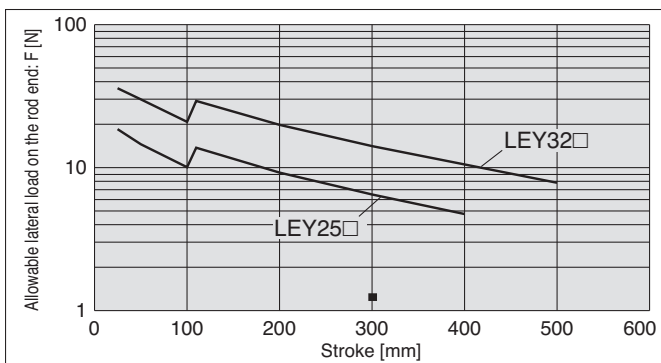


LEY32D (Motor mounting position: In-line)

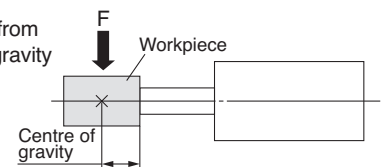


*1 Motor type: When limiting torque with incremental encoder, parameter No. PC12/the value of internal torque command should be set 30% or less.
 *2 Motor type: When limiting torque with absolute encoder, parameter No. PC13/the value of analogue torque maximum output command should be set 30% or less.

Allowable Lateral Load on the Rod End (Guide)



$$[\text{Stroke}] = [\text{Product stroke}] + [\text{Distance from the rod end to the centre of gravity of the workpiece}]$$



Electric Slide Table Series LES

ø8, ø16, ø25



(Except AC Servo-motor type)



Features

- Easy setting and long life.
- Adjustable force, speed and positioning.
- 2 motor types available.
- Symmetrical model and In-line motor type available.

How to Order

LESH 8 R J - 50 - R 1 6P 1 D

Size

8
16
25

Motor type

—	Step motor (Servo/24 VDC)
A	Servo motor (24 VDC)

* LESH25D with servo motor not available

Lead screw type

Symbol	Screw lead [mm]		
	LESH8□	LESH16□	LESH25□
K	4	5	8
J	8	10	16

Electrical slide type

R	Standard Type
D	In-line motor type
L	Symmetrical type

Stroke

Model	Stroke [mm]			
	50	75	100	150
LESH8D	●	●	—	—
LESH8L, LESH8R	○	●	—	—
LESH16D	●	—	●	—
LESH16L, LESH16R	○	—	●	—
LESH25R, LESH25L	●	—	●	●

● With lock/without lock
○ Without lock only

Motor option lock

—	Without lock
B	With lock ^{Note 1)}

Note 1) Not applicable to a stroke of 50 of body size 8 and 16 for models LESH□□ and LESH□□□

Controller mounting

—	Screw mounting
D (Note)	DIN rail mounting

Note) DIN rail is not included. Order it separately

I/O cable length

—	Without cable
1	1.5 m
3	3 m
5	5 m

Controller type

—	Without controller
1N	With programless controller (NPN)
1P	With programless controller (PNP)
6N	With controller (NPN)
6P	With controller (PNP)

Actuator cable length

—	Without cable
1	1.5 m
3	3 m
5	5 m

Note 4) Other lengths Produced upon receipt of order

Actuator cable type

—	Without cable
S	Standard cable
R	Robotic cable (Flexible cable)

Mounting Style

—	Without side holder
H	With side holder (4 pcs)

Note 3) Only applicable to LESH□□□.

Body option

—	Basic
S	Dustproof specification ^{Note 2)}

Note 2) A scraper is mounted on the rod cover.

Product Recommendation



Stocked items for fast delivery

LESH8RJ-75-R36P3	LESH16RK-100-R36P3	LESH25RJ-150B-R36P3
LESH16RJ-100-R36P3	LESH25RK-150-R36P3	LESH8RK-75B-R36P3
LESH25RJ-150-R36P3	LESH8RJ-75B-R36P3	LESH16RK-100B-R36P3
LESH8RK-75-R36P3	LESH16RJ-100B-R36P3	LESH25RK-150B-R36P3



Related Products

- Series LEC - Controller - page 906
- Series LEC P1 - Controller - page 902
- Series LEH - Electric Grippers - page 887
- Series LEF - Electric Actuators (slider type) - page 815
- Series LEY - Electric Actuators (rod type) - page 831
- Series LER - Electric Rotary Actuators - page 881



For more product options and details see our specific catalogues or on-line information.

Specifications

Step Motor (Servo/24 VDC)

Model		LESH8□		LESH16□		LESH25□		
Actuator specifications	Stroke [mm]	50, 75		50, 100		50, 100, 150		
	Work load [kg] ^{Note 1) Note 3)}	Horizontal	2	1	6	4	9	6
		Vertical	0.5	0.25	2	1	4	2
	Pushing force [N] 30% to 70% ^{Note 2) Note 3)}	6 to 15	4 to 10	23.5 to 55	15 to 35	77 to 180	43 to 100	
	Speed [mm/s] ^{Note 1) Note 3)}	10 to 200	20 to 400	10 to 200	20 to 400	10 to 150	20 to 400	
	Pushing speed [mm/s]	10 to 20	20	10 to 20	20	10 to 20	20	
	Max. acceleration/deceleration [mm/s ²]	5,000						
	Positioning repeatability [mm]	±0.05						
	Screw lead [mm]	4	8	5	10	8	16	
	Impact/Vibration resistance [m/s ²] ^{Note 4)}	50/20						
	Actuation type	Slide screw + Belt (R/L type), Slide screw (D type)						
	Guide type	Linear guide (Circulating type)						
	Operating temp. range [°C]	5 to 40						
Operating humidity range [%RH]	90 or less (No condensation)							
Electric specifications	Motor size	□20		□28		□42		
	Motor type	Step motor (Servo/24 VDC)						
	Encoder	Incremental A/B phase (800 pulse/rotation)						
	Rated voltage [V]	24 VDC ±10%						
	Power consumption [W] ^{Note 5)}	20		43		67		
	Standby power consumption when operating [W] ^{Note 6)}	7		15		13		
	Momentary max. power consumption [W] ^{Note 7)}	35		60		74		
Controller weight [kg]	Step data input type: 0.15 (Screw mounting), 0.17 (DIN rail mounting)/Programless type: 0.13							
Lock unit specifications	Type	Non-magnetizing operation type						
	Holding force [N]	24	2.5	300	48	500	77	
	Power consumption [W] ^{Note 9)}	4		3.6		5		
	Rated voltage [V]	24 VDC ±10%						

Note 1) Speed is dependent on the work load. Check "Speed–Work Load Graph (Guide)".

Note 2) Pushing force accuracy is ±20% (F.S.).

Note 3) The speed and force may change depending on the cable length, load and mounting conditions. Furthermore, if the cable length exceeds 5 m then it will decrease by up to 10% for each 5 m. (At 15 m: Reduced by up to 20%)

Note 4) Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the slide table in the initial state.)

Impact resistance: No malfunction occurred when the slide table was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the slide table in the initial state.)

Note 5) Power consumption (including the controller) is for when the actuator is operating.

Note 6) Standby power consumption when operating (including the controller) is for when the actuator is stopped in the set position during operation, except during pushing operation.

Note 7) Momentary max. power consumption (including the controller) is for when the actuator is operating. This value can be used for the selection of the power supply.

Note 8) With lock only

Note 9) For an actuator with lock, add the power consumption for the lock.

Specifications

Servo Motor (24 VDC)

Model		LESH8□A		LESH16□A		LESH25 ^R A ^{Note 1)}		
Actuator specifications	Stroke [mm]	50, 75		50, 100		50, 100, 150		
	Work load [kg]	Horizontal	2	1	5	2.5	6	4
		Vertical	0.5	0.25	2	1	2.5	1.5
	Pushing force [N] 50% to 100% ^{Note 2)}	7.5 to 11	5 to 7.5	17.5 to 35	10 to 20	18 to 36	12 to 24	
	Speed [mm/s]	10 to 200	20 to 400	10 to 200	20 to 400	10 to 150	20 to 400	
	Pushing speed [mm/s] ^{Note 2)}	10 to 20	20	10 to 20	20	10 to 20	20	
	Max. acceleration/deceleration [mm/s ²]	5,000						
	Positioning repeatability [mm]	±0.05						
	Screw lead [mm]	4	8	5	10	8	16	
	Impact/Vibration resistance [m/s ²] ^{Note 3)}	50/20						
	Actuation type	Slide screw + Belt (R/L type), Slide screw (D type)						
	Guide type	Linear guide (Circulating type)						
	Operating temp. range [°C]	5 to 40						
	Operating humidity range [%RH]	90 or less (No condensation)						
Electric specifications	Motor size	□20		□28		□42		
	Motor output [W]	10		30		36		
	Motor type	Servo Motor (24 VDC)						
	Encoder	Incremental A/B/Z phase (800 pulse/rotation)						
	Rated voltage [V]	24 VDC ±10%						
	Power consumption [W] ^{Note 4)}	58		84		144		
	Standby power consumption when operating [W] ^{Note 5)}	4 (Horizontal)/7 (Vertical)		2 (Horizontal)/15 (Vertical)		4 (Horizontal)/43 (Vertical)		
	Momentary max. power consumption [W] ^{Note 6)}	84		124		158		
Controller weight [kg]	Step data input type: 0.15 (Screw mounting), 0.17 (DIN rail mounting)/Programless type: 0.13							
Lock unit specifications	Type	Non-magnetizing operation type						
	Holding force [N]	24	2.5	300	48	500	77	
	Power consumption [W] ^{Note 8)}	4		3.6		5		
	Rated voltage [V]	24 VDC ±10%						

Note 1) LESH25DA is not available.

Note 2) For LESH8□A, the pushing force range is 50 to 75%. Pushing force accuracy is ±20% (F.S.).

Note 3) Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the slide table in the initial state.)

Impact resistance: No malfunction occurred when the slide table was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the slide table in the initial state.)

Note 4) Power consumption (including the controller) is for when the actuator is operating.

Note 5) Standby power consumption when operating (including the controller) is for when the actuator is stopped in the set position during operation, except during pushing operation.

Note 6) Momentary max. power consumption (including the controller) is for when the actuator is operating. This value can be used for the selection of the power supply.

Note 7) With lock only

Note 8) For an actuator with lock, add the power consumption for the lock.

Weight

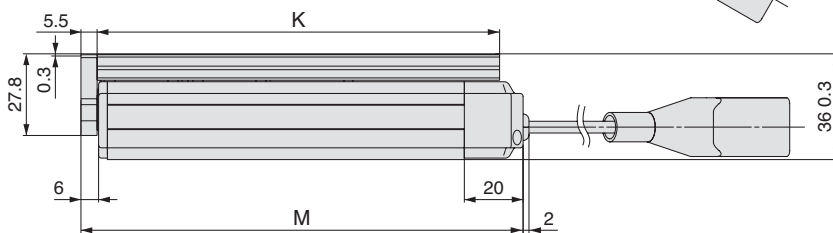
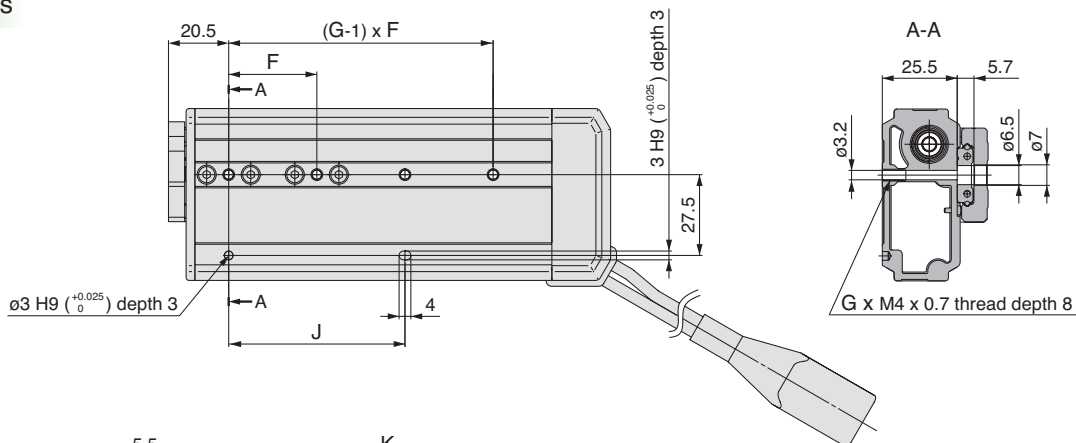
Step Motor (Servo/24 VDC), Servo Motor (24 VDC) Common

Model		Basic type (R type)/Symmetrical type (L type)						In-line motor type (D type)							
		LESH8 ^R (A)		LESH16 ^R (A)		LESH25 ^R (A)		LESH8D(A)		LESH16D(A)		LESH25D			
Stroke [mm]		50	75	50	100	50	100	150	50	75	50	100	50	100	150
Product weight [kg]	Without lock	0.55	0.70	1.15	1.60	2.50	3.30	4.26	0.57	0.70	1.25	1.70	2.52	3.27	3.60
	With lock	—	0.79	—	1.71	2.84	3.64	4.60	0.66	0.79	1.36	1.81	2.86	3.61	3.94

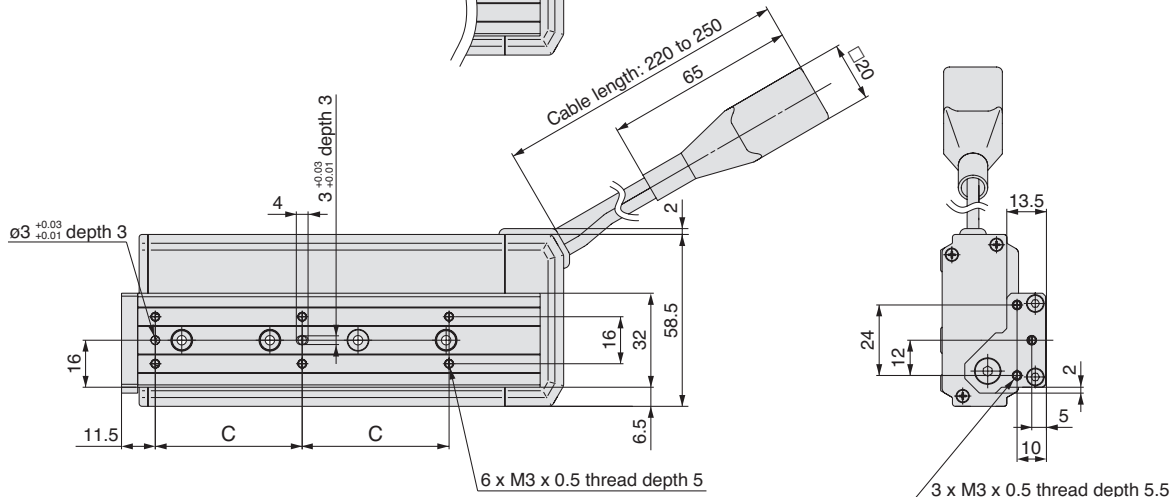
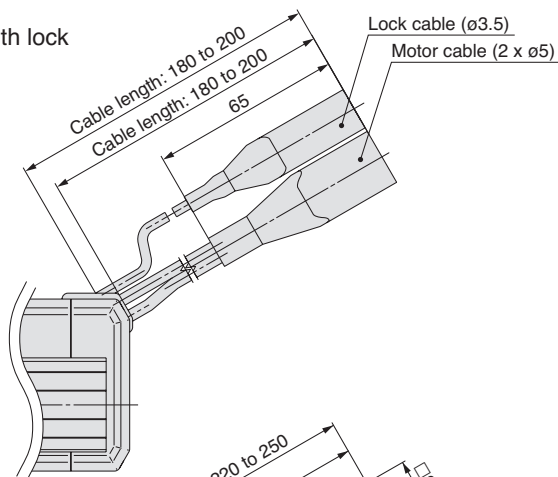


Dimensions

LESH8R



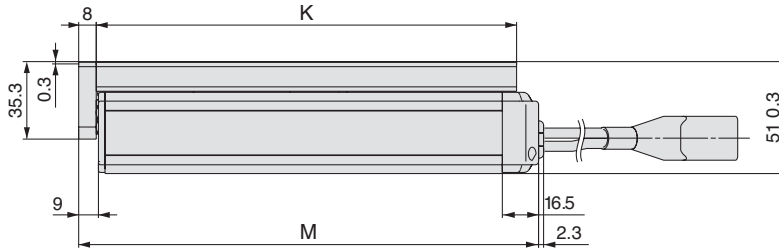
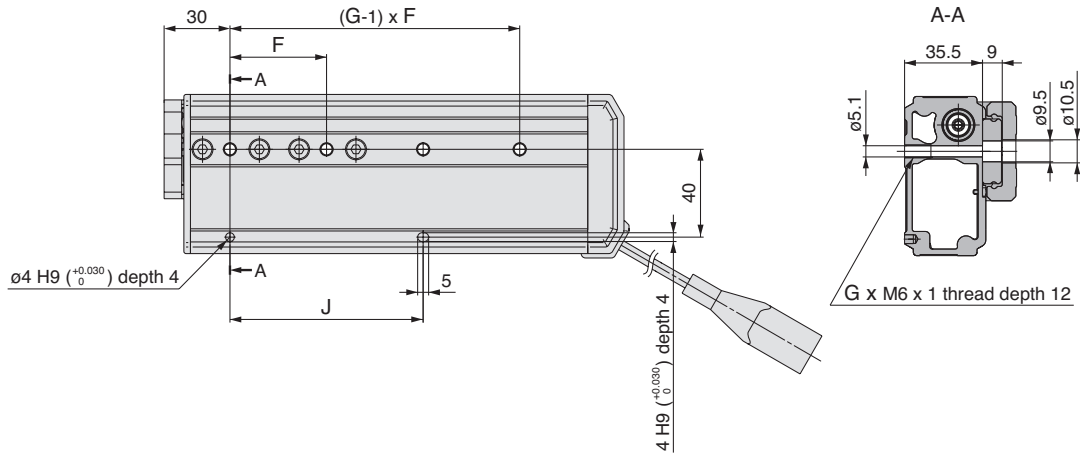
With lock



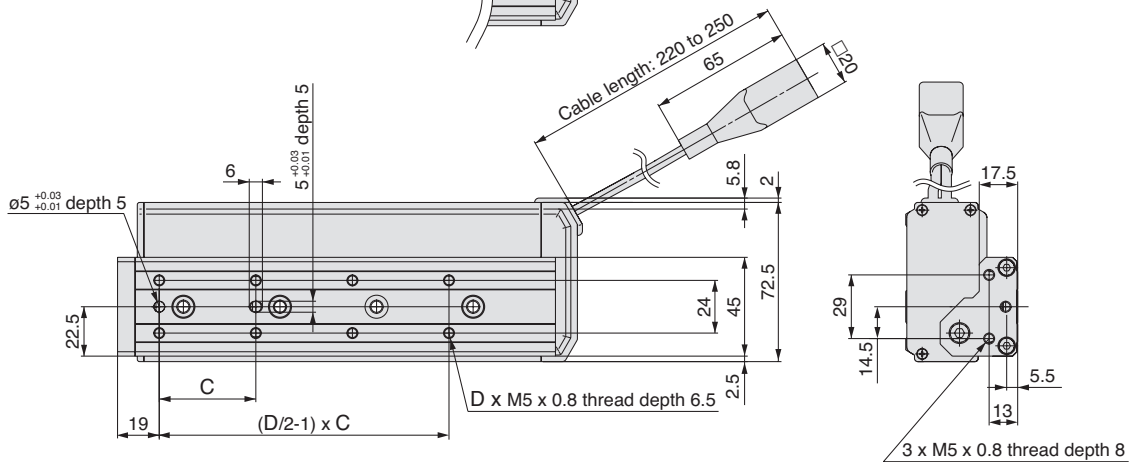
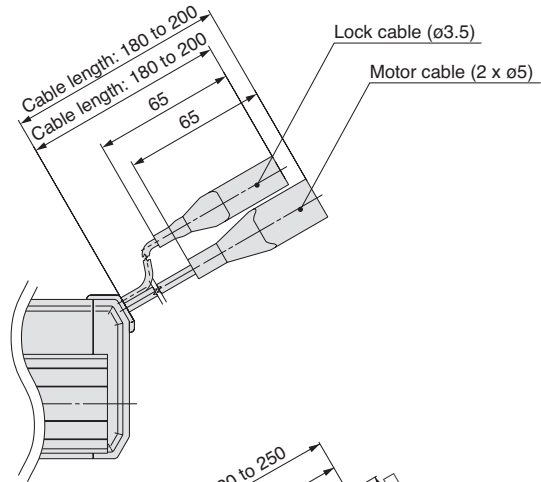
Model	C	F	G	J	K	M
LESH8R□□-50□□-R□□□□	46	29	3	58	111	124.5
LESH8R□□-75□□-R□□□□	50	30	4	60	137	150.5

Dimensions

LESH16R



With lock

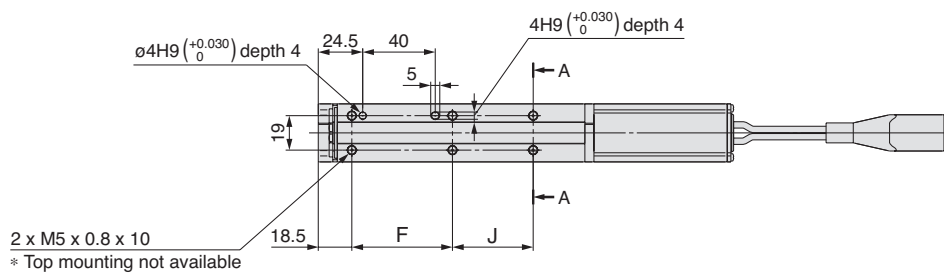
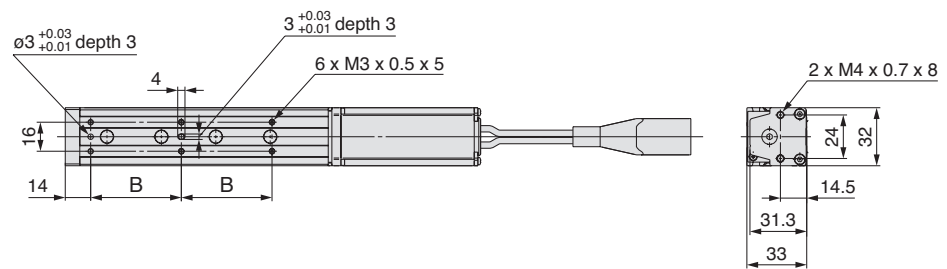
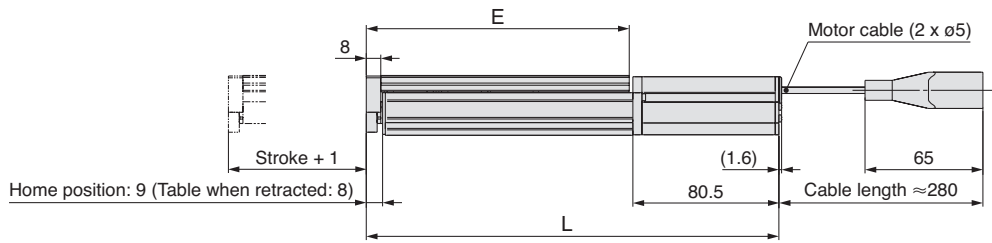


Model	C	D	F	G	J	K	M
LESH16R□□-50□□-R□□□□	40	6	45	2	45	116.5	134.5
LESH16R□□-100□□-R□□□□	44	8	44	4	88	191.5	209.5



Dimensions

LESH8D



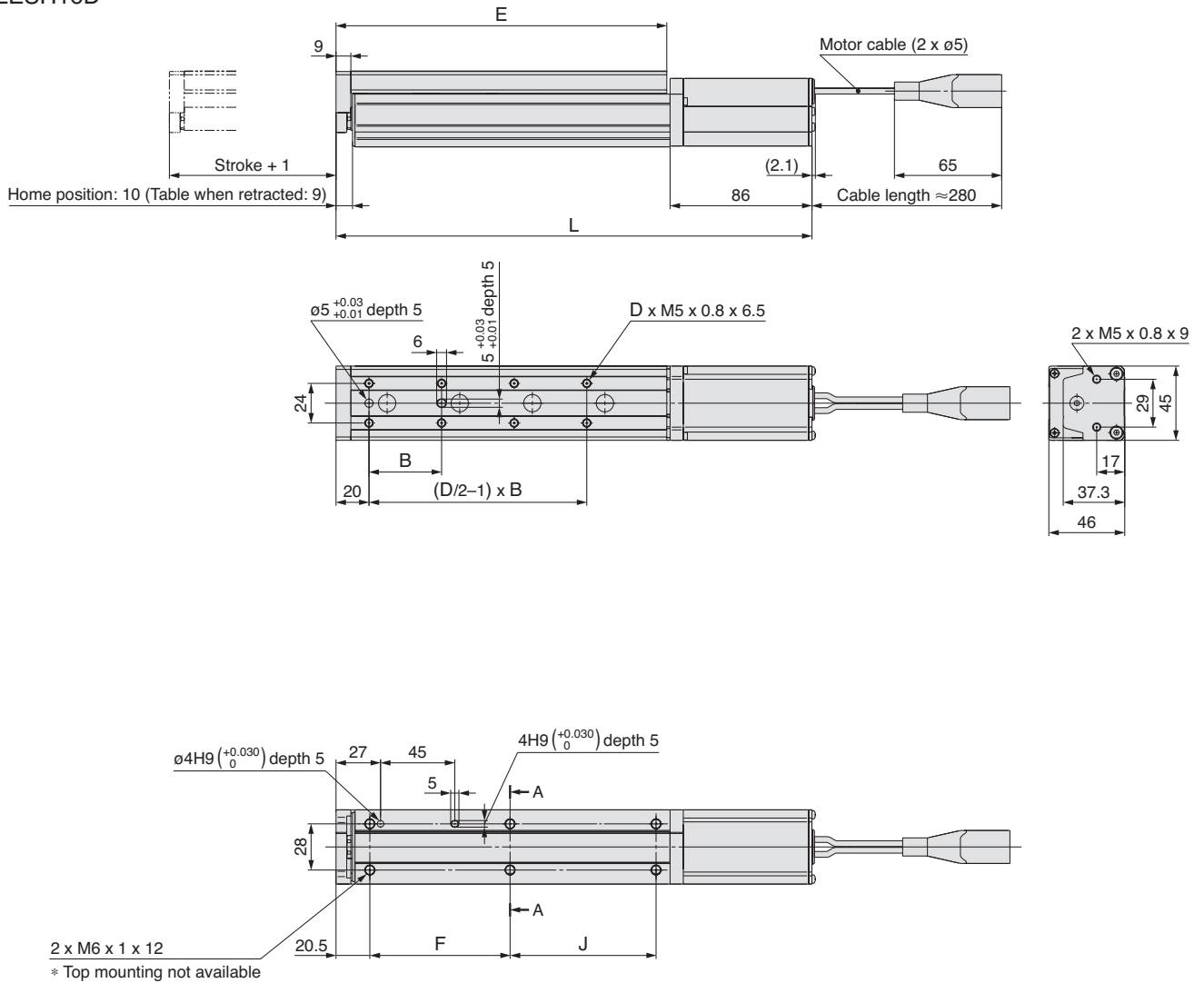
Electric Actuators

Model	L	B	E	F	J
LESH8D□□-50□□-□□□□□□	201.5	46	119	54.5	19.5
LESH8D□□-50B□□-□□□□□□	255				
LESH8D□□-75□□-□□□□□□	227.5	50	145	55.5	44.5
LESH8D□□-75B□□-□□□□□□	281				

* L is the home position value.

Dimensions

LESH16D



[mm]

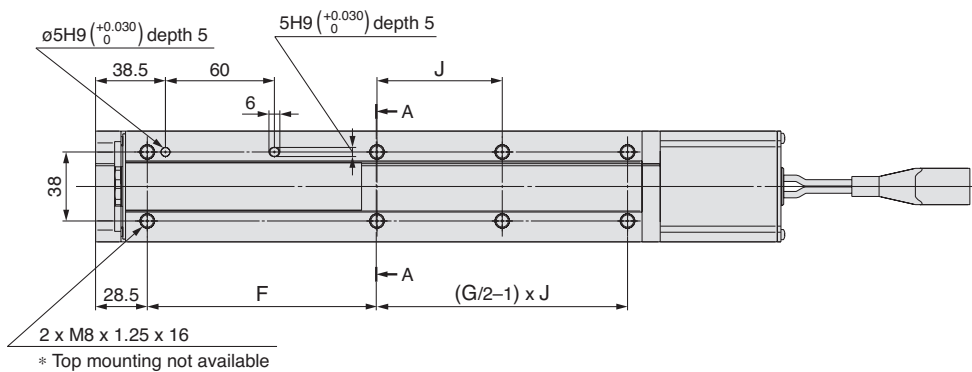
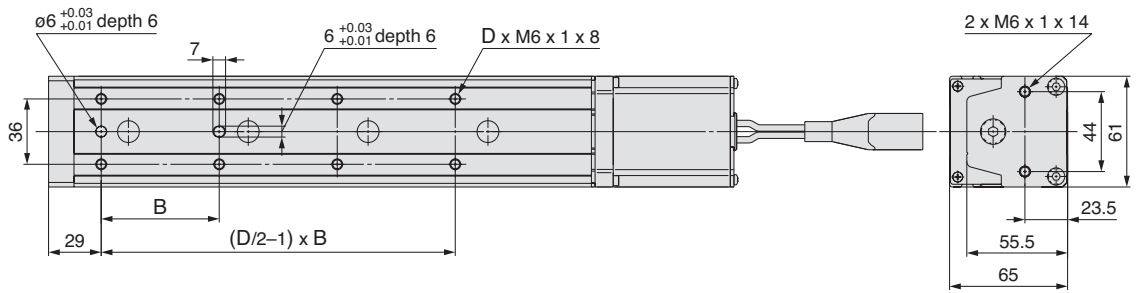
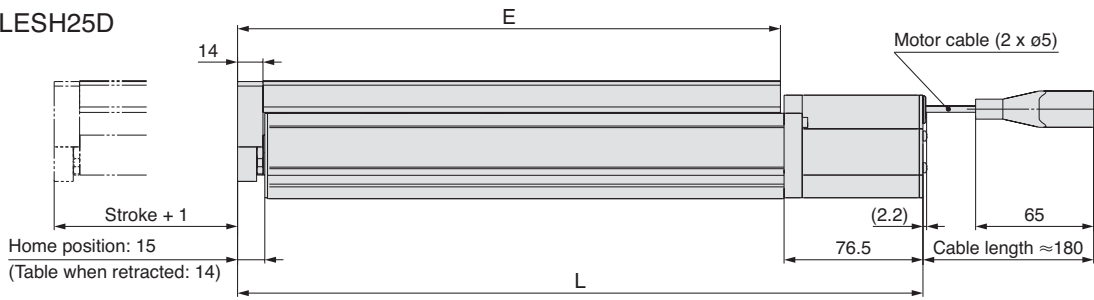
Model	L	B	D	E	F	J
LESH16D□□-50□□-□□□□□□	219.5	40	6	125.5	65	39.5
LESH16D□□-50B□□-□□□□□□	283					
LESH16D□□-100□□-□□□□□□	288.5	44	8	200.5	85	88.5
LESH16D□□-100B□□-□□□□□□	352					

* L is the home position value.



Dimensions

LESH25D



Model	L	B	D	E	F	G	J
LESH25D□□-50□□-□□□□□□	237.5	75	4	157	84	4	40.5
LESH25D□□-50B□□-□□□□□□	278						
LESH25D□□-100□□-□□□□□□	299.5	48	8	221	98.5	6	88
LESH25D□□-100B□□-□□□□□□	340						
LESH25D□□-150□□-□□□□□□	377.5	65		299	126.5		69
LESH25D□□-150B□□-□□□□□□	418						

* L is the home position value.

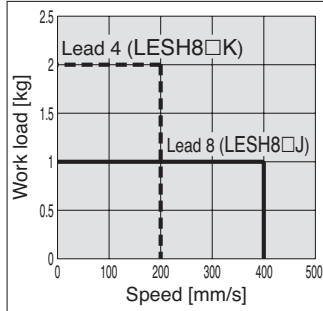
Speed–Work Load Graph (Guide)

Step Motor (Servo/24 DVC)

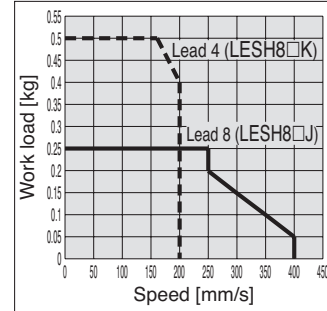
* The following graph shows the values when positioning force is 100%.

LESH8□

Horizontal

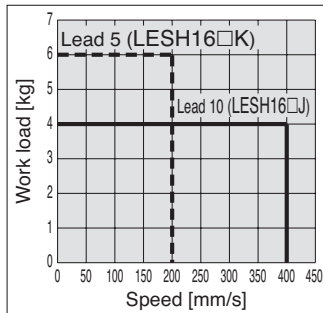


Vertical

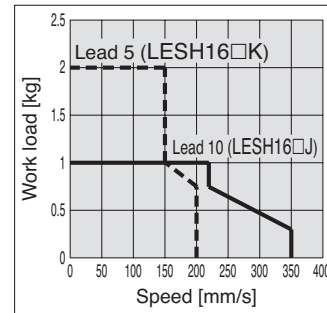


LESH16□

Horizontal

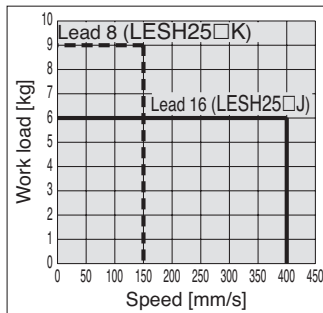


Vertical

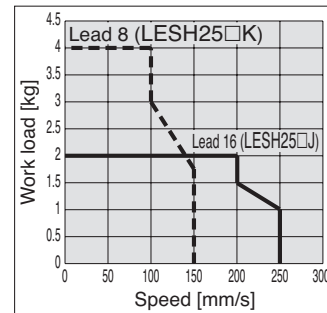


LESH25□

Horizontal



Vertical

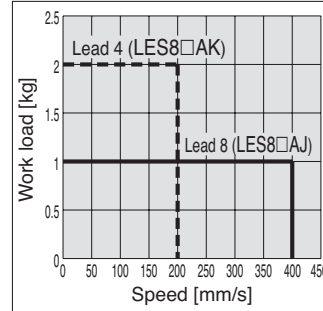


Servo Motor (24 VDC)

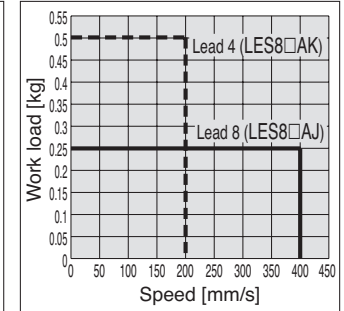
* The following graph shows the values when positioning force is 250%.

LESH8□A

Horizontal

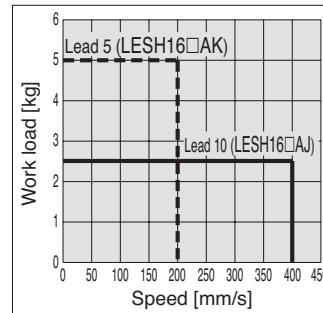


Vertical

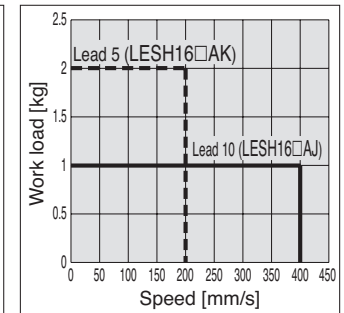


LESH16□A

Horizontal

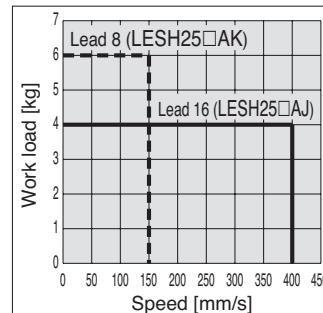


Vertical

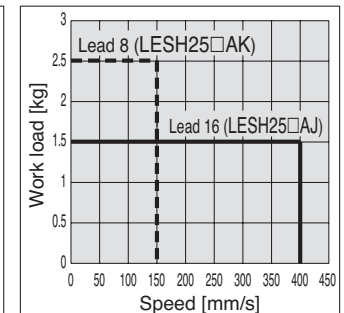


LESH25^R□A

Horizontal



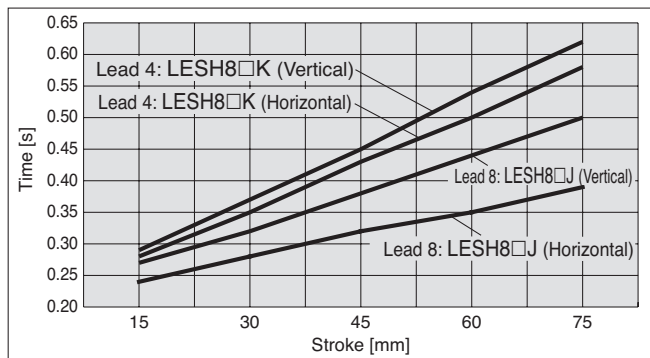
Vertical



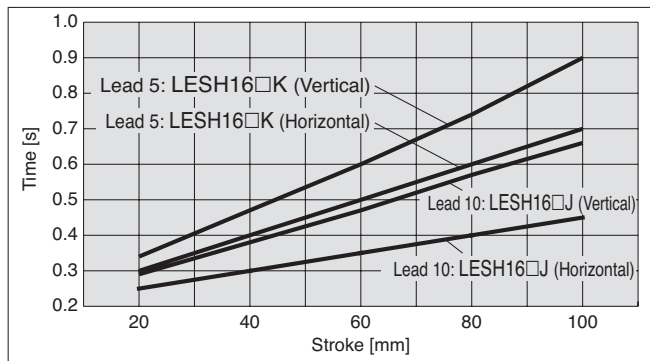
Cycle Time (Guide)

Step Motor (Servo/24 VDC)

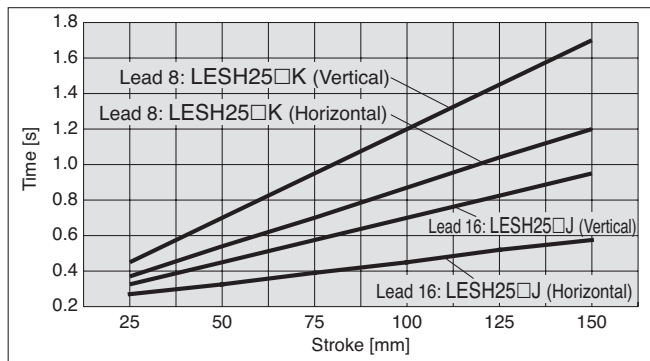
LESH8□



LESH16□

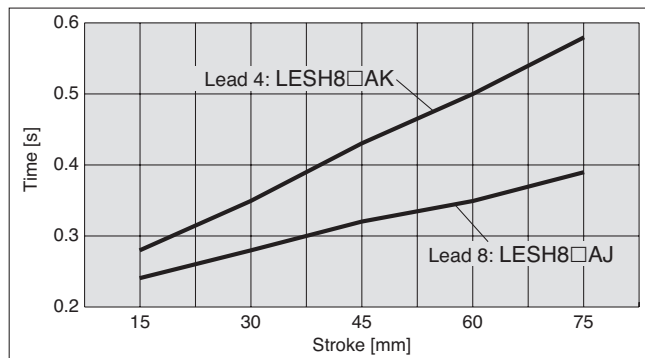


LESH25□

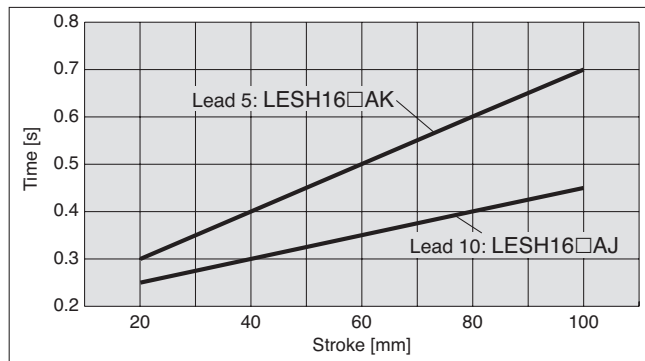


Servo Motor (24 VDC)

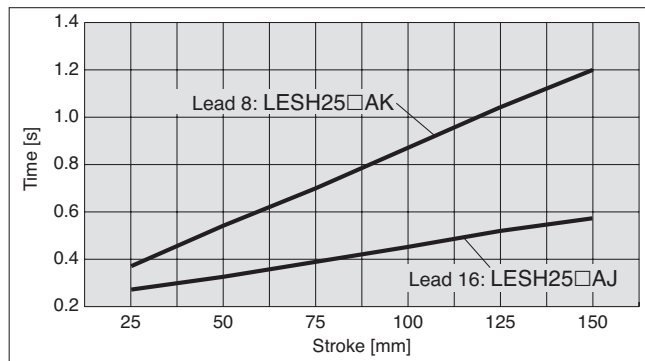
LESH8□A



LESH16□A



LESH25^R□A



Operating Conditions

- Workpiece mass: Max. load
- Speed : Max. speed
- Acceleration/Deceleration : 5000 mm/s²
- In position : 0.5

Dynamic Allowable Moment

Model	LESH8		LESH16		LESH25			
	Stroke [mm]	50	75	50	100	50	100	150
Pitching [N·m]	11		26	43	77	112	155	
Yawing [N·m]	11							
Rolling [N·m]	12		48		146	177	152	

Electric Actuators

Dynamic Allowable Moment

Orientation		Load overhanging direction m : Work load [kg] Me: Dynamic allowable moment [N·m] L : Amount of overhang to the centre of gravity of the workpiece [mm]	Model		
			LESH8	LESH16	LESH25
Horizontal					
Vertical					



E-Rodless Actuator Series E-MY2



Features

- Electrically driven rodless construction cylinder.
- Shock-less transfer.
- Speed control and reproducibility.
- Three point stop options (both ends and one intermediate position) or five point stop (both ends and three intermediate positions). 6 stop option upon request.
- Simple to use. No programming required.
- Integrated or remote control unit options.
- Different motor placement configurations.
- Positioning repeatability: 0.01 mm (at both ends) and 0.1 mm (at intermediate stops).
- Conventional autoswitches can be added for position feedback.



How to Order

Integrated control type E-MY2 C 16 [] [] — 100 [] TA P []
Remote control type E-MY2 C 16 [] [] — 100 [] TA P [] Z - Q

Guidance
 B Basic type
 C Cam follower guide
 H Linear guide - single axis
 HT Linear guide - double axis

Nominal size
 16
 25

Speed specifications [mm/s]

L	Low	10 to 1000
M	Medium	50 to 1000
—	Standard	100 to 1000
H	High*	200 to 2000

Load specifications [kg]

Symbol	Load specifications
D	Light load
E	Medium load
—	Standard load
Q	Heavy load

Stroke
 Refer to "Standard Stroke" table.
 (B type only)
 Stroke adjusting unit

—	—
M	Motor side
E	End side
W	Double side

Motor placement
 Refer to bellow table

T, D	E-MY2B
TA, DA, TB, DB	E-MY2C/H/HT

Output type

N	NPN
P	PNP

Cable length

M	1 m
L	3 m
Z	5 m

Number of stoppable positioning points

—	3-point stoppable type
A	5-point stoppable type

* High speed specification only for E-MY2H and E-MY2HT Series

Product Recommendation



Stocked items for fast delivery

E-MY2B25-200TAP	E-MY2B25-600TAP	E-MY2C16-300TAPA	E-MY2C25-500TAPAZ-Q	E-MY2H25-300TAP	E-MY2H25-500TAPA
E-MY2B25-300TAP	E-MY2B25-700TAP	E-MY2C16-400TAPA	E-MY2H16-100TAPAL-Q	E-MY2H25-300TAPA	E-MY2H25-600TAP
E-MY2B25-400TAP	E-MY2B25-1000TAP	E-MY2C16-500TAPA	E-MY2H16-300TAPA	E-MY2H25-400TAP	
E-MY2B25-500TAP	E-MY2C16-200TAPA	E-MY2C25-500TAP	E-MY2H16-400TAP	E-MY2H25-500TAP	

Electrical Specifications

Driving voltage	Power supply voltage	24 VDC 10%
	Current consumption	Rated current 2.5 A (Max. 5 A: 2 s or less) at 24 VDC
Current consumption	Power supply voltage	24 VDC 10%
	Current consumption	30 mA at 24 VDC and Output load capacity
Input signal capacity	6 mA or less at 24 VDC/1 circuit (Photo coupler input)	
Output signal capacity	30 VDC or less, 20 mA or less/1 circuit (Open drain output)	
Detection of abnormal operations	External stop, Output deviation, Power supply deviation, Driving deviation, Temperature deviation, Stroke deviation, Motor deviation, Controller deviation	



Auto Switches

- D-M9PWL (PNP 2-colour indication)

Note) For more options see the Auto Switch section, page XXX

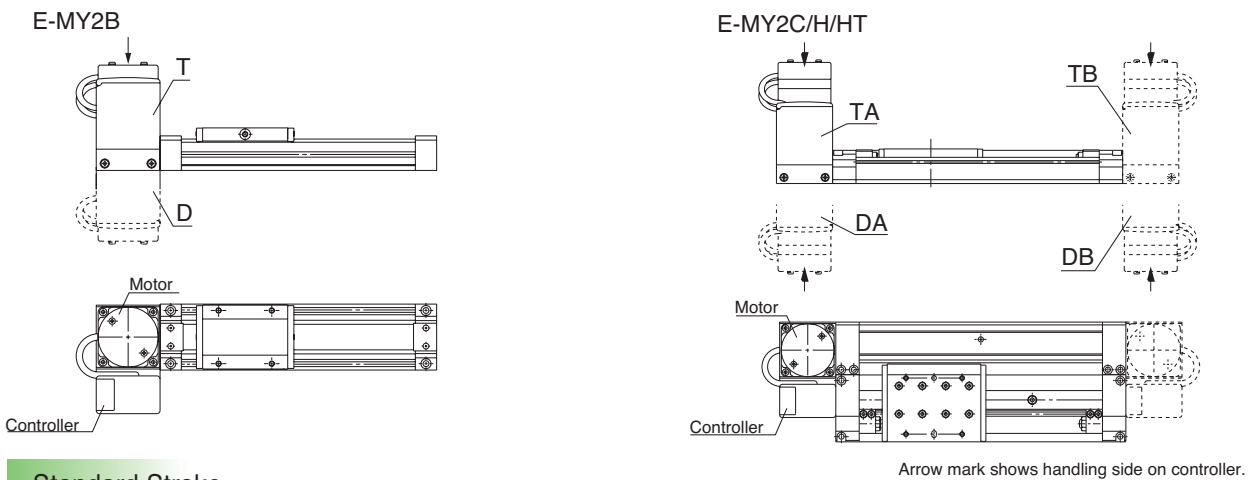
Technical Specifications

Model		E-MY2B / C / H / HT	
Nominal size [mm]		16	25
Transfer speed set range [mm/s]	Low	10 to 1000	
	Medium	50 to 1000	
	Standard	100 to 1000	
	High	200 to 2000 (* Only E-MY2H / HT)	
Load [kg] E-MY2B/Other	Light	1.25 / 1.25	2.5 / 2.5
	Medium	2.5 / 2.5	4 / 5
	Standard	4 / 5	8 / 10
	Heavy	6 / 10	11 / 20
Transfer speed acceleration set range [m/s ²]	Light	1.96 to 19.6	
	Medium	0.98 to 9.80	
	Standard	0.49 to 4.90	
	Heavy	0.25 to 2.45	
Acceleration and deceleration method		=	
Moving direction		=	
Positioning points	3-point stoppable type	=	
	5-point stoppable type	=	
Intermediate stopping point positioning method		=	
Display		=	
Input signal		=	
Output signal		=	

Environmental Specifications

Operating temperature range	Integrated control type		5 to 40°C
	Remote control type	Actuator part	5 to 50°C
		Remote controller part	5 to 40°C
Operating humidity range		35 to 85%RH (with no condensation)	
Storage temperature range		-10 to 60°C (with no condensation and freezing)	
Storage humidity range		35 to 85%RH (no condensation)	
Withstand voltage		Between all of external terminals and the case: 1000 VAC for 1 minute	
Insulation resistance		Between all of external terminals and the case: 50 MΩ (500 VDC)	
Noise resistance		1000 Vp-p Pulse width 1 s, Rise time 1 ns	
CE marking	Integrated control type		Standard
	Remote control type		Available with -Q suffixed products only

Motor placement



Standard Stroke

Type	Size	Standard stroke [mm]															
		50	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1000
E-MY2B, C	16, 25		●		●		●		●		●		●	●	●	●	●
E-MY2H, HT		●	●	●	●	●	●	●	●	●	●	●	●				

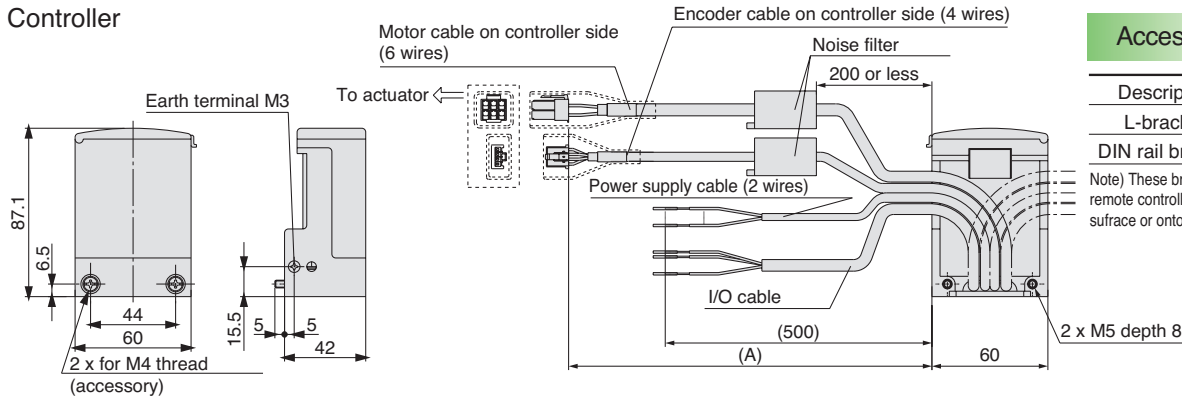
Strokes are manufacturable in increments of 1 mm, up to 100 to 1000 strokes.



For more product options and details see our specific catalogues or on-line information.

Dimensions Remote Control Type (Remote controller part for E-MY2C, E-MY2H and E-MY2HT)

Controller



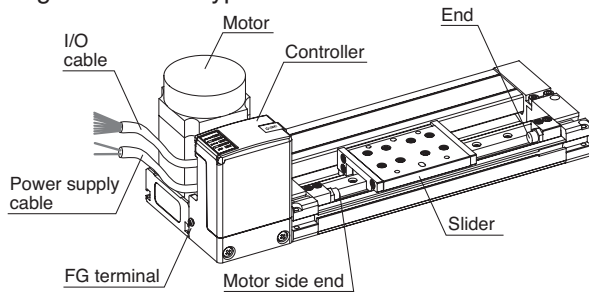
Accessories

Description	Part no.
L-bracket	MYE-LB
DIN rail bracket	MYE-DB

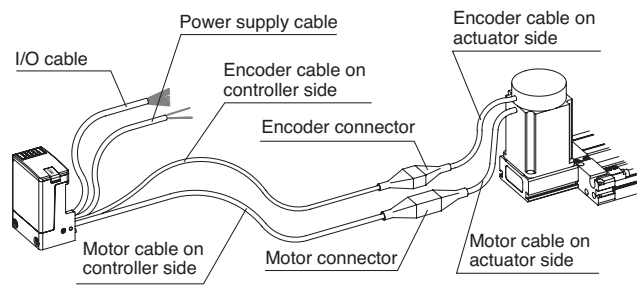
Note) These brackets are used to mount the remote controller either to a flat horizontal surface or onto a DIN rail.

Names and Functions of Individual Parts

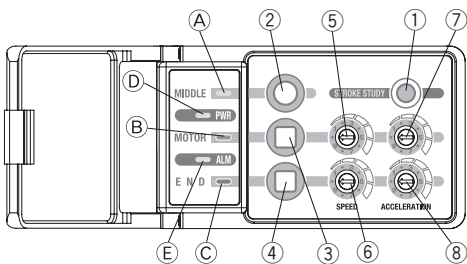
Integrated control type



Remote control type



Controller detail



Switches/Lights

Description	Contents/Functions
①	Stroke learning switch
② to ④	Switch to move the actuator to intermediate position and set the intermediate position
⑤	Rotary switch to set moving speed to the motor side end
⑥	Rotary switch to set moving speed to the other end
⑦	Rotary switch to set moving acceleration to the motor side end
⑧	Rotary switch to set moving acceleration to the other end
A	Centre position indicator light (green)
B	Motor power indicator light (green)
C	END indicator light (green)
D	Power indicator light (green)
E	Alarm indicator light (red)

Examples of Internal Circuit and Wiring

5-point Stoppable Type

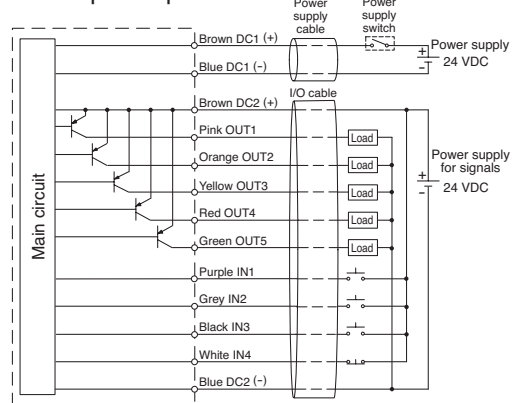
Power Supply Cable 2 wires AWG20 (20 lines/0.16 mm²)

Symbol	Colour	Signal name	Contents
DC1 (+)	Brown	Vcc	Power supply cables for driving the actuator
DC1 (-)	Blue	GND	

I/O Cable 11 wires AWG28 (7 wires/0.127 mm²)

Symbol	Colour	Signal name	Contents
DC2 (+)	Brown	Vcc	Power supply cables for signal
DC2 (-)	Blue	GND	
OUT1	Pink	READY output	Signal indicating the controller is operable
OUT2	Orange	Positioning completion output 1	Signal indicating that positioning is completed
OUT3	Yellow	Positioning completion output 2	
OUT4	Red	Positioning completion output 3	
OUT5	Green	Alarm output	Signal indicating an alarm has been generated
IN1	Purple	Actuation instruction input 1	Instruction signal to actuator
IN2	Grey	Actuation instruction input 2	
IN3	Black	Actuation instruction input 3	
IN3	White	External stop	Signal providing external stop instruction (The external stop is activated when contact is opened)

PNP input/output circuit

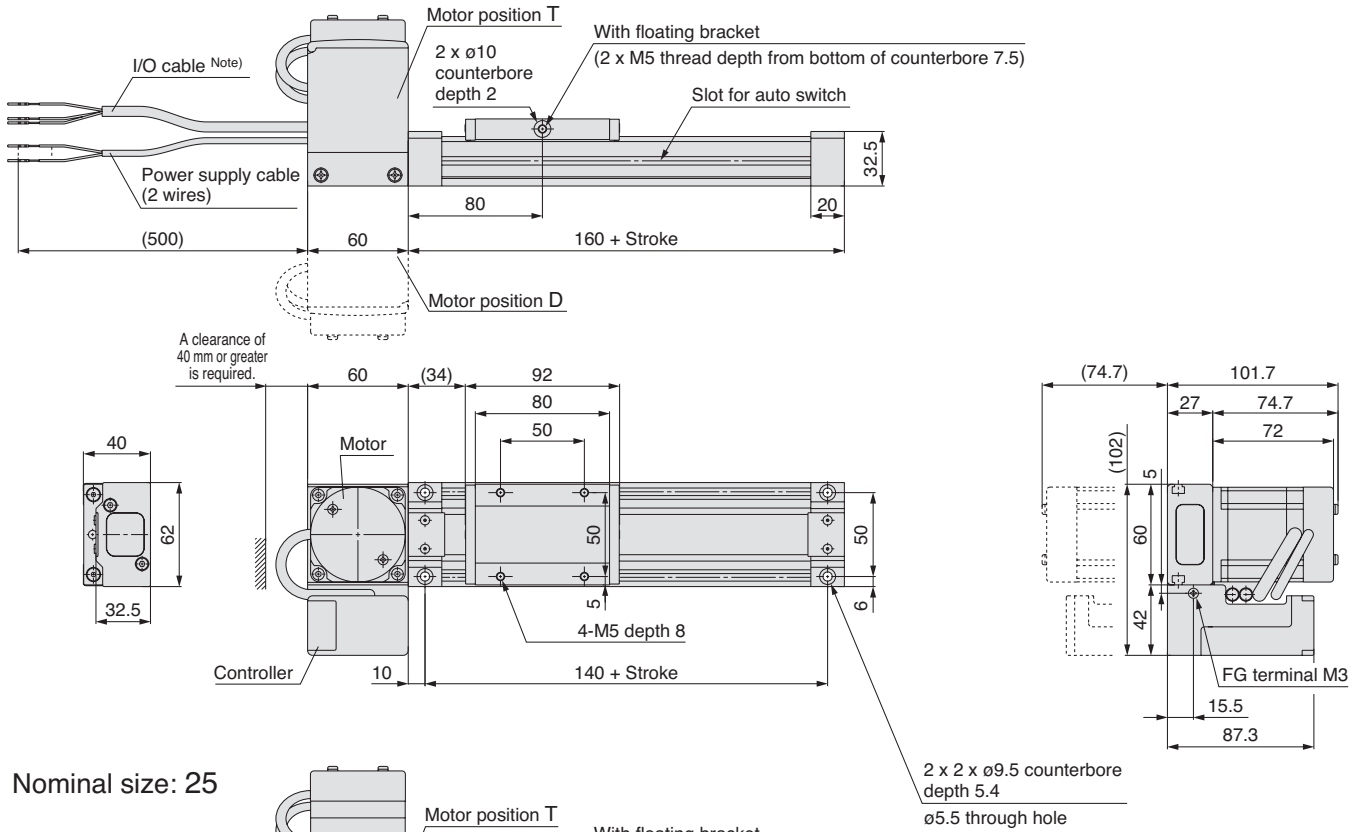


This product can be used without connecting I/O cables, however please use caution and install a power supply switch for the actuator. In case of an emergency, please turn it off.

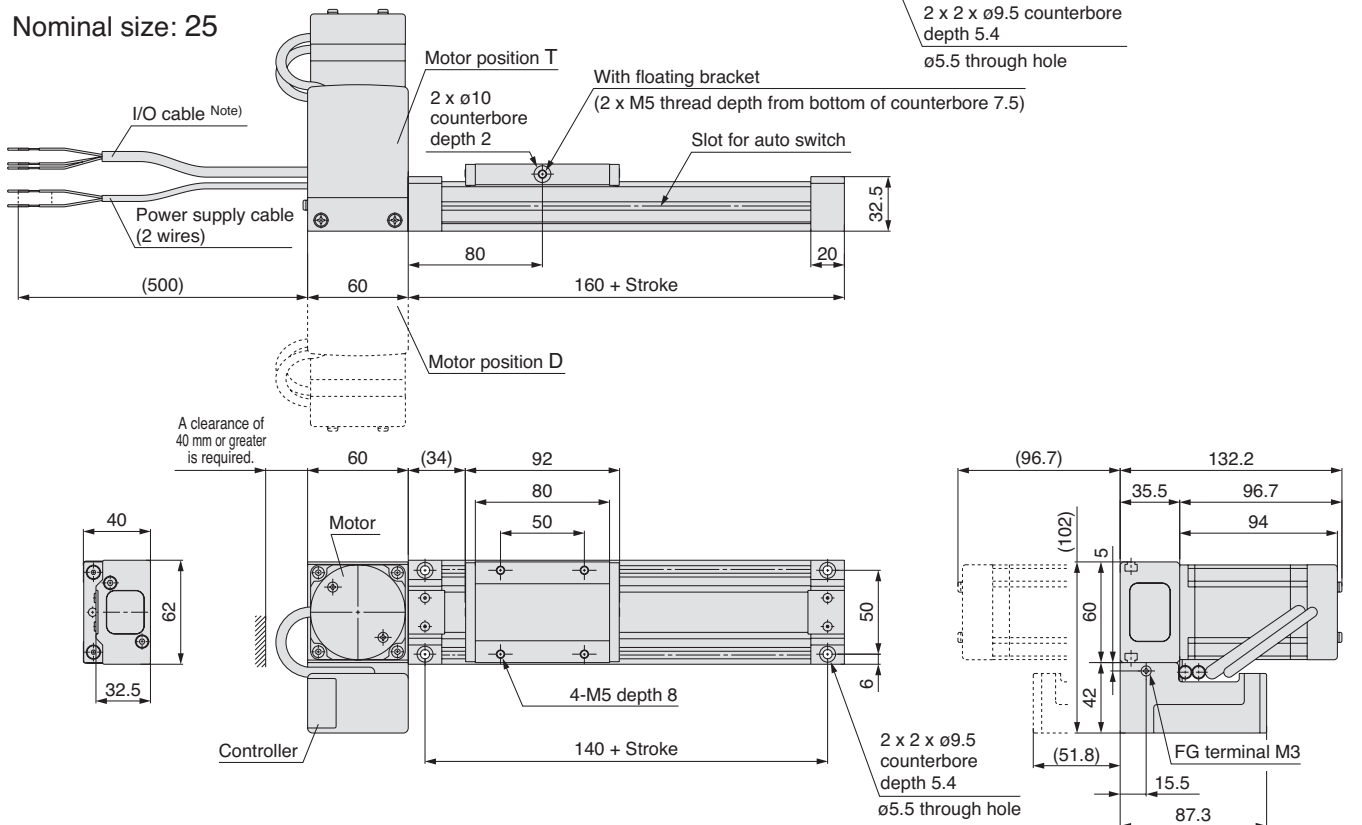
Dimensions Integrated Control Type

E-MY2B Nominal size Stroke

Nominal size: 16



Nominal size: 25



Note) For the 3-point stoppable type, the I/O cable is a 9-core type and for the 5-point stoppable type, a 11-core type is used.



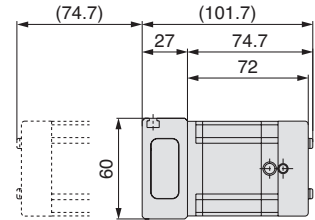
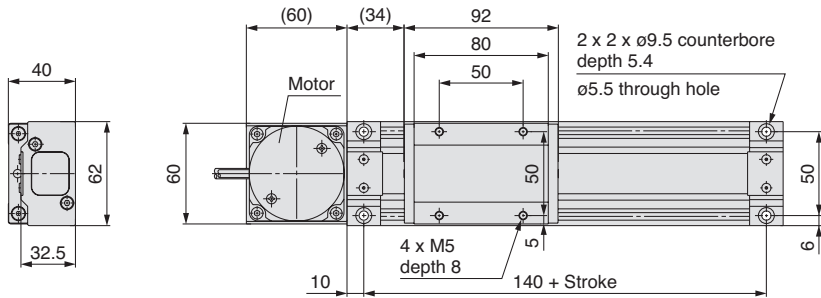
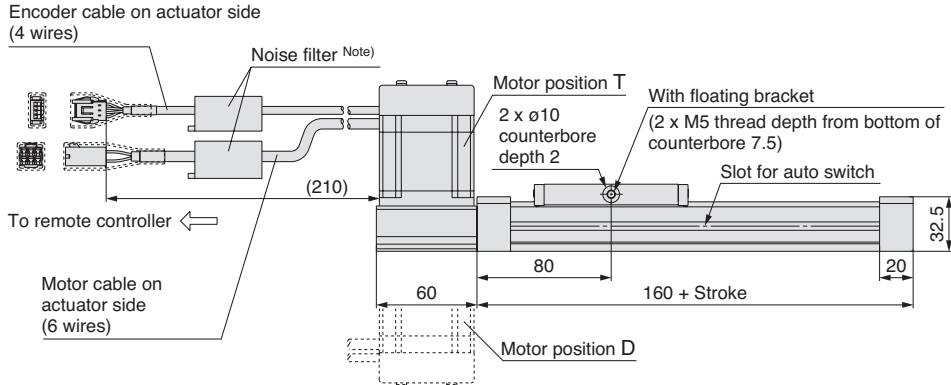
For more product options and details see our specific catalogues or on-line information.

Dimensions Remote Control Type (Actuator unit)

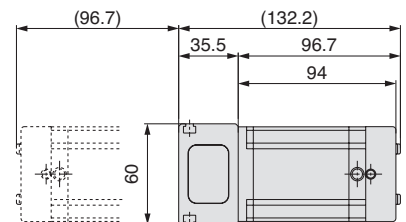
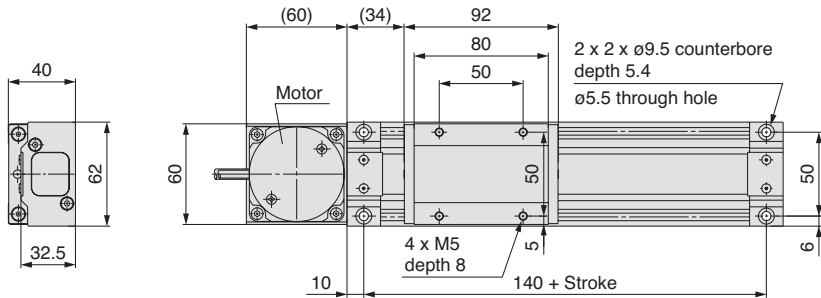
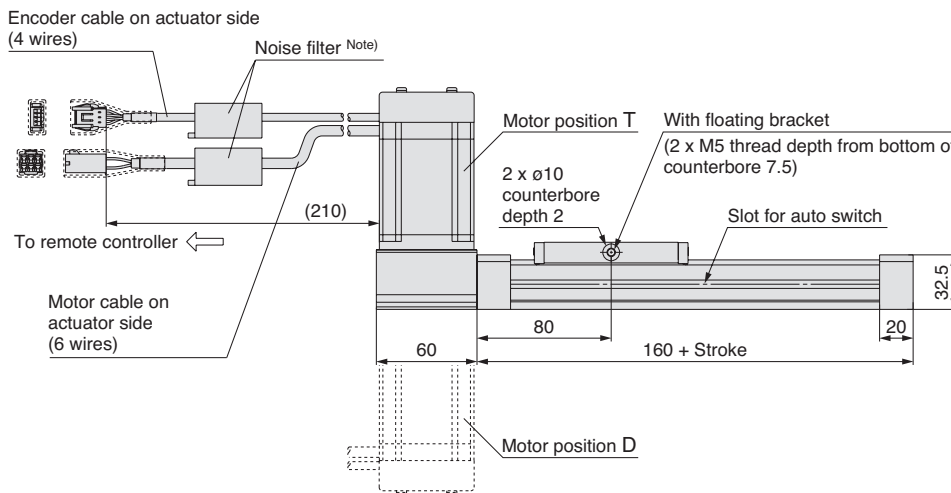
E-MY2B -Q

Nominal size: 16

* Refer to catalogue for dimensions of remote controller.



Nominal size: 25

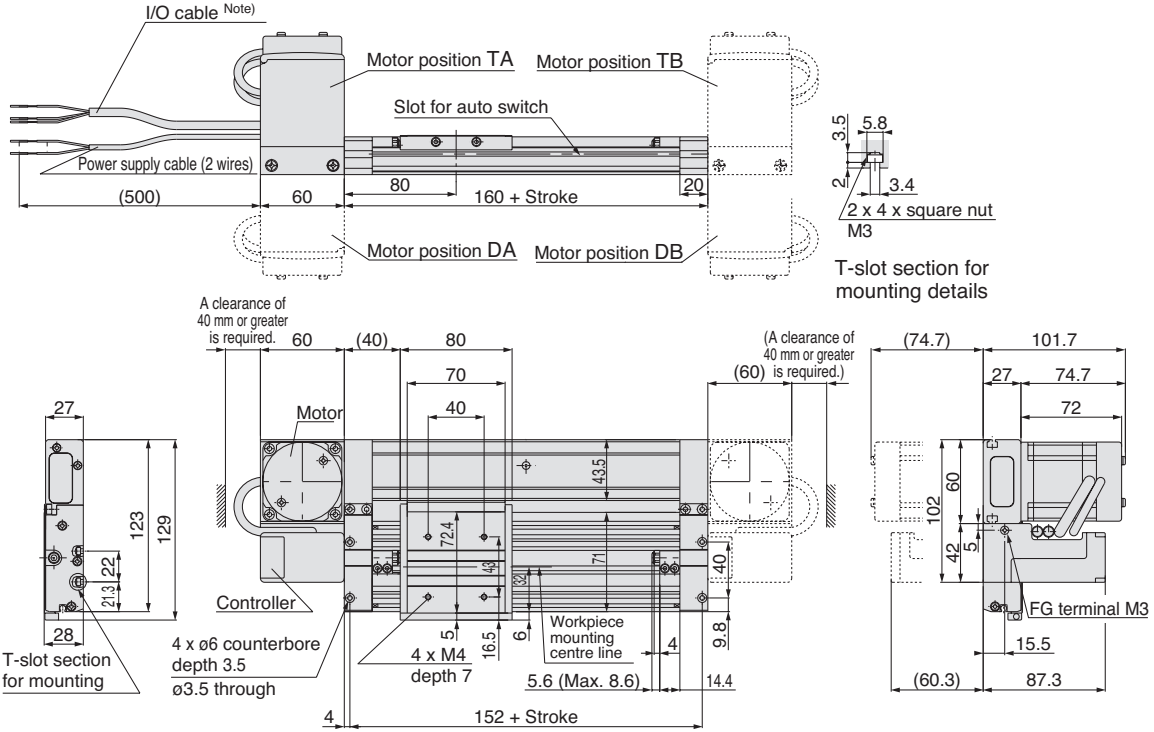


Note) For the CE compliant model a noise filter is provided but not attached.
The cable for the CE compliant models uses dedicated shielding. Even if a noise filter is attached to a non CE marked products, the products cannot be changed to a CE compliant product.

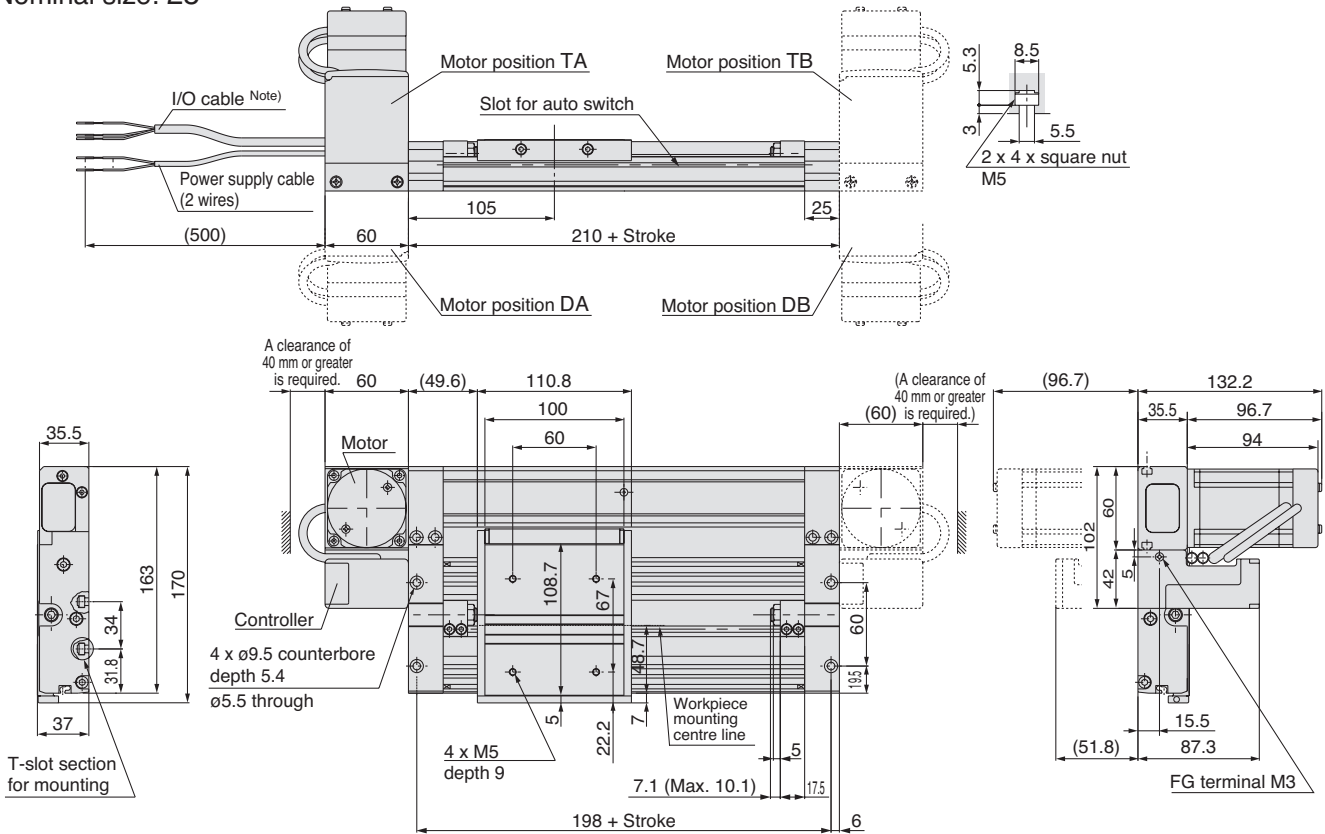
Dimensions Integrated Control Type

 E-MY2C Nominal size Stroke

Nominal size: 16



Nominal size: 25



Note) For the 3-point stoppable type, the I/O cable is a 9-core type and for the 5-point stoppable type, a 11-core type is used.

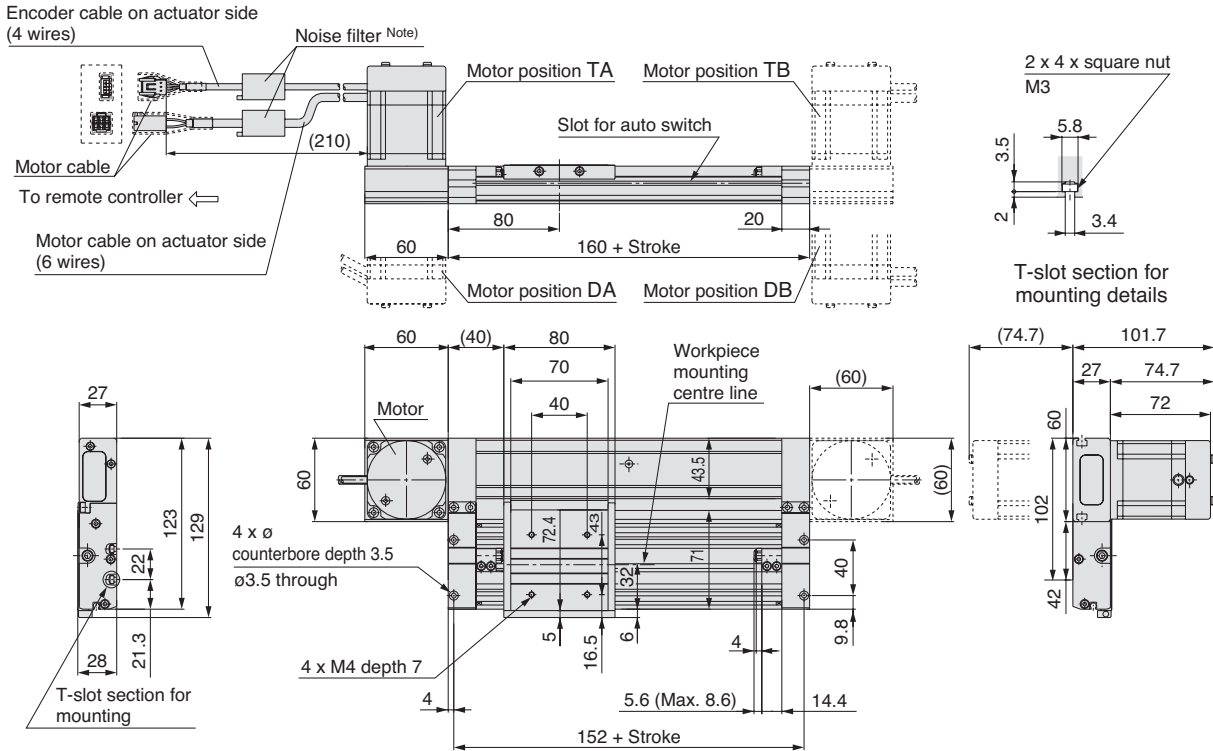


For more product options and details see our specific catalogues or on-line information.

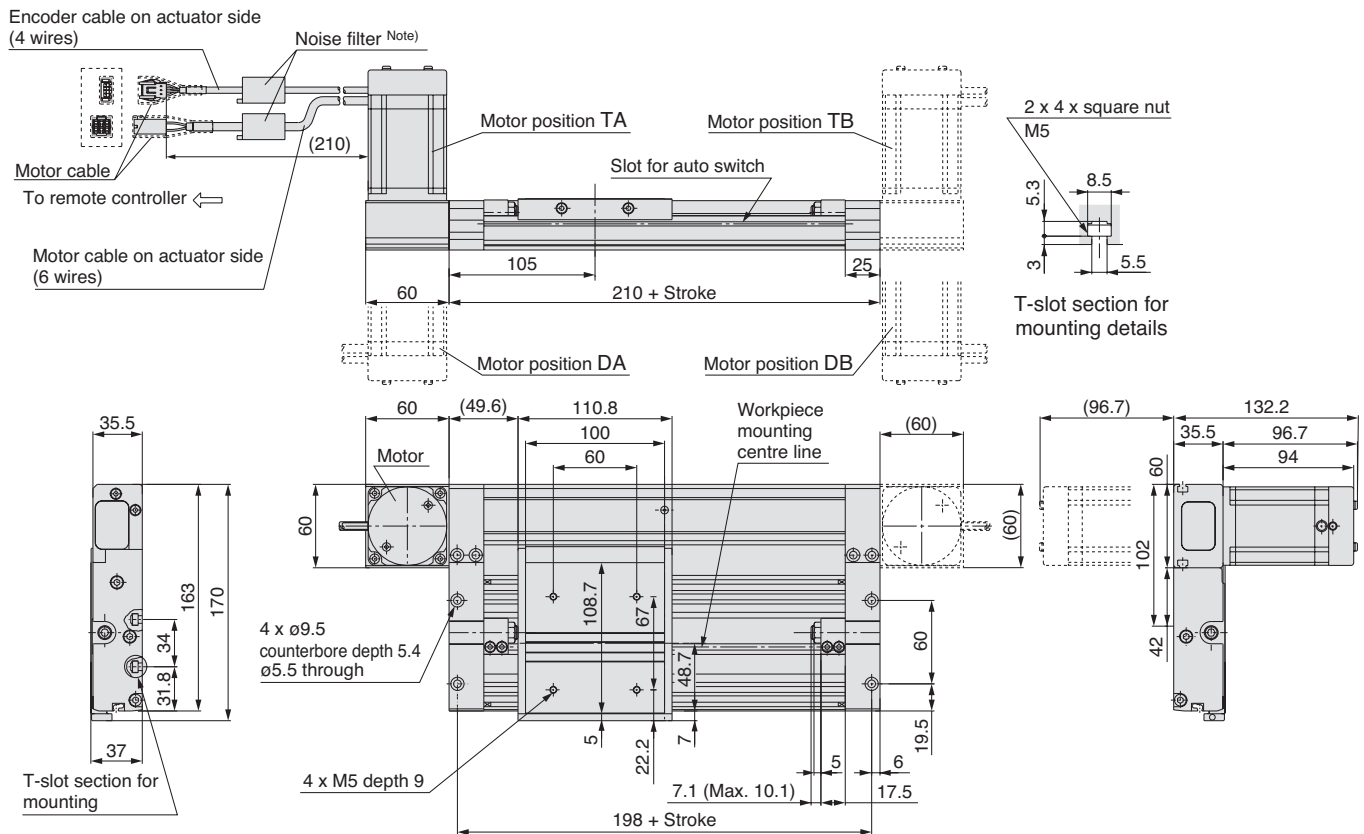
Dimensions Remote Control Type (Actuator unit)

E-MY2C -Q
 Nominal size: 16

* Refer to catalogue for dimensions of remote controller.



Nominal size: 25



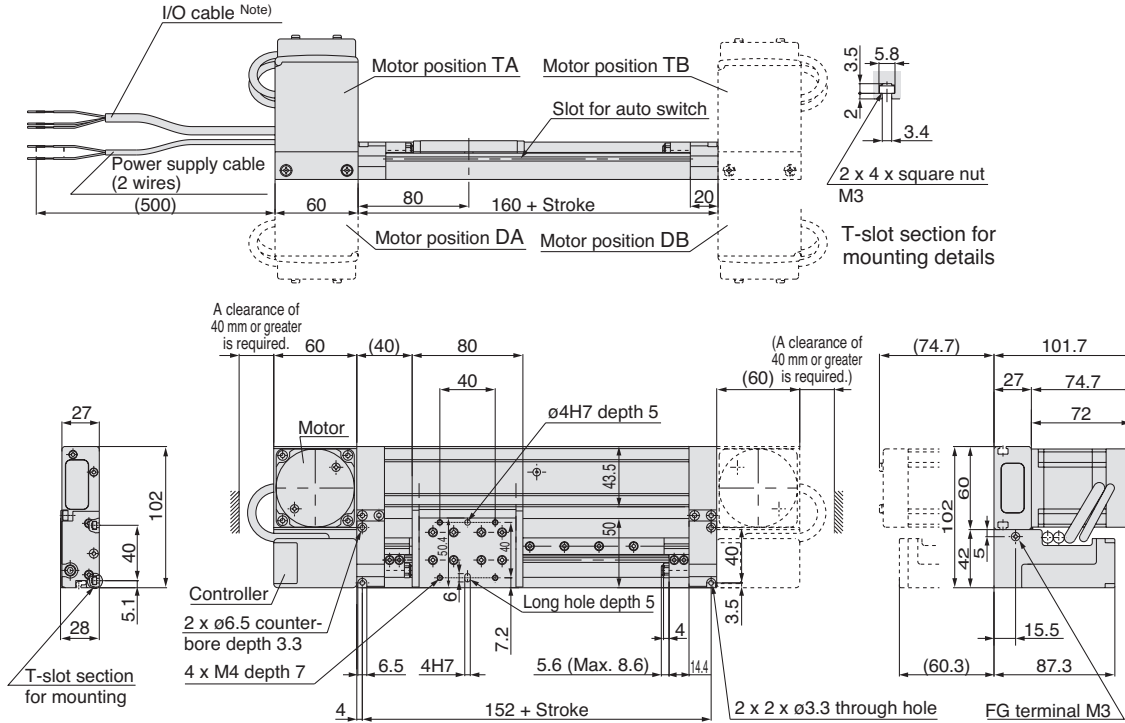
Note) For the CE compliant model, a noise filter is provided but not attached.

The cable for the CE compliant models uses dedicated shielding. Even if a noise filter is attached to a non CE marked products, the products cannot be changed to a CE compliant product.

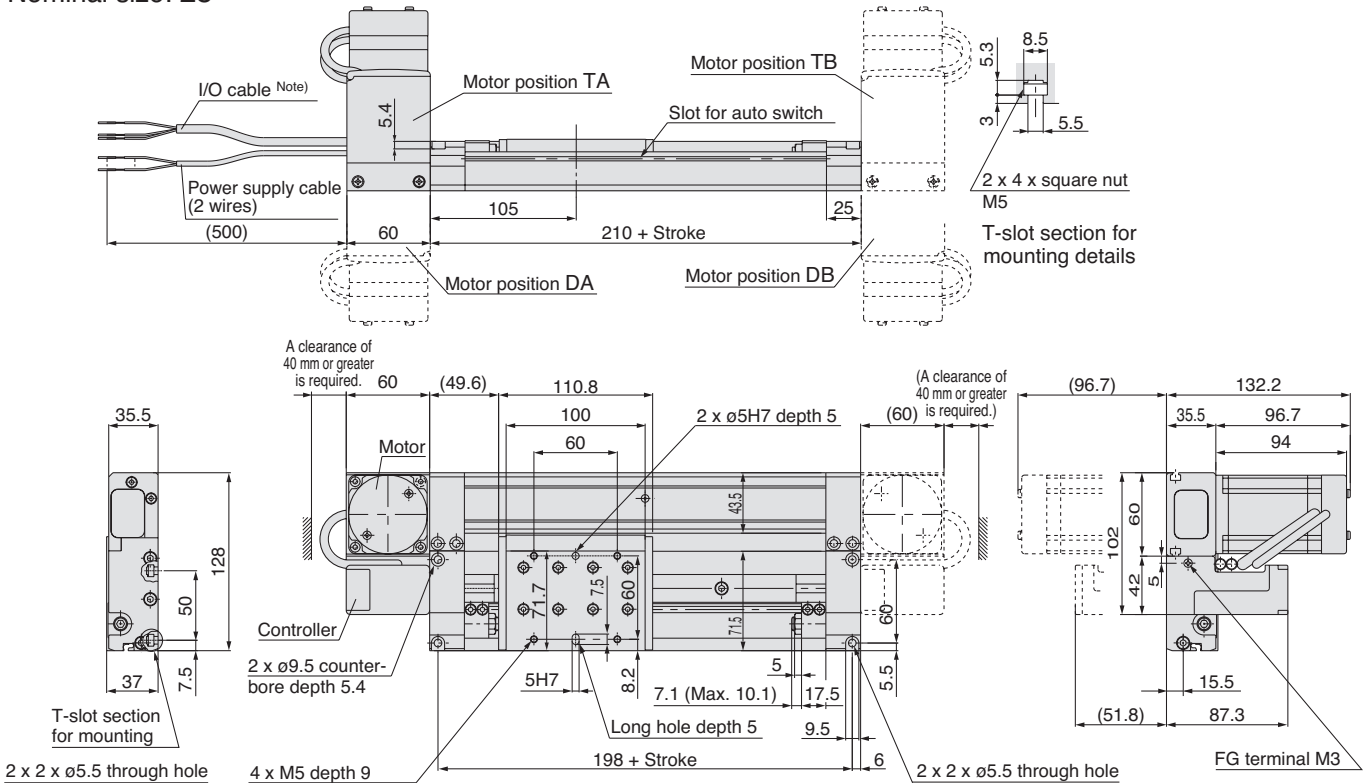
Dimensions Integrated Control Type

 E-MY2H Nominal size Stroke

Nominal size: 16



Nominal size: 25



Note) For the 3-point stoppable type, the I/O cable is a 9-core type and for the 5-point stoppable type, a 11-core type is used.

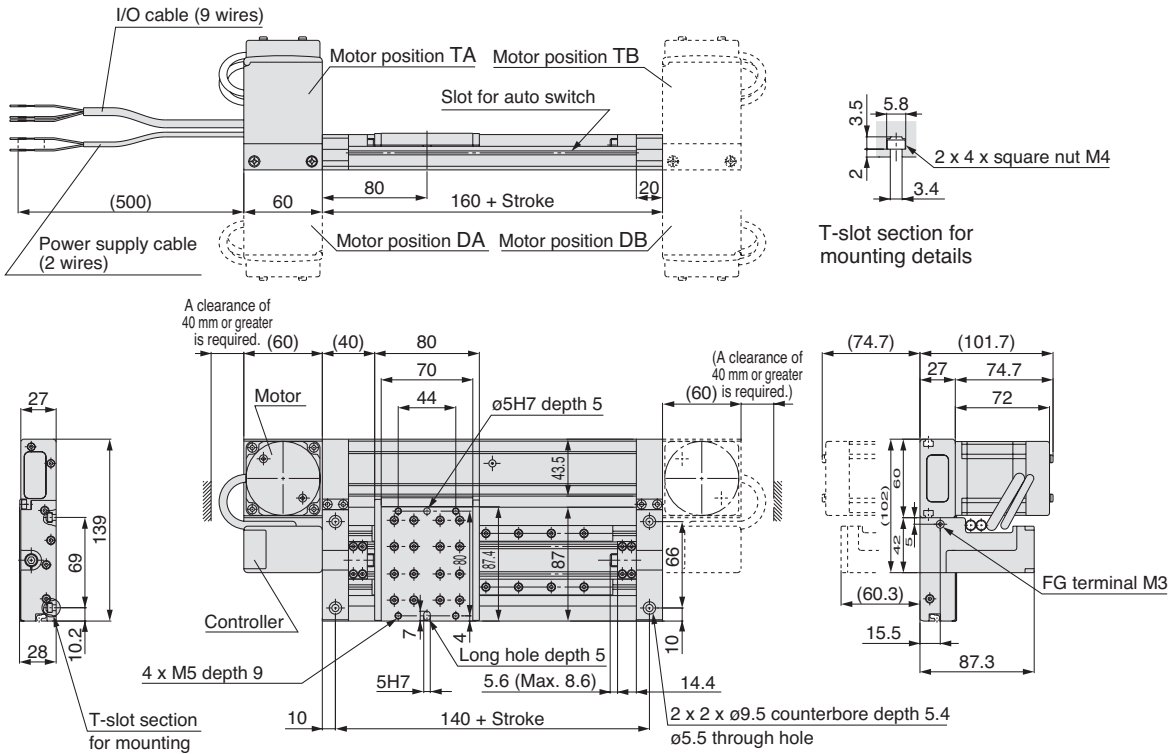


For more product options and details see our specific catalogues or on-line information.

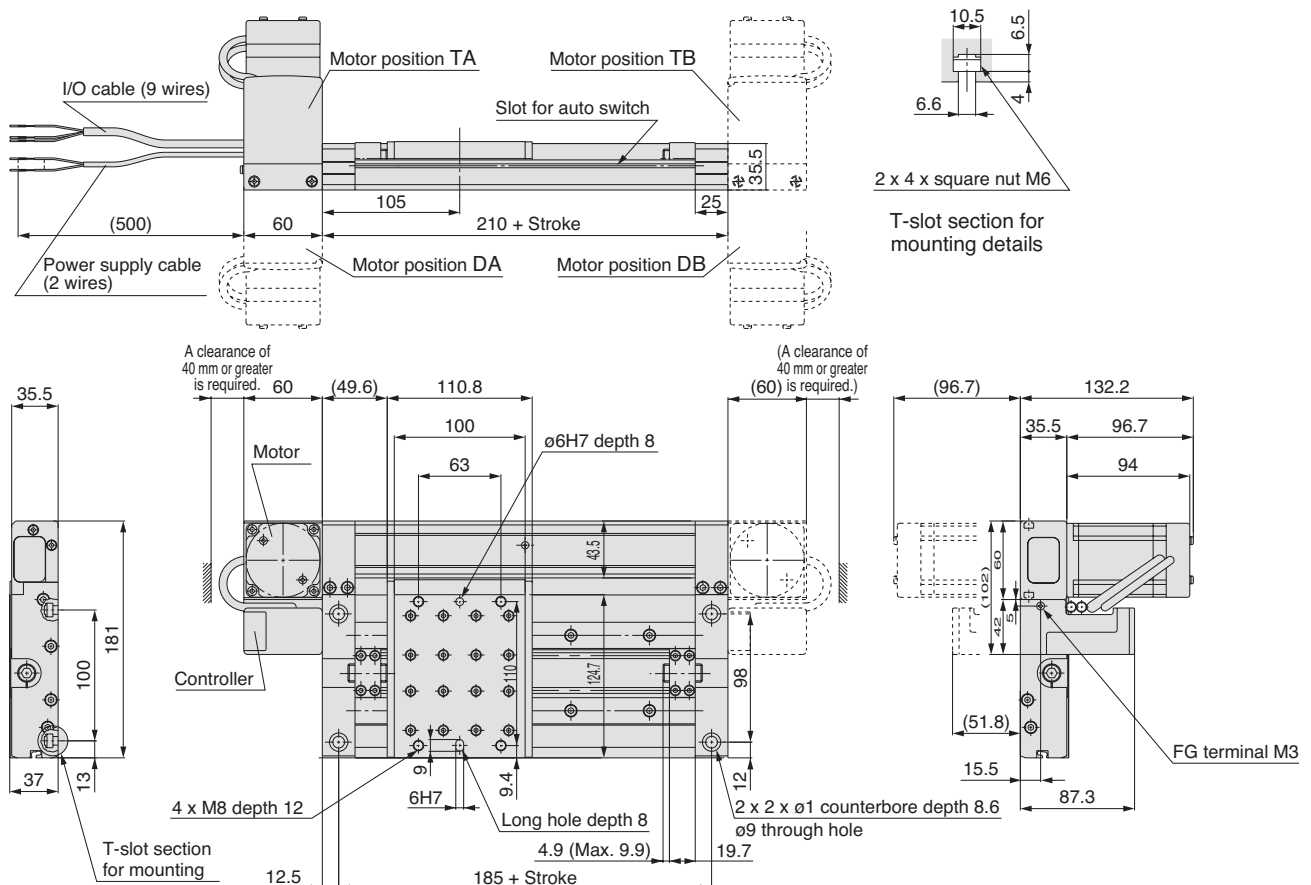
Dimensions Integrated Control Type

E-MY2HT Nominal size Stroke

Nominal size: 16



Nominal size: 25



Note) For the 3-point stoppable type, the I/O cable is a 9-core type and for the 5-point stoppable type, a 11-core type is used.



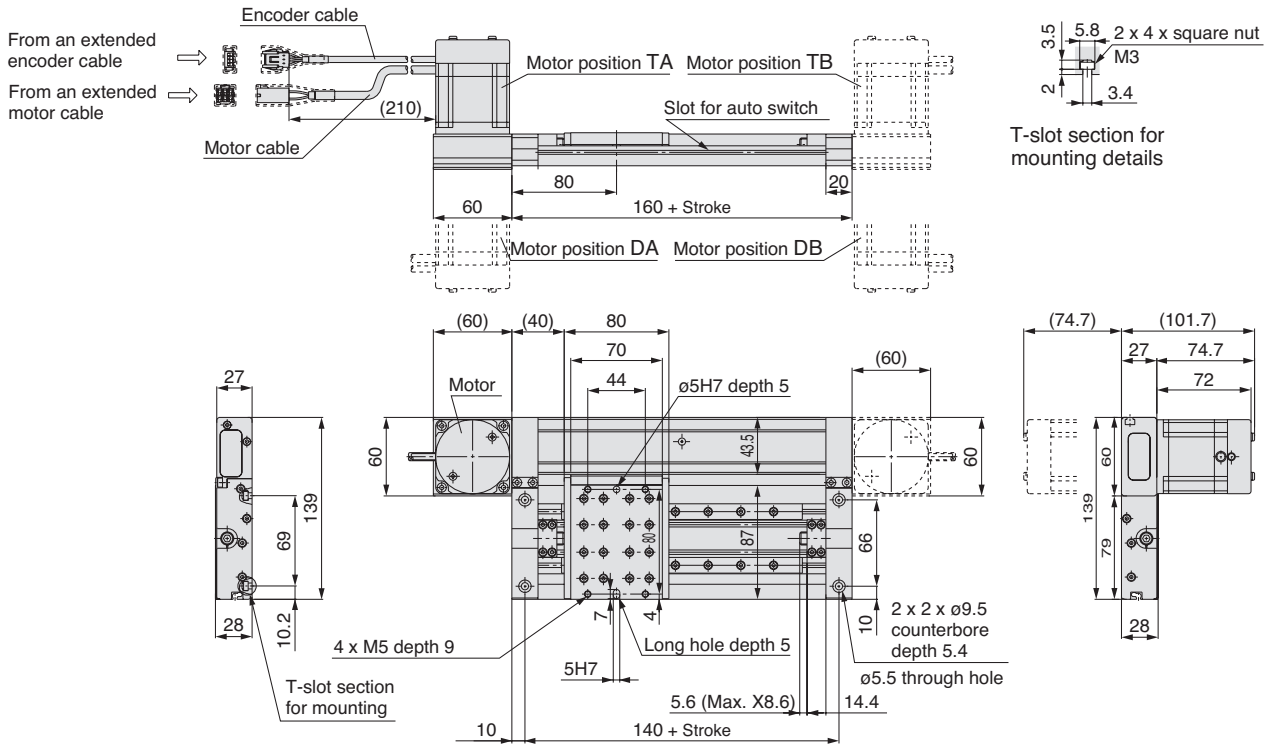
For more product options and details see our specific catalogues or on-line information.

Dimensions Remote Control Type (Actuator unit)

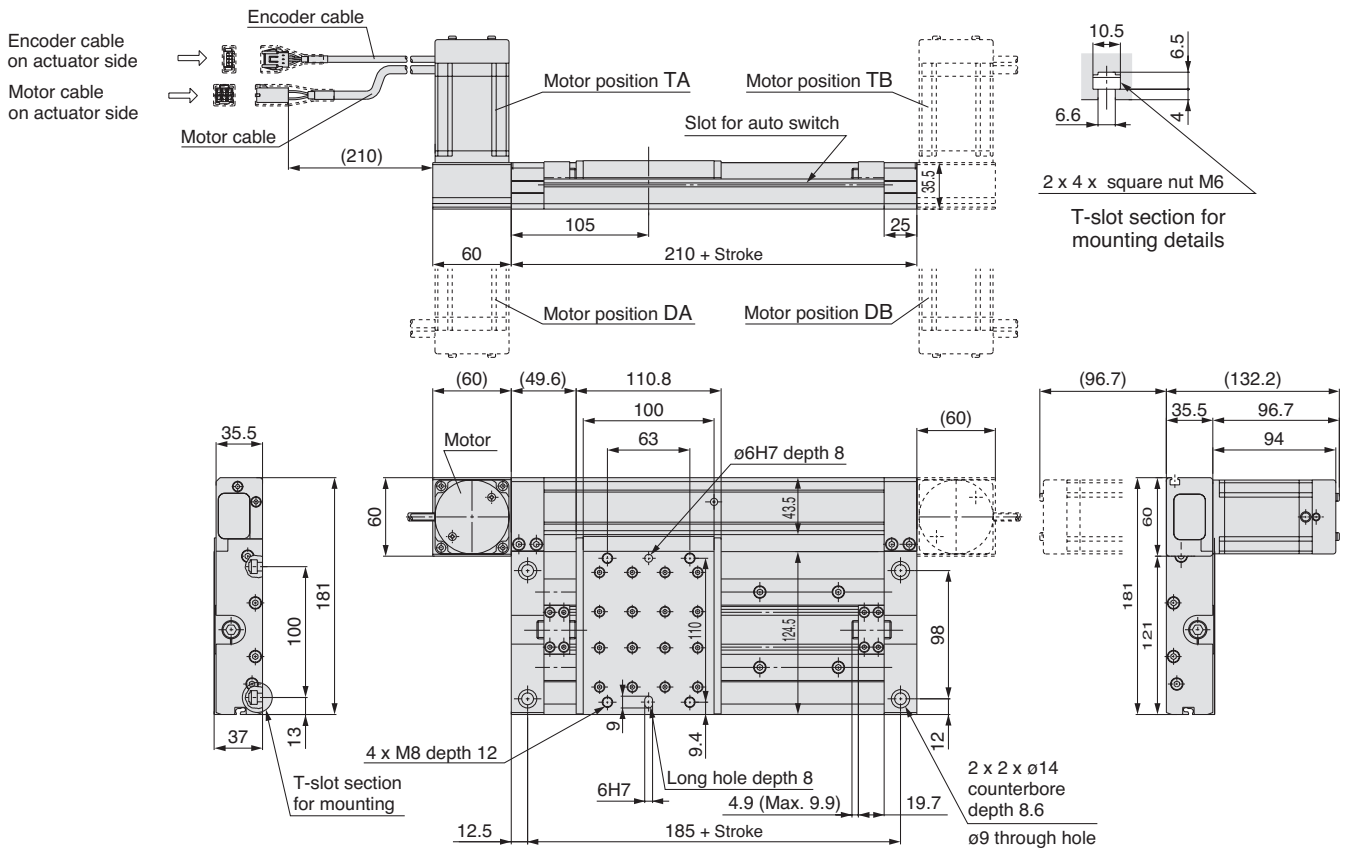
E-MY2HT Nominal size Stroke M L -Q
Z

* Refer to catalogue for dimensions of remote controller.

Nominal size: 16



Nominal size: 25



Note) For the CE compliant model, a noise filter is provided but not attached.
 The cable for the CE compliant models uses dedicated shielding. Even if a noise filter is attached to a non CE marked products, the products cannot be changed to a CE compliant product.

Electric Rotary Table Series LER

ø10, ø30, ø50



Features

- Adjustable speed, acceleration and positioning.
- Easy setting operation and installation.
- Maximum rotation torque can be selected.
- Through hollow shaft.

How to Order

LER 10 K – – – R 1 6P 1

Table accuracy

–	Basic type
H	High precision type

Size

10
30
50

Max. rotating torque [N·m]

Symbol	Type	LER10	LER30	LER50
K	High torque	0.3	1.2	10
J	Basic	0.2	0.8	6.6

Rotation angle [°]

Symbol	LER10	LER30	LER50
–	310	320	
2	External stopper: 180		
3	External stopper: 90		

Motor cable entry

–	Basic type (entry on the right side)	
L	Entry on the left side	

Controller mounting

–	Screw mounting
D	DIN rail mounting

I/O cable length

–	Without cable
1	1.5 m
3	3 m
5	5 m

Controller type

–	Without controller
1N	With programless controller (NPN)
1P	With programless controller (PNP)
6N	With controller (NPN)
6P	With controller (PNP)

Actuator cable length

–	Without cable	8	8 m Note)
1	1.5 m	A	10 m Note)
3	3 m	B	15 m Note)
5	5 m	C	20 m Note)

Note) Other lengths produced upon receipt of order

Actuator cable type

–	Without cable
S	Standard cable
R	Robotic cable (Flexible cable)

Product Recommendation



Stocked items for fast delivery

LER10K-3-R36P1	LER50K-3-R36P1	LER30K-R36P1
LER30K-3-R36P1	LER10K-R36P1	LER50K-R36P1



Related Products

- Series LEC - Controller - page 906
- Series LECP1 - Controller - page 902
- Series LEH - Electric Grippers - page 887
- Series LEF - Electric Actuators (slider type) - page 815
- Series LEY - Electric Actuators (rod type) - page 831
- Series LES - Electric Slide Tables - page 857



For more product options and details see our specific catalogues or on-line information.

Specifications

Step Motor (Servo/24 VDC)

Model		LER□10K	LER□10J	LER□30K	LER□30J	LER□50K	LER□50J
Rotation angle [°]		310			320		
Max. rotating torque [N·m]		0.3	0.2	1.2	0.8	10	6.6
Max. pushing torque [N·m] <small>Note 1) 3)</small>		0.15	0.1	0.6	0.4	5	3.3
Max. moment of inertia [kg·m ²] <small>Note 2)</small>		0.0040	0.0018	0.027	0.012	0.10	0.04
Angular speed [°/sec] <small>Note 2) 3)</small>		20 to 280	30 to 420	20 to 280	30 to 420	20 to 280	30 to 420
Pushing speed [°/sec]		20	30	20	30	20	30
Max. angular acceleration/deceleration [°/sec ²] <small>Note 2)</small>		3,000					
Backlash [°]		±0.5					
Positioning repeatability [°]		±0.05					
Impact/Vibration resistance [m/s ²] <small>Note 4)</small>		150/30					
Actuation type		Special worm gear + Belt drive					
Max. operating frequency [c.p.m]		60					
Operating temp. range [°C]		5 to 40					
Operating humidity range [%RH]		90 or less (No condensation)					
Weight [kg]	Basic type	0.49		1.1		2.2	
	High precision type	0.52		1.2		2.4	
Rotation angle [°]	-2/ arm (1 pc.)	180					
	-3/ arm (2 pcs.)	90					
Repeatability at the end [°]/ with external stopper		±0.01					
External stopper setting range [°]		±2					
Weight [kg]	-2/external arm (1 pc.)	Basic type	0.55		1.2		2.5
		High precision type	0.61		1.4		2.7
Weight [kg]	-3/external arm (1 pc.)	Basic type	0.57		1.2		2.6
		High precision type	0.63		1.4		2.8
Motor size		□20		□28		□42	
Motor type		Step motor (Servo/24 VDC)					
Encoder		Incremental A/B phase (800 pulse/rotation)					
Power supply [V]		24 VDC ±10%					
Power consumption [W] <small>Note 5)</small>		11		22		34	
Standby power consumption when operating [W] <small>Note 6)</small>		7		12		13	
Momentary max. power consumption [W] <small>Note 7)</small>		14		42		57	
Controller weight [kg]		0.15/Screw mounting, 0.17/DIN rail mounting					

Note 1) Pushing force accuracy is LER10: ±30% (F.S.), LER30: ±25% (F.S.), LER50: ±20% (F.S.).

Note 2) The angular acceleration, angular deceleration and angular speed may fluctuate due to variations in the inertia moment. Refer to page 3 "Moment of Inertia—Angular Acceleration/Deceleration, Effective Torque—Angular Speed" graphs for confirmation.

Note 3) The speed and force may change depending on the cable length, load and mounting conditions. Furthermore, if the cable length exceeds 5 m then it will decrease by up to 10% for each 5 m. (At 15 m: Reduced by up to 20%)

Note 4) Impact resistance: No malfunction occurred when the slide table was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)

Note 5) Power consumption (including the controller) is for when the actuator is operating.

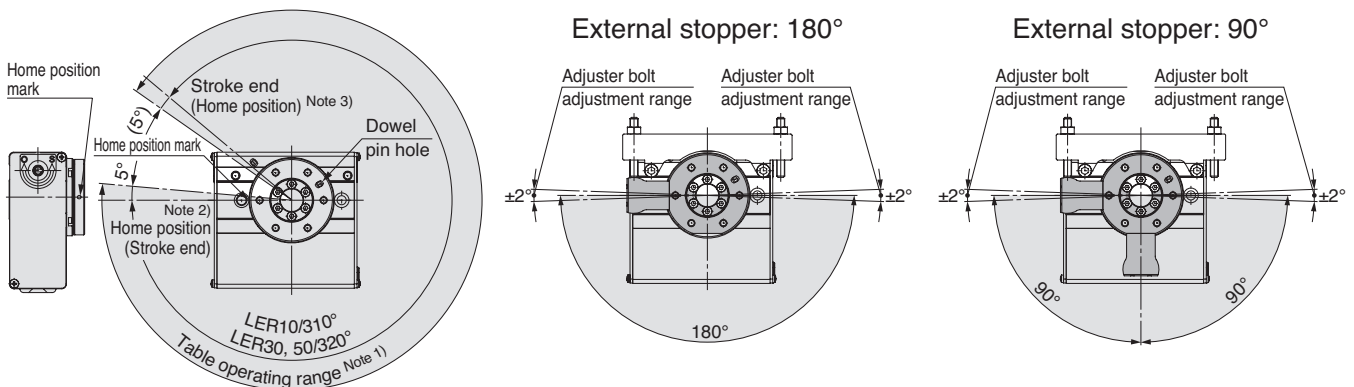
Note 6) Standby power consumption when operating (including the controller) is for when the actuator is stopped in the set position during operation.

Note 7) Momentary max. power consumption (including the controller) is for when the actuator is operating. This value can be used for the selection of the power supply.

Compatible controllers

Type	Step data input type	Programless type
Series	LECP6	LECP1
Feature(s)	Value input Standard controller	Capable of setting up operation without using a PC or teaching box
Compatible motor	Step motor (Servo/24 VDC)	
Maximum number of step data	64 points	14 points
Power supply voltage	24 VDC	
Reference page	Page XXX	Page XXX

Table Rotation Angle Range



* The figures show the origin position for each actuator.

Note 1) Range within which the table can move when it returns to origin.

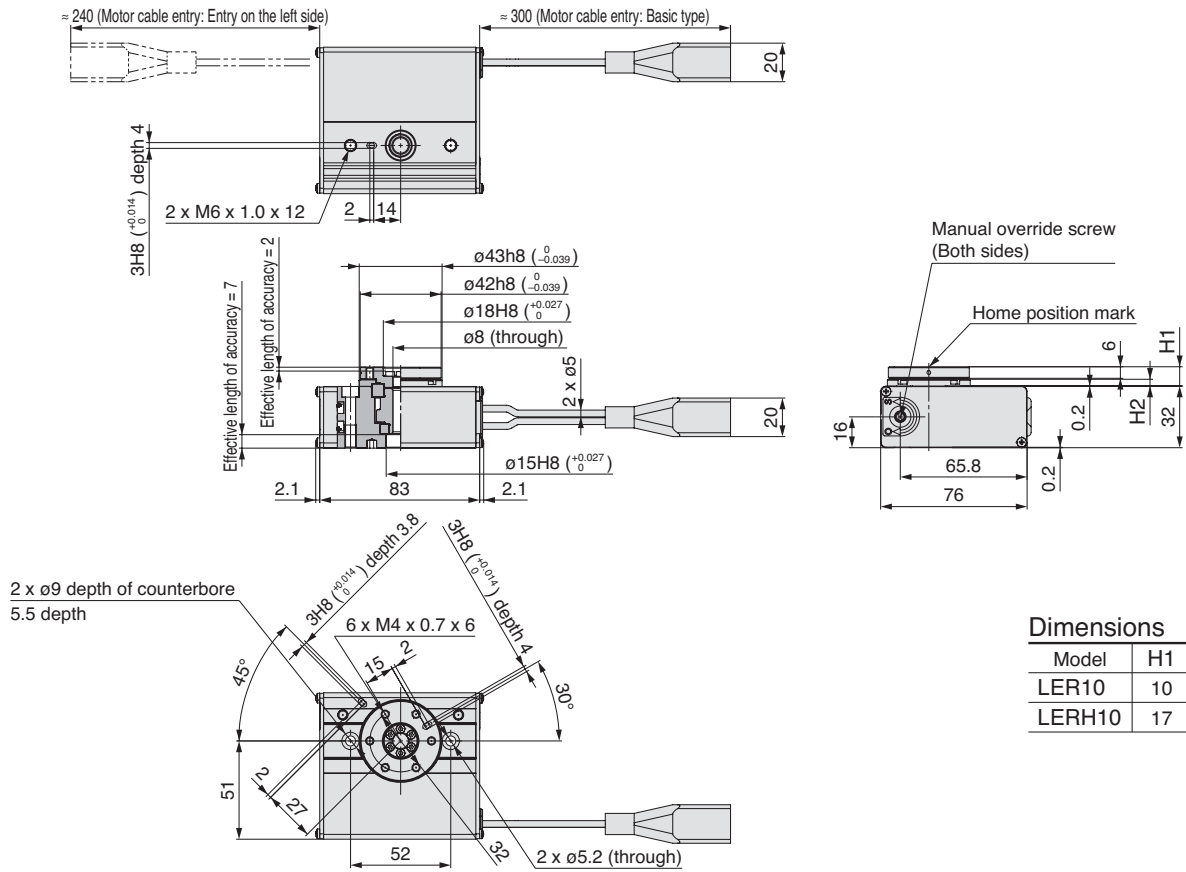
Make sure a workpiece mounted on the table does not interfere with the work pieces and facilities around the table.

Note 2) Position after return to origin.

Note 3) The number in brackets indicates when the direction of return to origin has changed.

Dimensions

LER□10□ (Rotation angle: 310°)

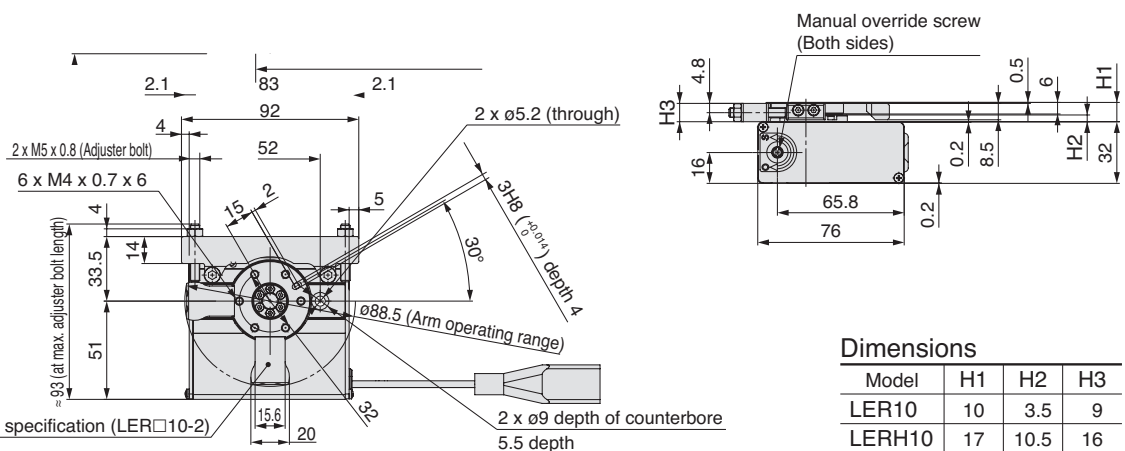


Dimensions

Model	H1	H2
LER10	10	3.5
LERH10	17	10.5

LER□10-2 (Rotation angle: 180°)

LER□10-3 (Rotation angle: 90°)



Dimensions

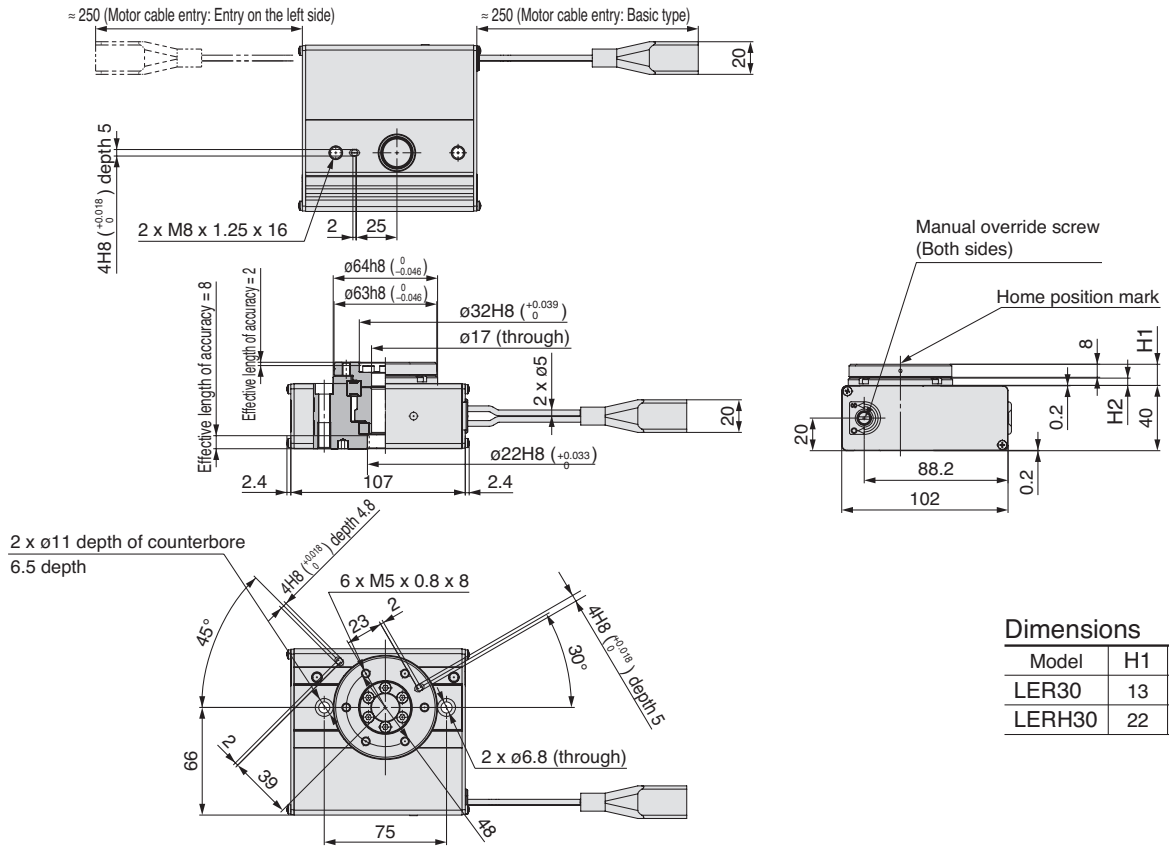
Model	H1	H2	H3
LER10	10	3.5	9
LERH10	17	10.5	16

Note) Not applicable to 180° specification (LER□10-2)



Dimensions

LER□30□ (Rotation angle: 320°)

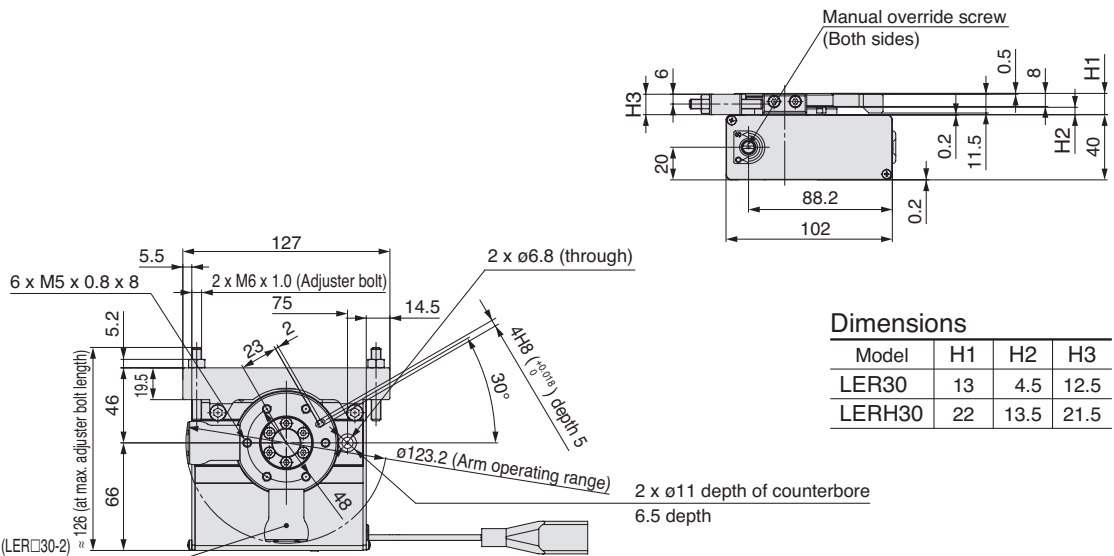


Dimensions

Model	H1	H2
LER30	13	4.5
LERH30	22	13.5

LER□30-2 (Rotation angle: 180°)

LER□30-3 (Rotation angle: 90°)



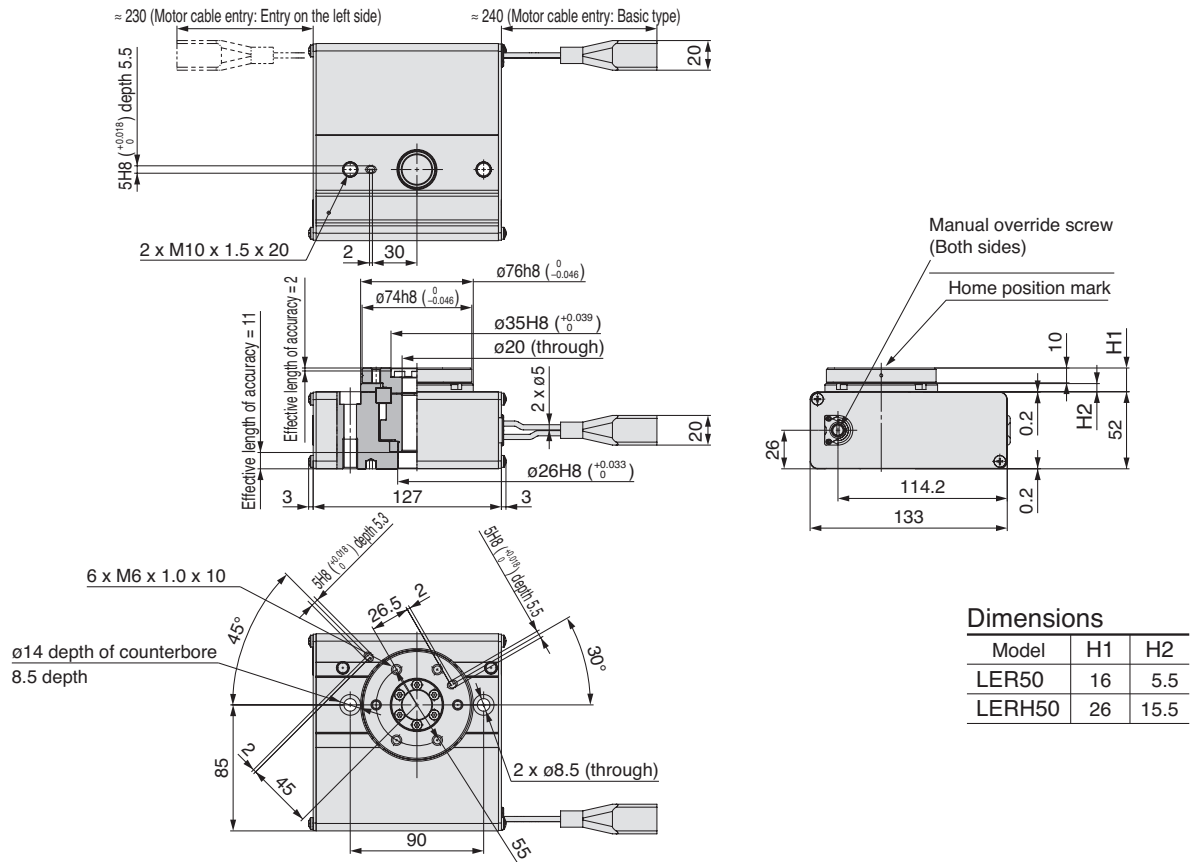
Dimensions

Model	H1	H2	H3
LER30	13	4.5	12.5
LERH30	22	13.5	21.5

Note) Not applicable to 180° specification (LER□30-2)

Dimensions

LER□50□ (Rotation angle: 320°)

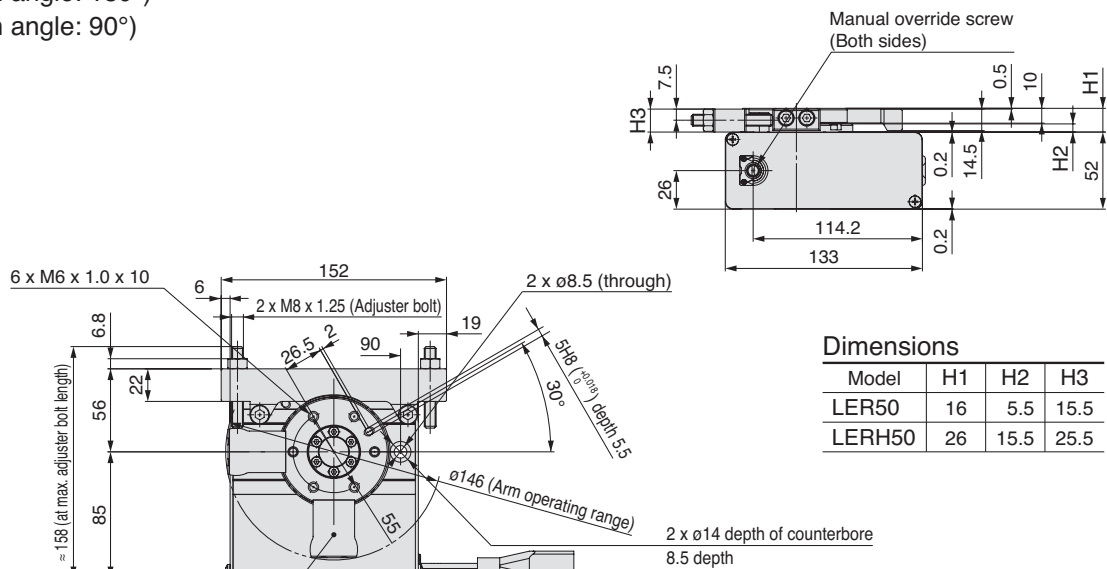


Dimensions

Model	H1	H2
LER50	16	5.5
LERH50	26	15.5

LER□50-2 (Rotation angle: 180°)

LER□50-3 (Rotation angle: 90°)



Dimensions

Model	H1	H2	H3
LER50	16	5.5	15.5
LERH50	26	15.5	25.5

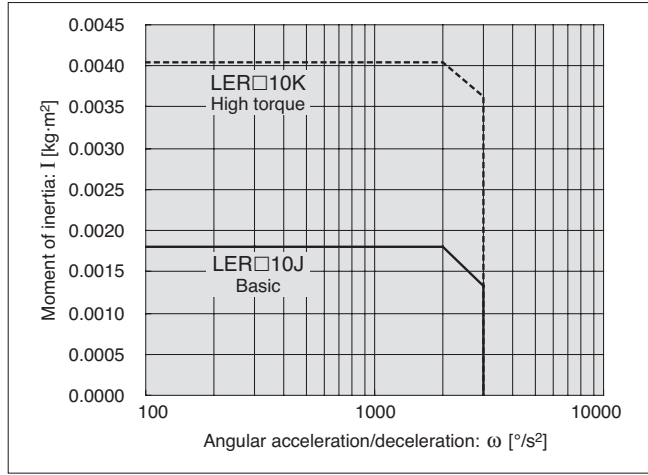
(Note) Not applicable to 180° specification (LER□50-2)



Model selection

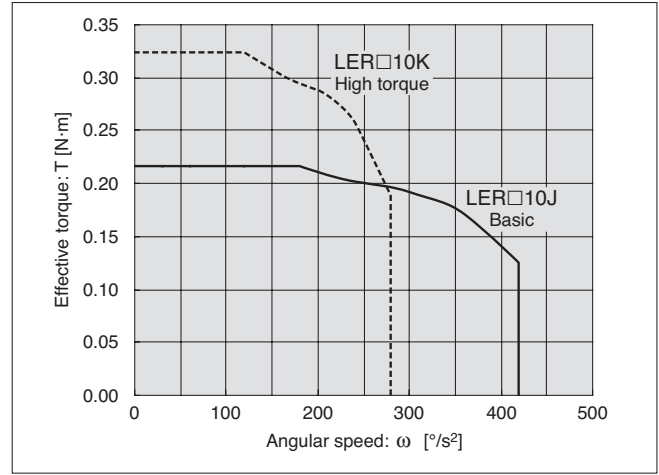
Moment of Inertia—Angular Acceleration/Deceleration

LER10

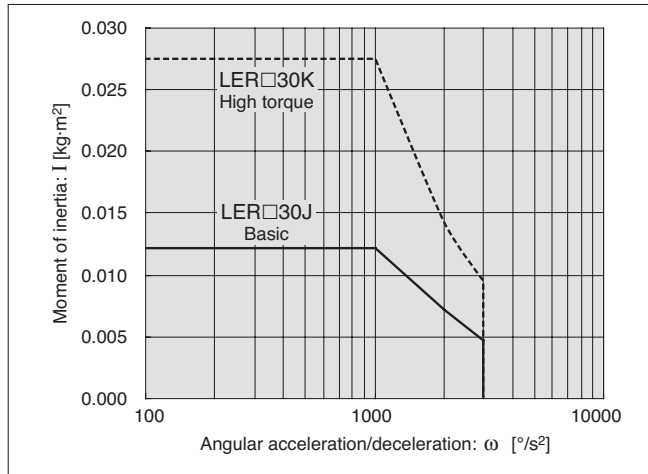


Effective Torque—Angular Speed

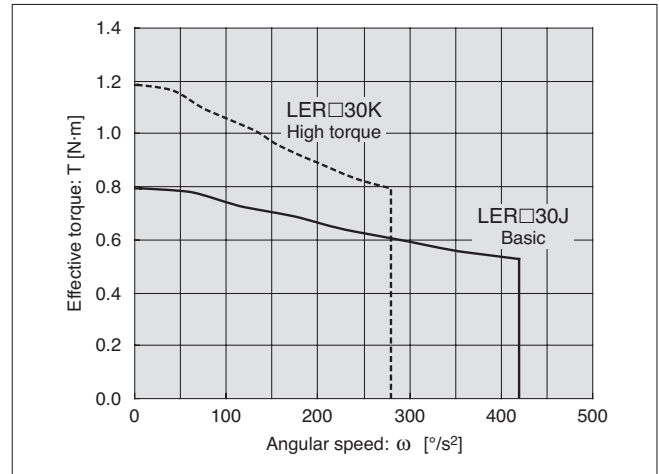
LER10



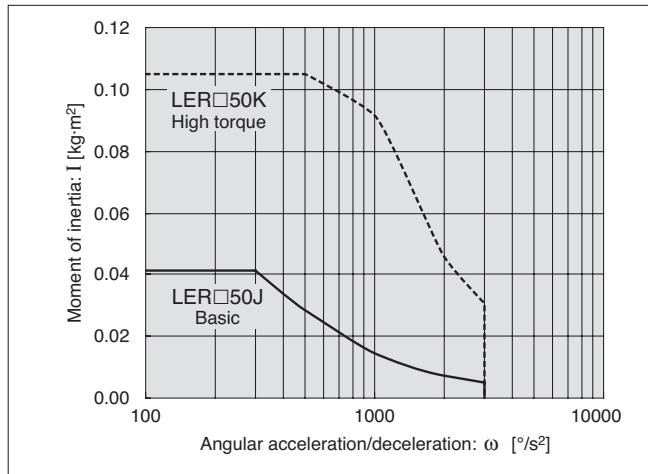
LER30



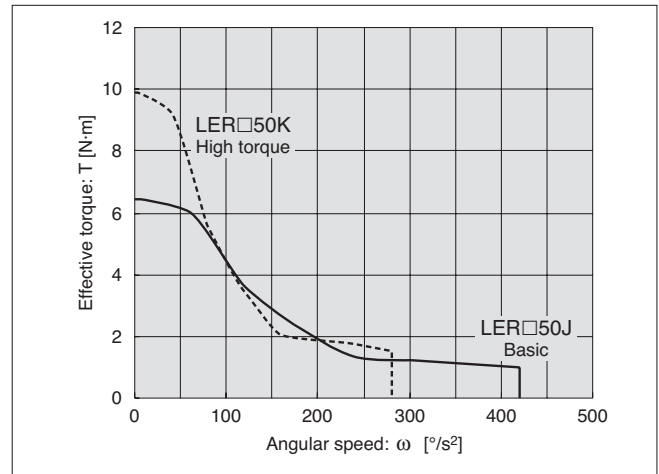
LER30



LER50

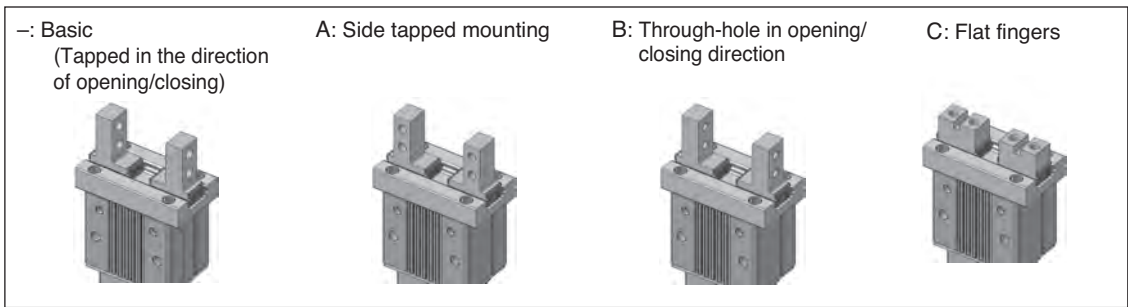


LER50



Electric Actuators

Finger Options



Product Recommendation



Stocked items for fast delivery



LEHZ10K2-4-R16P1	LEHZJ10K2-4-R36P1	LEHS10K3-4-R36P1	LEHF10K2-16-R16P1
LEHZ16K2-6-R16P1	LEHZJ16K2-6-R36P1	LEHS20K3-6-R36P1	LEHF20K2-24-R16P1
LEHZ20K2-10-R16P1	LEHZJ20K2-10-R36P1	LEHS32K3-8-R36P1	LEHF32K2-32-R16P1
LEHZ25K2-14-R16P1	LEHZJ25K2-14-R36P1	LEHS40K3-12-R36P1	LEHF40K2-40-R16P1
LEHZ32K2-22-R16P1	LEHZJ10LK2-4-R36P1	LEHS10LK3-4-R36P1	
LEHZ40K2-30-R16P1	LEHZJ16LK2-6-R36P1	LEHS20LK3-6-R36P1	







Related Products

- Series LEC** - Controller - page 906
- Series LECP1** - Controller - page 902
- Series LEF** - Electric Actuators (slider type) - page 815
- Series LES** - Electric Slide Tables - page 857
- Series LEY** - Electric Actuators (rod type) - page 831
- Series LER** - Electric Rotary Actuators - page 881

Compatible Controllers

Type	Step data input type 	Programless type 
Series	LECP6	LECP1
Feature(s)	Value input Standard controller	Capable of setting up operation without using a PC or teaching box
Compatible motor	Step motor (Servo/24 VDC)	
Maximum number of step data	64 points	14 points
Power supply voltage	24 VDC	
Reference page	Page 906	Page 902

Specifications		Series LEHZ 						Series LEHZJ 			
Model		LEHZ10	LEHZ16	LEHZ20	LEHZ25	LEHZ32	LEHZ40	LEHZJ10	LEHZJ16	LEHZJ20	LEHZJ25
Stroke/both sides [mm]		4	6	10	14	22	30	4	6	10	14
Gripping force [N] <small>Note 1) 3)</small>	Basic	6 to 14		16 to 40		52 to 130	84 to 210	6 to 14		16 to 40	
	Compact	2 to 6	3 to 8	11 to 28		—	—	3 to 6	4 to 8	11 to 28	
Opening and closing speed/ Pushing speed [mm/s] <small>Note 2) 3)</small>		5 to 80/5 to 50		5 to 100/5 to 50		5 to 120/5 to 50		5 to 80/5 to 50		5 to 100/5 to 50	
Drive method		Slide screw + Slide cam						Slide screw + Slide cam			
Finger guide type		Linear guide (No circulation)						Linear guide (No circulation)			
Repeatability [mm] <small>Note 4)</small>		±0.02						±0.02			
Repeated length determination accuracy [mm] <small>Note 5)</small>		±0.05						±0.05			
Finger backlash/ both sides [mm] <small>Note 6)</small>		0.5 or less				1.0 or less		0.5 or less			
Impact resistance/ Vibration resistance [m/s ²] <small>Note 7)</small>		150/30						150/30			
Max. operating frequency [C.P.M]		60						60			
Operating temperature range [°C]		5 to 40						5 to 40			
Operating humidity range [%RH]		90 or less (No condensation and freezing)						90 or less (No condensation and freezing)			
Weight [g]	Basic	165	220	430	585	1120	1760	170	230	440	610
	Compact	135	190	365	520	—	—	140	200	375	545

		Series LEHF 				Series LEHS 			
Model		LEHF10	LEHF20	LEHF32	LEHF40	LEHS10	LEHS20	LEHS32	LEHS40
Stroke/Both sides [mm]	Basic	16	24	32	40	4	6	8	12
	Long stroke	32	48	64	80				
Gripping force [N] <small>Note 1) 3)</small>	Basic	3 to 7	11 to 28	48 to 120	72 to 180	2.2 to 5.5	9 to 22	36 to 90	52 to 130
	Long stroke					1.4 to 3.5	7 to 17	—	—
Opening and closing speed/ Pushing speed [mm/s] <small>Note 2) 3)</small>		5 to 80/5 to 20	5 to 100/5 to 30			5 to 70/ 5 to 50	5 to 80/ 5 to 50	5 to 100/ 5 to 50	5 to 120/ 5 to 50
Drive method		Slide screw + Belt bending				Slide screw + Wedge cam			
Finger guide type		Linear guide (No circulation)				—			
Repeatability [mm] <small>Note 4)</small>		±0.05				±0.02			
Repeated length determination accuracy [mm] <small>Note 5)</small>		±0.05				±0.05			
Finger backlash/ both sides [mm] <small>Note 6)</small>		1.0 or less				0.5 or less			
Impact resistance/ Vibration resistance [m/s ²] <small>Note 7)</small>		150/30				150/30			
Max. operating frequency [C.P.M]		60				60			
Operating temperature range [°C]		5 to 40				5 to 40			
Operating humidity range [%RH]		90 or less (No condensation and freezing)				90 or less (No condensation and freezing)			
Weight [g]	Basic	340	610	1625	1980	185	410	975	1265
	Long stroke	370	750	1970	2500	150	345	—	—

Note 1) Gripping force should be from 10 to 20 times the weight of the object to be conveyed. Positioning force should be 150% when releasing the workpiece. Gripping force accuracy should be: ±30% (F.S.) for LEHS10 / LEHF10 / LEHZ10/16 ±30% (F.S.) for LEHZJ10/16
±25% (F.S.) for LEHS20 / LEHF20 / LEHZ20/25 ±25% (F.S.) for LEHZJ20/25
±20% (F.S.) for LEHS40 / LEHF32/40 / LEHZ32/40

Note 2) Pushing speed should be set within the range during pushing (gripping) operation. Otherwise, it may cause malfunction.

Note 3) The speed / pushing force may vary, depending on the cable length, load and mounting conditions etc.

If the cable length exceeds 5 m, the speed/pushing force will be reduced 10% per 5 m as the maximum. (If cable length is 15 m: 20% reduction as the maximum)

Note 4) Repeatability means the variation of the gripping position (workpiece position) when the gripping operation is repeatedly performed by the same sequence for the same workpiece.

Note 5) Repeated length determination accuracy means dispersion (value on the controller monitor) when the workpiece is repeatedly held in the same position.

Note 6) There will be no influence of backlash during pushing (gripping) operation. Make the stroke longer for the amount of backlash when opening.

Note 7) Impact resistance: No malfunction occurred when the gripper was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the gripper in the initial state.)

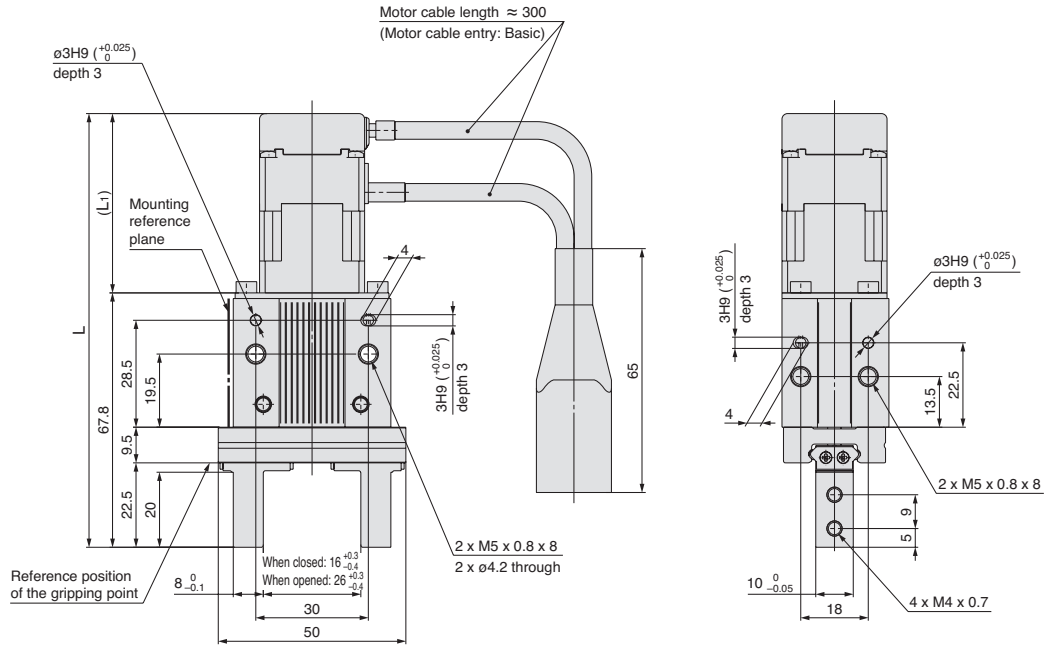
Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the gripper in the initial state.)



Dimensions

LEHZ20(L)K2-10

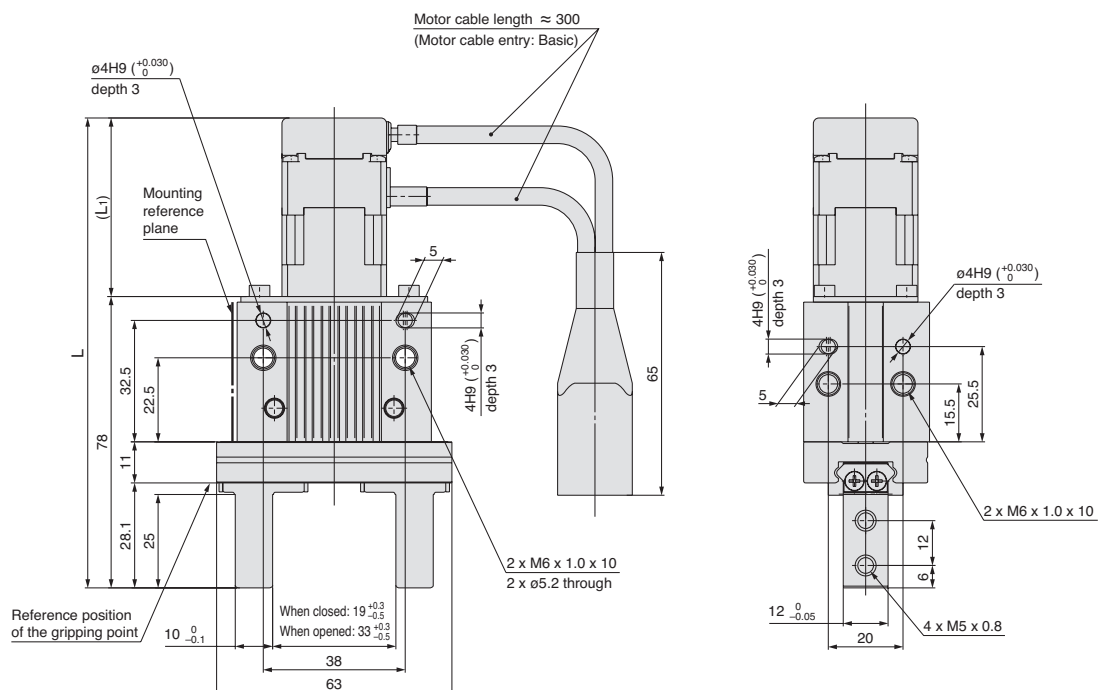
Model	L	(L1)
LEHZ20K2-10□	129.6	(61.8)
LEHZ20LK2-10□	115.6	(47.8)



Dimensions

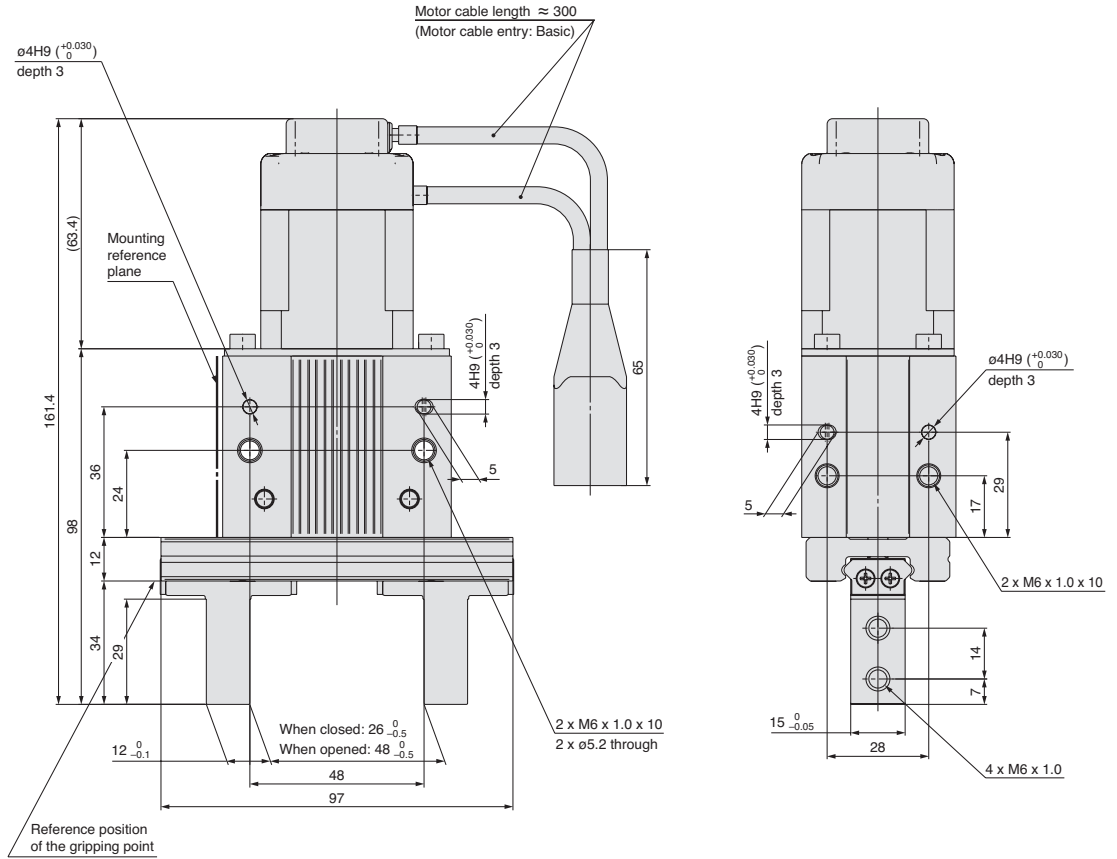
LEHZ25(L)K2-14

Model	L	(L1)
LEHZ25K2-14□	139.8	(61.8)
LEHZ25LK2-14□	125.8	(47.8)



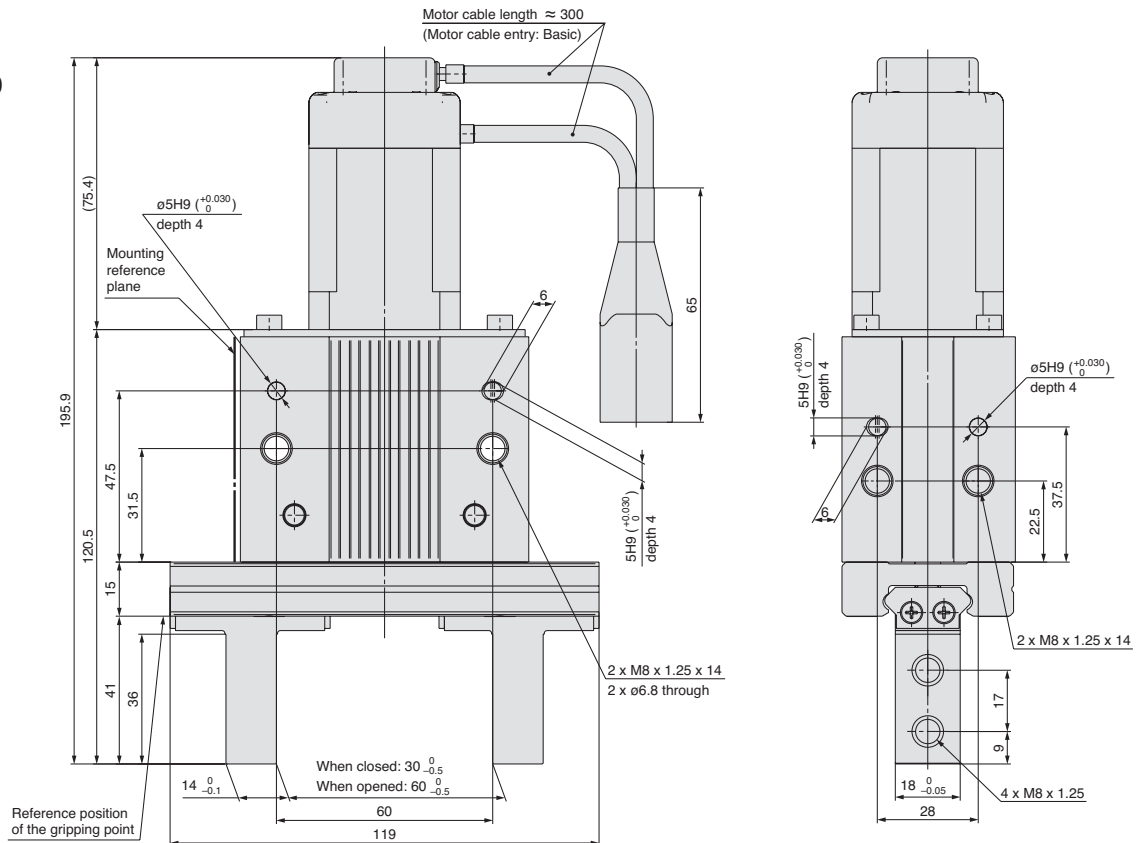
Dimensions

LEHZ32K2-22



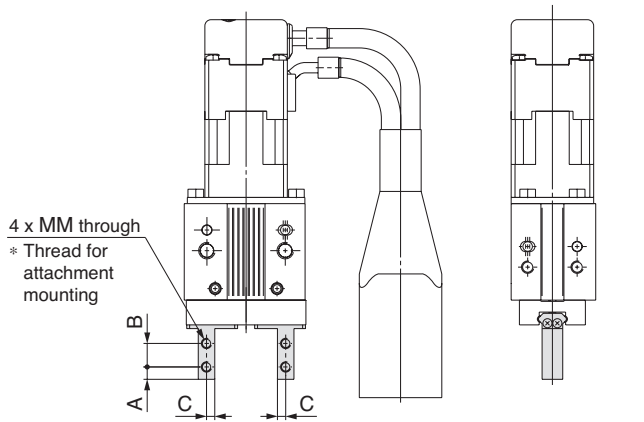
Dimensions

LEHZ40K2-30



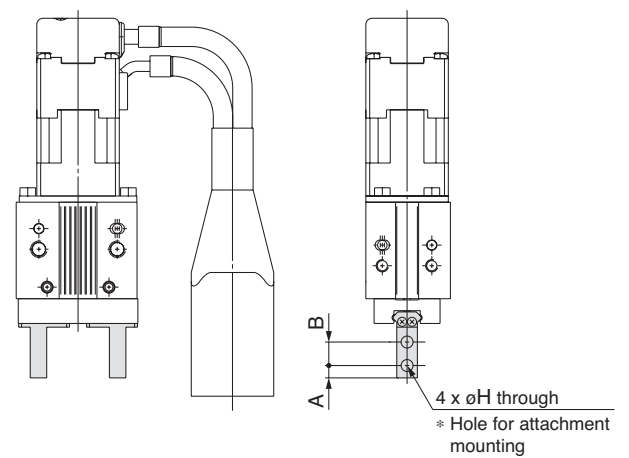
Finger Options

Side Tapped Mounting (A)



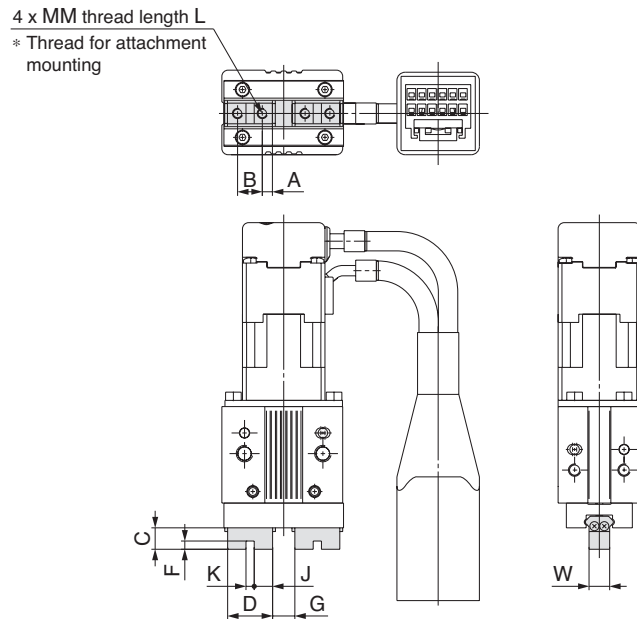
Model	A	B	C	MM
LEHZ10(L)K2-4A□	3	5.7	2	M2.5 x 0.45
LEHZ16(L)K2-6A□	4	7	2.5	M3 x 0.5
LEHZ20(L)K2-10A□	5	9	4	M4 x 0.7
LEHZ25(L)K2-14A□	6	12	5	M5 x 0.8
LEHZ32K2-22A□	7	14	6	M6 x 1
LEHZ40K2-30A□	9	17	7	M8 x 1.25

Through-hole in Opening/Closing Direction (B)



Model	A	B	H
LEHZ10(L)K2-4B□	3	5.7	2.9
LEHZ16(L)K2-6B□	4	7	3.4
LEHZ20(L)K2-10B□	5	9	4.5
LEHZ25(L)K2-14B□	6	12	5.5
LEHZ32K2-22B□	7	14	6.6
LEHZ40K2-30B□	9	17	9

Flat Fingers (C)

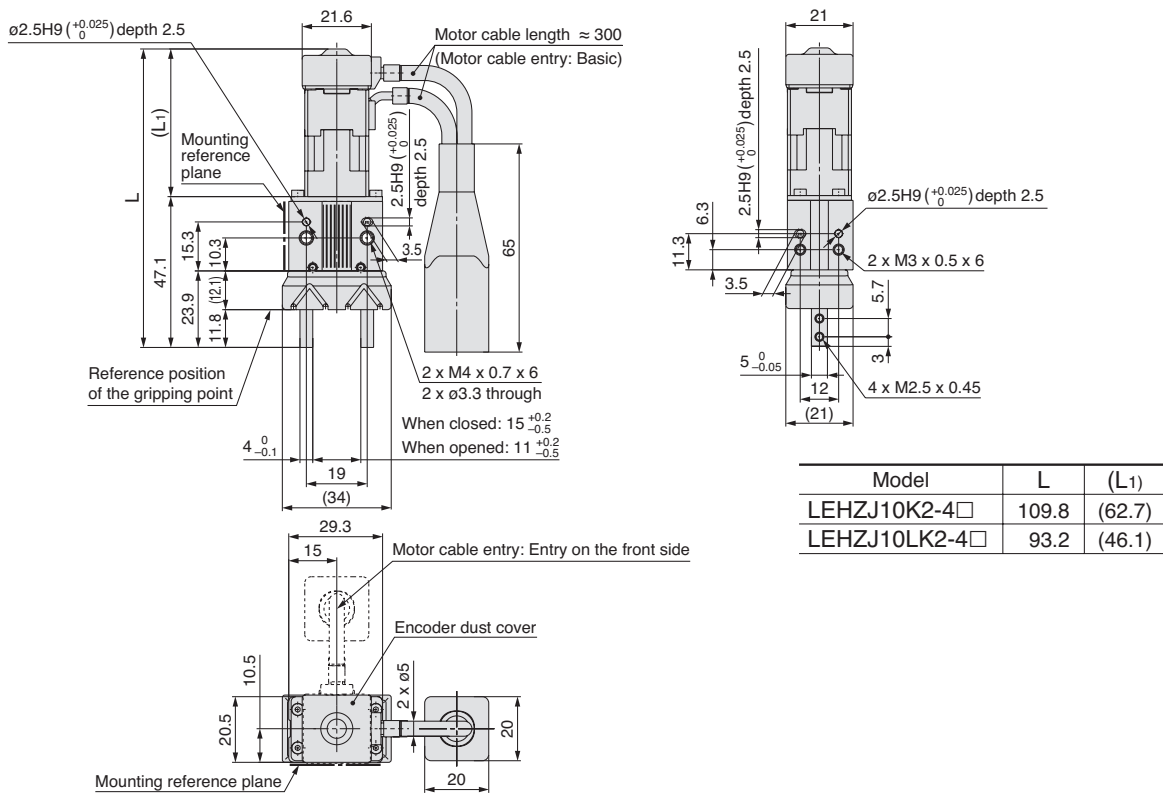


Model	A	B	C	D	F	G		J	K	MM	L	W	Weight [g]
						When opened	When closed						
LEHZ10K2-4C□	2.45	6	5.2	10.9	2	5.4	1.4	4.45	2H9 ^{+0.025} ₀	M2.5 x 0.45	5	5 ⁰ _{-0.05}	165
LEHZ10LK2-4C□						0 ^{-0.2}	0 ^{-0.2}		0 ^{-0.05}				135
LEHZ16K2-6C□	3.05	8	8.3	14.1	2.5	7.4	1.4	5.8	2.5H9 ^{+0.025} ₀	M3 x 0.5	6	8 ⁰ _{-0.05}	220
LEHZ16LK2-6C□						0 ^{-0.2}	0 ^{-0.2}		0 ^{-0.05}				190
LEHZ20K2-10C□	3.95	10	10.5	17.9	3	11.6	1.6	7.45	3H9 ^{+0.025} ₀	M4 x 0.7	8	10 ⁰ _{-0.05}	430
LEHZ20LK2-10C□						0 ^{-0.2}	0 ^{-0.2}		0 ^{-0.05}				365
LEHZ25K2-14C□	4.9	12	13.1	21.8	4	16	2	8.9	4H9 ^{+0.030} ₀	M5 x 0.8	10	12 ⁰ _{-0.05}	575
LEHZ25LK2-14C□						0 ^{-0.2}	0 ^{-0.2}		0 ^{-0.05}				510
LEHZ32K2-22C□	7.3	20	18	34.6	5	25	3	14.8	5H9 ^{+0.030} ₀	M6 x 1	12	15 ⁰ _{-0.05}	1145
LEHZ40K2-30C□						0 ^{-0.2}	0 ^{-0.2}		0 ^{-0.05}				1820

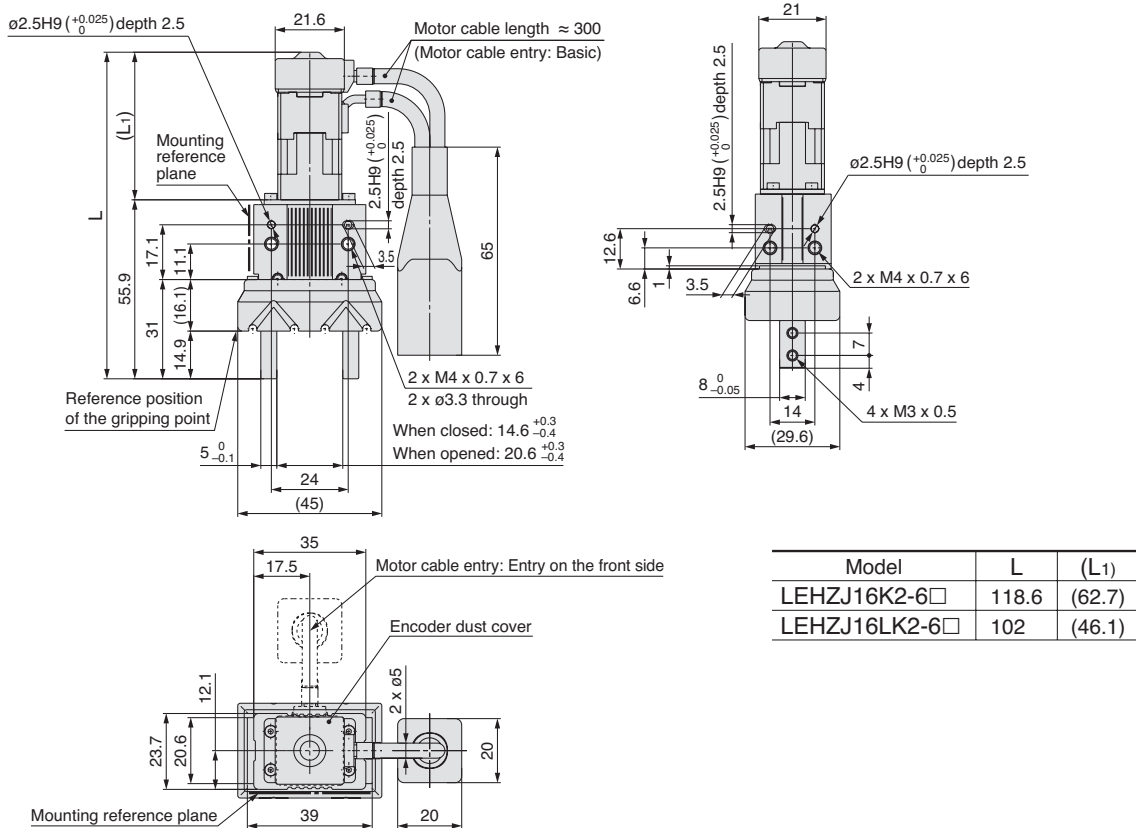


Dimensions

LEHZJ10(L)K2-4



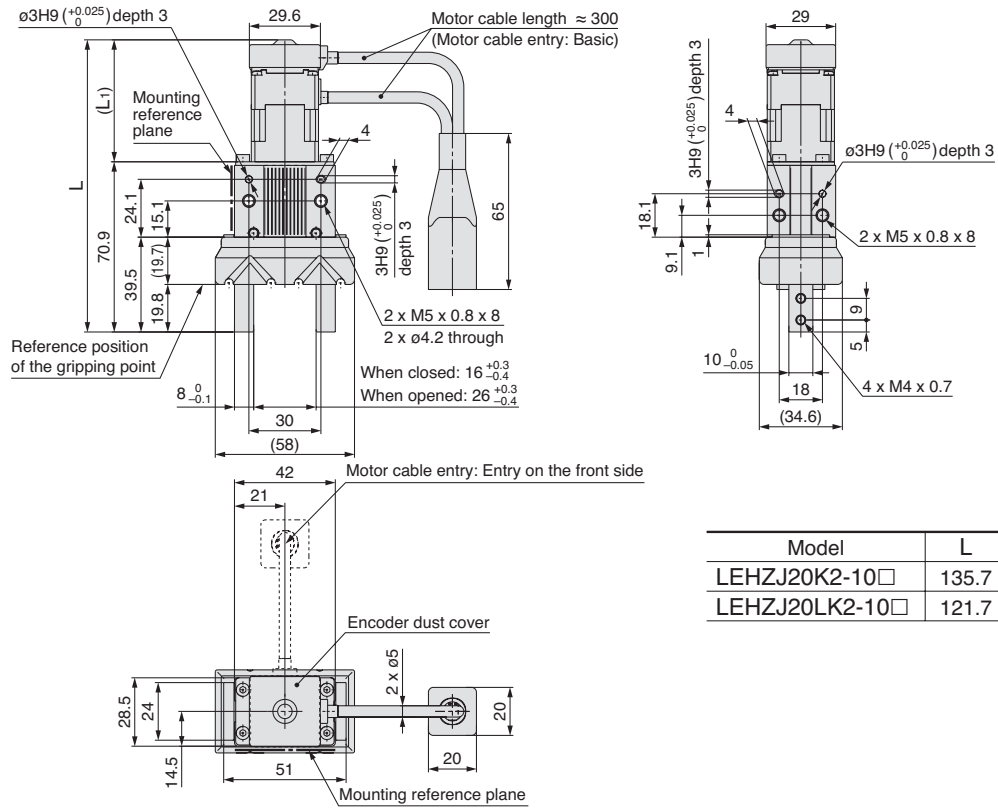
LEHZJ16(L)K2-6



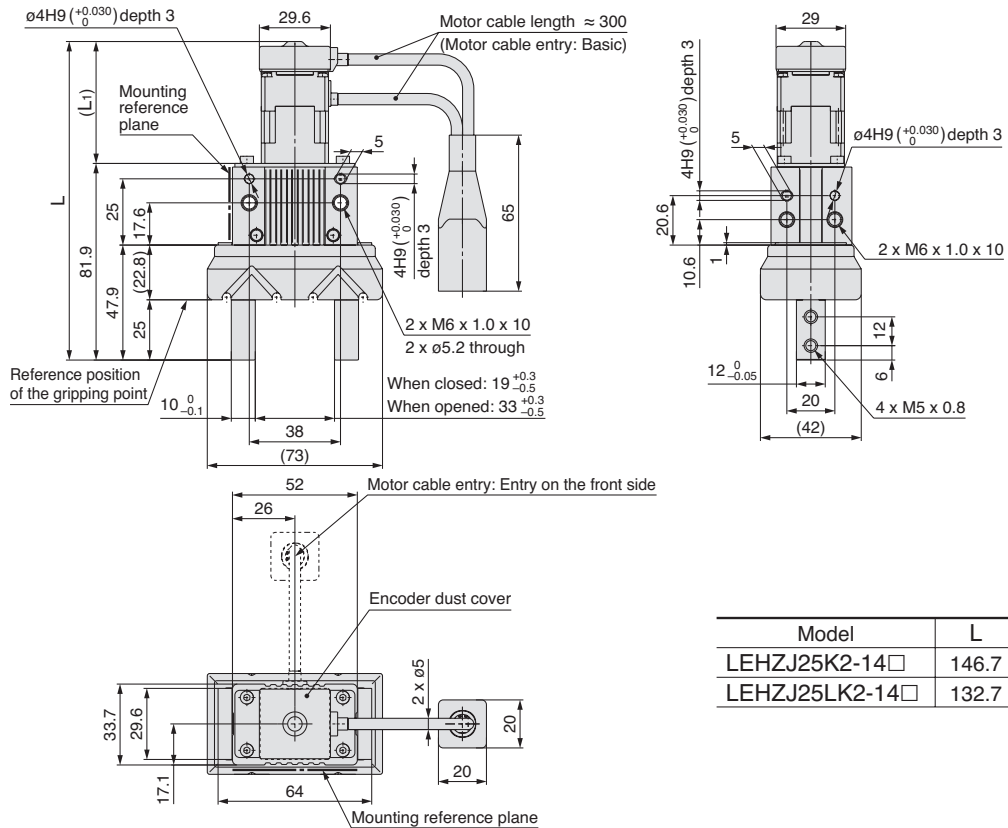
Electric Grippers

Dimensions

LEHZJ20(L)K2-10

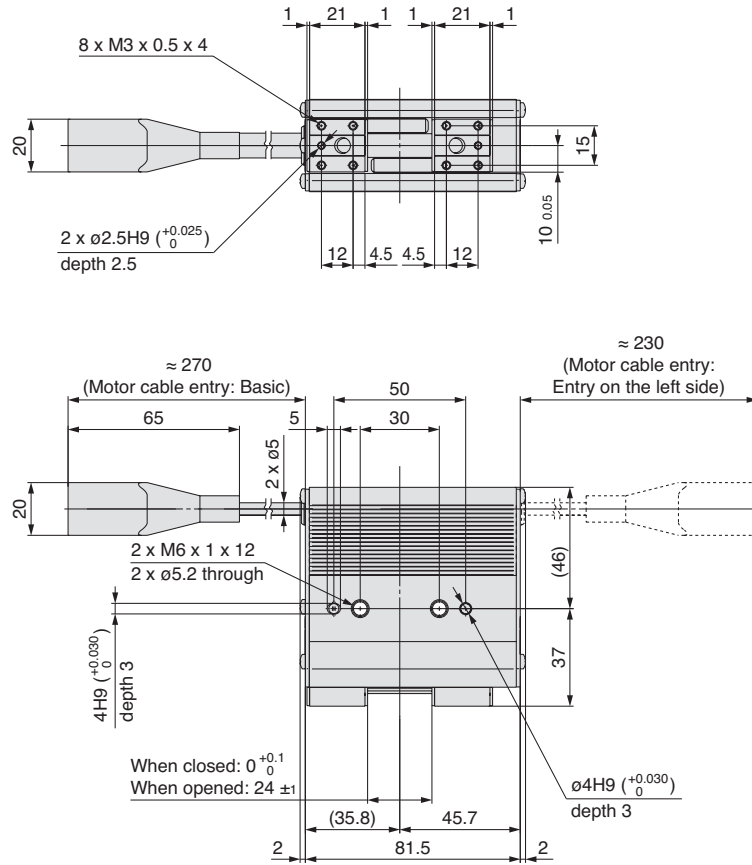


LEHZJ25(L)K2-14



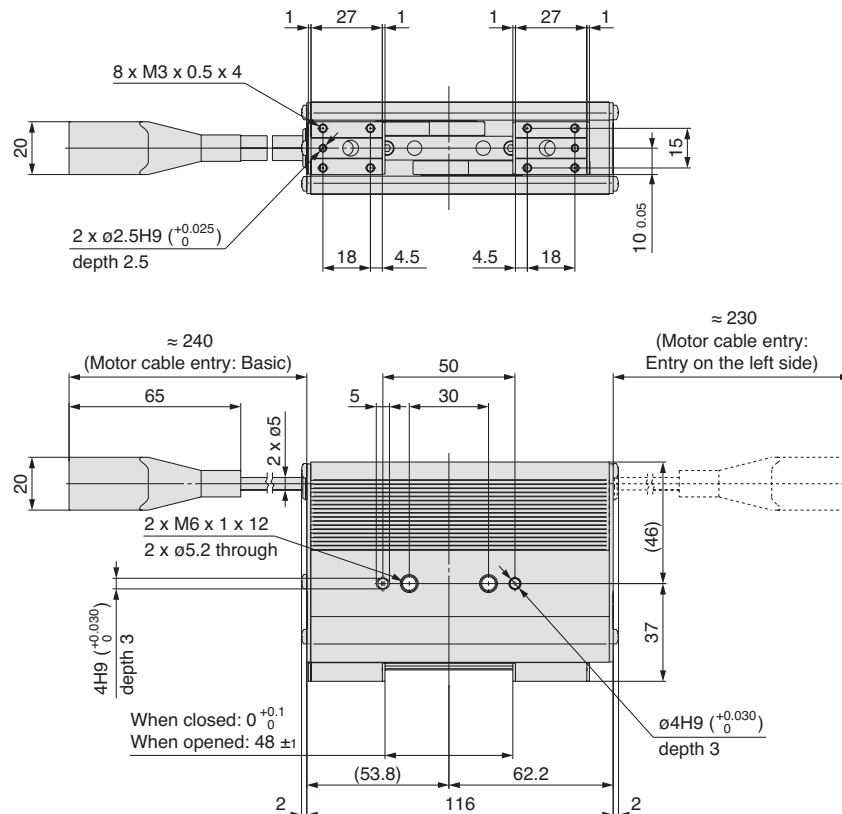
Dimensions

LEHF20K2-24/Basic



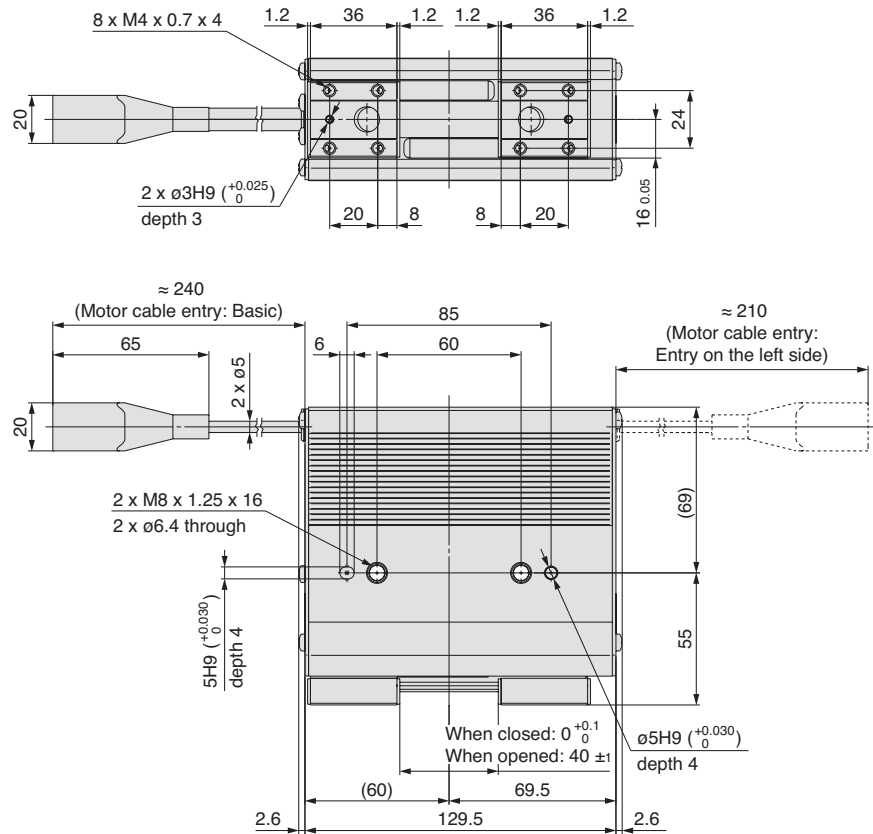
Dimensions

LEHF20K2-48/Long Stroke



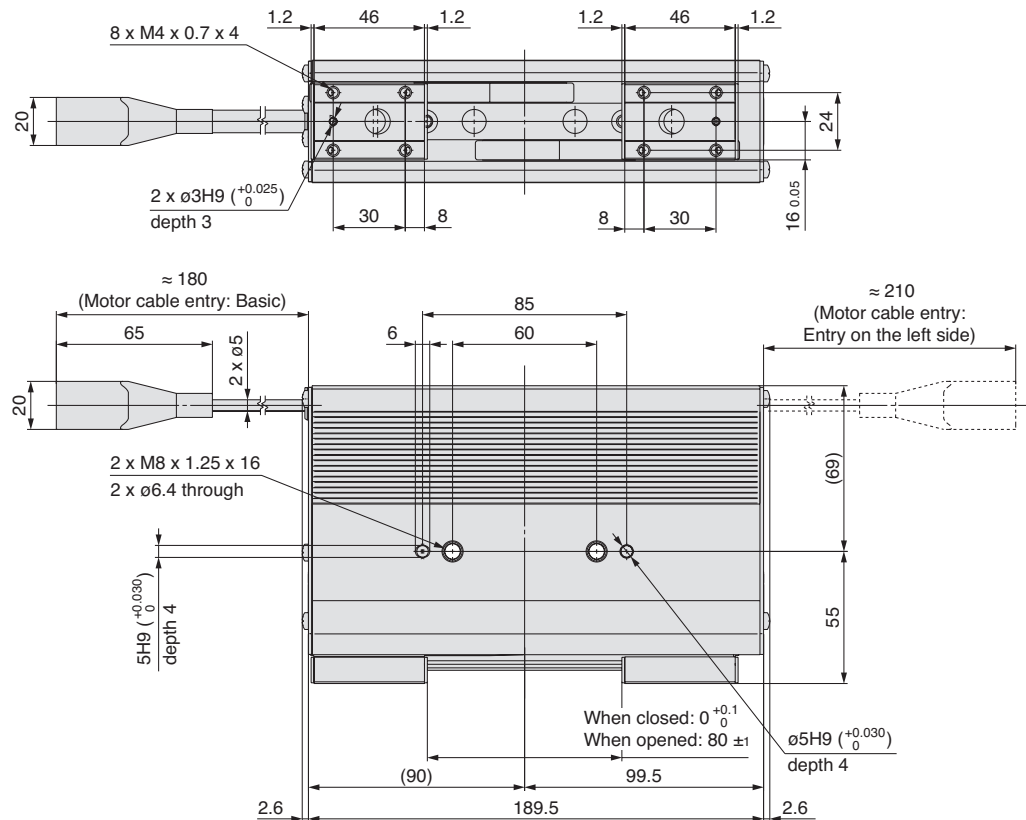
Dimensions

LEHF40K2-40/Basic



Dimensions

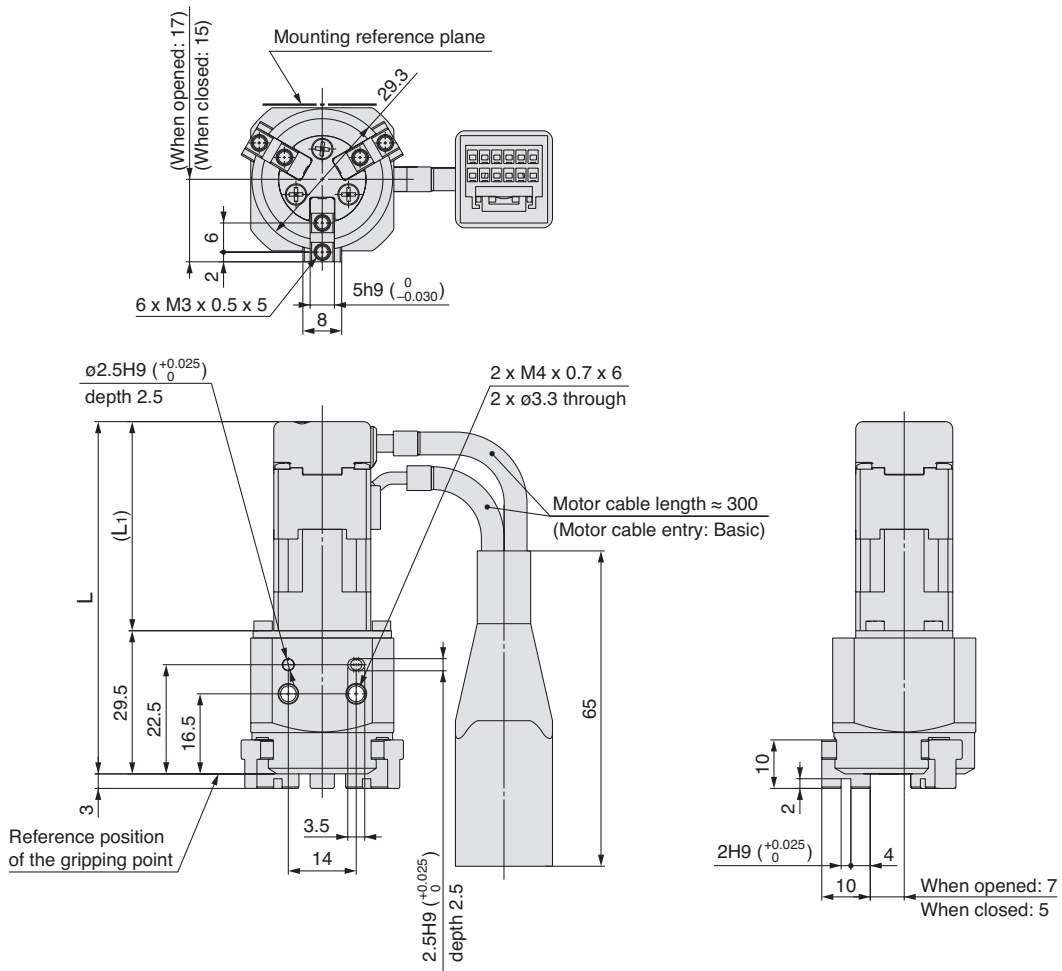
LEHF40K2-80/Long Stroke



Dimensions

LEHS10(L)K3-4

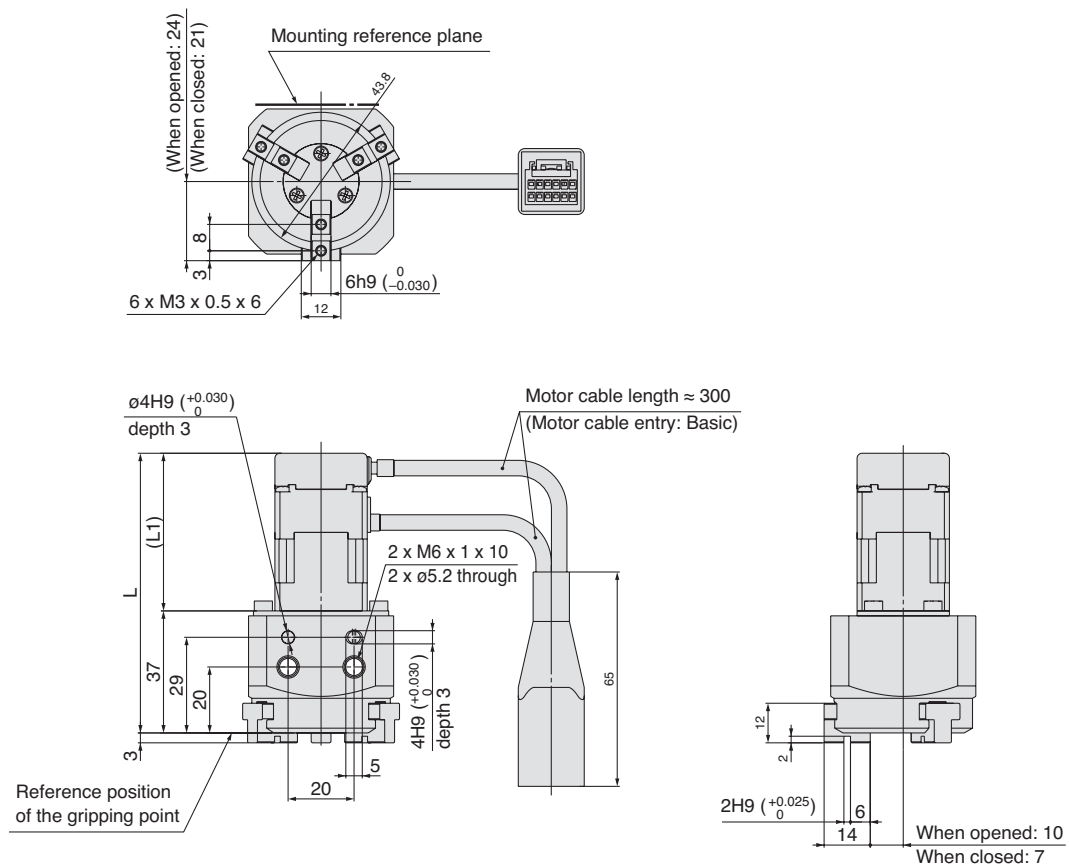
Model	L	(L1)
LEHS10K3-4	89.1	(59.6)
LEHS10LK3-4	72.6	(43.1)



Dimensions

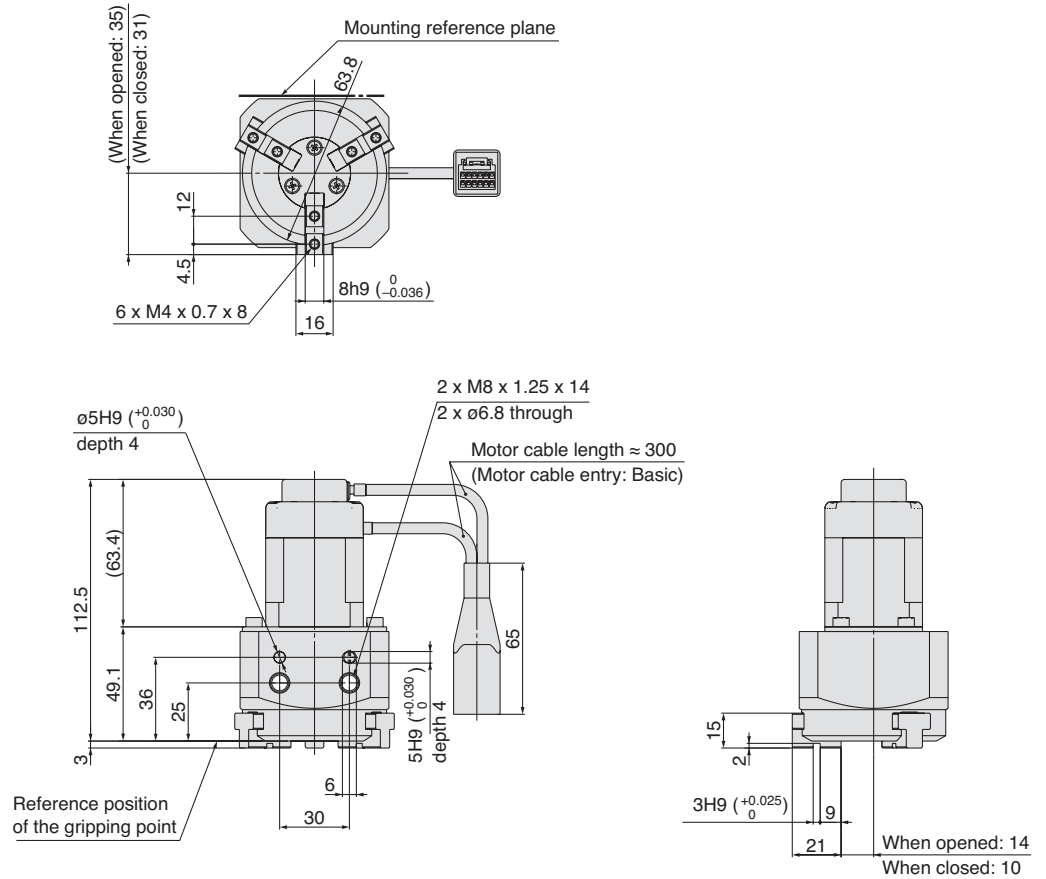
LEHS20(L)K3-6

Model	L	(L1)
LEHS20K3-6	98.8	(61.8)
LEHS20LK3-6	84.8	(47.8)



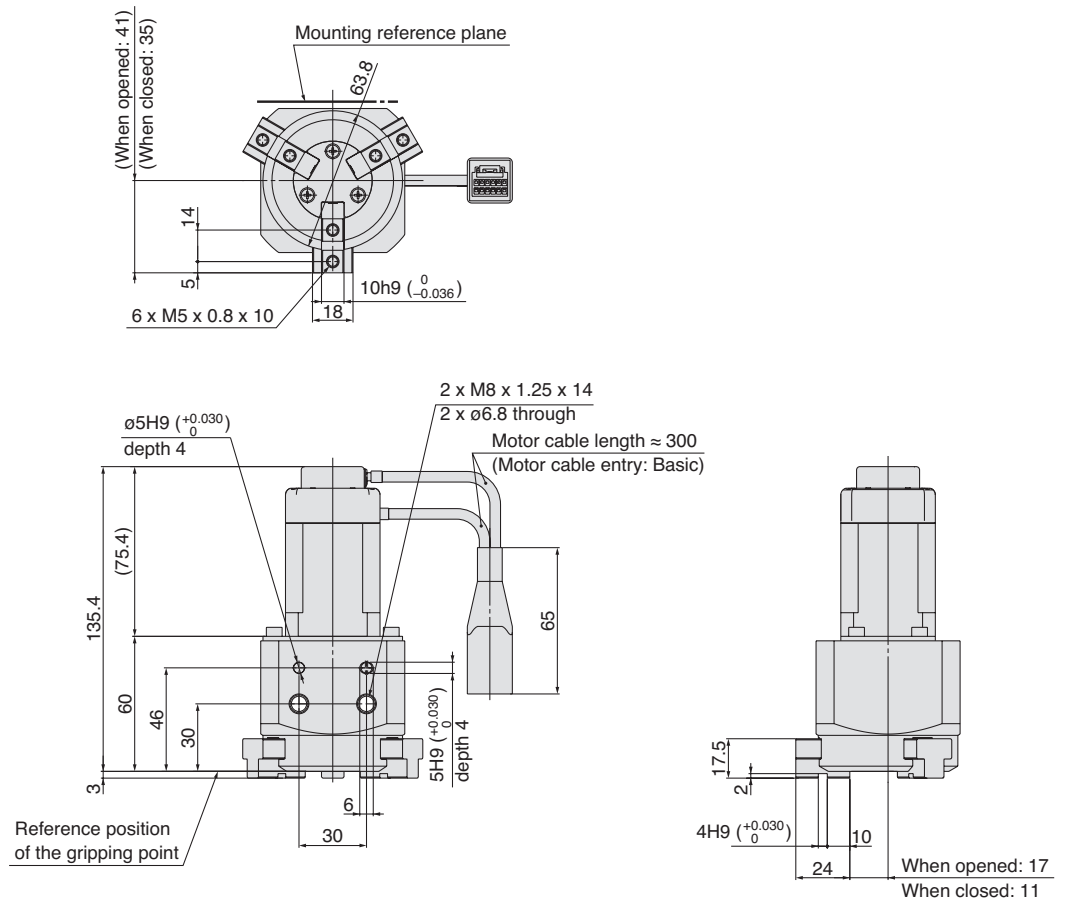
Dimensions

LEHS32K3-8



Dimensions

LEHS40K3-12



Programless Controller Series LECP1



Features

- Programming is not required.
- The controller comes with the parameters of the actuator already preset.
- Speed and acceleration can be adjusted in 16 stages.
- Positioning points: 14 points.

How to Order

Controller **LECP1** **P1** – **LEFS16B-100**

Controller

Compatible motor

P Step motor (Servo/24 VDC)

Type

1	Programless controller
---	------------------------

I/O cable length

—	None
1	1.5 m
3	3 m
5	5 m

Actuator part number

(Except cable specifications and actuator options)
Example: Enter [LECP1N1-LEFS16B-100] for LEFS16B-100-R31P1

This part number is for ordering the controller unit by itself.
When placing an order for the controller with an actuator, this part number is not necessary.

Product Recommendation

Related Products

- Series LEH** - Electric Grippers - page 887
- Series LEF** - Electric Actuators (slider type) - page 815
- Series LES** - Electric Slide Tables - page 857
- Series LEY** - Electric Actuators (rod type) - page 831
- Series LER** - Electric Rotary Table - page 881

Basic Specifications

Item	LECP1
Compatible motor	Step motor (Servo/24 VDC)
Power supply ^{Note 1)}	Power supply voltage: 24 VDC ±10% Max. current consumption: 3A (Peak 5A) ^{Note 2)} [Including the motor drive power, control power supply, stop, lock release]
Parallel input	6 inputs (Photo-coupler isolation)
Parallel output	6 outputs (Photo-coupler isolation)
Stop points	14 points (Position number 1 to 14(E))
Compatible encoder	Incremental A/B phase (800 pulse/rotation)
Memory	EEPROM
LED indicator	LED (Green/Red) one of each
7-segment LED display ^{Note 3)}	1 digit, 7-segment display (red) Figures are expressed in hexadecimal ("10" to "15" in decimal number are expressed as "A" to "F")
Lock control	Forced-lock release terminal ^{Note 4)}
Cable length [m]	I/O cable: 5 or less Actuator cable: 20 or less
Cooling system	Natural air cooling
Operating temperature range [°C]	0 to 40 (No freezing)
Operating humidity range [%RH]	90 or less (No condensation)
Storage temperature range [°C]	-10 to 60 (No freezing)
Storage humidity range [%RH]	90 or less (No condensation)
Insulation resistance [MΩ]	Between the housing and SG terminal 50 (500 VDC)
Weight [g]	130

Note 1) Do not use the power supply of "inrush current prevention type" for the controller input power supply.
 Note 2) The power consumption changes depending on the actuator model. Refer to the each actuator's operation manual etc. for details.
 Note 3) "10" to "15" in decimal number are displayed as follows in the 7-segment LED.

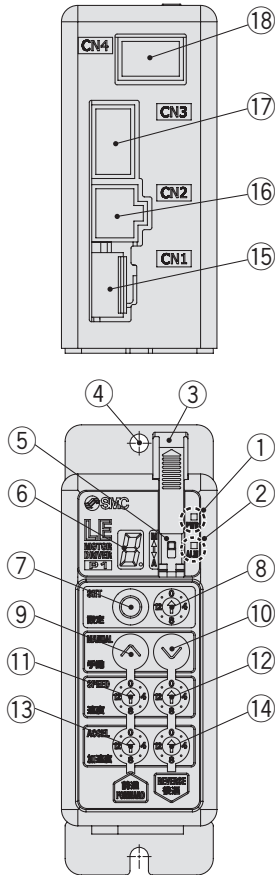


Decimal display 10 11 12 13 14 15
 Hexadecimal display A b c d E F

Note 4) Applicable to non-magnetizing lock.

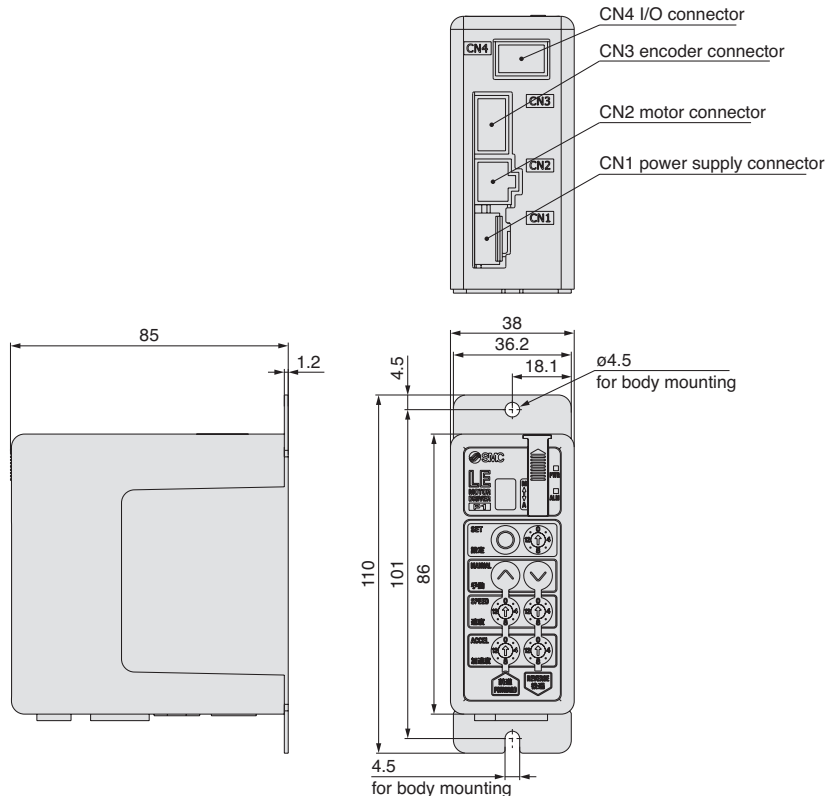
Electric Actuators

Details of The Controller



No.	Display	Description	Details
①	PWR	Power supply LED	Power supply ON/servo ON :Green turns on Power supply ON/servo OFF :Green flashes
②	ALM	Alarm LED	With alarm : Red turns on Parameter setting : Red flashes
③	—	Cover	Change and protection of the mode SW (Close the cover after changing SW)
④	—	FG	Frame ground (Tighten the bolt with the nut when mounting the controller. Connect the ground wire.)
⑤	—	Mode swith	Switch the mode between manual and auto.
⑥	—	7-segment LED	Stop position, the value set by ⑧ and alarm information are displayed.
⑦	SET	Set button	Decide the settings or drive operation in Manual mode.
⑧	—	Position selecting switch	Assign the position to drive (1 to 14), and the origin position (15).
⑨	MANUAL	Manual forward button	Perform forward jog and inching.
⑩		Manual reverse button	Perform reverse jog and inching.
⑪	SPEED	Forward speed switch	16 forward speeds are available.
⑫		Reverse speed switch	16 reverse speeds are available.
⑬	ACCEL	Forward acceleration switch	16 forward acceleration steps are available.
⑭		Reverse acceleration switch	16 reverse acceleration steps are available.
⑮	CN1	Power supply connector	Connect the power supply cable.
⑯	CN2	Motor connector	Connect the motor connector.
⑰	CN3	Encoder connector	Connect the encoder connector.
⑱	CN4	I/O connector	Connect I/O cable.

Dimensions

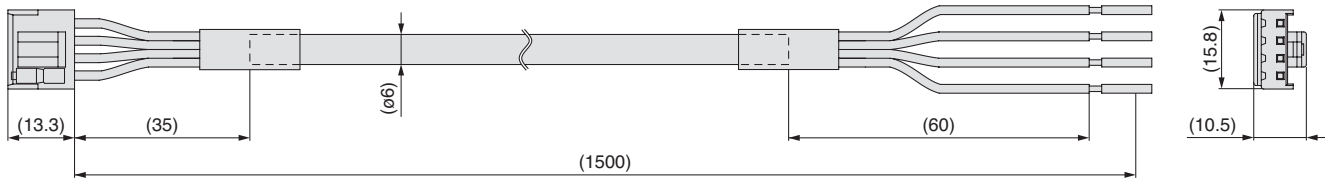


Accessories

Options

[Power supply cable]

LEC – CK1 – 1



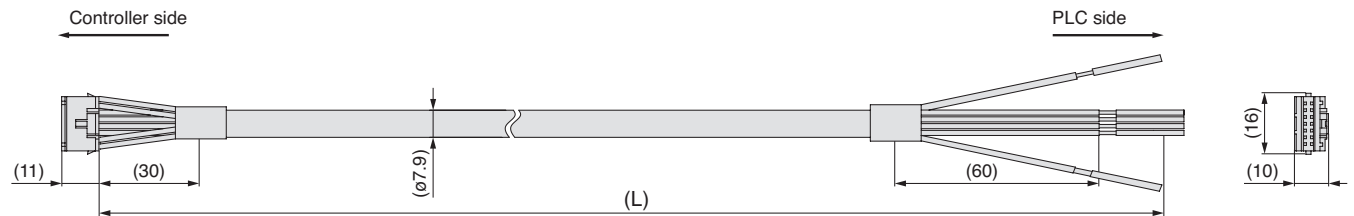
Terminal name	Covered colour	Function
0V	Blue	Common supply (-)
M24V	White	Motor power supply (+)
C24V	Brown	Control power supply (+)
BK RLS	Black	Lock release (+)

* Conductor size: AWG20

[I/O cable]

LEC – CK4 – 1

Cable length (L) [m]	
1	1.5
3	3
5	5



Terminal no.	Insulation colour	Dot mark	Dot colour	Function
1	Light brown	■	Black	COM +
2	Light brown	■	Red	COM -
3	Yellow	■	Black	OUT0
4	Yellow	■	Red	OUT1
5	Light green	■	Black	OUT2
6	Light green	■	Red	OUT3
7	Grey	■	Black	BUSY
8	Grey	■	Red	ALARM
9	White	■	Black	IN0
10	White	■	Red	IN1
11	Light brown	■ ■	Black	IN2
12	Light brown	■ ■	Red	IN3
13	Yellow	■ ■	Black	RESET
14	Yellow	■ ■	Red	STOP

* Conductor size: AWG26

* Parallel I/O signal is valid in auto mode. While the test function operates at manual mode, only the output is valid.

Accessories

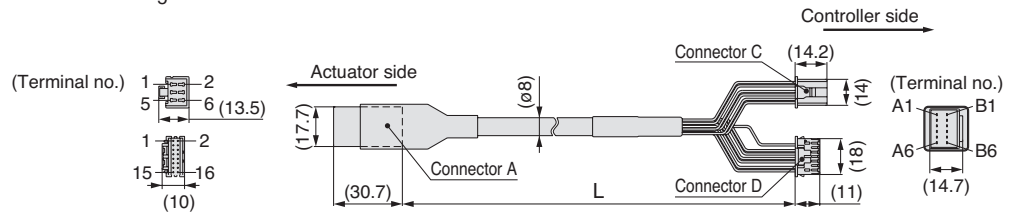
Options: Actuator Cable

[Robotic cable for step motor (Servo/24 VDC), standard cable]

LE – CP – 1 – □

 LE-CP- $\frac{1}{5}$ /Cable length: 1.5 m, 3 m, 5 m

Cable length (L)[m]	
1	1.5
3	3
5	5



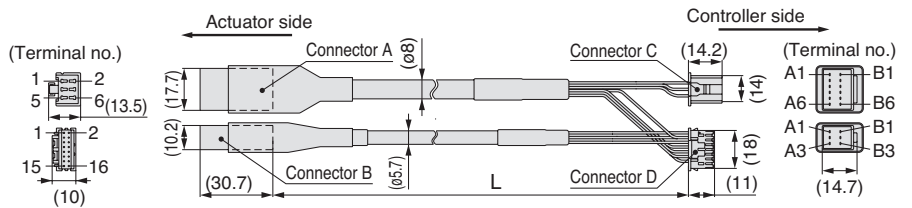
Cable type	
—	Robotic cable (Flexible cable)
S	Standard cable

[Robotic cable with lock and sensor for step motor (Servo/24 VDC), standard cable]

LE – CP – 1 – B – □

 LE-CP- $\frac{1}{5}$ /Cable length: 1.5 m, 3 m, 5 m

Cable length (L)[m]	
1	1.5
3	3
5	5



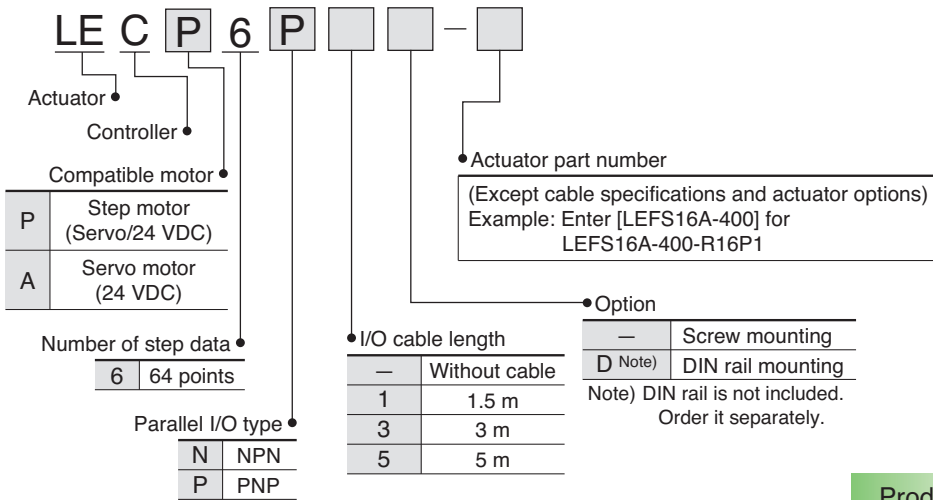
Cable type	
—	Robotic cable (Flexible cable)
S	Standard cable

Step Motor Controller
Serie LECP6 (Servo/24 VDC)
Serie LECA6 (24 VDC)



Series LECP6 Series LECA6

How to Order



* When controller equipped type (-P6□□) is selected when ordering the LE series, you do not need to order this controller. The controller is sold as single unit after the compatible actuator is set. Confirm that the combination of the controller and the actuator is compatible.

Product Recommendation



Programming and Related Products

- Controller setting kit - LEC - W2
- Teaching box - LEC - T1 - 3EG□

- Series LEH** - Electric Grippers - page 887
- Series LEF** - Electric Actuators (slider type) - page 815
- Series LES** - Electric Slide Tables - page 857
- Series LEY** - Electric Actuators (rod type) - page 831
- Series LER** - Electric Rotary Table - page 881

Basic Specifications

Item	LECP6	LECA6
Compatible motor	Step motor (Servo/24 VDC)	Servo motor (24 VDC)
Power supply (Note 1)	Power voltage: 24 VDC 10% Current consumption: 3 A (Peak 5 A) (Note 2) [Including motor drive power, control power, stop, lock release]	Power voltage: 24 VDC 10% Current consumption: 3 A (Peak 10 A) (Note 2) [Including motor drive power, control power, stop, lock release]
Parallel input	11 inputs (Photo-coupler isolation)	
Parallel output	13 outputs (Photo-coupler isolation)	
Compatible encoder	Incremental A/B phase (800 pulse/rotation)	Incremental A/B/Z phase (800 pulse/rotation)
Serial communication	RS485 (Modbus protocol compliant)	
Memory	EEPROM	
LED indicator	LED (Green/Red) one of each	
Lock control	Forced-lock release terminal (Note 3)	
Cable length [m]	I/O cable: 5 or less Actuator cable: 20 or less	
Cooling system	Natural air cooling	
Operating temperature range [°C]	0 to 40 (No freezing)	
Operating humidity range [%RH]	90 or less (No condensation)	
Storage temperature range [°C]	-10 to 60 (No freezing)	
Storage humidity range [%RH]	90 or less (No condensation)	
Insulation resistance [M]	Between the case and SG terminal 50 (500 VDC)	
Weight [g]	150 (Screw mounting) 170 (DIN rail mounting)	

Note 1) Do not use the power supply of "inrush current prevention type" for the controller power supply.

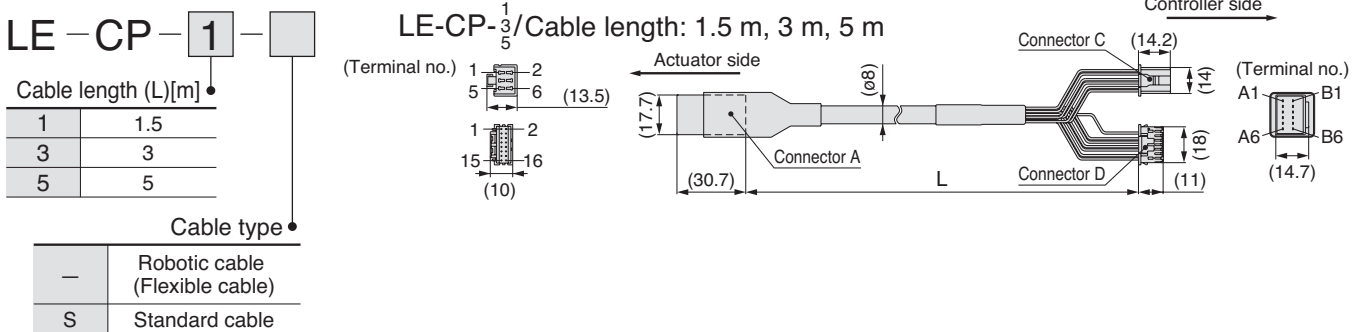
Note 2) The power consumption changes depending on the actuator model. Refer to the specifications of actuator for more details.

Note 3) Applicable to non-magnetizing lock.

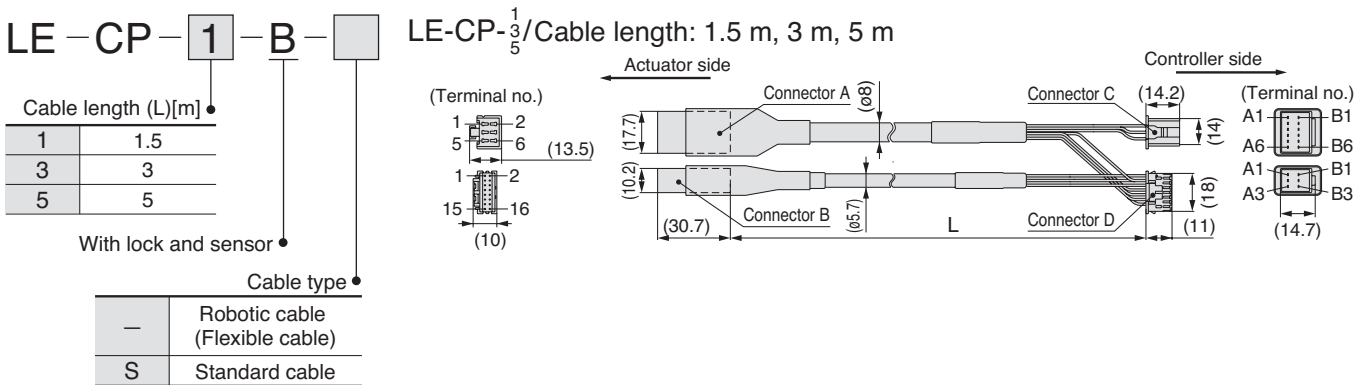
Accessories

Options: Actuator Cable

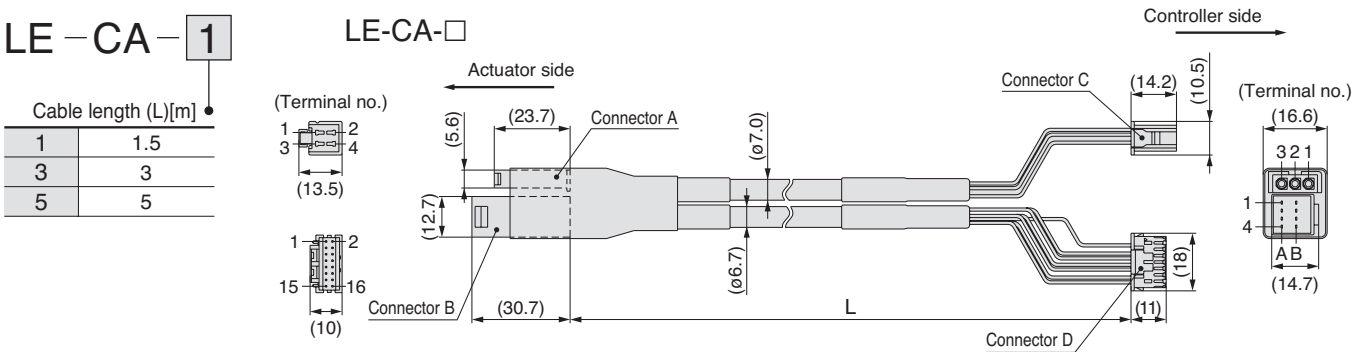
[Robotic cable for step motor (Servo/24 VDC), standard cable]



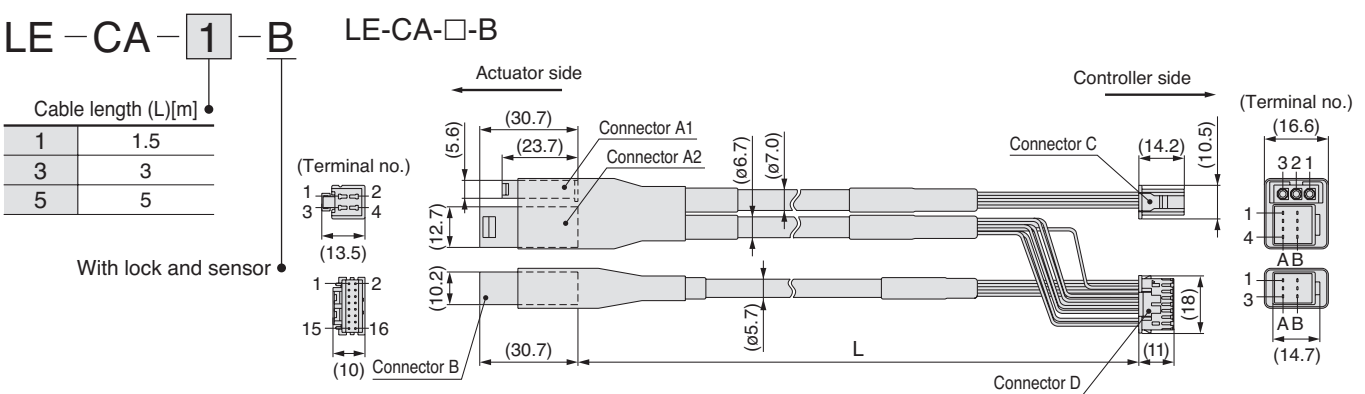
[Robotic cable with lock and sensor for step motor (Servo/24 VDC), standard cable]



[Robot cable for servo motor (24 VDC)]



[Robot cable with lock and sensor for servo motor (24 VDC)]

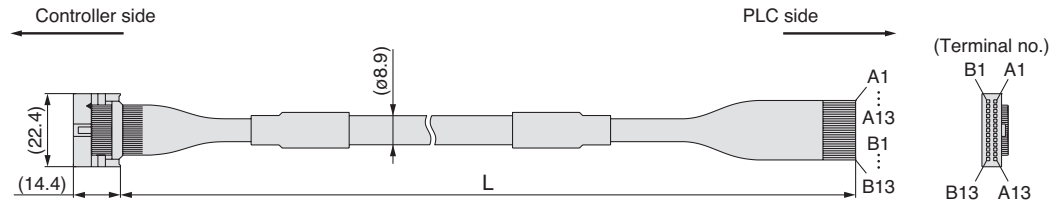


Accessories

Option: I/O Cable

LEC – CN5 – 1

Cable length (L) [m]	
1	1.5
3	3
5	5



* Conductor size: AWG28

Connector pin No.	Insulation colour	Dot mark	Dot colour
A1	Light brown	■	Black
A2	Light brown	■	Red
A3	Yellow	■	Black
A4	Yellow	■	Red
A5	Light green	■	Black
A6	Light green	■	Red
A7	Grey	■	Black
A8	Grey	■	Red
A9	White	■	Black
A10	White	■	Red
A11	Light brown	■ ■	Black
A12	Light brown	■ ■	Red
A13	Yellow	■ ■	Black

Connector pin No.	Insulation colour	Dot mark	Dot colour
B1	Yellow	■ ■	Red
B2	Light green	■ ■	Black
B3	Light green	■ ■	Red
B4	Grey	■ ■	Black
B5	Grey	■ ■	Red
B6	White	■ ■	Black
B7	White	■ ■	Red
B8	Light brown	■ ■ ■	Black
B9	Light brown	■ ■ ■	Red
B10	Yellow	■ ■ ■	Black
B11	Yellow	■ ■ ■	Red
B12	Light green	■ ■ ■	Black
B13	Light green	■ ■ ■	Red
—			Shield

Teaching Box/LEC-T1



How to Order

LEC – T1 – 3 E G

Teaching box

Cable length
3 3 m

Initial language
E English

Enable switch

—	None
S	Equipped with enable switch

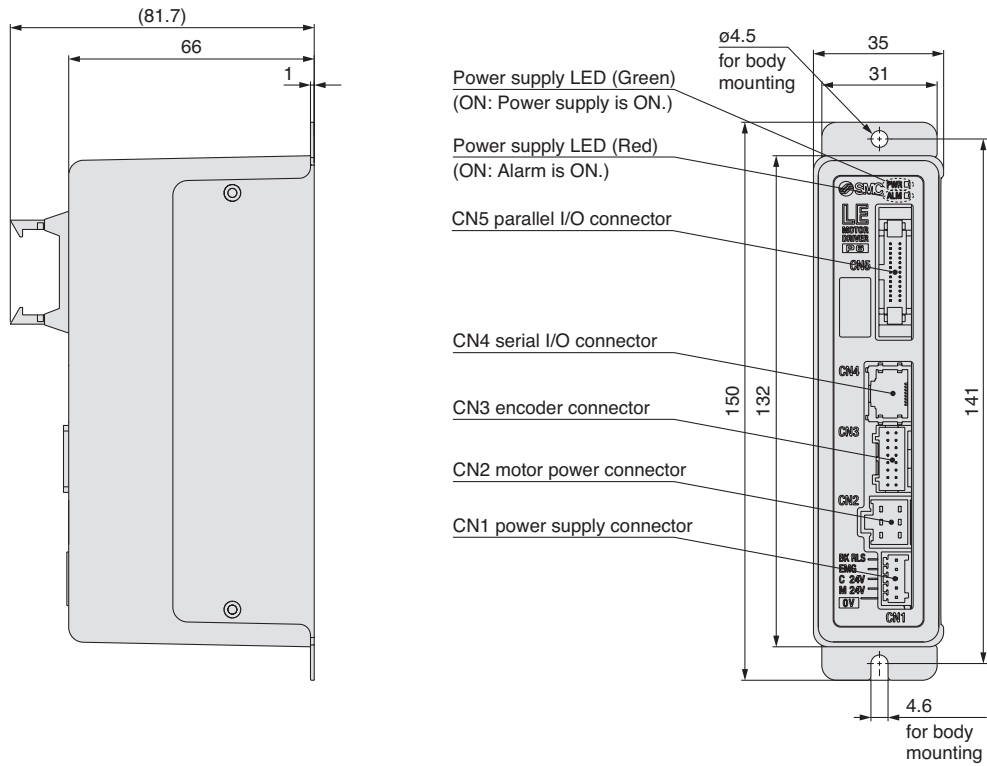
* Interlock switch for jog test function

Stop switch

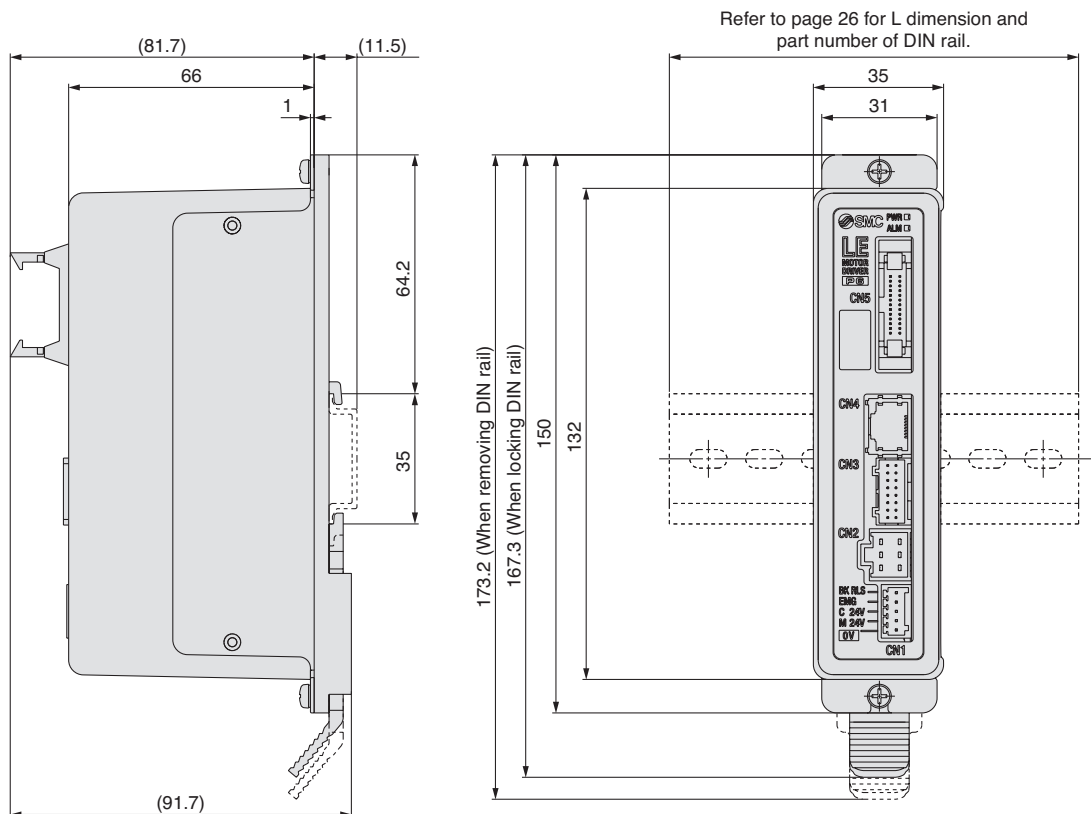
G	Equipped with stop switch
---	---------------------------

Dimensions

a) Screw mounting (LEC□6□□-□)



b) DIN rail mounting (LEC□6□□D-□)



AC Servo Motor Controller (Pulse Input Type) Series LECSA/LECSB



Incremental Type Series LECSA Absolute Type Series LECSB

How to Order

LECS A 1 - S1

Controller type

A	Pulse input type (For incremental encoder)
B	Pulse input type (For absolute encoder)

Power supply voltage

1	100 to 120 VAC, 50/60 Hz
2	200 to 230 VAC, 50/60 Hz

Motor type

Symbol	Type	Capacity	Encoder
S1	AC servo motor (S2)	100 W	Incremental
S3	AC servo motor (S3)	200 W	
S4	AC servo motor (S4)	400 W	
S5	AC servo motor (S6)	100 W	Absolute
S7	AC servo motor (S7)	200 W	
S8	AC servo motor (S8)	400 W	

Part no. list

Select controller type and compatible motor from the combinations in the table below.

Controller part no.	Controller type	Motor type	Power supply voltage
LECSA1-S1	Pulse input type (For incremental encoder)	AC servo motor (S2)	100 to 120 VAC 50/60 Hz
LECSA1-S3		AC servo motor (S3)	
LECSA2-S1		Pulse input type (For absolute encoder)	AC servo motor (S2)
LECSA2-S3	AC servo motor (S3)		
LECSA2-S4	AC servo motor (S4)		
LECSB1-S5	Pulse input type (For absolute encoder)	AC servo motor (S6)	100 to 120 VAC 50/60 Hz
LECSB1-S7		AC servo motor (S7)	
LECSB2-S5		Pulse input type (For absolute encoder)	AC servo motor (S6)
LECSB2-S7	AC servo motor (S7)		
LECSB2-S8	AC servo motor (S8)		

Product Recommendation



Programming and Related Products

• MR Configurator (setup software) - please contact SMC for more information.

Series LEF - Electric Actuators (slider type) - page 815
Series LEY - Electric Actuators (rod type) - page 831

Specifications

Model		LECSA1-S1	LECSA1-S3	LECSA2-S1	LECSA2-S3	LECSA2-S4
Compatible motor capacity [W]		100	200	100	200	400
Compatible encoder		Incremental 17-bit encoder (Resolution: 131072 p/rev)				
Main power supply	Power voltage [V]	Single phase 100 to 120 VAC (50/60 Hz)			Single phase 200 to 230 VAC (50/60 Hz)	
	Allowable voltage range [V]	Single phase 85 to 132 VAC			Single phase 170 to 253 VAC	
	Rated voltage [A]	3.0	5.0	1.5	2.4	4.5
Control power supply	Control power supply voltage [V]	24 VDC				
	Allowable voltage range for control power supply [V]	21.6 to 26.4 VDC				
	Rated voltage [A]	0.5				
Parallel input		6 inputs				
Parallel output		4 outputs				
Max. input pulse frequency [pps]		1 M (when differential receiver), 200 k (when open collector)				
Function	Positioning completion width setting range [pulse]	0 to ±65535 (Pulse command unit)				
	Error excessive	±3 rotations				
	Torque limit	Parameter setting				
	Communication	USB communication				
Operating temperature range [°C]		0 to 40 (No freezing)				
Operating humidity range [%RH]		90 or less (No condensation)				
Storage temperature range [°C]		-20 to 65 (No freezing)				
Storage humidity range [%RH]		90 or less (No condensation)				
Insulation resistance [MΩ]		Between case and SG: 10 (500 VDC)				
Weight [g]		600				700

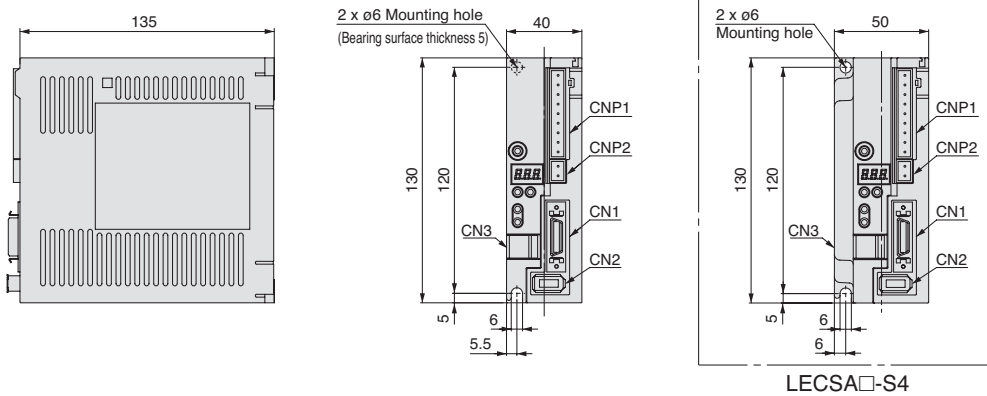
Specifications

Model		LECSB1-S5	LECSB1-S7	LECSB2-S5	LECSB2-S7	LECSB2-S8
Compatible motor capacity [W]		100	200	100	200	400
Compatible encoder		Absolute 18-bit encoder (Resolution: 262144 p/rev)				
Main power supply	Power voltage [V]	Single phase 100 to 120 VAC (50/60 Hz)		Three phase 200 to 230 VAC (50/60 Hz) Single phase 200 to 230 VAC (50/60 Hz)		
	Allowable voltage range [V]	Single phase 85 to 132 VAC		Three phase 170 to 253 VAC Single phase 170 to 253 VAC		
	Rated voltage [A]	3.0	5.0	0.9	1.5	2.6
Control power supply	Control power supply voltage [V]	Single phase 100 to 120 VAC (50/60 Hz)		Single phase 200 to 230 VAC (50/60 Hz)		
	Allowable voltage range for control power supply [V]	Single phase 85 to 132 VAC		Single phase 170 to 253 VAC		
	Rated voltage [A]	0.4		0.2		
Parallel input		10 inputs				
Parallel output		6 outputs				
Max. input pulse frequency [pps]		1 M (when differential receiver), 200 k (when open collector)				
Function	Positioning completion width setting range [pulse]	0 to ±10000 (Pulse command unit)				
	Error excessive	±3 rotations				
	Torque limit	Parameter setup or external analog input setup (0 to 10 VDC)				
	Communication	USB communication, RS422 communication*1				
Operating temperature range [°C]		0 to 40 (No freezing)				
Operating humidity range [%RH]		90 or less (No condensation)				
Storage temperature range [°C]		-20 to 65 (No freezing)				
Storage humidity range [%RH]		90 or less (No condensation)				
Insulation resistance [MΩ]		Between case and SG: 10 (500 VDC)				
Weight [g]		800				1000

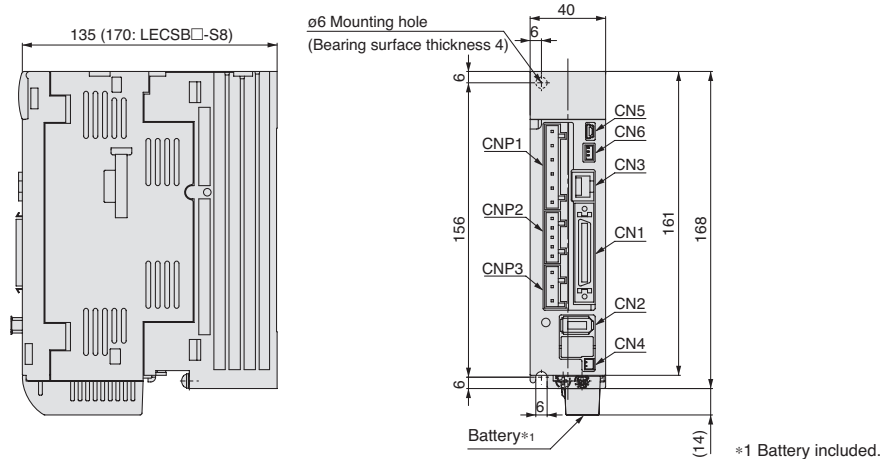
*1 USB communication and RS422 communication cannot be performed at the same time.

Dimensions

LECSA□

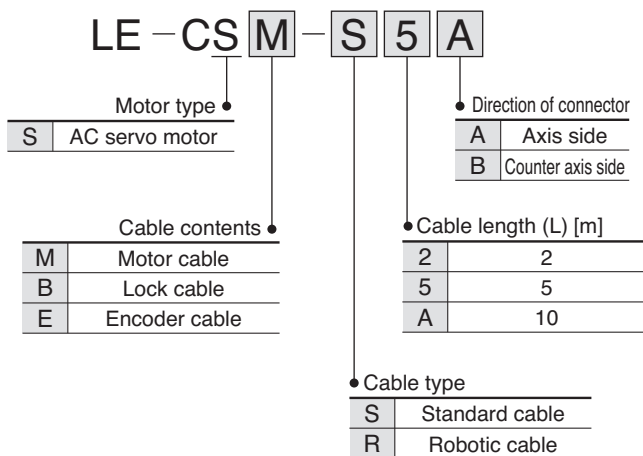


LECSB□

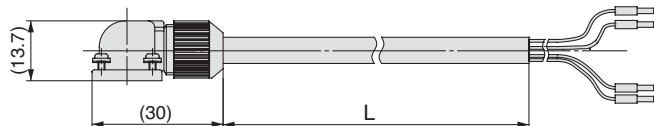


Options

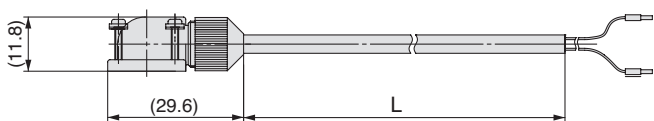
Motor cable, Lock cable, Encoder cable



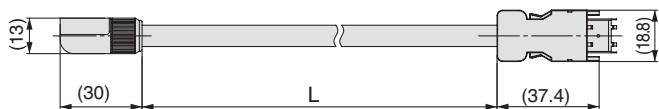
LE-CSM-□□: Motor cable



LE-CSB-□□: Lock cable



LE-CSE-□□: Encoder cable



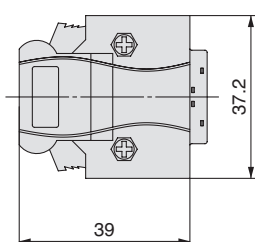
I/O connector



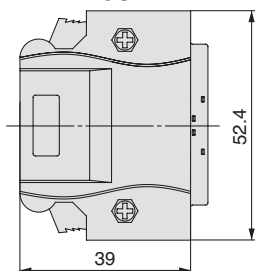
Controller type

SNA	I/O connector (LECSA□)
SNB	I/O connector (LECSB□)

LE-CSNA



LE-CSNB



Electric Actuators