Electric Gripper 3-Finger Type

Step Motor (Servo/24 VDC)

Series LEHS

LEHS10, 20, 32, 40

How to Order

LEHS 10 ❑ K 3 – 4 ❑ – S 1 6N 1 ❑

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾ ❿ ⓫

❶ Size

10
20
32
40

❷ Motor size

Nil	Basic
L Note)	Compact

Note) Size: 10, 20 only

❸ Lead

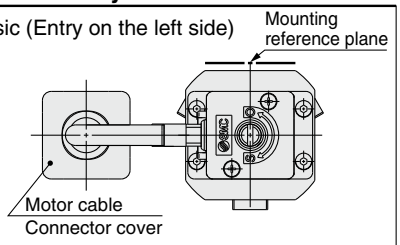
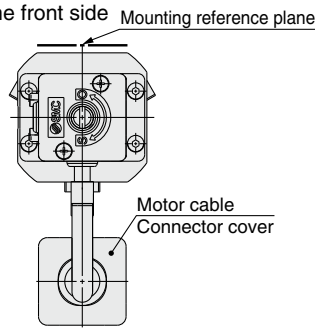
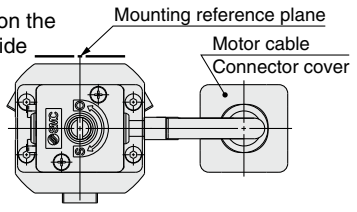
K	Basic

❹ 3-finger type

❺ Stroke [mm]

Stroke/diameter	Size
4	10
6	20
8	32
12	40

❻ Motor cable entry

Nil	Basic (Entry on the left side) 
F	Entry on the front side 
R	Entry on the right side 

⚠Caution

[CE-compliant products]

EMC compliance was tested by combining the electric actuator LEH 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.

[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.

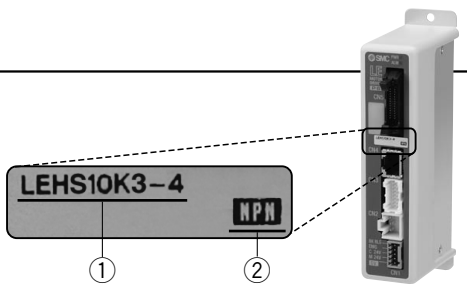
The actuator and controller/driver are sold as a package.

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

<Check the following before use.>

① Check the actuator label for model number. This matches the controller/driver.

② 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

Specifications

Model			LEHS10	LEHS20	LEHS32	LEHS40
Actuator specifications	Opening/closing stroke (diameter)		4	6	8	12
	Gripping force [N] Note 1) Note 3)	Basic	2.2 to 5.5	9 to 22	36 to 90	52 to 130
		Compact	1.4 to 3.5	7 to 17	—	—
	Opening and closing speed/ Pushing speed [mm/s] Note 2) Note 3)		5 to 70/ 5 to 50	5 to 80/ 5 to 50	5 to 100/ 5 to 50	5 to 120/ 5 to 50
	Drive method		Slide screw + Wedge cam			
	Repeatability [mm] Note 4)		±0.02			
	Repeated length measurement accuracy [mm] Note 5)		±0.05			
	Finger backlash/dia. [mm] Note 6)		0.5 or less			
	Impact/Vibration resistance [m/s²] Note 7)		150/30			
	Max. operating frequency [C.P.M]		60			
	Operating temperature range [°C]		5 to 40			
	Operating humidity range [%RH]		90 or less (No condensation)			
	Weight [g]	Basic	185	410	975	1265
		Compact	150	345	—	—
Electric specifications	Motor size		□20	□28	□42	
	Motor type		Step motor (Servo/24 VDC)			
	Encoder		Incremental A/B phase (800 pulse/rotation)			
	Rated voltage [V]		24 VDC ±10%			
	Power consumption/ Standby power consumption when operating [W] Note 8)	Basic	11/7	28/15	34/13	36/13
		Compact	8/7	22/12	—	—
	Max. instantaneous power consumption [W] Note 9)	Basic	19	51	57	61
		Compact	14	42	—	—

Note 1) Gripping force should be from 7 to 13 times the workpiece weight. Positioning force should be 150% when releasing the workpiece. Gripping force accuracy should be ±30% (F.S.) for LEHS10, ±25% (F.S.) for LEHS20 and ±20% (F.S.) for LEHS32/40.

Note 2) Pushing speed should be set within the range during pushing (gripping) operation. Otherwise, it may cause malfunction. The opening/closing speed and pushing speed are for both fingers. The speed for one finger is half this value.

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

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

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

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

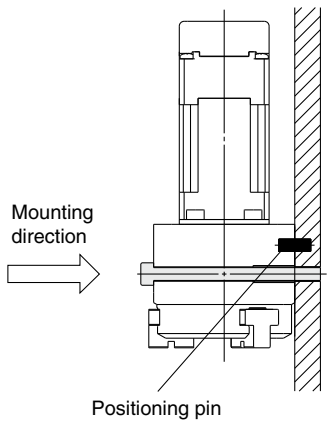
Note 7) Impact resistance: No malfunction occurred when the gripper was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (Test was performed with the gripper in the initial state.)
Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. Test was performed in both an axialdirection and a perpendicular direction to the lead screw. (Test was performed with the gripper in the initial state.)

Note 8) The power consumption (including the controller) is for when the gripper is operating.
The standby power consumption when operating is for when the gripper is stopped in the set position during operation, including the energy saving mode when gripping.

Note 9) The maximum instantaneous power consumption (including the controller) is for when the gripper is operating. This value can be used for the selection of the power supply.

How to Mount

a) Mounting A type
(when using the thread on the mounting plate)



b) Mounting B type
(when using the thread on the back of the body)