



Motion in your power

Electric Actuators – LE□ Series, JXC Series

[Quick Overview](#)



Motion in your power

ADAPTABILITY – You decide - They adapt

Electric actuators are, by definition, a flexible solution, at least in terms of speed, force or positioning. It is precisely that adaptability which is behind our range of electric solutions; where you decide, you choose, but you don't adapt to them. They adapt to you.

Motion in your power with SMC electric actuators

The extensive variety of mechanics and controllers and their great adaptability, allow us to say, without doubt, that with them, we put Motion in your power.

- **Perform any movement, anywhere, in any way you want** – Align, rotate, grip,... a world of motion at your disposal; motion that you can adapt to the specificities of your application plus, if you wish, you can use our LE Motorless actuators with the motor of your choice
- **Control it as suits you best** – Digital I/Os or Fieldbus commands available. Moreover, you can command up to 4 electric actuators in one step for speed tuning or interpolation: multi-axis control
- **Smart up your factory** – Our electric solutions are Industry 4.0-friendly.

Main Features

- **Variety of mechanics** – Almost any pneumatic movement has its electric version thanks to the following electric actuators types:

- Slider type, high rigidity slider type
- Rod type, guide rod type, miniature rod type
- Guide rod slider
- Rotary table
- Slide table, miniature slide table
- Gripper
- Card motor.

With the SMC electric actuators range it is, amongst others, possible to transfer, push, pull, lift, rotate, position, align, pick and place, grip or stop workpieces.

- **Flexibility in the union between mechanics and control**

- Motorless actuators, with prefab motor flanges for several servo suppliers
- SMC full equipped, with a complete and preconfigured solution that includes the actuator, controller and necessary wiring.

- **Advanced control functions in remote operation** – Easy set-up, self-learning, or auto-current down among others.

- **High environmental resistance**

- Clean room specification
- Secondary battery compatible
- Dust-tight / water-jet-proof.

- **Variety of options for the motion control**

- **Digital I/O commands**, direct parametrization at the controller:
 - 24 VDC controllers/drivers – both programless and step-by-step programming
 - AC servo motor drivers – high performance drivers, with smooth position, speed and force control with no need for further adjustments.
- **Fieldbus commands**, direct connection to a fieldbus network through several communication protocols – available both in 24 VDC controllers/drivers and AC servo motor drivers.

24 VDC controller/driver		AC servo motor

- **Multi axis controllers/drivers** – available either in parallel digital I/O or fieldbus commands:
 - 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.

Electric Actuators

LE□ Series, JXC Series



Electric Actuator Lineup

	Features	Maximum stroke
Slider type		
LEF 	- LEFS – ball screw drive - LEFB – belt drive - LEFG – support guide	- LEFS – 1200 mm - LEFB – 3000 mm - LEFG – 3000 mm
LEJ 	High rigidity - LEJS – ball screw drive - LEJB – belt drive	- LEJS – 1500 mm - LEJB – 3000 mm
LEL 	- Guide rod slider type	1000 mm
LEM 	Low profile - LEMB – basic type - LEMC – cam follower guide type - LEMH – linear guide single axis type - LEMHT – linear guide double axis type	- LEMB – 2000 mm - LEMC – 2000 mm - LEMH – 1500 mm - LEMHT – 1500 mm
Rod type		
LEY 	- Rod type	800 mm
LEYG 	- Guide rod type	300 mm
Slide table		
LES 	- LES – compact type - LESH – high rigidity type	- LES – 150 mm - LESH – 150 mm
Miniature type		
LEP 	- LEPY – miniature rod type - LEPS – miniature slide table type	- LEPY – 75 mm - LEPS – 50 mm
Rotary table		
LER 	- LER – basic type - LERH – high precision type	n/a
Gripper		
LEH 	- LEHZ – 2 fingers - LEHZJ – 2 fingers, with dust cover - LEHF – 2 fingers, long-stroke - LEHS – 3 fingers	- LEHZ – 30 mm ¹⁾ - LEHZJ – 14 mm ¹⁾ - LEHF – 40 (80) mm ¹⁾²⁾ - LEHS – 12 mm ¹⁾

Note 1) Stroke / both sides.

Note 2) Value in brackets () for long strokes.

Other Electric Actuation Solutions

Card Motor, LAT3 Series

Your small solution for transport, push & measurement



- Unique miniature 3-in-1 solution for transport, pushing and measuring
- High-speed response
- Put it to work by just inputting 3 parameters
- Maximum horizontal load of 1 kg.

Size	Compatible motor				Compatible controller / driver	Environmental resistance
	Step servo	DC servo	AC servo	Motorless		
16, 25, 32, 40	✓	✓	✓	✓	- Step/Servo Motor (24 VDC): LECP6, LECA6, LECP1, LECPA, JXC□3, JXC□1 - AC Servo Motor: LECS□, LECY□	- Secondary battery: 25A-LEFS - Clean room specification: 11-LEFS, 11-LEFG
40, 63	✗	✗	✓	✓	- AC Servo Motor: LECS□, LECY□	- Secondary battery: 25A-LEJS - Clean room specification: 11-LEJS
25	✓	✗	✗	✗	- Step Motor (24 VDC): LECP6, LECP1, JXC□1	n/a
25, 32	✓	✗	✗	✗	- Step Motor (24 VDC): LECP6, LECP1, LECP2, JXC□1	
16, 25, 32, 40, 63	✓	✓	✓	✓	- Step/Servo Motor (24 VDC): LECP6, LECA6, LECP1, LECPA, JXC□3, JXC□1 - AC Servo Motor: LECS□, LECY□	- Secondary battery: 25A-LEY - Dust-tight / water-jet-proof (IP65 equivalent): LEY-X5, LEY63□-□P
16, 25, 32, 40	✓	✓	✓	✓	- AC Servo Motor: LECS□, LECY□	n/a
8, 16, 25	✓	✓	✗	✗	- Step/Servo Motor (24 VDC): LECP6, LECA6, LECP1, LECPA, JXC□3, JXC□1	n/a
6, 10	✓	✗	✗	✗	- Step Motor (24 VDC): LECP6, LECP1, LECPA, JXC□3, JXC□1	n/a
10, 30, 50	✓	✗	✗	✗	- Step Motor (24 VDC): LECP6, LECP1, LECPA, JXC□3, JXC□1	n/a
10, 16, 20, 25, 32, 40	✓	✗	✗	✗	- Step Motor (24 VDC): LECP6, LECP1, LECPA, JXC□3, JXC□1	- Dust-tight / water-jet-proof (IP50 equivalent): LEHZJ

Electric Actuators

LE□ Series, JXC Series



Controller / Driver Lineup

	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 					✓	✓	✓
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)			✗	✗	✗
4 Axis Controller (24 VDC) JXC93 		Positioning (2048 points) ³⁾			✗	✗	✗
Direct Input Type Step Motor Controller (24 VDC) JXC91/E1/P1/D1 		Positioning (64 points) & Network direct input ⁴⁾			✓	✗	✓

Note 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.

Note 2) 2 stroke end points plus 12 intermediate points.

Note 3) Communication protocol: EtherNet/IP™.

Note 4) Communication protocols: EtherCAT®, EtherNet/IP™, PROFINET, DeviceNet™.

Other Solutions for Electric Actuation Control

Network Gateway Unit, LEC-G Series

Get remote control through a single device



- Direct connection to fieldbus networks¹⁾
- Simplified control systems and wiring
- Flexibility in the operation and control.

Note 1) Communication protocols: EtherNet/IP™, PROFIBUS DP, DeviceNet™, CC-Link.

Card Motor Controller, LATCA Series

Get control versatility for your ultra-thin actuator



- Direct and remote control¹⁾ of LAT3 card motor
- 3 types of input signals to control
- Automatic calculation of speed, acceleration and deceleration with Cycle Time Entry method.

AC Servo Motor Driver Lineup

	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			Pulse signal input though PLC (setup software – MR configurator2™)
CC-Link 100/200/400 W (100/200 VAC) LECS 		Positioning (max. 255 points) & Network direct input (CC-Link)			262144 (18-bit)
SSCNET III 100/200/400 W (100/200 VAC) LECSS 		Network direct input (SSCNET III) ¹⁾	Absolute	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)
MECHATROLINK-III 100/200/400 W (200 VAC) LECYU 		Network direct input (MECHATROLINK-III) ²⁾			

Note 1) High-speed optical communication.

Note 2) STO (Safe Torque Off) safety function available.

LEFG Series – Support guide

- Designed to support workpieces with significant overhang
- Standard equipped seal bands prevent grease from splashing and external foreign matter from entering
- Clean room specification with built-in vacuum piping, 11-LEFG.

Type	Specifications	Series	Stroke [mm]
For Ball screw drive	Step motor (Servo/24 VDC) Servo motor (24 VDC) AC Servo motor	(11-)LEFG16-S	50 to 500
		(11-)LEFG25-S	50 to 800 (600)
		(11-)LEFG32-S	50 to 1000 (800)
		(11-)LEFG40-S	150 to 1200 (1000)
For Belt drive	Step motor (Servo/24 VDC) Servo motor (24 VDC)	LEFG16-BT	300 to 1 000
		LEFG25-BT	300 to 2000
		LEFG32-BT	
	AC Servo motor	LEFG25-BS	300 to 2500
		LEFG32-BS	
		LEFG40-BS	300 to 3000

* () indicates value when "Clean room specification" is selected.

25A-LEFS – Secondary Battery Compatible

- Copper and zinc free (except motors, cables, controllers/drivers)
- Grease used is compatible with a dew point as low as -70 °C
- Applicable to sizes 16/25/32/40, with strokes up to 1000 mm
- Dimensions and basic specifications equivalent to standard series.

Electric Actuator Slider Type, High Rigidity

LEJ Series



Our most powerful electric actuator

- 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, LEJSH.
- Dustproof construction, as it is equipped with seal band as standard
- Clean room specification with built-in vacuum piping, 11-LEJS
- Maximum acceleration/deceleration: 20000 mm/s²
- Standard auto-switches can be mounted.

LEJS Series – Ball screw drive

- Suitable for repeatable accurate positioning.

LEJB Series – Belt drive

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

Electric Actuators

LE□ Series, JXC Series



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)	(11-)LEJS40	200 to 1200	15 ¹⁾	3 ¹⁾	1800 ¹⁾	24 ¹⁾	±0.02 {±0.01}	LECSA, LECSB, LECSC, LECSS, LECSS-T, LECYU, LECYM
				30	5	1200	16		
				55	10	600	8		
		(11-)LEJS63	300 to 1500	30 ¹⁾	6 ¹⁾	1800 ¹⁾	30 ¹⁾		
				45	10	1200	20		
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.

Note 1) Not available for 11-LEJS.

25A-LEJS Series – Secondary Battery Compatible

- Copper and zinc free (except motors, cables, controllers/drivers)
- Grease used is compatible with a dew point as low as -70 °C
- Applicable to sizes 40/63, with strokes up to 1500 mm
- Dimensions and basic specifications equivalent to standard series.

Electric Actuator Guide Rod Slider

LEL Series



The unnoticeable actuator

- Low-profile electric actuator (48 mm height)
- 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.

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
	LEL25L	Ball bushing bearing		5	48 to 1000			

Note) LEL is compatible with JXC□1. Refer to www.smc.eu for more information.

Electric Actuator Slider Type, Low Profile

LEM Series



Electric solutions for narrow spaces and considerable workloads

- Low profile and low centre of gravity: no interference with motor even with large workpieces
- Selectable guide mechanism, step motor mounting direction and control method:
 - Guide mechanism: LEMB, LEMC, LEMH, LEMHT
 - Motor mounting direction: top/bottom, right/left
 - Control method: LECP1, LECP2 (specially designed for LEM series), LECP6.
- The drive unit and guide unit are separable (not LEMB)
- Standard auto-switches can be mounted.

LEMB Series – Basic type

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

LEMC Series – Cam follower guide type

- Workpiece direct mounting
- Long stroke.

LEMH Series – Linear guide single axis type

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

LEMHT Series – Linear guide double axis type

- 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/s ²] ¹⁾	Screw lead [mm]	Positioning repeatability [mm]	Controller series ²⁾
Belt drive	Step motor (Servo/24 V DC)	LEMB25	50 to 2000	6 (10)	48 to 1000	20000	48	±0.08	Series LECP6, LECP1, LECP2
		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.

Note 1) The acceleration/deceleration is dependent on the work load.

Note 2) LEM is compatible with JXC□1. Refer to www.smc.eu for more information.

Electric Actuators

LE□ Series, JXC Series



Electric Actuator Rod Type

LEY Series



Parallel motor

In-line motor

Your everyday pushing & pulling solution

- 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
- Dust/drip proof specification available: LEY25(D)-X5, LEY32(D)-X5, LEY63(D)-P
- 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 ²⁾³⁾
				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
			27 to 74	17 [11]	4	8 to 250	5		
			51 to 141	30 [20]	8	4 to 125	2.5		
	LEY25□(-X5)	30 to 400	63 to 122	20 [12]	8 ((7))	18 to 500 ((400))	12		
			126 to 238	40 [30]	16 ((15))	9 to 250 ((200))	6		
			232 to 452	60 [30]	30 ((29))	5 to 125 ((100))	3		
	LEY32□(-X5)	30 to 500	80 to 189	30 [20]	11 ((10))	24 to 500 ((400))	16		
			156 to 370	45 [40]	22 ((21))	12 to 300 [250] ((200))	8		
			296 to 707	60 [40]	43 ((42))	6 to 150 [125] ((100))	4		
	LEY40□	30 to 500	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	±0.02	LECA6
			30 to 58	6	4	1 to 250	5		
			57 to 111	12	8	1 to 125	2.5		
	LEY25□A(-X5)	30 to 400	18 to 35	7	3 ((2))	2 to 500 ((400))	12		
			37 to 72	15	6 ((5))	1 to 250 ((200))	6		
			66 to 130	30	12 ((11))	1 to 125 ((100))	3		
AC Servo motor (100/200 W)	LEY(H)25□(-X5)	30 to 400	65 to 131	18	8	max. 900	12	±0.02 {±0.01}	LECSA, LECSB, LECSC, LECS, LECSS-T, LECYU, LECYM
			127 to 255	50	16	max. 450	6		
			242 to 485		30	max. 225	3		
	LEY(H)32□(-X5)	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 "dust/drip proof specification -X5" is selected.
 * [] indicates value when "LECPA controller" is selected.
 * { } indicates value when "high-precision slider type electric actuator LEYH" is selected.
 Note 1) Not available for in-line motor type.
 Note 2) LECSS-T, LECYU, LECYM not available for "dust/drip proof specification -X5".
 Note 3) LEY is compatible with JXC□1 and JXC□3. Refer to www.smc.eu for more information.

25A-LEY Series – Secondary Battery Compatible

- Copper and zinc free (except motors, cables, controllers/drivers)
- Grease used is compatible with a dew point as low as -70 °C
- Applicable to sizes 16/25/32/40, with strokes up to 500 mm
- Dimensions and basic specifications equivalent to standard series.

Guide Rod Type Electric Actuator

LEYG Series



Your everyday pushing & pulling solution. Extra support

- 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.

Specifications	Series	Stroke [mm]	Pushing force [N]	Workload [kg]		Speed [mm/s]	Screw lead [mm]	Positioning repeatability [mm]	Controller series ¹⁾
				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
			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		
			80 to 189	30 [20]	9	24 to 500	16		
	LEYG32□	30 to 300	156 to 370	45 [40]	20	12 to 300 [250]	8		
			296 to 707	60 [40]	41	6 to 150 [125]	4		
			132 to 283	50 [30]	11	24 to 500 [300]	16		
LEYG40□	30 to 300	266 to 553	60 [60]	25	12 to 350 [150]	8			
		562 to 1058	80 [60]	51	6 to 175 [75]	4			
		16 to 30	3	1.5	1 to 500	10			
Servo motor (24 VDC)	LEYG16□A	30 to 200	30 to 58	6	3.5	1 to 250	5	±0.02	LECA6
			57 to 111	12	7.5	1 to 125	2.5		
			18 to 35	7	2	2 to 500	12		
	LEYG25□A	30 to 300	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□	30 to 300	65 to 131	18	7	max. 900	12	±0.02 (±0.01)	LECSA, LECSB, LECSA, LECSB, LECSS, LECSA, LECSS-T, LECYU, LECYM
			127 to 255	50	15	max. 450	6		
			242 to 485		29	max. 225	3		
	LEY(H)G32□	30 to 300	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 controller" is selected.

* { } indicates value when "high-precision rod type electric actuator LEYHG" is selected.

Note 1) LEYG is compatible with JXC□1 and JXC□3. Refer to www.smc.eu for more information.

Electric Actuators

LE□ Series, JXC Series



Electric Slide Table

LES Series



LESR
Compact, basic type



LESL
Compact, symmetrical type



LESD
Compact, in-line motor type



LESHR
High rigidity, basic type



LESHL
High rigidity, symmetrical type



LESHD
High rigidity, in-line motor type

Compact & robust actuator for transfer applications

- Compact and lightweight with low section
- 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.
- Drop prevention function (self-lock mechanism) is provided
- Optional dustproof specification, IP5X equivalent.

LES□R Series – Basic Type

- Compact and space saving by built-in motor.

LES□L Series – Symmetrical Type

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

LES□D Series – In-line Motor Type

- 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 ²⁾	
				Horizontal	Vertical					
Compact type	Step motor (Servo/24 VDC)	LES8□	6 to 15	1	0.5	10 to 200	4	±0.05	LECP6, LECP1, LECPA	
			4 to 10		0.25	20 to 400	8			
		LES16□	30, 50, 75, 100	23.5 to 55	3	3	10 to 200			5
	LES25□	30, 50, 75	77 to 180	5	5	10 to 200	8			
			100, 125, 150		43 to 100	2.5	20 to 400			16
		LES25□A ¹⁾	30, 50, 75	31 to 62	5	4	1 to 200			8
	LES8□A	30, 50, 75	7.5 to 11	1		1	1 to 200			4
			5 to 7.5	0.5		1 to 400	8			
	Servo motor (24 VDC)	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	31 to 62	5	4	1 to 200	8			
100, 125, 150	19 to 38	2	1 to 400		16					
High rigidity type	Step motor (Servo/24 VDC)	LESH8□	6 to 15	2	0.5	10 to 200	4			
			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		
				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	

Note 1) Not available for in-line motor type.

Note 2) LES(H) is compatible with JXC□1 and JXC□3. Refer to www.smc.eu for more information.

Electric Actuator Miniature Type

LEP Series



LEPY
Rod type



LEPS
Slide table type

Your palm-sized actuator

- 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 (64 points).

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 ¹⁾
					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
				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.

Note 1) LEPY/LEPS is compatible with JXC□1 and JXC□3. Refer to www.smc.eu for more information.

Electric Rotary Table

LER Series



Continuous rotation for position control

- Adjustable speed, acceleration and position (up to 64 positioning points)
- 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) 2)}
		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
	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.

Note 1) LECPA, LECP1: not available for 360° rotation angle.

Note 2) LER is compatible with JXC□1 and JXC□3. Refer to www.smc.eu for more information.

Electric Actuators

LE□ Series, JXC Series



Electric Gripper

LEH Series



LEHZ
2 fingers



LEHZJ
2 fingers, with dust cover



LEHF
2 fingers, long-stroke



LEHS
3 fingers

Soft handling, safe handling

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

LEHZ Series – 2 Finger Electric Gripper

- Extremely compact and lightweight, with various gripping forces.

LEHZJ Series – 2 Finger Electric Gripper with Dust Cover

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

LEHF Series – 2 Finger Long-stroke Electric Gripper

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

LEHS Series – 3 Finger Electric Gripper

- Suitable for holding round workpieces.

Specifications	Series	Opening/closing stroke both sides [mm]	Gripping force [N]		Opening/closing speed [mm/s]	Repeatability [mm]	Controller series ¹⁾
			Basic	Compact			
Step motor (Servo/24 VDC)	LEHZ10	4	6 to 14	2 to 6	5 to 80	±0.02 [±0.05]	Series LECP6, LECP1, LECPA
	LEHZ16	6		3 to 8			
	LEHZ20	10	16 to 40	11 to 28	5 to 100		
	LEHZ25	14					
	LEHZ32	22	52 to 130	—	5 to 120		
	LEHZ40	30	84 to 210	—			
	LEHZJ10	4	6 to 14	3 to 6	5 to 80		
	LEHZJ16	6		4 to 8			
	LEHZJ20	10	16 to 40	11 to 28	5 to 100		
	LEHZJ25	14					
	LEHF10	16 (32)	3 to 7		5 to 80	±0.05 [±0.1]	
	LEHF20	24 (48)	11 to 28				
	LEHF32	32 (64)	48 to 120		5 to 100		
	LEHF40	40 (80)	72 to 180				
	LEHS10	4	2.2 to 5.5	1.4 to 3.5	5 to 70	±0.02 [±0.05]	
	LEHS20	6	9 to 22	7 to 17	5 to 80		
LEHS32	8	36 to 90	—	5 to 100			
LEHS40	12	52 to 130	—	5 to 120			

* () indicates value when "long stroke" is selected

* [] indicates value for "positioning repeatability/one side"

Note 1) LEH□ is compatible with JXC□1 and JXC□3. Refer to www.smc.eu for more information.

Electric Actuators – Motorless Type

LEF/LEJ/LEY(G) Series



LEFS/LEFB
Slider type
Ball screw / belt drive



LEJS
High rigidity slider
Ball screw drive



LEY
Rod type



LEYG
Guide rod type

Empowers you to choose freely

- 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
 - Mitsubishi 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.

LEFS/LEFB Series – Slider type

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.

LEJS Series – High rigidity slider type

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.

Electric Actuators

LE□ Series, JXC Series



LEY Series – Rod type

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			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	
	In-line		98 to 197	30	12	1000	16	
			192 to 385	60	24	500	8	
			368 to 736			46	250	
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	
	In-line		1003 to 3343	200	115	70	2.86	
			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.

LEYG Series – Guide rod type

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	
LEYG32	Top		79 to 157	30	7	1200	20	
			154 to 308	60	17	600	10	
			294 to 588			35	300	
	In-line		98 to 197	30	10	1000	16	
			192 to 385	60	22	500	8	
			368 to 736			44	250	

* () indicates value when "high-precision type" is selected.

Controllers & Drivers

Step Data Input Type Controller – LEC Series



LECP6
Step motor (Servo/24 VDC)



LECA6
Servo motor (24 VDC)

Programming in simple terms

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

Programless Controller – LECP1 Series



Connect & Get going

- 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



Connect & Get your LEM going

- 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).

Electric Actuators

LE□ Series, JXC Series



Pulse Input Type Controller – LECPA Series



Pulse control for your electric actuator

- 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.

4 Axis Step Motor Controller – JXC73/83/93 Series



JXC73/83
Parallel I/O type



JXC93
EtherNet/IP

Quadruple your control

- 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:
 - 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 JXC93).

Step Motor Controller – JXC91/E1/P1/D1 Series



Broader & safer control

- Compatible with actuators series: LEF, LEY/LEYG, LES, LEP, LER, LEH, LEL, LEM
- Direct operation through a fieldbus network:
 - 10/100 Mbps high-speed communication
 - Real time operation.
- Dual port connection, IN and OUT, that allows for linear topology or Device Level Ring (DLR) topology:
 - Less wiring
 - Good recovery after disconnection
 - Easy identification of disconnected spot.
- Software or teaching box for setting data.

Fieldbus-Compatible Gateway Unit – LEC-G Series



Connect your LEC to a fieldbus network

- 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.

Electric Actuators

LE□ Series, JXC Series



AC Servo Motor Drivers

LECS Series



LECSA/LECSB
Pulse input type



LECSB
CC-Link V2



LECSS
SSCNET III



LECSS-T
SSCNET III/H

Complete in its capacities, simple in its adjustment

- 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.

LECSB 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.

LECY Series



LECYM
MECHATROLINK-II



LECYU
MECHATROLINK-III

High performance for highly demanding applications

- 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 connectable drivers: 30 units
- Maximum communication speed 10 Mbps, minimum communication cycle 250 μ s.

LECYU Series – MECHATROLINK-III type

- Number of connectable drivers: 62 units
- Maximum communication speed 100 Mbps, minimum communication cycle 125 μ s.

Card Motor

LAT3 Series



Your small solution for transport, push & measurement

- 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 magnetic 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.

Note 1) Vertical is not possible when 50 mm stroke is selected.

Card Motor Controller – LATCA Series

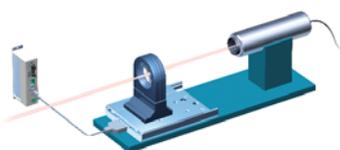


Get control versatility for your ultra-thin actuator

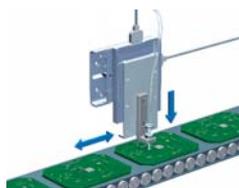
- Direct and remote control of LAT3 card motor
- 3 types of input signals to work with:
 - Step Data Input: I/O for general, with 15 step data and 6/4 parallel I/O
 - Pulse Input: with 4 step data and 6/4 parallel I/O
 - Serial Input (based on Step Data Input): allows the connection in series of up to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

Applications

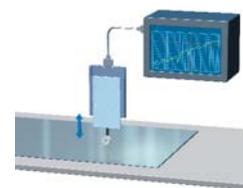
Lens focusing



High-precision position – electronic components pick & place



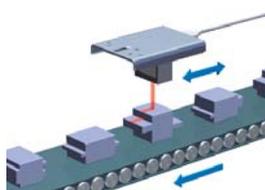
Maximum accuracy measurements – measurement of tape thickness



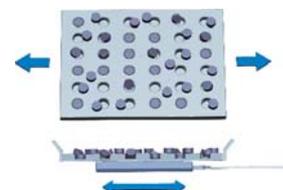
Pushing workpieces, little loads – soft touch
High-density layout



Sensor head movement and positioning



High-precision applications (high cycling frequency)



Electric Actuators

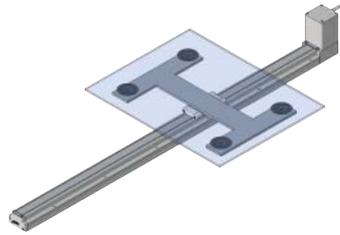
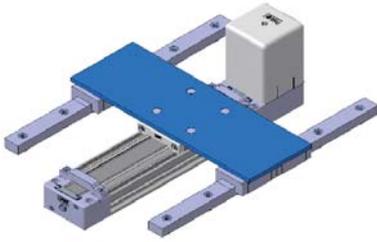
LE□ Series, JXC Series



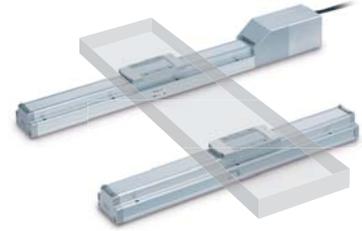
Applications

Generic applications

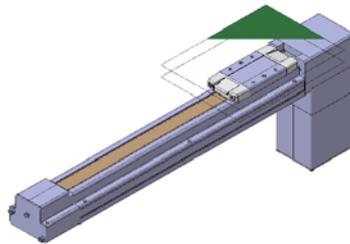
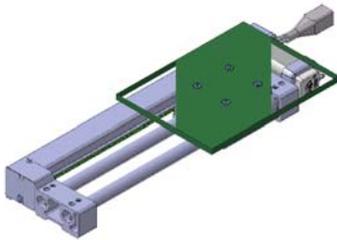
Load and unload transfer or workpieces



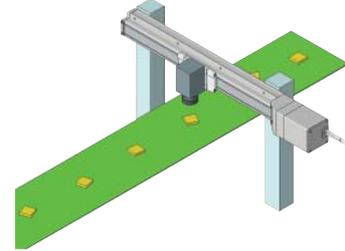
Support of workpieces with a significant overhang



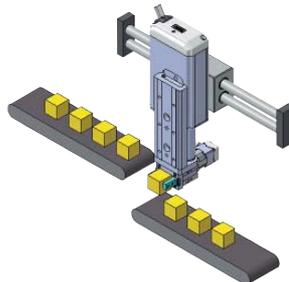
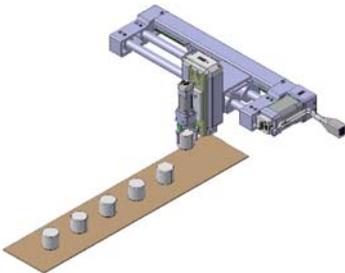
Load and unload transfer or workpieces – no interference with the workpiece



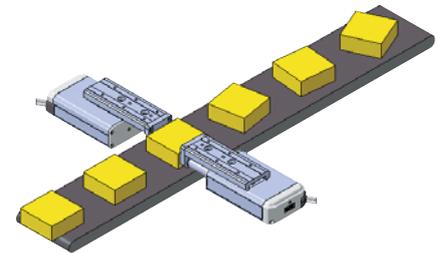
Precise positioning of workpieces



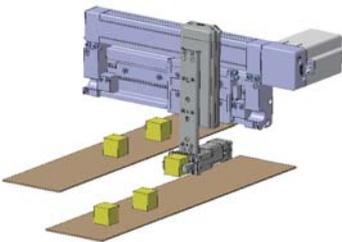
Pick and place



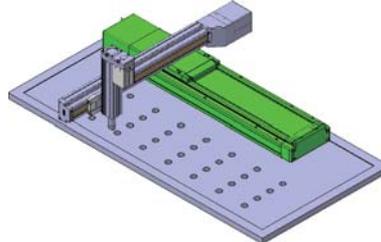
Positioning of pallets on a conveyor



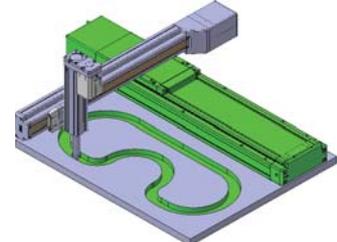
Pick and place – reduced spaces



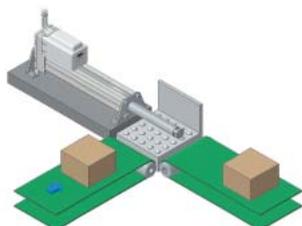
Pick and place – either linear or arc interpolation



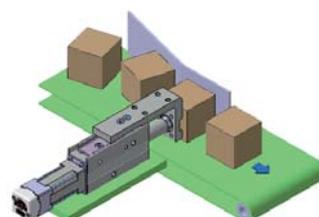
Glue dispensing, high speed trajectory



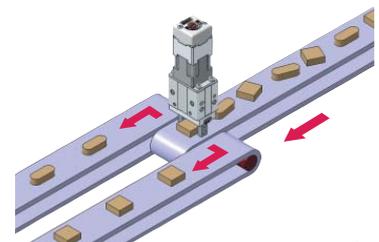
Delivery



Alignment



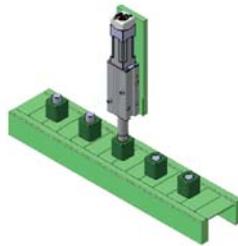
Alignment and selection of randomly lined parts – identification of workpieces with different dimensions



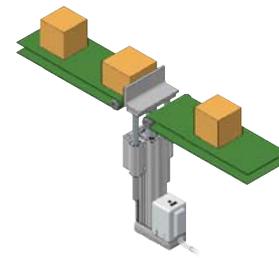
Rotation



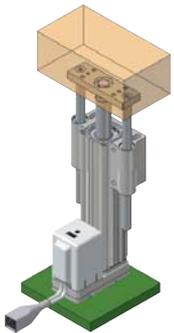
Press fitting



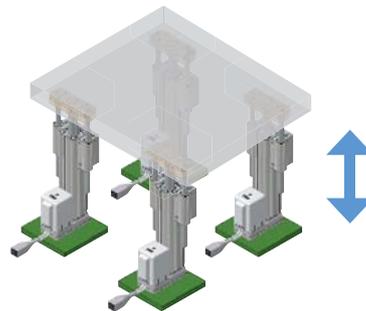
Stopper



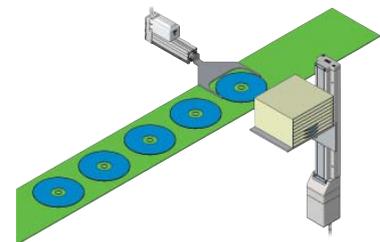
Lifter



Vertical load lifter – movement of four electric actuators



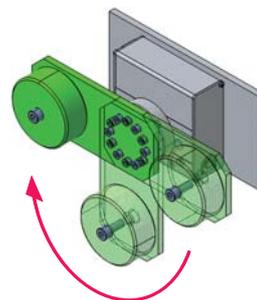
Vertical transfer



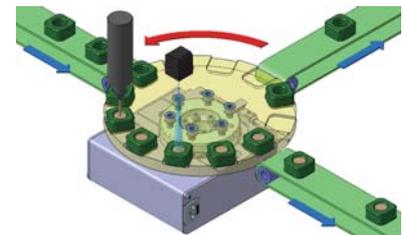
Rotation transfer – position control



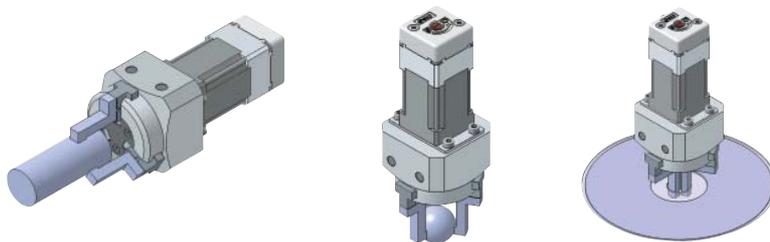
Vertical transfer – speed control, no change in speed due to load fluctuation



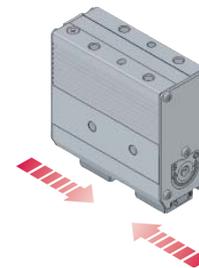
Continuous rotation specification – 360° rotation angle



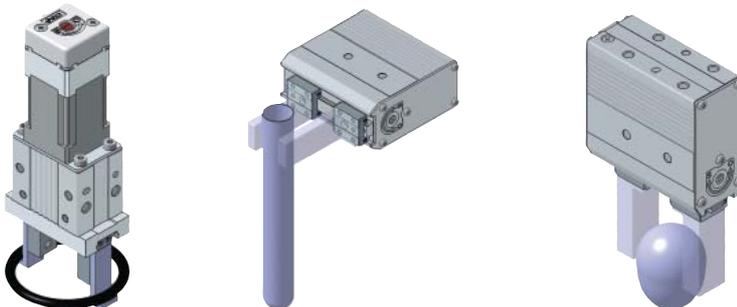
Gripping of cylindrical and spherical parts – speed and gripping force control



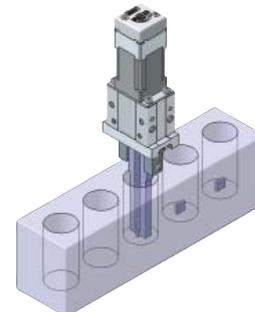
Soft touch / high frequency – speed control and positioning, minimum stroke



Gripping of components that are easily deformed or damaged



Gripping in narrow spaces – positioning



Product Selection Software

Select and calculate the performance of our electric solutions. Our software not only assists you in choosing a suitable electric actuator or gripper, but it also calculates their performance in different working conditions for you.

The selector effortlessly allows you to confirm the optimal operation, so you can ensure your application will run smoothly.

Visit www.smc.eu now.



www.smc.eu



SMC CORPORATION (Europe)

Austria	☎ +43 (0)2262622800	www.smc.at	office@smc.at
Belgium	☎ +32 (0)33551464	www.smc Pneumatics.be	info@smc Pneumatics.be
Bulgaria	☎ +359 (0)2807670	www.smc.bg	office@smc.bg
Croatia	☎ +385 (0)13707288	www.smc.hr	office@smc.hr
Czech Republic	☎ +420 541424611	www.smc.cz	office@smc.cz
Denmark	☎ +45 70252900	www.smc.dk	smc@smc.dk
Estonia	☎ +372 6510370	www.smc Pneumatics.ee	smc@smc Pneumatics.ee
Finland	☎ +358 207513513	www.smc.fi	smc fi@smc.fi
France	☎ +33 (0)164761000	www.smc-france.fr	info@smc-france.fr
Germany	☎ +49 (0)61034020	www.smc.de	info@smc.de
Greece	☎ +30 210 2717265	www.smc Hellas.gr	sales@smc Hellas.gr
Hungary	☎ +36 23513000	www.smc.hu	office@smc.hu
Ireland	☎ +353 (0)14039000	www.smc Pneumatics.ie	sales@smc Pneumatics.ie
Italy	☎ +39 0292711	www.smc Italia.it	mailbox@smc Italia.it
Latvia	☎ +371 67817700	www.smc.lv	info@smc.lv

Lithuania	☎ +370 5 2308118	www.smc.lt	info@smc.lt
Netherlands	☎ +31 (0)205318888	www.smc Pneumatics.nl	info@smc Pneumatics.nl
Norway	☎ +47 67129020	www.smc-norge.no	post@smc-norge.no
Poland	☎ +48 222119600	www.smc.pl	office@smc.pl
Portugal	☎ +351 226166570	www.smc.si	postpt@smc.si
Romania	☎ +40 213205111	www.smcromania.ro	smcromania@smcromania.ro
Russia	☎ +7 8127185445	www.smc Pneumatik.ru	info@smc Pneumatik.ru
Slovakia	☎ +421 (0)413213212	www.smc.sk	office@smc.sk
Slovenia	☎ +386 (0)73885412	www.smc.si	office@smc.si
Spain	☎ +34 902184100	www.smc.eu	post@smc.si
Sweden	☎ +46 (0)86031200	www.smc.nu	post@smc.nu
Switzerland	☎ +41 (0)523963131	www.smc.ch	info@smc.ch
Turkey	☎ +90 212 489 0 440	www.smc Pneumatik.com.tr	info@smc Pneumatik.com.tr
UK	☎ +44 (0)845 121 5122	www.smc Pneumatics.co.uk	sales@smc Pneumatics.co.uk

EMC-EA07A-UK