

Series LJ1/LG1: Standard Motor Compatible

How to Order

LC1-1 B 1H 1-N 3

Number of axes

1	1 axis
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Actuator classification

B	Series LJ1 (Incremental encoder)
D	Series LG with coupling (Series LG1□H21) Incremental encoder
F	Series LG without coupling (Series LG1□H20) Incremental encoder

Applicable actuators

Symbol	Motor capacity	Compatible actuator models	
1H	50W	LJ1H101□□B	Ball screw High rigidity direct acting guide Without brake
2H	100W	LJ1H202□□A LJ1H202□□C	
3H	200W	LJ1H303□□D	
1S	50W	LJ1S101□□SC	Slide screw Slider guide
2S	100W	LJ1S202□□SC	
3S	200W	LJ1S303□□SC	
1M	50W	LJ1H101□□SC	Slide screw High rigidity direct acting guide
2M	100W	LJ1H202□□SC	
3M	200W	LJ1H303□□SE	
1VH ^(*)	100W	LJ1H102□□H-□□□□K	Ball screw High rigidity direct acting guide With brake
1VB ^(*)	100W	LJ1H102□□B-□□□□K	
2VF ^(*)	100W	LJ1H202□□F-□□□□K	
2VA ^(*)	100W	LJ1H202□□A-□□□□K	
3VA ^(*)	200W	LJ1H303□□A-□□□□K	
2HA	100W	LG1H□□2□PA LG1H□□2□NA	Ball screw High rigidity direct acting guide Thread lead 10mm
2HC	100W	LG1H□□2□PC LG1H□□2□NC	Ball screw High rigidity direct acting guide Thread lead 20mm
2MC	100W	LG1H□□2□SC	Slide screw High rigidity direct acting guide Thread lead 20mm

Power supply

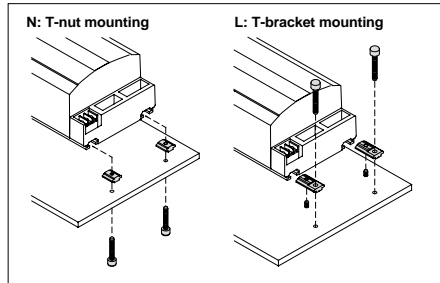
*1) Consult SMC if the supply voltage for LC1-1B□□□1 will be 110VAC or more, or the supply voltage for LC1-1B□□□2 will be 220VAC or more.

1 ^(*)	100/110VAC (50/60Hz)
2 ^(*)	200/220VAC (50/60Hz)

Mounting bracket

3	M3
5	M5

Mounting*



* This controller includes the accessories listed below.
 LC1-1-□□ (Either T-nuts or T-brackets for mounting)
 LC1-1-1000 (Controller connector)
 LC1-1-2000 (Controller connector)
 (Refer to page 199.)

Note) The following options are necessary for operating and setting the controller.

[LC1-1-S1 PC-98 (MS-DOS)
 LC1-1-W1 (Windows 95 Japanese)
 LC1-1-W2 (Windows 95 English)
 and
 LC1-1-R□□ (dedicated communication cable)]
 (Refer to pages 194, 195, and 199.)

or

LC1-1-T1-□□ (Teaching box) are required.
 For ordering information, refer to the option part numbers on page 196.

Performance/Specifications

General specifications

Item	Model	LC1-1B□□1	LC1-1B□□2
Power supply		100/110VAC ±10%, 50/60Hz (100VAC, 50/60Hz for LC1-1B□V□1)	200/220VAC ±10%, 50/60Hz (200VAC ±10% for LC1-1B3H2) (200VAC, 50/60Hz for LC1-1B□V□2)
Leakage current		5mA or less	
Dimensions		80 x 120 x 244mm	
Weight		2.2kg	

Actuator control

Item	Model	LC1-1B1H□	LC1-1B2H□	LC1-1B3H□	LC1-1B1M□	LC1-1B2M□	LC1-1B3M□	LC1-1B1V□	LC1-1B2V□	LC1-1B3V□	LC1-1B1S□	LC1-1B2S□	LC1-1B3S□	LC1-1D2H□	LC1-1D2M□	LC1-1F2H□	LC1-1F2M□	
Compatible actuator model		LJ1H101 □PB □NB	LJ1H202 □PA □NA	LJ1H303 □PD □ND	LJ1H101 □SC	LJ1H202 □SC	LJ1H303 □SE	LJ1H102 □□□- □□□K	LJ1H202 □□□- □□□K	LJ1H303 □□□- □□□K	LJ1S101 □SC	LJ1S202 □SC	LJ1S303 □SC	LG1H212 □P□ □N□	LG1H212 □SC	LG1H202 □P□ LG1H202 □SC	LG1H202 □SC	
Compatible guide		High rigidity direct acting guide									Slider guide			High rigidity direct acting guide				
Motor capacity		50W	100W	200W	50W	100W	200W	100W	200W	50W	100W	200W					100W	
Operating temperature range		5 to 50°C		5 to 40°C	5 to 50°C		5 to 40°C	5 to 50°C		5 to 40°C	5 to 50°C		5 to 40°C			5 to 50°C		
Electric power		180VA	300VA	640VA	180VA	300VA	640VA	300VA	640VA	180VA	300VA	640VA					300VA	
Control system		AC software servo/PTP control																
Position detection system		Incremental encoder																
Home position return direction		Can be selected between the motor side and the side opposite the motor.																
Maximum positioning point setting		1008 points (when step designation is actuated)																
Movement command		Absolute and incremental used in combination																
Position designation range		0.00mm to 4000.00mm ^{Note)}																
Speed designation range		1mm/s to 2500mm/s ^{Note)}																
Acceleration/deceleration designation range		Trapezoidal acceleration/deceleration 1mm/s ² to 9800mm/s ² ^{Note)}																

Note) There are cases in which the position, speed and acceleration designations are not realized, depending on the actuator that is connected and the operating conditions.

Programming

Item	Performance/Specifications
Means of programming	Dedicated controller setup software (LC1-1-S1, LC1-1-W1, LC1-1-W2) and dedicated teaching box (LC1-1-T1-□□)
Functions	Programming (JOG teaching, direct teaching*), Operation, Monitor, Test, Alarm reset
Number of programs	8 programs
Number of steps	1016 steps (127 steps x 8 programs)

* Direct teaching is only available with LC1-1-W1 and LC1-1-W2.

Operating configuration

Item	Performance/Specifications
Operating methods	Operation by PLC, operating panel, etc., via control terminal; Operation by PC (controller setup software); Operation by teaching box
Summary of operations	Program batch execution (program designated operation), Step designated execution (position movement, point designated operation)
Test run functions	Program test, Step no. designated operation, JOG operation, Input/output operation
Monitor functions	Executed program indication, Input/output monitor

Peripheral device control

Item	Performance/Specifications
General purpose input	6 inputs, Photo-coupler insulation, 24VDC, 5mA
General purpose output	6 outputs, Open collector output, 35VDC max., 80mA/output (maximum load current)
Control commands	Output ON/OFF, Input condition wait, Condition jump, Time limit input wait

Safety items

Item	Performance/Specifications
Protection functions	Over current, Over load, Over speed, Encoder error, Abnormal driver temperature, Abnormal drive power supply, Communication error, Battery error, Abnormal parameter, Limit out

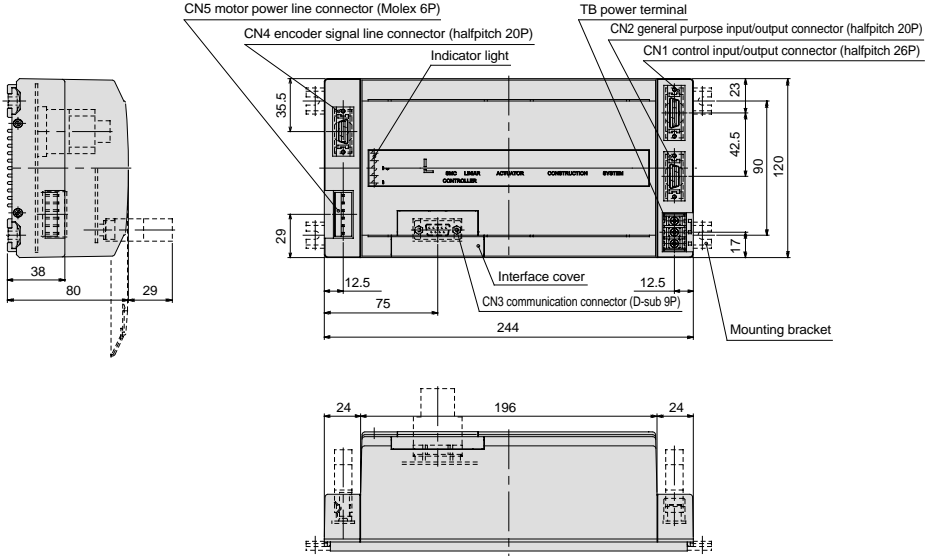
Series LC1

Dimensions

LC1-1B□H□ □ LC1-1D2H□□ □ LC1-1F2H□□ □

LC1-1B□S□ □ LC1-1D2MC□ □ LC1-1F2MC□ □

LC1-1B□M□ □



With regenerative absorption unit

LC1-1B□V□□ □

