Electric actuators

Electric actuators

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Controller

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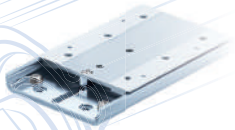

Card motor

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Electric actuators

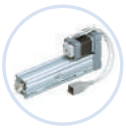
Electric actuators

Electric actuator slider type
LEF Series p. 551

Electric actuator slider type, high rigidity
LEJ Series p. 553

Electric actuator guide rod slider
LEL Series p. 553

Electric actuator slider type, low profile
LEM Series p. 554



Electric actuator rod type
LEY Series p. 555

Guide rod type electric actuator
LEYG Series p. 556

Electric slide table
LES Series p. 557

Electric actuator miniature type
LEP Series p. 558

Electric rotary table
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Electric actuators - Motorless type
LEF/LEJ/LEY(G) Series p. 560

Controllers

Step data input type controller
LECP6/A6 Series p. 563

Programless controller
LECP1 Series p. 563

Programless controller, with stroke study
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Pulse input type controller
LECPA Series p. 563

Multi-Axis step motor controller
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Step motor controller
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Fieldbus-compatible gateway unit
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AC servo motor driver
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AC servo motor driver, MECHATROLINK compatible
LECY Series p. 567

Card motor

Card motor
LAT3 Series p. 568

Card motor controller
LATCA Series p. 568

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

Our highlighted product for you

Step motor controller
JXC91/E1/P1/D1/L1 Series

For more details
go to page 565

Broader & safer control

Direct operation of electric actuators through a fieldbus or industrial Ethernet network

Simplified control systems and wiring
- Applicable fieldbus protocols

EtherNet/IP™ EtherCAT® DeviceNet™

IO-Link PROFINET®

- 10/100 Mbps high-speed communication for JXC91/E1/P1, up to 500 kbps for JXCD1, 230.4 kbps for JXCL1
- Real time operation.

Compatible electric actuators:
LEF, LEL, LEM, LEY/LEYG, LES, LEP, LER, LEH.

Dual port connection, IN and OUT

No loss of communication despite having a disconnected location: this allows for linear topology or Device Level Ring (DLR) topology (not for JXCL1 and JXCD1)
- Less wiring
- Good recovery after disconnection
- Easy identification of disconnected spot.

IO-Link

IO-Link compatible type, JXCL1
- Higher control of the applications
- Cost-effective: plug&play, minimum hardware and programming costs
- Integral communication, from sensors to actuators
- Noise immunity.

Our highlighted product for you

Multi-Axis step motor controller

JXC73/83/92/93 Series

For more details
go to page 564

Multiply your control

2 models for communicating
- JXC92/93, EtherNet/IP™ type - direct connection to a fieldbus network
- JXC73/83, parallel I/O type.

JXC92 **JXC93** **JXC73/83**

Direct operation of up to 4 electric actuators only with one controller, for either single or multiple axes
- 4-axis (3-axis for JXC92) operation can be set collectively in one step
- 4-axis (3-axis for JXC92) speed tuning control.

Step data input with maximum 2048 points
- Absolute / relative position coordinates instructions
- Positioning / pushing operation.

Approximation to linear and circular interpolation for XYZ and XY axes respectively

Reduction in the amount of equipment and wiring

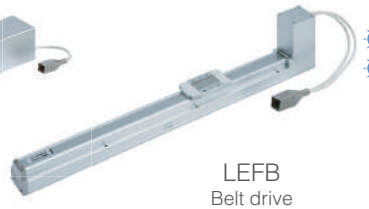
Compatible electric actuators: LEF, LEY/LEYG, LES, LEP, LER, LEH.

Electric actuators

Electric actuator slider type
LEF Series

- Simple installation: possible to mount the main body without removing the external cover
- Two transmission options: belt drive (LEFB); ball screw drive (LEFS)
- Motor mounting direction can be selected
- Optional non-magnetising type lock mechanism for the motor
- High-precision type, LEFSH
- Support guide type, LEFG.

LEFS
Ball screw drive



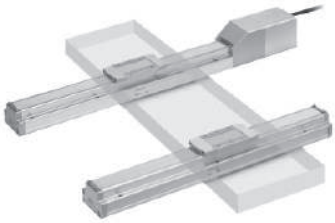
LEFB
Belt drive

Drive method	Specifications	Series	Stroke [mm]	Workload [kg]		Speed [mm/s] 1)	Screw lead [mm]	Positioning repeatability [mm]	Controller series
				Horizontal	Vertical				
Ball screw drive	Step motor (Servo / 24 VDC)	**LEFS16**	50 to 500	14 [9]	2	10 to 700 [500]	10	±0.02 {±0.015}	LECP6, LECP1, LECPA, JXC□1, JXC92, JXC□3
				15 [10]	4	5 to 360 [250]	5		
		LEFS25	50 to 800	12 [10]	0.5	20 to 1100 [1000]	20	±0.02	
				25 [20]	7.5	12 to 750 [500]	12	±0.02 {±0.015}	
				30 [20]	15	6 to 400 [250]	6		
		LEFS32	50 to 1000	20 [15]	4	24 to 1200 [1200]	24	±0.02	
				45 [40]	10	16 to 800 [500]	16	±0.02 {±0.015}	
				50 [45]	20	8 to 520 [250]	8		
		LEFS40	150 to 1200	25 [20]	2	30 to 1200 [500]	30	±0.02	
				55 [50]		20 to 1000 [500]	20	±0.02 {±0.015}	
				65 [60]	23	10 to 300 [250]	10		
	Servo motor (24 VDC)	**LEFS16A**	50 to 500	7	2	10 to 700	10	±0.02 {±0.015}	LECA6
				10	4	5 to 360	5		
		LEFS25A	50 to 800	5	1	20 to 1100	20	±0.02	
				11	2.5	12 to 750	12	±0.02 {±0.015}	
				18	5	6 to 400	6		
	AC Servo motor (100 / 200 / 400 W)	**LEFS25**	50 to 800	10	4	max. 1500	20	±0.02 {±0.01}	LECSA, LECSB, LECSC, LECSS, LECSS-T, LECYU, LECYM
				20	8	max. 900	12		
					15	max. 450	6		
		LEFS32	50 to 1000	30	5	max. 1500	24		
				40	10	max. 1000	16		
				45	20	max. 500	8		
		LEFS40	150 to 1200	30	7	max. 1500	30		
				50	15	max. 1000	20		
				60	30	max. 500	10		
Belt drive	Step motor (Servo / 24 VDC)	**LEFB16**	300 to 1000	1 [1]	—	48 to 1100	48	±0.08	LECP6, LECP1, LECPA, JXC□1, JXC92, JXC□3
		LEFB25	300 to 2000	10 [5]		48 to 1400			
		LEFB32		19 [14]		48 to 1500			
	Servo motor (24 VDC)	**LEFB16A**	300 to 1000	1		5 to 2000			LECA6
		LEFB25A	300 to 2000	2					
	AC Servo motor (100 / 200 400 W)	**LEFB25**		5		max. 2000	54	±0.06	LECSA, LECSB, LECSC, LECSS, LECSS-T, LECYU, LECYM
		LEFB32	300 to 2500	15					
		LEFB40	300 to 3000	25					

∗ [ ] Indicates value when “LECPA, JXC92, JXC□3 controller” is selected.
∗ { } Indicates value when “high precision slider type electric actuator LEFSH” is selected.
1) Maximum value depends on stroke range.

Support guide

LEFG Series



- Designed to support workpieces with significant overhang
- Standard equipped seal bands prevent grease from splashing and external foreign matter from entering
- Easy assembly thanks to same dimensions as the LEF series body.

Type	Specifications	Series	Stroke [mm]
Ball screw drive	Step motor (Servo / 24 VDC) Servo motor (24 VDC) AC Servo motor	**LEFG16-S**	50 to 500
		LEFG25-S	50 to 800
		LEFG32-S	50 to 1000
		LEFG40-S	150 to 1200
Belt drive	Step motor (Servo / 24 VDC) Servo motor (24 VDC)	**LEFG16-BT**	300 to 1000
		LEFG25-BT	300 to 2000
		LEFG32-BT	
	AC Servo motor	**LEFG25-BS**	
		LEFG32-BS	300 to 2500
		LEFG40-BS	300 to 3000

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

Electric actuator slider type, high rigidity

LEJ Series

- Low profile and low centre of gravity (62 mm height)
- Double axis linear guide construction provides high-precision and high rigidity
- Even further improved position repeatability and lost motion with high-precision type
- Dustproof construction, as it is equipped with seal band as standard
- Maximum acceleration / deceleration: 20000 mm/s^2
- High precision type, LEJSH
- Standard auto-switches can be mounted.

Ball screw drive

LEJS Series

- Suitable for repeatable accurate positioning.

Belt drive

LEJB Series

- Suitable for long-stroke high-speed and light-load transfer.

Drive method	Specifications	Series	Stroke [mm]	Workload [kg]		Max. speed [mm/s]	Screw lead [mm]	Positioning repeatability [mm]	Controller series
				Horizontal	Vertical				
Ball screw drive	AC Servo motor (100/200 W)	**LEJS40**	200 to 1200	15	3	1800	24	±0.02 {±0.01}	LECSA, LECSB, LECSC, LECSS, LECSS-T, LECYU, LECYM
				30	5	1200	16		
				55	10	600	8		
		LEJS63	300 to 1500	30	6	1800	30		
				45	10	1200	20		
				85	20	600	10		
Belt drive		**LEJB40**	200 to 2000	20 [10]	—	2000	27	±0.04	
		LEJB63	300 to 3000	30	—	3000	42		

∗ { } Indicates value when “high precision type” is selected
∗ [ ] Indicates value when the stroke exceeds 1000.

Possible auto switches

3 wire solid state / 2 colour – PNP	D-M9PWL
3 wire solid state / 2 colour – NPN	D-M9NWL

Electric actuator guide rod slider

LEL Series

- Low-profile electric actuator (48 mm height); no interference with motor even wish large workpieces
- Compatible with sliding bearing and ball bushing bearing:
  - Sliding bearing: reduced noise, 60 dB or less
  - Ball bushing bearing: high-speed transport – 1000 mm/s – suitable for moment loads
- Optional non-magnetising type lock mechanism for the motor
- Manual override screw for adjustment operation
- Adjustable position, speed and positioning
- Standard auto-switches can be mounted.

Drive method	Series	Bearing	Stroke [mm]	Workload (horizontal) [kg]	Speed [mm/s]	Equivalent lead [mm]	Positioning repeatability [mm]	Controller series
Step motor (Servo / 24 VDC)	**LEL25M**	Sliding bearing	100 to 1000	3	48 to 500	48	±0.08	LECP6, LECP1, JXC□1
	LEL25L	Ball bushing bearing		5	48 to 1000			

Possible auto switches

3 wire solid state / 2 colour – PNP	D-M9PWL
3 wire solid state / 2 colour – NPN	D-M9NWL

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
Stocked items and product information could be subject to change without prior notice.

Electric actuator slider type, low profile

LEM Series

- Low profile and low centre of gravity
- Selectable guide mechanism, step motor mounting direction and control method:
  - Guide mechanism: LEMB, LEMC, LEMH, LEMHT
  - Motor mounting direction: top / bottom, right / left
- The drive unit and guide unit are separable (not LEMB)
- Standard auto-switches can be mounted.

Basic type

LEMB Series

- Light load transfer
- Easy connection to an external guide with floating bracket option
- Long stroke.

Cam follower guide type

LEMC Series

- Workpiece direct mounting
- Long stroke.

Linear guide single axis type

LEMH Series

- Workpiece direct mounting
- Provide more moment resistance than the cam follower guide type
- High speed transfer.

Linear guide single axis type

LEMHY Series

- Workpiece direct mounting
- Provide more moment resistance than the linear guide single axis type
- High speed transfer.

Drive method	Specifications	Series	Stroke [mm]	Workload (horizontal) [kg]	Speed [mm/s]	Max. Acceleration / deceleration [mm/s²] 1)	Screw lead [mm]	Positioning repeatability [mm]	Controller series
Belt drive	Step motor (Servo / 24 VDC)	**LEMB25**	50 to 2000	6 (10)	48 to 1000	20000	48	±0.08	LECP6, LECP1, LECP2, JXC□1
		LEMB32		11 (20)					
		LEMC25		10					
		LEMC32		20					
		LEMH25	50 to 1000	10	48 to 2000				
		LEMH32	50 to 1500	20					
		LEMHT25	50 to 1000	10					
		LEMHT32	50 to 1500	20					

∗ ( ) When combined with external guide.
1) The acceleration / deceleration is dependent on the work load.

Possible auto switches

3 wire solid state / 2 colour – PNP	D-M9PWL
3 wire solid state / 2 colour – NPN	D-M9NWL

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

Electric actuator rod type
LEY Series

Parallel motor

In-line motor

- Ball screw drive actuator with selectable motor (servo motor, step motor)
- Standard auto-switches can be mounted
- Mounting flexibility: three position for direct mounting and three types of mounting brackets, plus rod end brackets
- Selectable motor mounting direction
- Optional non-magnetising type lock mechanism for the motor
- Reduced actuator height by in-line motor mounting, in-line motor type LEY□D
- High-precision rod type electric actuator, LEYH(D).

Specifications	Series	Stroke [mm]	Pushing force [N]	Workload [kg]		Speed [mm/s]	Screw lead [mm]	Positioning repeatability [mm]	Controller series
				Horizontal	Vertical				
Step motor (Servo / 24 VDC)	**LEY16□**	30 to 300	14 to 38	6 [4]	2	15 to 500	10	±0.02	LECP6, LECP1, LECPA, JXC□1, JXC92, JXC□3
			27 to 74	17 [11]	4	8 to 250	5		
			51 to 141	30 [20]	8	4 to 125	2.5		
	LEY25□	30 to 400	63 to 122	20 [12]	8	18 to 500	12		
			126 to 238	40 [30]	16	9 to 250	6		
			232 to 452	60 [30]	30	5 to 125	3		
	LEY32□	30 to 500	80 to 189	30 [20]	11	24 to 500	16		
			156 to 370	45 [40]	22	12 to 300 [250]	8		
			296 to 707	60 [40]	43	6 to 150 [125]	4		
	LEY40□		132 to 283	50 [30]	13	24 to 500 [300]	16		
			266 to 553	60 [60]	27	12 to 350 [150]	8		
			562 to 1058	80 [60]	53	6 to 175 [75]	4		
Servo motor (24 VDC)	**LEY16□A**	30 to 300	16 to 30	3	2	1 to 500	10		LECA6
			30 to 58	6	4	1 to 250	5		
			57 to 111	12	8	1 to 125	2.5		
	LEY25□A	30 to 400	18 to 35	7	3	2 to 500	12		
			37 to 72	15	6	1 to 250	6		
			66 to 130	30	12	1 to 125	3		
AC Servo motor (100 / 200 W)	**LEY(H)25□**		65 to 131	18	8	max. 900	12	±0.02 {±0.01}	LECSA, LECSB, LECSC, LECSS, LECSS-T, LECYU, LECYM
			127 to 255	50	16	max. 450	6		
			242 to 485		30	max. 225	3		
	LEY(H)32□	30 to 500	79 (98) to 157(197)	30	9 (12)	max. 1200 (1000)	20 (16)		
			154 (192) to 308 (385)	60	19 (24)	max. 600 (500)	10 (8)		
			294 (368) to 588 (736)		37 (46)	max. 300 (250)	5 (4)		
AC Servo motor (400 W)	**LEY(H)63□**	100 to 800	156 to 521	40	19	max. 1000	20		
			304 to 1012	70	38	max. 500	10		
			573 to 1910	80	72	max. 250	5		
			1003 to 3343 [1]	200 [1]	115 [1]	max. 70 [1]	2.86 [1]		

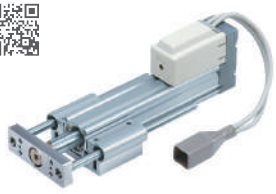
∗ ( ) Indicates value when “in-line type” is selected
∗ [ ] Indicates value when “LECPA, JXC92, JXC□3 controller” is selected
∗ { } Indicates value when “high-precision slider type electric actuator LEYH” is selected
1) Not available for in-line motor type.

Possible auto switches

3 wire solid state / 2 colour – PNP	D-M9PWL
3 wire solid state / 2 colour – NPN	D-M9NWL

Guide rod type electric actuator

LEYG Series



Parallel motor

In-line motor

- Two compact and integrated guide rods provide lateral load resistance and high non-rotating accuracy
- Compatible with sliding bearing and ball bushing bearing
- Selectable motor mounting direction
- Optional non-magnetising type lock mechanism for the motor
- High-precision guide rod type LEYHG
- Reduced actuator height by in-line motor mounting, in-line motor type LEYG□D
- Standard auto-switches can be mounted.

Specifications	Series	Stroke [mm]	Pushing force [N]	Workload [kg]		Speed [mm/s]	Screw lead [mm]	Positioning repeatability [mm]	Controller series
				Horizontal	Vertical				
Step motor (Servo / 24 VDC)	**LEYG16□**	30 to 200	14 to 38	6 [4]	1.5	15 to 500	10	±0.02	LECP6, LECP1, LECPA, JXC□1, JXC92, JXC□3
			27 to 74	17 [11]	3.5	8 to 250	5		
			51 to 141	30 [20]	7.5	4 to 125	2.5		
	LEYG25□	30 to 300	63 to 122	20 [12]	7	18 to 500	12		
			126 to 238	40 [30]	15	9 to 250	6		
			232 to 452	60 [30]	29	5 to 125	3		
	LEYG32□		80 to 189	30 [20]	9	24 to 500	16		
			156 to 370	45 [40]	20	12 to 300 [250]	8		
			296 to 707	60 [40]	41	6 to 150 [125]	4		
	LEYG40□		132 to 283	50 [30]	11	24 to 500 [300]	16		
			266 to 553	60 [60]	25	12 to 350 [150]	8		
			562 to 1058	80 [60]	51	6 to 175 [75]	4		
Servo motor (24 VDC)	**LEYG16□A**	30 to 200	16 to 30	3	1.5	1 to 500	10		LECA6
			30 to 58	6	3.5	1 to 250	5		
			57 to 111	12	7.5	1 to 125	2.5		
	LEYG25□A	30 to 300	18 to 35	7	2	2 to 500	12		
			37 to 72	15	5	1 to 250	6		
			66 to 130	30	11	1 to 125	3		
AC Servo motor (100 / 200 W)	**LEY(H)G25□**		65 to 131	18	7	max. 900	12	±0.02 {±0.01}	LECSA, LECSB, LECSC, LECSS, LECSS-T, LECYU, LECYM
			127 to 255	50	15	max. 450	6		
			242 to 485		29	max. 225	3		
	LEY(H)G32□		79 (98) to 157(197)	30	7 (10)	max. 1200 (1000)	20 (16)		
			154 (192) to 308 (385)	60	17 (22)	max. 600 (500)	10 (8)		
			294 (368) to 588 (736)		35 (44)	max. 300 (250)	5 (4)		

∗ ( ) Indicates value when “in-line type” is selected
∗ [ ] Indicates value when “LECPA, JXC92, JXC□3 controller” is selected
∗ { } Indicates value when “high-precision rod type electric actuator LEYHG” is selected.

Possible auto switches

3 wire solid state / 2 colour – PNP	D-M9PWL
3 wire solid state / 2 colour – NPN	D-M9NWL

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

Electric slide table
LES Series

- High rigidity type LESH☐ available
- Reduced cycle time: maximum acceleration 5000 mm/s²; maximum speed 400 mm/s
- Easy and flexible mounting of the table, with selectable motor:
  - Step motor (servo / 24 VDC): ideal for high load transfer at a low speed and pushing operation
  - Servo motor (24 VDC): stable at high speed and suitable for silent operations
- Optional dustproof specification, IP5X equivalent.

Basic type
LESR/LESHR Series

- Compact and space saving by built-in motor.

Symmetrical type
LESL/LESHL Series

- Compact and space saving by built-in motor
- The locations of the table and cable are opposite those of the basic type.

In-line motor type
LESD/LESHD Series

- Reduced width and height by in-line motor mounting.

Specifications		Series	Stroke [mm]	Pushing force [N]	Workload [kg]		Speed [mm/s]	Screw lead [mm]	Positioning repeatability [mm]	Controller series
					Horizontal	Vertical				
Compact type	Step motor (Servo / 24 VDC)	**LES8☐**	30, 50, 75	6 to 15	1	0.5	10 to 200	4	±0.05	LECP6, LECP1, LECPA, JXC☐1, JXC92, JXC☐3
				4 to 10		0.25	20 to 400	8		
		LES16☐	30, 50, 75, 100	23.5 to 55	3	3	10 to 200	5		
				15 to 35		1.5	20 to 400	10		
		LES25☐	30, 50, 75 100, 125, 150	77 to 180	5	5	10 to 200	8		
				43 to 100		2.5	20 to 400	16		
	Servo motor (24 VDC)	**LES8☐A**	30, 50, 75	7.5 to 11	1	1	1 to 200	4		LECA6
				5 to 7.5		0.5	1 to 400	8		
		LES16☐A	30, 50, 75, 100	17.5 to 35	3	3	1 to 200	5		
				10 to 20		1.5	1 to 400	10		
		LES25☐A [1]	30, 50, 75 100, 125, 150	31 to 62	5	4	1 to 200	8		
				19 to 38		2	1 to 400	16		
High rigidity type	Step motor (Servo / 24 VDC)	**LESH8☐**	50, 75	6 to 15	2	0.5	10 to 200	4		LECP6, LECP1, LECPA, JXC☐1, JXC92, JXC☐3
				4 to 10	1	0.25	20 to 400	8		
		LESH16☐	50, 100	23.5 to 55	8	2	10 to 200	5		
				15 to 35	5	1	20 to 400	10		
		LESH25☐	50, 100, 150	77 to 180	12	4	10 to 150	8		
				43 to 100	8	2	20 to 400	16		
	Servo motor (24 VDC)	**LESH8☐A**	50, 75	7.5 to 11	2	0.5	1 to 200	4		LECA6
				5 to 7.5	1	0.25	1 to 400	8		
		LESH16☐A	50, 100	17.5 to 35	5	2	1 to 200	5		
				10 to 20	2.5	1	1 to 400	10		
		LESH25☐A [1]	50, 100, 150	31 to 62	6	2.5	1 to 150	8		
				19 to 38	4	1.5	1 to 400	16		

1) Not available for in-line motor type.

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
Stocked items and product information could be subject to change without prior notice.

Electric actuator miniature type

LEP Series

LEPY
Rod type

LEPS
Slide table type

- Palm-sized electric actuators, compact and lightweight
- Motor type selectable:
  - High pushing force type – basic type
  - Compact and lightweight motor type (size 10 only)
- Manual override screw for adjustment operation
- Possible to set position, speed and force.

Specifications	Type	Series	Stroke [mm]	Screw lead [mm]	Pushing force [N]		Max. workload (horizontal) [Kg]		Max. workload (vertical) [Kg]		Speed (horizontal) [mm/s]		Positioning repeatability [mm]	Controller series
					Basic	Compact	Basic	Compact	Basic	Compact	Basic	Compact		
Step motor (Servo / 24 VDC)	Miniature rod type	**LEPY6**	25, 50 75	4	14 to 20	—	2.0	—	0.5	—	10 to 150	—	±0.05	LECP6, LECP1, LECPA, JXC□1, JXC92, JXC□3
				8	7 to 10		1.0		0.25		20 to 300 (250)			
		LEPY10		5	25 to 50	24 to 40	6.0	4.0	1.5		10 to 200			
				10	12.5 to 25	12 to 20	3.0	2.0	1.0		20 to 350 (250)			
	Miniature slide table type	**LEPS6**	25, 50	4	14 to 20	—	1.0	—	0.5	—	10 to 150	—		
				8	7 to 10		0.75		0.25		20 to 300 (250)			
		LEPS10		5	25 to 50	24 to 40	2.0		1.5		10 to 200			
				10	12.5 to 25	12 to 20	1.5		1.0		20 to 350 (250)			

∗ ( ) Indicates value when stroke is 25 mm.

Electric rotary table

LER Series

- Adjustable speed, acceleration and position
- Easy setting operation and installation
- Selectable rotation angles, with continuous rotation model available: 90°, 180°, 320° (310° for LER10), 360°
- Maximum acceleration 3000 °/s², maximum speed 420 °/s.

Specifications	Series	Rotating torque [N·m]		Speed [°/s]		Positioning repeatability [°]		Controller series 1)
		Basic	High torque	Basic	High torque	Basic	High torque	
Step motor (Servo / 24 V DC)	**LER10**	0.22	0.32	30 to 420	20 to 280	±0.05 [±0.01] (±0.05)		LECP6, LECP1, LECPA, JXC□1, JXC92, JXC□3
	LER30	0.8	1.2			±0.05 [±0.01] (±0.03)		
	LER50	6.6	10					

∗ [ ] Indicates value when an external stopper is used
∗ ( ) Indicates value when "high-precision type" is selected
1) LECPA, LECP1, JXC92, JXC□3: not available for 360° rotation angle.

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

Electric gripper
LEH Series

- Drop prevention function (self-lock mechanism) is provided
- Energy saving: power consumption reduced by self-lock mechanism
- Gripping check function is provided.

2 finger electric gripper
LEHZ Series

- Extremely compact and lightweight, with various gripping forces.

2 finger electric gripper with dust cover
LEHZJ Series

- Sealed-construction dust cover, equivalent to IP50
- 3 selectable cover materials for the fingers.

2 finger long-stroke electric gripper
LEHF Series

- Possible to hold various types of workpieces due to long stroke.

3 finger electric gripper
LEHS Series

- Suitable for holding round workpieces.

Specifications	Series	Opening / closing stroke both sides [mm]	Gripping force [N]		Opening / closing speed [mm/s]	Pushing speed [mm/s]	Repeatability [mm]	Controller series
			Basic	Compact				
Step motor (Servo / 24 VDC)	**LEHZ10**	4	6 to 14	2 to 6	5 to 80	5 to 50	±0.02	LECP6, LECP1, LECPA, JXC□1, JXC92, JXC□3
	LEHZ16	6		3 to 8				
	LEHZ20	10	16 to 40	11 to 28	5 to 100	5 to 50		
	LEHZ25	14						
	LEHZ32	22	52 to 130	—	5 to 120	5 to 50		
	LEHZ40	30	84 to 210	—				
	LEHZJ10	4	6 to 14	3 to 6	5 to 80	5 to 50		
	LEHZJ16	6		4 to 8				
	LEHZJ20	10	16 to 40	11 to 28	5 to 100	5 to 50		
	LEHZJ25	14						
	LEHF10	16 (32)	3 to 7		5 to 80	5 to 20	±0.05	
	LEHF20	24 (48)	11 to 28		5 to 100	5 to 30		
	LEHF32	32 (64)	48 to 120					
	LEHF40	40 (80)	72 to 180					
	LEHS10	4	2.2 to 5.5	1.4 to 3.5	5 to 70	5 to 50	±0.02	
	LEHS20	6	9 to 22	7 to 17	5 to 80	5 to 50		
	LEHS32	8	36 to 90	—	5 to 100	5 to 50		
	LEHS40	12	52 to 130	—	5 to 120	5 to 50		

∗ ( ) Indicates value when “long stroke” is selected

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
Stocked items and product information could be subject to change without prior notice.

Electric actuators - Motorless type

LEF/LEJ/LEY(G) Series

- Compatible with 100/200/400 W motors of main manufacturers:
  - OMRON Corporation
  - Siemens AG
  - Beckhoff Automation GmbH
  - YASKAWA Electric Corporation
  - Panasonic Corporation
  - Delta Electronics, Inc.
  - FANUC Corporation
  - FASTECH Co., Ltd.
  - FUJI ELECTRIC CO., LTD.
  - KEYENCE Corporation
  - Mitshubishi Electric Corporation
  - NIDEC SANKYO Corporation
  - Rockwell Automation, Inc. (Allen-Bradley)
  - SANYO DENKI CO., LTD.
  - ORIENTAL MOTORCo., Ltd.
- Available series with no motor attached: LEFS/LEFB, LEJS, LEY/LEYG
- Standard auto-switches can be mounted (except in LEFS/LEFB Series).

Slider type

LEFS/LEFB Series

Drive method	Series	Stroke [mm]	Workload [kg]		Max. speed [mm/s]	Screw lead [mm]	Positioning repeatability [mm]
			Horizontal	Vertical			
Ball screw drive	**LEFS25**	50 to 800	10	4	1500	20	±0.02 (±0.01)
			20	8	900	12	
				15	450	6	
	LEFS32	50 to 1000	30	5	1500	24	
			40	10	1000	16	
			45	20	500	8	
	LEFS40	150 to 1200	30	7	1500	30	
			50	15	1000	20	
			60	30	500	10	
Belt drive	**LEFB25**	300 to 2000	5	—	2000	54	±0.06
	LEFB32	300 to 2500	15				
	LEFB40	300 to 3000	25				

∗ ( ) Indicates value when “high-precision type” is selected.

High rigidity slider type

LEJS Series

Drive method	Series	Stroke [mm]	Workload [kg]		Max. speed [mm/s]	Screw lead [mm]	Positioning repeatability [mm]
			Horizontal	Vertical			
Ball screw drive	**LEJS40**	200 to 1200	15	3	1800	24	±0.02 (±0.01)
			30	5	1200	16	
			55	10	600	8	
	LEJS63	300 to 1500	30	6	1800	30	
			45	10	1200	20	
			85	20	600	10	

∗ ( ) Indicates value when “high-precision type” is selected.

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

Rod type

LEY Series

Series	Motor mounting position	Stroke [mm]	Pushing force [N]	Workload [kg]		Max. speed [mm/s]	Screw lead [mm]	Positioning repeatability [mm]
				Horizontal	Vertical			
LEY25	Top / parallel In-line	30 to 400	65 to 131	18	8	900	12	±0.02 (±0.01)
			127 to 255	50	16	450	6	
			242 to 485		30	225	3	
LEY32	Top / parallel	30 to 500	79 to 157	30	9	1200	16	
			154 to 308	60	19	600	8	
			294 to 588		37	300	4	
	In-line		98 to 197	30	12	1000	16	
			192 to 385	60	24	500	8	
			368 to 736		46	250	4	
LEY63	Top / parallel	100 to 800	156 to 521	40	19	1000	20	
			304 to 1012	70	38	500	10	
			573 to 1910	80	72	250	5	
			1003 to 3343	200	115	70	2.86	
	In-line		156 to 521	40	19	1000	20	
			304 to 1012	70	38	500	10	
			573 to 1910	80	72	250	5	

∗ ( ) Indicates value when “high-precision type” is selected.

Guide rod type

LEYG Series

Series	Motor mounting position	Stroke [mm]	Pushing force [N]	Workload [kg]		Max. speed [mm/s]	Screw lead [mm]	Positioning repeatability [mm]
				Horizontal	Vertical			
LEYG25	Top In-line	30 to 300	65 to 131	18	7	900	12	±0.02 (±0.01)
			127 to 255	50	15	450	6	
			242 to 485		29	225	3	
LEYG32	Top		79 to 157	30	7	1200	20	
			154 to 308	60	17	600	10	
			294 to 588		35	300	5	
	In-line		98 to 197	30	10	1000	16	
			192 to 385	60	22	500	8	
			368 to 736		44	250	4	

∗ ( ) Indicates value when “high-precision type” is selected.

Possible auto switches

3 wire solid state / 2 colour - PNP	D-M9PWL
3 wire solid state / 2 colour - NPN	D-M9NWL

● Stocked items. ● Partly stocked items, the stocked options are highlighted in green.
Stocked items and product information could be subject to change without prior notice.

Controller & drivers

	Compatible motor	Control method	Compatible encoder		Compatible option		
			Type	Resolution	Teaching box	Network gateway unit	Blank controller [1]
Controller (24 VDC) **LECP6**	Step 24 VDC	Positioning (64 points)	Incremental	800	✓	✓	✓
Controller (24 VDC) **LECA6**	Servo 24 VDC				✓	✓	✓
Programless controller (24 VDC) **LECP1**	Step 24 VDC	Positioning (14 points)			✗	✗	✗
Programless controller, with stroke study (24 VDC) **LECP2**		Positioning (14 points) [2]			✗	✗	✗
Pulse input type step motor driver (24 VDC) **LECPA**		Pulse input			✓	✗	✓
4 axis controller (24 VDC) **JXC73/83**		Positioning (2048 points)			✗	✗	✗
3 axis controller (24 VDC) **JXC92**		Positioning (2048 points) [3]			✗	✗	✗
4 axis controller (24 VDC) **JXC93**		Positioning (2048 points) [3]			✗	✗	✗
Direct input type step motor controller (24 VDC) **JXC91/E1/P1/D1/L1**		Positioning (64 points) & Network direct input [4]			✓	✗	✓

1) A blank controller is a controller to which the customer can write the data of the actuator it is to be combined and used with
Refer to catalogue of each controller / driver series for more information
2) 2 stroke end points plus 12 intermediate points
3) Communication protocol: EtherNet/IP™
4) Communication protocols: EtherCAT®, EtherNet/IP™, PROFINET, DeviceNet™, IO-Link.

Step data input type controller

LEC Series

LECP6
Step motor (Servo / 24 VDC)

LECA6
Servo motor (24 VDC)

- Two types: to control step motor (LECP6) and servo motor (LECA6)
- LECP6 compatible with actuators series: LEF, LEL, LEM, LEY/LEYG, LES, LEP, LER, LEH
- LECA6 compatible with actuators series: LEF, LEY/LEYG, LES
- 64 points positioning
- Software or teaching box for programming the parameters.

Programless controller

LECP1 Series

- Compatible with actuators series: LEF, LEL, LEM, LEY/LEYG, LES, LEP, LER, LEH
- 14 points positioning
- Speed and acceleration: 16-level adjustment via switches
- No software to put into operation (control panel setting).

Programless controller, with stroke study

LECP2 Series

- Specialised for LEM series
- 14 points positioning: 2 stroke end points + 12 intermediate points positioning
- Speed and acceleration: 16-level adjustment via switches
- No software to put into operation (control panel setting).

Pulse input type controller

LECPA Series

- Compatible with actuators series: LEF, LEY/LEYG, LES, LEP, LER, LEH
- Type activated controller by pulse signals, capable of positioning at any position
- Software or teaching box for setting data.

Our highlighted product for you

Multi-axis step motor controller

JXC73/83/92/93 Series

JXC73/83
Parallel I/O type

JXC92
EtherNet/IP

JXC93
EtherNet/IP

- Compatible with actuators series: LEF, LEY/LEYG, LES, LEP, LER, LEH
- Step data input with maximum 2048 points:
  - Absolute / relative position coordinates instructions
  - Positioning / pushing operation
- Approximation to linear and circular interpolation for XYZ and XY axes respectively
- Direct operation of up to 4 electric actuators only with one controller, for either single or multiple axes:
  JXC92:
  - 3-axis operation can be set collectively in one step
  - 3-axis speed tuning control

  JXC73/83/93:
  - 4-axis operation can be set collectively in one step
  - 4-axis speed tuning control
- Software or teaching box for setting data (teaching box not for JXC92 and JXC93).

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

Our highlighted product for you

Step motor controller

JXC91/E1/P1/D1/L1 Series

JXC91	JXCE1	JXCP1	JXCD1	JXCL1
EtherNet/IP	EtherCAT	PROFINET	DeviceNet	IO-Link

- Compatible with actuators series: LEF, LEY/LEYG, LES, LEP, LER, LEH, LEL, LEM
- Direct operation through a fieldbus or industrial Ethernet network:
  - 10/100 Mbps high-speed communication for JXC91/E1/P1, up to 500 kbps for JXCD1, 230.4 kbps for JXCL1
  - Real time operation
- Dual port connection, IN and OUT, that allows for linear topology or Device Level Ring (DLR) topology (not for JXCL1 and JXCD1):
  - Less wiring
  - Good recovery after disconnection
  - Easy identification of disconnected spot
- IO-Link compatible type, JXCL1:
  - Higher control of the applications
  - Cost-effective: Plug & play, minimum hardware and programming costs
  - Integral communication, from sensors to actuators
  - Noise immunity
- Software or teaching box for setting data.

Fieldbus-compatible gateway unit

LEC-G Series

LEC-GEN1	LEC-GPR1	LEC-GDN1	LEC-GMJ2
EtherNet/IP	PROFINET	DeviceNet	CC-Link V2

- Allows connection of LECP6/LECA6 controllers to fieldbus networks:
  - LEC controllers are processed from the PLC through the LEC-G
  - Up to 12 LEC controllers are connectable via serial communication RS485.
- Compatible actuators: LEF, LEY/LEYG, LES, LEP, LER, LEH, LEL, LEM
- Three operation modes:
  - Step data input mode – the actuator uses preset step data of the controller (parallel I/O)
  - Numerical data input mode – the actuator uses values, such as position and speed, sent directly from the PLC
  - Step data writing mode – the actuator uses editable step data of the controller (parallel I/O) that can be changed through the gateway unit.

AC servo motor driver

	Compatible motor	Control method	Compatible encoder		Setting / graph / monitor method
			Type	Resolution	
Pulse / Positioning 100/200/400 W (100/200 VAC) **LECSA**	AC servo	Positioning (Max. 7 points) & Pulse input	Incremental	131072 (17-bit)	Digital I/O signal or pulse signal input through PLC (Setup software – MR configurator2™)
Pulse 100/200/400 W (100/200 VAC) **LECSB**		Pulse input	Absolute	262144 (18-bit)	Pulse signal input though PLC (Setup software – MR configurator2™)
CC-Link 100/200/400 W (100/200 VAC) **LECSC**		Positioning (Max. 255 points) & Network direct input (CC-Link)			PLC (CC-Link master unit) (Setup software – MR configurator2™)
SSCNET III 100/200/400 W (100/200 VAC) **LECSS**		Network direct input (SSCNET III) [1]			PLC (positioning unit / Motion controller) (Setup software – MR configurator2™)
SSCNET III/H 100/200/400 W (200 VAC) **LECSS-T**		Network direct input (SSCNET III/H) [1, 2]		4194304 (22-bit)	
MECHATROLINK-II 100/200/400 W (200 VAC) **LECYM**		Network direct input (MECHATROLINK-II) [2]		1048576 (20-bit)	PLC (positioning unit / Motion controller) (Setup software – SigmaWin+™)
MECHATROLINK-III 100/200/400 W (200 VAC) **LECYU**		Network direct input (MECHATROLINK-III) [2]			

1) High-speed optical communication
2) STO (Safe Torque Off) safety function available.

For more product options and details please refer to the specific catalogues in our website: www.smc.eu

AC servo motor driver

LECS Series

LECSA/LECSB
Pulse input type

LECSC
CC-Link V2

LECSS
SSCNETIII

LECSS-T
SSCNETIII/H

- Compatible with actuators series: LEF, LEJ, LEY/LEYG
- With display setting function.

LECSA Series – Pulse input type or positioning type, for incremental encoder

- Positioning type, with up to 7 positioning points by point table

LECSB Series – Pulse input type, for absolute encoder

- 10/6 parallel inputs / outputs

LECSC Series – CC-Link direct input type, for absolute encoder

- Suitable for multipoint positioning, being possible to set position data / speed data and operation start / stop

LECSS Series – SSCNET III type, for absolute encoder

- Optimum for interpolation and with enhanced noise resistance by using the fiber optics for communication

LECSS-T Series – SSCNET III / H type, for absolute encoder

- Optical communication protocol with STO – Safe Torque Off – function (in accordance with IEC61800-5-2) and homing done by z-phase, ideal for machines with axis motion.

AC servo motor driver, MECHATROLINK compatible

LECY Series

LECYM
MECHATROLINK-II

LECYU
MECHATROLINK-III

- Compatible with actuators series: LEF, LEJ, LEY/LEYG
- Position control, speed control and torque control can be achieved
- STO – Safe Torque Off – function in accordance with IEC61800-5-2
- Homing can be performed by mechanical end stop
- Lock cable integrated with motor cable.

LECYM Series – MECHATROLINK-II type

- Number of connectible drivers: 30 units
- Maximum communication speed 10 Mbps, minimum communication cycle 250 µs.

LECYU Series – MECHATROLINK-III type

- Number of connectible drivers: 62 units
- Maximum communication speed 100 Mbps, minimum communication cycle 125 µs.

Card motor

LAT3 Series

- 3 functions in 1 unit
- Compact design – 9 mm thickness – and lightweight – from 130 to 360 g
- Easy programming by Cycle Time Entry Method:
  Operation setting is completed by only introducing 3 parameters:
  target position + positioning time + workload
- Modbus serial communication compatible.

Series	Stroke [mm]	Sensor (optical linear encoder)	Linear motor	Linear guide	Pushing	Positioning repeatability	Pushing measurement	Maximum load mass [g]		Maximum speed [mm/s]
		Resolution [µm]	Type		Instantaneous max. thrust [N]	Accuracy [µm]		Horizontal	Vertical 1)	
LAT3	10, 20, 30	30	Moving magnet type linear motor	Linear guide with circulating balls	5.2 up to 6	±90	±100	1000	100 (50)	400
LAT3F	10, 20, 30, 50	1.25				±5	±10			
LAT3M	50	5				±20	±40		—	

∗ ( ) indicates value when 30 mm is selected.
1) Vertical is not possible when 50 mm stroke is selected.

Card motor controller

LATCA Series

- Direct and remote control of LAT3 card motor
- 3 types of input signals to work with:
  - Step data input: I/O for general, with 15 step data and 6/4 parallel I/O
  - Pulse input: With 4 step data and 6/4 parallel I/O
  - Serial input (based on step data input): Allows the connection in series of up to 16 controllers via RS485
- Automatic calculation of speed, acceleration and deceleration with Cycle Time Entry method.

Compatible motor	Operation method	Parallel inputs / ouputs	Position & speed setting method	Compatible encoder type
Moving magnet type linear motor	Step data input	6 inputs / 4 outputs	Software	Incremental
	Pulse input		Inputted pulse	
	Serial input		Software or inputted data	