

Electric Actuator/Slider Type

Belt Drive

Step Motor (Servo/24 VDC)

Servo Motor (24 VDC)

Series LEFB

LEFB16, 25, 32



How to Order

The belt drive actuator cannot be used vertically for applications.

LEFB **16** **T** - **500** - **R** **1** **6N** **1**

1 2 3 4 5 6 7 8 9 10

1 Size

16
25
32

2 Motor type

Symbol	Type	Applicable size			Compatible controllers/driver
		LEFB16	LEFB25	LEFB32	
Nil	Step motor (Servo/24 VDC)	●	●	●	LECP6 LECP1 LECPA
A	Servo motor (24 VDC)	●	●	—	LECA6

3 Equivalent lead [mm]

T	48
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4 Stroke [mm]

300	300
to	to
2000	2000

* Refer to the applicable stroke table.

Caution

[CE-compliant products]

① EMC compliance was tested by combining the electric actuator LEF series and the controller LEC series.

The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore conformity to the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result it is necessary for the customer to verify conformity to the EMC directive for the machinery and equipment as a whole.

② For the servo motor (24 VDC) specification, EMC compliance was tested by installing a noise filter set (LEC-NFA). Refer to page 44 for the noise filter set. Refer to the LECA Operation Manual for installation.

[UL-compliant products]

When conformity to UL is required, the electric actuator and controller/driver should be used with a UL1310 Class 2 power supply.

Applicable stroke table

●Standard

Model \ Stroke	300	500	600	700	800	900	1000	1200	1500	1800	2000
LEFB16	●	●	●	●	●	●	●	—	—	—	—
LEFB25	●	●	●	●	●	●	●	●	●	●	●
LEFB32	●	●	●	●	●	●	●	●	●	●	●

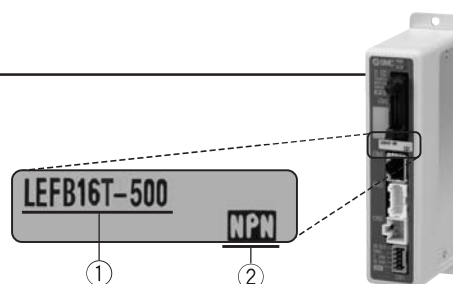
* Consult with SMC for non-standard strokes as they are produced as special orders.

The actuator and controller/driver are sold as a package.

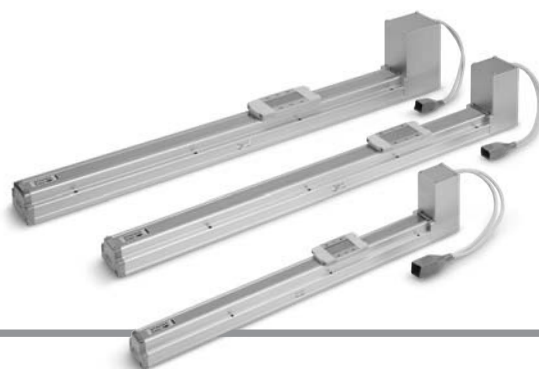
Confirm that the combination of the controller/driver and the actuator is correct.

<Check the following before use.>

- Check the actuator label for model number. This matches the controller/driver.
- Check Parallel I/O configuration matches (NPN or PNP).



* Refer to the operation manual for using the products. Please download it via our website, <http://www.smcworld.com>



Model
Selection

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

LEFS

LEFB

LECA6
LECP6

LEC-G

LECP1

LECPA

AC Servo Motor

LEFS

LEFB

LECS

Specific Product
Precautions

5 Motor option

Nil	Without option
B	With lock

6 Actuator cable type*1

Nil	Without cable
S	Standard cable*2
R	Robotic cable (Flexible cable)

*1 The standard cable should be used on fixed parts. For using on moving parts, select the robotic cable.

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

7 Actuator cable length [m]

Nil	Without cable
1	1.5
3	3
5	5
8	8*
A	10*
B	15*
C	20*

*Produced upon receipt of order (Robotic cable only)
Refer to the specifications Note 2) on pages 28 and 29.

8 Controller/Driver type*1

Nil	Without controller/driver	
6N	LECP6/LECA6 (Step data input type)	NPN
6P		PNP
1N	LECP1*2 (Programless type)	NPN
1P		PNP
AN	LECPA*2 (Pulse input type)	NPN
AP		PNP

*1 For details about controllers/driver and compatible motors, refer to the compatible controllers/driver below.

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

9 I/O cable length [m]*1

Nil	Without cable
1	1.5
3	3*2
5	5*2

*1 When "Without controller/driver" is selected for controller/driver types, I/O cable cannot be selected. Refer to page 44 (For LECP6/LECA6), page 57 (For LECP1) or page 64 (For LECPA) if I/O cable is required.





*2 When "Pulse input type" is selected for controller/driver types, pulse input usable only with differential. Only 1.5 m cables usable with open collector.

10 Controller/Driver mounting

Nil	Screw mounting
D	DIN rail mounting*

* DIN rail is not included. Order it separately.

Compatible Controllers/Driver

Type	Step data input type	Step data input type	Programless type	Pulse input type
				
Series	LECP6	LECA6	LECP1	LECPA
Features	Value (Step data) input Standard controller		Capable of setting up operation (step data) without using a PC or teaching box	Operation by pulse signals
Compatible motor	Step motor (Servo/24 VDC)	Servo motor (24 VDC)	Step motor (Servo/24 VDC)	
Maximum number of step data	64 points		14 points	—
Power supply voltage	24 VDC			
Reference page	Page 36	Page 36	Page 51	Page 58

Specifications

Step Motor (Servo/24 VDC)

Model		LEFB16	LEFB25	LEFB32
Actuator specifications	Stroke [mm] ^{Note 1)}	300, 500, 600, 700 800, 900, 1000	300, 500, 600, 700, 800, 900 1000, 1200, 1500, 1800, 2000	300, 500, 600, 700, 800, 900 1000, 1200, 1500, 1800, 2000
	Work load [kg] ^{Note 2)} Horizontal	1	5	14
	Speed [mm/s] ^{Note 2)}	48 to 1100	48 to 1400	48 to 1500
	Max. acceleration/deceleration [mm/s ²]	3,000		
	Positioning repeatability [mm]	±0.1		
	Equivalent lead [mm]	48	48	48
	Impact/Vibration resistance [m/s ²] ^{Note 3)}	50/20		
	Actuation type	Belt		
	Guide type	Linear guide		
	Operating temperature range [°C]	5 to 40		
	Operating humidity range [%RH]	90 or less (No condensation)		
Electric specifications	Motor size	□28	□42	□56.4
	Motor type	Step motor (Servo/24 VDC)		
	Encoder	Incremental A/B phase (800 pulse/rotation)		
	Rated voltage [V]	24 VDC ±10%		
	Power consumption [W] ^{Note 4)}	24	32	52
	Standby power consumption when operating [W] ^{Note 5)}	18	16	44
Lock unit specifications	Max. instantaneous power consumption [W] ^{Note 6)}	51	60	127
	Type ^{Note 7)}	Non-magnetizing lock		
	Holding force [N]	4	19	36
	Power consumption [W] ^{Note 8)}	2.9	5	5
	Rated voltage [V]	24 VDC ±10%		

Note 1) Consult with SMC for non-standard strokes as they are produced as special orders.

Note 2) Speed changes according to the work load. Check "Speed-Work Load Graph (Guide)" on page 4.

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

Note 3) Impact resistance: No malfunction occurred when the actuator was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the actuator in the initial state.)

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

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

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

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

Note 7) With lock only

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