Electric Actuators Controllers/Drivers



Electric Actuators New Variations Battery-less Absolute Encoder Type LE Series Restart from the last stop position is possible. Easy operation restart after recovery of the power supply The position information is held by the encoder even when the power supply is turned off. A return to origin operation is not necessary when the power supply is recovered. **Step Motor Controller JXC Series** Battery-less absolute type (Step motor 24 VDC)

No battery is installed. Reduced maintenance

No battery is used to store the position information. There is no need to manage spare batteries or replacement maintenance.



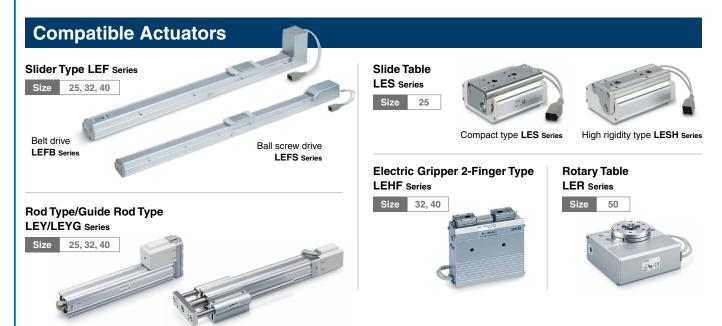
CC-Link







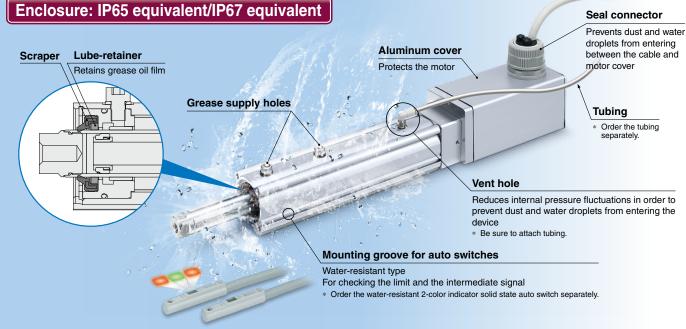
Parallel I/O JXCM1 JXC51/61



High Rigidity Slider Type LEJS100-X400 ■ Supports **750** W (Motor output) Work load Work load [kg] AC servo motor LEJS100-X400 With auto switch Horizontal mounting groove Approx. LEJS63 **4.7** times 118 mm LEJS100-X400 Vertical LEJS63 196 m (4 times) Speed: 2300 mm/s (Horizontal/Vertical) Max. acceleration/deceleration: 9800 mm/s²

Dust-tight/Water-jet-proof (IP65 equivalent/IP67 equivalent) LEY-X7 Series Enclosure: IP65 equivalent/IP67 equivalent Seal connector Respecte dust and unit

Motorless type



High Precision Type *LESYH16-X171*





Battery-less absolute encoder compatible

Existing model **LESH16**



Electric Actuators Series Variations

	Туре							Secondary Battery Compatible Clean Room Specification 1800		S	lider				
			LEFS			LEFB			LEJS	LEJS-M	LEJS- X400	LEJB	Belt Belt 500 1000 4 ±0.08 3 5		
											A400	7	Sliding (M)	bushing	
	Series			Secondary Bat	tery Compatible Specification	0	Belt			Secondary Battery Compatible Clean Room Specification Ball screw			Belt Belt		
Dr	ive method			Ball screv	v										
Max. s	speed*1 [mm/s	;]		1500		2000			18	300	2300	3000	500 1000		
Positioning	g repeatability	[mm]	±0.0	015	±0.01	±C	80.0	±0.06		±0.01		±0.04	±	0.08	
	Step mo	tor	•			•							•	•	
Orive motor	DC servo r			•			•			1					
	AC servo n	notor			•			•	•	•	•	•	<u> </u>		
		16	•	•		•	•								
		25	•	•	•	•	•	•					•	•	
S	ize	32	•		•	•		•							<u> </u>
O.	5	40	•		•			•	•			•			
		63							•	•		•			
		100								1	•				
Max. work		16	15 (4)	10 (4)		1	1			1					
load [kg] The values in parentheses are for when		25	30 (15)	18 (5)	20 (15)	10	2	5		1			3	5	
	C:	32	50 (20)		45 (20)	19		15		1 1 1 1					
	Size	40	65 (23)		60 (30)			25	55 (10)	1 1 1 1		20			
mounted		63								85 (20)		30			
vertically.		100									400 (80)				
		16													
Max.		25													
pushing	Size	32													
force [N]		40								1					
11		63													
May	. stroke [mm]			1200	-	2(000	3000	1500	1790	1500	3000	1	1000	
IVIAX				1200				3000	1000	1730	1500	3000		-	
	LECP		•			•									
	LECA			•			•								
	LECP		•			•								•	
	LECP														
	LECP														
	JXCE/9/P												_	-	
	JXC51/					-									
Compatible controller	JXC73/														
p. 9, 10	JXC9														
	JXC9:														
	LECS				•			•	•			•			
	LECSB(
											(-T) only				
	LECSC(_			•	•	•		•			
	LECSS(-T)				_		1								
					•			•	•	•		•			

^{*1} The numerical values vary depending on the controller/driver type, work load, speed, and specifications.

For details, refer to the "Speed-work load graph (Guide)," "Dynamic allowable moment," and "Specifications" of each actuator.



								Re	od					Туре	
		LI	EM			LI	ΕY			LE	YG				
	Basic (B)	Cam follower guide (C)	r Linear guide single axis (H)	Linear guide double axis (HT)	Step/ DC servo	motor	AC ser Motor top mounting (Nil, R , L)	motor	Step/ DC servo	motor	AC ser Motor top mounting (Nil, R , L)	motor		Series	
•					Secondary Bat	tery Compatible		ttery Compatible							
		В	Belt			ew + Belt Ball screw)	Ball screw + Belt	Ball screw		ew + Belt sall screw)		Ball screw		Drive meth	od
	1	000	20	000	50	00	1200	1000	50	00	1200	1000	N	1ax. speed*1 [[mm/s]
		±C	0.08			±0	.02			±0	.02		Positi	oning repeata	ability [mm]
	•	•	•	•	•				•				Ste	ep motor	_
						•				•			DC s	ervo motor	Drive motor
							•	•			•	•	AC s	ervo motor	
					•	•			•	•			16		
	•	•	•	•	•	•	•	•	•	•	•	•	25		
	•	•	•	•	•		•	•	•		•	•	32	Siz	7 0
					•				•				40	Oiz	
							•	•					63		
													100		
					35 (8)	12 (8)			35 (7.5)	12 (7.5)			16		May want
	6	10	10	10	70 (30)	30 (12)	50 (30)	50 (30)	70 (29)	30 (11)	50 (29)	50 (29)	25		Max. work load [kg]
	11	20	20	20	80 (43)		60 (37)	60 (46)	80 (41)		60 (35)	60 (44)	32		The values in
					90 (53)				90 (51)				40	Size	parentheses are for when
					<u> </u>		200 (115)* ¹	80 (72)	, ,				63		mounted
													100		vertically.
					141	111			141	141			16		
					452	130	485	485	452	452	485	485	25		Max.
					707		588	736	707	.02	588	736	32	Size	pushing
					1058		000	700	1058		000	7.00	40	0.20	force [N]
							3343* ¹	1910					63		[14]
	1						:								1
	2	000	1:	500	50	00	. 8	00		30	00			Max. stroke [mmj
	•	•	•	•	•				•					ECP6	
						•				•				ECA6	
	•	•	•	•	•				•					ECP1	
	•	•	•	•										ECP2	-
					•				•					ECPA	_
	•	•	•	•	•				•					ECPMJ	-
	•	•	•	•	•				•					E/9/P/D/L	
					_				_					C51/61	Compatible
					•				•					C73/83	controller p. 9, 10
					•				•					XC92	[P. 87, IU
					•				•					XC93	-
							•	•			•	•		ECSA	
							•	•			•	•		CSB(-T)	
							•	•			•	•		CSC(-T)	
							•	•			•	•		CSS(-T)	
							•	•			•	•		ECYM	
							•	•			•	•	L	ECYU	



Electric Actuators Series Variations

	Туре			Slide	e Table		Mi	iniature
			Compact typ LES	е	High rigidity LESH	type	Rod type LEPY	Table type LEPS
	Series			NI NI		2.50		
Max.	speed*1 [mm	/s]	40	00	40	00	350	350
Positionin	g repeatabilit	y [mm]	±0.	05	±0	.05	±0.05	±0.05
Drive	Step me		•		•		•	•
motor	DC servo	motor		•		•		
		6					•	•
		8	•	•	•	•		
S	ize	10					•	•
		16	•	•	•	•		
		25	•	•	•	•		
Max. work load [kg] le values in arentheses		6					2 (0.5)	1 (0.5)
		8	1 (0.5)	1 (1)	2 (0.5)	2 (0.5)		
arentheses re for when	Size	10					6 (1.5)	2 (1.5)
mounted		16	3 (3)	3 (3)	8 (2)	5 (2)		
vertically.		25	5 (5)	5 (4)	12 (4)	6 (2.5)		
		6					20	20
Max.		8	15	11	15	11		
pushing force	Size	10					50	50
[N]		16	55	35	55	35		
		25	180	62	180	62		
Max	c. stroke [mm]	15	50	15	50	75	50
	LECF	P6	•		•		•	•
	LEC/	۸6		•		•		
	LECF	P1	•		•		•	•
	LECF	PA	•		•		•	•
ompatible controller	LECP		•		•		•	•
p. 9, 10	JXCE/9/		•		•		•	•
	JXC51							
	JXC73		•		•		•	•
	JXC9		•		•		•	•
	JXC	3	<u> </u>		•		•	•

^{*1} The numerical values vary depending on the controller/driver type, work load, speed, and specifications. For details, refer to the "Speed-work load graph (Guide)," "Dynamic allowable moment," and "Specifications" of each actuator.



Electric Actuators Series Variations

	Туре		Rotary Table		Grip	pper	
			LER	LEHZ	With dust cover LEHZJ	LEHF	LEHS
	Series			(2 finger)	[P50 equivalent] (2 finger)	(2 finger)	(3 finger)
Max s	speed*1 [mm/s		420 [° /s]	120 [mm/s]	100 [mm/s]	100 [mm/s]	120 [mm/s]
	ning repeatabil		±0.05 [°] (±0.03 [°])*3		±0.05 (one side) [mm]	±0.1 (one side) [mm]	±0.05 (radius) [mm]
Drive	Step mo	tor	•	•	•	•	•
motor	DC servo r	notor					
		10	•	•	•	•	•
		16		•	•		
		20		•	•	•	•
Si	ize	25		•	•		
0.		30	•				
		32		•		•	•
		40		•		•	•
		50	•				
Max. moment of		10	0.004				
inertia	Size	30	0.035				
[kg·m ²]		50	0.13				
Max. rotating		10	0.32				
torque	Size	30	1.2				
[N·m]		50	10				
Rota	ation angle [°]		310/320/ 360 (Continuous rotation)				
		10		14	14	7	5.5
Max.		16		14	14		
gripping	Size	20		40	40	28	22
force [N]	OIZO	25		40	40		
[, ,]		32		130		120	90
		40		210		180	130
		10		4	4	16 (32)* ²	4
Max.		16		6	6		
gripping	Size	20		10	10	24 (48)*2	6
stroke [mm]		25		14	14	00 (0.0%)	
		32		22		32 (64)* ²	8
		40		30		40 (80)*2	12
	LECP		•	•	•	•	•
	LECP		•	•	•	•	•
	LECP					•	
Compatible controller	LECPN		•		•	•	•
p. 9, 10	JXCE/9/P JXC51/		•	•	•	•	•
_	JXC51/		•	•	•	•	•
	JXC92			•	•	•	•
			_	_	_	_	_

^{*1} The numerical values vary depending on the controller/driver type, work load, speed, and specifications. For details, refer to the "Characteristics graph" and "Specifications" of each actuator.
*2 The values in parentheses are for the long stroke type.
*3 The values in parentheses are for the table accuracy of the high-precision type.



Battery-less Absolute Encoder TypeElectric Actuators Series Variations

	Туре		Sli	der	Re	od		Slide Table				
	Series		LEFS	LEFB	LEY	LEYG	Compact type LES	High rigidity type LESH	High precision type LESYH16-X17			
			Carri				1					
	Drive meth	od	Ball screw	Belt	Ball screw + Belt (In-line: (Ball screw)	Ball screw + Belt (In-line: (Ball screw)	_	_	Ball screw			
Ма	x. speed*1	[mm/s]	1200	1500	500	500	400	400	400			
Position	ning repeata	ability [mm]	±0.015	±0.08	±0.02	±0.02	±0.05	±0.05	±0.01			
Drive motor	Ste	p motor	•	•	•	•	•	•	•			
		16							•			
	Size 25		•	•	•	•	•	•				
·	Oizo	32	•	•	•	•						
		40	•		•	•						
Max. work load [kg]		16							8 (12)			
The values in		25	30 (15)	10	70 (30)	70 (29)	5 (5)	12 (4)				
parentheses are for when	Size	32	50 (20)	19	80 (43)	80 (41)						
mounted vertically.		40	65 (23)		90 (53)	90 (51)						
		16							252			
Max. pushing	Size	25			452	452	180	180				
force [N]	Size	32			707	707						
[IN]		40			1058	1058						
N	/lax. stroke	[mm]	1200	2000	500	300	150	150	100			
	JXC51/61	Parallel I/O	•	•	•	•	•	•	•			
	JXCE1	Ether CAT	•	•	•	•	•	•	•			
	JXC91	EtherNet/IP	•	•	•	•	•	•	•			
Compatible controller p. 9, 10	JXCP1	PROFO® NETE	•	•	•	•	•	•	•			
	JXCD1	Device Net	•	•	•	•	•	•	•			
	JXCL1	② IO -Link	•	•	•	•	•	•	•			
	JXCM1	CC-Link	•	•		•	•	•	•			

^{*1} The numerical values vary depending on the controller/driver type, work load, speed, and specifications.

For details, refer to the "Speed-work load graph (Guide)," "Dynamic allowable moment," and "Specifications" of each actuator.



Battery-less Absolute Encoder TypeElectric Actuators Series Variations

	Type		Rotary Table	Gripper
	Series		LER	LEHF
	Max. speed*	:1	420 [° /s]	100 [mm/s]
Pos	sitioning repea	tability	±0.05 [°] (±0.03 [°])*3	±0.1 (one side) [mm]
Drive motor	Ste	p motor	•	•
		32		•
Siz	ze	40		•
		50	•	
Max. moment of inertia [kg·m²]	Size	50	0.13	
Max. rotating torque [N·m]	Size	50	10	
	Rotation angle	[°]	320	
Max. gripping		32		120
force [N]	Size	40		180
Max. gripping		32		32 (64)*2
stroke [mm]	Size	40		40 (80)*2
	JXC51/61	Parallel I/O	•	•
	JXCE1	Ether CAT.	•	•
	JXC91	EtherNet/IP	•	•
Compatible controller p. 9, 10	JXCP1	PROFO® DNETO	•	•
· 	JXCD1	Device Net*	•	•
	JXCL1	② IO -Link	•	•
	JXCM1	CC-Link	•	•

^{*1} The numerical values vary depending on the controller/driver type, work load, speed, and specifications. For details, refer to the "Speed-work load graph (Guide)," "Dynamic allowable moment," and "Specifications" of each actuator.

*2 The values in parentheses are for the long stroke type.

*3 The values in parentheses are for the table accuracy of the high-precision type.



Controllers/Drivers

Series Variations

		LECP6	LECA6	LECP1	LECP2	LECPA	LECPMJ	JXC	C□1	JXC51/61	JXC92	JXC73/83	
	Series											American minus	
	Step motor	•		•	•	•	•			•	•	•	
Drive motor	DC servo motor		•										
	AC servo motor												
Encoder	Incremental	•	•	•	•	•	•	•			•	•	
LIICOGEI	Absolute								•	•			
	Parallel I/O	64 points	64 points	14 points	14 points					64 points		2048 points	
Control	Pulse					•							
method	Numeric parameter (Serial communication)						•				•		
	Multi-axis control										3 axes	4 axes	
Function	Applicable network						CC-Link Ver1.10	EtherCAT EtherNet/IP™ PROFINET DeviceNet™ IO-Link	PHOFINE		EtherNet/IP TM		
	PC Setting Graph/Monitor	•	•			•	•	•	•	•	•	•	
	Stroke study				•								
CE markin	g (EMC directive)	•	•	•	•	•		•	•		•	•	
CE marking	g (RoHS directive)	•	•	•	•	•	•	•	•		•	•	
	UL	•	•	•	•	•	•	•	•	•			
	LEFS	•	•	•		•		•		•		•	
	LEFB	•	•	•		•	•	•	•	•	•	•	
	LEJS						_						
	LEJB												
	LEL25M	•					•	•					
	LEL25L						•	•					
	LEMB	•			•			•					
	LEMC				•			•					
	LEMH							•					
	LEMHT	•			•		•	•					
	LEY	•	•			•	•	•	•	•	•	•	
Compatible	LEY□D		•				•	•	•	•			
actuator	LEYG	•	•				•	•	•	•			
	LEYG□D	•	•	•		•	•	•	•	•			
	LES	•	•				•	•	•	•			
	LESH	•	•	•		•	•	•	•	•	•	•	
	LEPY	•	_	•		•	•	•	-				
	LEPS	•		•		•	•	•					
	LER	•					•	•	•	•			
	LERH	•		•		•	•	•	•	•			
	LEHZ					•		•	_				
	LEHZJ						•	•					
	LEHF								•	•			



JXC93	LECSA	LECSB	LECSB-T	LECSC	LECSC-T	LECSS	LECSS-T	LECYM	LECYU		
Manual ma										Series	
•										Step motor	
										DC servo motor	Drive motor
	•	•	•	•	•	•	•		•	AC servo motor	
•	•									Incremental	Encoder
		•	•	•	•	•	•	•	•	Absolute	Lilcodei
	7 points		255 points	255 points	255 points					Parallel I/O	
	•	•	•							Pulse	Control
•				•	•	•	•	•	•	Numeric parameter (Serial communication)	method
4 axes										Multi-axis control	
EtherNet/IP™				CC-Link Ver1.10	CC-Link Ver1.10	SSCNETII	SSCNETⅢ/H	MECHATRO LINK- II	MECHATRO LINK-Ⅲ	Applicable network	Function
•	•	•	•	•	•	•	•	•	•	PC Setting Graph/Monitor	
										Stroke study	
•	•	•	•	•	•	•	•	•	•	CE marking (EM	C directive)
•	•	•	•	•	•	•	•	•	•	CE marking (RoH	S directive)
				ļ	ļ		•			UL	
•	•	•	•	•	•	•	•	•	•	LEFS	
•	•	•	•	•	•	•	•	•	•	LEFB	
	•	•	•	•	•	•	•	•	•	LEJS	
	•	•	•	•	•	•	•	•	•	LEJB	
										LEL25M	
										LEL25L	
										LEMB	
										LEMC	
										LEMH	
										LEMHT	
•	•	•	•	•	•	•	•		•	LEY	
•	•	•	•	•	•	•	•	•	•	LEY□D	Compatible
•	•	•	•	•	•	•	•	•	•	LEYG	actuator
•	•	•	•	•	•	•	•	•	•	LEYG□D	
•										LES	
•										LESH	
•										LEPY	
•										LEPS	
•										LER	
•										LERH	
•										LEHZ	
•										LEHZJ	
•										LEHF	
•										LEHS	



Motorless TypeElectric Actuators Series Variations

	Туре				Slider				Dunting on the property of th			
			LEFS	LEFB	LEJS	LEJS-M	LEJS	LI	EY	LE	YG	
							-X400	Motor top			In-line	
			-					(Nil, R , L)		LE Motor top mounting (D) (Nil, R, L)	(D)	
	Series								9			
				1								
			6					6		15		
	Control method		Ball screw	Belt	Ball screw	Ball screw	Ball screw	Ball screw + Belt	Ball screw		Ball screw	
N	lax. speed*1 [mm/	's]	1500	2000	1800	1800	2300	1200	1000		1000	
	oning repeatability	-	±0.01	±0.06	±0.01	±0.01	±0.01	±0	.02	±0	.02	
		25	•	•				•	•	•	•	
		32	•	•				_		•	•	
	Size	40	•	•	•							
		63			•	•		•	•			
		100					•					
Max. work		25	20 (15)	5				50 (30)	50 (30)	50 (29)	50 (29)	
load [kg] The values in		32	45 (20)	15				60 (37)	60 (46)	60 (35)	60 (44)	
parentheses	Size	40	60 (30)	25	55 (10)							
are for when mounted		63			85 (20)	85 (20)		200 (115)* ¹	80 (72)			
vertically.		100					400 (80)					
Max.		25						485	485	485	485	
pushing	Size	32						588	736	588	736	
force [N]		40										
ניין		63						3343*1	1910			
	Max. stroke [mm]		1200	3000	1500	1790	1500	500	800	300	300	
- ·	Motor shap	e [mm]	□40/	□40/	□40/	□40/	□80	□40		□40	/□60	
Reference motor			□60	□60	□60	□60						
specifications	Rated output ca		100 to 400 3000	100 to 400 3000	100 to 200 3000	100 to 200 3000	750 3000					
)		ļ i		1	1		l				
	Mitsubishi Electric	· ·	•	•	•	•	•	•		•	•	
	YASKAWA Electri			•	•	•		•		•	•	
	SANYO DENK OMRON Cor		•		•	•		•				
	Panasonic Co								-	_		
	FANUC CORP	•		•						_	•	
	NIDEC SANKYO C			•		•				_	•	
Compatible	KEYENCE COR			•	•	•			•		•	
motors by	FUJI ELECTRIC	C CO., LTD.	•	•	•	•		•	•	•	•	
manufacturer*2	MinebeaMits	sumi Inc.	•	•				•	•	•	•	
	Shinano Kensl	ni Co., Ltd.	•	•				•	•	•	•	
	ORIENTAL MOT	OR Co., Ltd.	•	•				•	•	•	•	
	FASTECH (Co.,Ltd.	•	•				•	•	•	•	
	Rockwell Autor	nation, Inc.	•	•	•	•		•	•	•	•	
	Beckhoff Autom	ation GmbH	•	•	•	•		•	•	•	•	
	Siemens	s AG	•	•	•	•		•	•	•	•	
	Delta Electro	nics, Inc.	•	•	•	•		•	•	•	•	

^{*1} The numerical values vary depending on the controller/driver type, work load, speed, and specifications.

For details, refer to the "Speed-work load graph (Guide)," "Dynamic allowable moment," and "Specifications" of each actuator.

*2 Refer to the **Web Catalog** for applicable motor models.



Secondary Battery Compatible 25A- Series

Copper (Cu) and zinc (Zn) free*1

*1 Excludes motors, cables, controllers/drivers

Compatible with dew points as low as -70°C

• Uses grease compatible with low dew points

Compatible Series



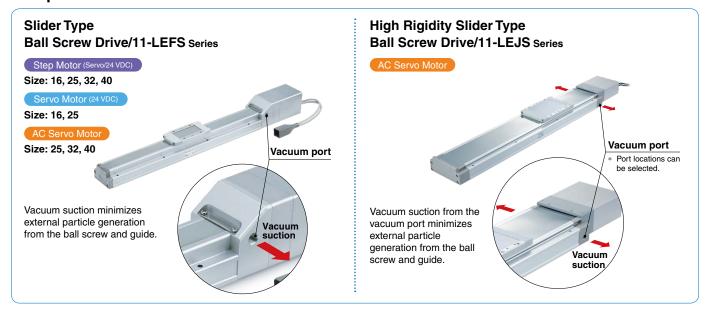
^{*1} Copper and zinc materials are used for the motors, cables, controllers/drivers.

Clean Room Specification 11- Series

ISO Class 4*2 (ISO 14644-1)

- Built-in vacuum piping
- It is possible to mount the main body without removing the external cover, etc.
- Body-integrated linear guide specification
- *2 Changes depending on the suction flow rate

Compatible Series



Blank Controller

Various types of actuators can be supported by a single controller

What is a blank controller?

Generally, any controller that comes with an actuator, or any controller for which the actuator is specified, will be shipped with the data of the specified actuator already installed.

On the other hand, a blank controller is a controller which comes with no specified actuator data pre-installed. The customer can write the data of the actuators themselves.





LEC□-BC Series

JXC□1-BC Series

When purchasing controllers that come with actuators Each actuator requires its Large quantity in stock own controller. Check the actuator label for the model number. This number LEFS16A-400 matches that of the controller. (1 to 1) 1 to 1 (1 to 1) LEFS16A-400



Made to Order

SMCJAPAN MS

With Input Signals to Perform Jog Operations

Step Motor Controller LECP1-XB182

Jog operation can be performed using parallel input signals.

Jog operations that could previously only be performed using the button on the front face can now be performed using the ON/OFF status of the input

* Input signals "JOG+" and "JOG-" are used as motion instructions



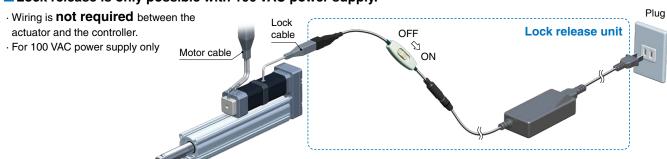
Step Motor Controller with Step Data Teaching Function

LECP6-XB120

- Neither a PC nor a teaching box is required for adjusting the position of step data.
- With a JOG function for parallel input signals

Lock Release Unit/Electric Actuator With Lock For the LE□ Series

Lock release is only possible with 100 VAC power supply.





With Auto Switch (For checking the limit and the intermediate signal)

2-Color Indicator Solid State Auto Switch

D-M9□W (2-color indicator), D-M9□, D-M9□E (B contact type)

Appropriate setting of the mounting position can be performed without mistakes.



Compatible Series

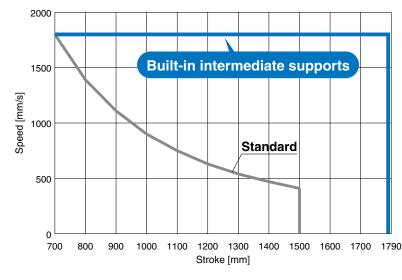


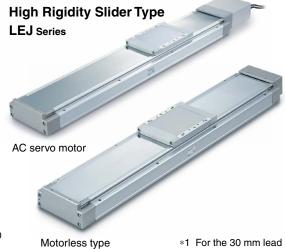
Built-in Intermediate Supports

AC Servo Motor

Motorless

• A maximum speed of 1,800 mm/s*1 has been achieved throughout the entire stroke!

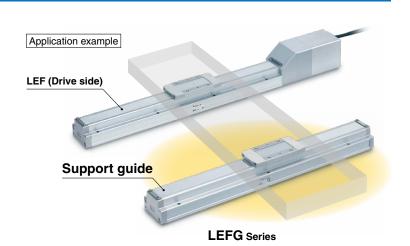




Support Guide

The support guide was designed to support workpieces with significant overhang.

- As the dimensions are the same as the LEF series body, installation is simple and contributes to a reduction in installation and assembly labor.
- The standard-equipped seal bands prevent grease from splashing and external foreign matter from entering.





Card Motor LAT3 Series

The transportation, pushing and length measurement systems have been miniaturized through the use of a linear motor.

- Max. pushing force 6 N
 Pushing a miniature load
- Positioning repeatability ±5 μm Positioning a workpiece
- Pushing measurement accuracy ±10 μm

Parts measurement

Load mass: 100 g, Stroke: 5 mm

Max. operating frequency 500 cpm Rejection of non-conforming products etc.

Weight
130 g
Stroke: 10 mm

