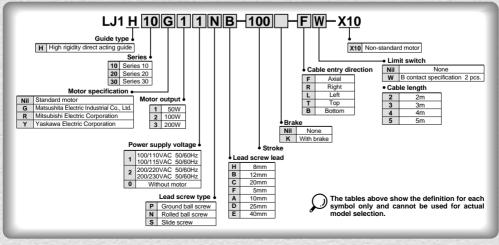
Single Axis Electric Actuator Series LJ1H

High Rigidity Direct Acting Guide

Series	Motor type	Guide type	Mounting	Model	Lea	Lead screw lead mm				
Series	wotor type	Guide type	orientation	Wodei	Ground ball screw Rolled ball screw		Slide screw	Page		
			Horizontal	LJ1H10	12	12	20	2		
				LJ1H20	10 20	10 20	20	8		
Standard motor			LJ1H30	25	25	40	18			
			LJ1H10	8 12	8 12		24			
		High rigidity	Vertical	LJ1H20	5 10	5 10		32		
LJ1H				LJ1H30	10	10		40		
LJIN		direct acting guide		LJ1H10	12	12	20	44		
		guide	Horizontal	LJ1H20	10 20	10 20	20	50		
	Non-standard			LJ1H30	25	25	40	60		
	motor		Vertical	LJ1H10	8 12	8 12		66		
				LJ1H20	5 10	5 10		74		
				LJ1H30	10	10		82		

■ Options —	Page 100
■ Made to Order———	101
Clean room specification ————	104
Dust seal specification	110
TSUBAKI CABLEVEYOR specification	122
■ Construction —	134
■ Mounting —	140
■ Non-standard Motor Mounting —	143
■ Deflection Data —	145

Part Number Designations



Standard Motor Horizontal Mount

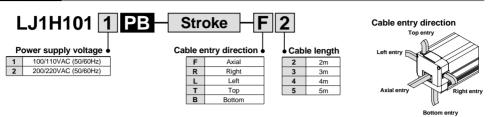
Series LJ1H10







How to Order



Specifications

	Standard stroke	mm	100	200	300	400	500	
	Body weight	kg	5.2	6.0	6.8	7.5	8.3	
Performance	Operating temperature range	e °C	5 to 40 (with no condensation)					
	Work load	kg			10			
	Rated thrust	N			74			
	Maximum speed	mm/s	s 600					
	Positioning repeatability	mm	±0.02					
	Motor		AC servomotor (50W)					
	Encoder		Incremental system					
Main parts	Lead screw		Ground ball screw ø12mm, 12mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
Controller	Model		LC1-1B1H□-□□ (Refer to page 185 for details.)					

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.

Applicable strokes: 150, 250, 350, 450

Example) LJHH1011PB-150-F2-X2

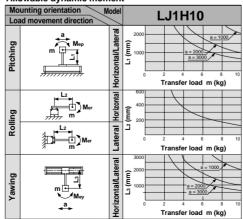
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

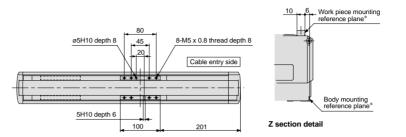
Allowable dynamic moment

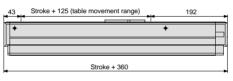


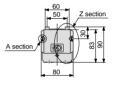
Standard Motor/Horizontal Mount Specification Series LJ1H10

Dimensions/LJ1H101□PB

Scale: 15%

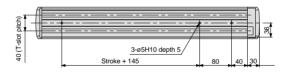








A section detail (Switch groove)

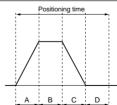




T-slot dimensions

		Positioning time (sec.)							
Positioning d	istance (mm)	1	10	100	250	500			
	10	0.4	1.3	10.3	25.3	50.3			
Speed (mm/s)	100	0.4	0.5	1.4	2.9	5.4			
(mm/s)	300	0.4	0.5	0.8	1.3	2.1			
	600	0.4	0.5	0.7	1.0	1.4			

^{*} Values will vary slightly depending on the operating conditions.

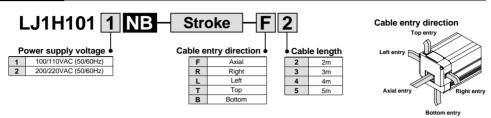


- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)
- Maximum acceleration: 3000mm/s²

^{*} The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Horizontal Mount

How to Order



Specifications

	Standard stroke	mm	100	200	300	400	500	
	Body weight	kg	5.2	6.0	6.8	7.5	8.3	
Performance	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg			10			
	Rated thrust	N			74			
	Maximum speed	mm/s	n/s 600					
	Positioning repeatability	mm	±0.05					
	Motor		AC servomotor (50W)					
	Encoder		Incremental system					
Main parts	Lead screw		Rolled ball screw ø12mm, 12mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
Controller	Model		LC1-1B1H□-□□ (Refer to page 185 for details.)					

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.

Applicable strokes: 150, 250, 350, 450

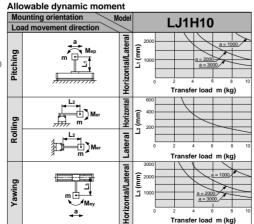
Example) LJHH1011NB-150-F2-X2

Allowable Moment (N·m)

Allowable static moment

/ IIIO II abio otatic	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Pitching	10.2
Rolling	12.8
Yawing	10.2

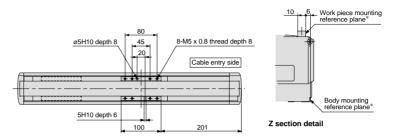
- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

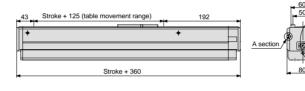


Standard Motor/Horizontal Mount Specification Series LJ1H10

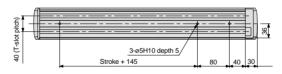
Dimensions/LJ1H101 NB

Scale: 15%







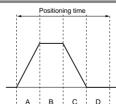




T-slot dimensions

			Positioning time (sec.)							
Positioning d	listance (mm)	1	10	100	250	500				
	10	0.4	1.3	10.3	25.3	50.3				
Speed	100	0.4	0.5	1.4	2.9	5.4				
(mm/s)	300	0.4	0.5	0.8	1.3	2.1				
	600	0.4	0.5	0.7	1.0	1.4				

^{*} Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)
- Maximum acceleration: 3000mm/s²

^{*} The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.



Horizontal Mount

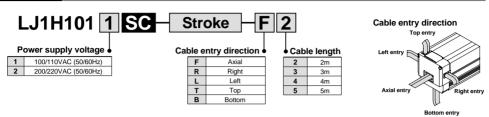
Series LJ1H10



High Rigidity Direct Acting Guide



How to Order



Specifications

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000
	Body weight	kg	5.3	6.2	7.2	8.0	8.8	9.7	10.5	11.3	12.2	13.0
	Operating temperature range	°C	5 to 40 (with no condensation)									
Performance	Work load	kg	10									
Performance	Rated thrust	N					2	4				
	Maximum speed	mm/s	500									
	Positioning repeatability	mm	±0.1									
	Motor					A	C servor	otor (50V	V)			
	Encoder					I	ncremen	tal systen	n			
Main parts	Lead screw		Slide screw ø20mm, 20mm lead									
-	Guide		High rigidity direct acting guide									
Motor/Screw connection With coupling												
Controller	Model				LC1-1	B1M□-□	□ (Refer	to page	185 for de	etails.)		

Intermediate strokes

For manufacture of strokes other than the standard strokes above, add "-X2" at the end of the part number. Applicable strokes: 150, 250, 350, 450, 550, 650, 750, 850, 950

Example) LJ1H1011SC-150-F2-X2

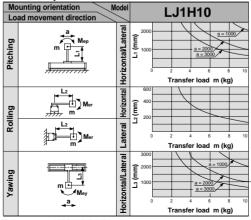
Allowable Moment (N·m)

Allowable static momen

Allowabic static	, illollicit
Pitching	10.2
Rolling	12.8
Yawing	10.2

- m : Transfer load (kg)
- : Work piece acceleration (mm/s2) Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment

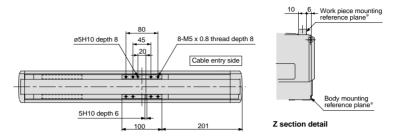


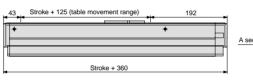


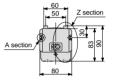
Standard Motor/Horizontal Mount Specification Series LJ1H10

Dimensions/LJ1H101□SC

Scale: 15%

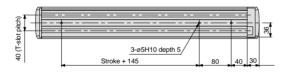








A section detail (Switch groove)

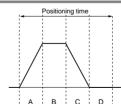




T-slot dimensions

		Positioning time (sec.)							
Positioning distance (mm)		1	10	100	500	1000			
	10	0.5	1.4	10.4	50.4	100.4			
Speed	100	0.4	0.5	1.4	5.4	10.4			
(mm/s)	250	0.4	0.5	0.9	2.5	4.5			
	500	0.4	0.5	0.8	1.6	2.6			

^{*} Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)
- Maximum acceleration: 2000mm/s²

^{*} The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Standard Motor Horizontal Mount

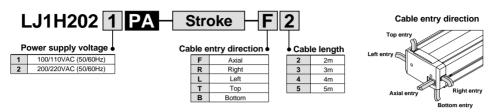
Series LJ1H20







How to Order



Specifications

	Standard stroke	mm	100	200	300	400	500	600	
	Body weight	kg	7.7	8.9	10.1	11.2	12.6	13.7	
	Operating temperature range	°C	5 to 40 (with no condensation)						
Performance	Work load	kg			3	0			
renomiance	Rated thrust	N			18	30			
	Maximum speed	mm/s	500						
	Positioning repeatability	mm	±0.02						
	Motor		AC servomotor (100W)						
	Encoder		Incremental system						
Main parts	Lead screw		Ground ball screw ø15mm, 10mm lead						
	Guide		High rigidity direct acting guide						
	Motor/Screw connection		With coupling						
Controller	Model		LC1-1B2H□-□□ (Refer to page 185 for details.)						

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.

Applicable strokes: 150, 250, 350, 450, 550

Example) LJ1H2021PA-150-F2-X2

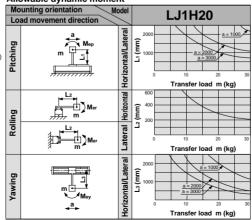
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s2)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment





Scale: 10%

Standard Motor/Horizontal Mount Specification Series LJ1H20

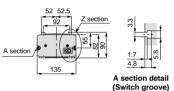
Dimensions/LJ1H202□PA

12.5 9.5 Work piece mounting reference plane* 110 4-M6 x 1 thread depth 15 67 20 4-M8 x 1.25 thread depth 20 ø8H8 depth 10 0 Cable entry side Body mounting reference plane* 8H8 depth 8

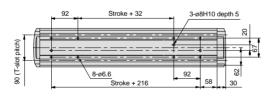
200



130



Z section detail

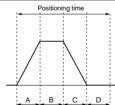




* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

		Positioning time (sec.)						
Positioning d	listance (mm)	1	10	100	300	600		
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4		
	100	0.5	0.6	1.5	3.5	6.5		
(mm/s)	250	0.5	0.6	0.9	1.7	2.9		
	500	0.5	0.6	0.8	1.2	1.8		

^{*} Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.4sec.)
- Maximum acceleration: 3000mm/s²



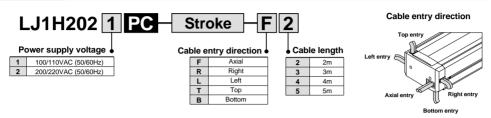
Series LJ1H20







How to Order



Specifications

	Standard stroke	mm	500	600	700	800	900	1000
	Body weight	kg	12.6	13.7	14.5	15.3	17.2	18.6
	Operating temperature range	°C		5 to 40	(with no	conden	sation)	
Performance	Work load	kg			3	0		
	Rated thrust	N	90					
	Maximum speed Note)	mm/s	1000	1000	930	740	600	500
	Positioning repeatability	mm	±0.02					
	Motor		AC servomotor (100W)					
	Encoder		Incremental system					
Main parts	Lead screw		Ground ball screw ø15mm, 20mm lead					ead
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
Controller	Model		LC1-1B	2H□-□□	□ (Refer	to page	185 for	details.)

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.

Applicable strokes: 550, 650, 750, 850, 950
Example) LJ1H2021PC-550-F2-X2

Note) The speed is limited by the transfer load. Refer to the maximum speeds for each transfer load on the next page.

Allowable Moment (N·m)

Allowable static moment

. itolinig	7.1					
Rolling	83					
Yawing	75					

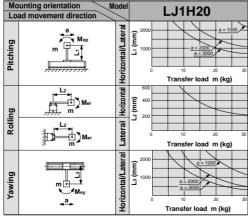
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me: Dynamic moment

L : Overhang to work piece center of gravity (mm)

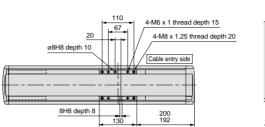
Allowable dynamic moment

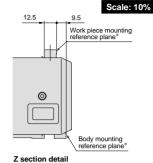


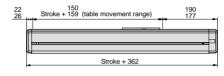
Standard Motor/Horizontal Mount Specification Series LJ1H20

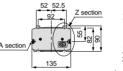
Dimensions/LJ1H202 PC

When two dimensions are shown, the top dimension is for 500 and 600mm stokes, and the bottom dimension is for 700 to 1000mm strokes.



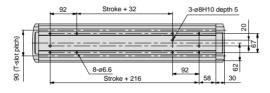








A section detail (Switch groove)





* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)						
Positioning distance (mm)		1	10	100	500	1000		
	10	0.6	1.5	10.5	50.5	100.5		
Speed (mm/s)	100	0.5	0.6	1.5	5.5	10.5		
(mm/s)	500	0.5	0.6	0.9	1.7	2.7		
	1000	0.5	0.6	0.9	1.4	1.9		

 $[\]ast$ Values will vary slightly depending on the operating conditions.

Positioning time A: Acceleration time B: Constant velocity time C: Deceleration time D: Resting time (0.4sec.) Maximum acceleration: 2000mm/s²

Maximum Speeds for Each Transfer Load

					Unit (mm/s)
		Transfer	load (kg)		N
Model	15	20	25	30	Note
LJ1H202□PC-500-□□	1000	700	500	500	
LJ1H202□PC-600-□□	1000	700	500	500	Power supply: 100/110(V)AC ±10%
LJ1H202□PC-700-□□	930	600	500	500	Compatible controller: LC1-1B2H1-□□
LJ1H202□PC-800-□□	740	600	500	500	Power supply: 200/220(V)AC ±10%
LJ1H202□PC-900-□□	600	500	500	500	Compatible controller: LC1-1B2H2-□□
LJ1H202□PC-1000-□□	500	500	500	500	•



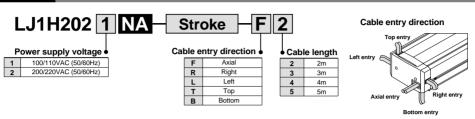
Series LJ1H20







How to Order



Specifications

Standard stroke mm			100	200	300	400	500	600
	Body weight	kg	7.7	8.9	10.1	11.2	12.6	13.7
	Operating temperature range	°C		5 to 40	(with no	conden	sation)	
Performance	Work load	kg			3	0		
remande	Rated thrust	N	180					
	Maximum speed	mm/s	500					
	Positioning repeatability	±0.05						
	Motor	AC servomotor (100W)						
	Encoder	Incremental system						
Main parts	Lead screw		Rolled ball screw ø15mm, 10mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
Controller	Model		LC1-1B2H□-□□ (Refer to page 185 for details					details.)

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.

Applicable strokes: 150, 250, 350, 450, 550 Example) LJ1H2021NA-150-F2-X2

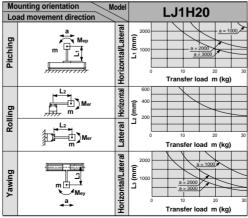
Allowable Moment (N·m)

Allowable static moment

Pitching	71							
Rolling	83							
Yawing	Yawing 75							
m : Transfer load (kg)								

- a : Work piece acceleration (mm/s2)
- Me: Dynamic moment
- : Overhang to work piece center of gravity (mm)

Allowable dynamic moment

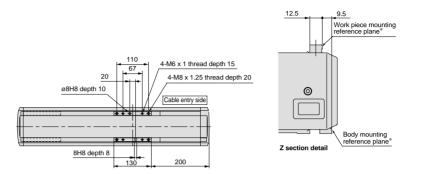


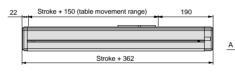


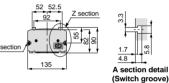
Standard Motor/Horizontal Mount Specification Series LJ1H20

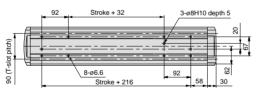
Dimensions/LJ1H202□NA

Scale: 10%









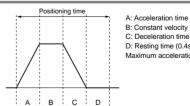


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

		Positioning time (sec.)						
Positioning distance (mm)		1	10	100	300	600		
	10	0.5	1.4	10.4	30.4	60.4		
Speed	100	0.5	0.6	1.5	3.5	6.5		
(mm/s)	250	0.5	0.6	0.9	1.7	2.9		
	500	0.5	0.6	0.8	1.2	1.8		

^{*} Values will vary slightly depending on the operating conditions.



B: Constant velocity time

D: Resting time (0.4sec.) Maximum acceleration: 3000mm/s²

Standard Motor Horizontal Mount

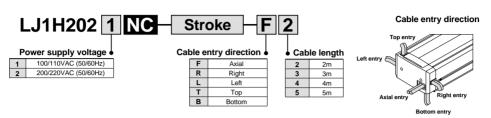
Series LJ1H20







How to Order



Specifications

	Standard stroke	mm	500	600	700	800	900	1000
Performance	Body weight	kg	12.6	13.7	14.5	15.3	17.2	18.6
	Operating temperature range	°C		5 to 40	(with no	conden	sation)	
	Work load	kg			3	0		
	Rated thrust	N	90					
	Maximum speed Note)	mm/s	1000	1000	930	740	600	500
	Positioning repeatability	mm	±0.05					
	Motor		AC servomotor (100W)					
	Encoder		Incremental system					
Main parts	Lead screw		Rolled ball screw ø15mm, 20mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
Controller	Model		LC1-1B	2H□-□□	□ (Refer	to page	185 for	details.)

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number. Applicable strokes: 550, 650, 750, 850, 950

Example) LJ1H2021NC-550-F2-X2

Note) The speed is limited by the transfer load. Refer to the maximum speeds for each transfer load on the next page.

Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

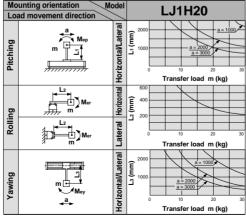
m : Transfer load (kg)

a : Work piece acceleration (mm/s2)

Me: Dynamic moment

L : Overhang to work piece center of gravity (mm)

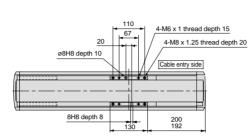
Allowable dynamic moment

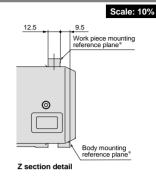


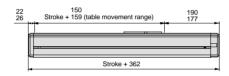
Standard Motor/Horizontal Mount Specification Series LJ1H20

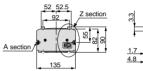
Dimensions/LJ1H202 CNC



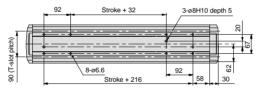














* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)						
Positioning distance (mm)		1	10	100	500	1000		
	10	0.6	6 1.5 10.5		50.5	100.5		
Speed (mm/s)	100	0.5	0.6	1.5	5.5	10.5		
(mm/s)	500	0.5	0.6	0.9	1.7	2.7		
	1000	0.5	0.6	0.9	1.4	1.9		

^{*} Values will vary slightly depending on the operating conditions.

	Position	ing time		A: Acceleration time B: Constant velocity time C: Deceleration time D: Resting time (0.4sec.) Maximum acceleration: 2000mm	//s²
Δ	R	C	D		

Maximum Speeds for Each Transfer Load

					Unit (mm/s)		
		Transfer	load (kg)				
Model	15	20	25	30	Note		
LJ1H202□NC-500-□□	1000	700	500	500			
LJ1H202□NC-600-□□	1000	700	500	500	Power supply: 100/110(V)AC ±10%		
LJ1H202□NC-700-□□	930	600	500	500	Compatible controller: LC1-1B2H1-□□		
LJ1H202□NC-800-□□	740	600	500	500	Power supply: 200/220(V)AC ±10%		
LJ1H202□NC-900-□□	600	500	500	500	Compatible controller: LC1-1B2H2-□□		
LJ1H202 NC-1000-	500	500	500	500			

Standard Motor Horizontal Mount

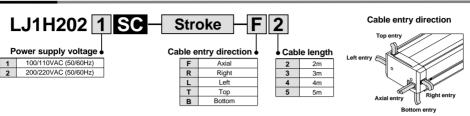
Series LJ1H20







How to Order



Specifications

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000	1200
	Body weight	kg	9.0	10.0	11.1	12.2	13.3	14.3	15.3	17.2	19.1	20.6	24.7
	Operating temperature rang	e °C	5 to 40 (with no condensation)										
Performance	Work load	kg						15					
renomiance	Rated thrust	N						50					
	Maximum speed	mm/s	500										
	Positioning repeatability mm ±0.1												
	Motor	AC servomotor (100W)											
	Encoder		Incremental system										
Main parts	Lead screw		Slide screw ø20mm, 20mm lead										
	Guide	High rigidity direct acting guide											
	Motor/Screw connection	With coupling											
Controller	Model				LC.	1-1B2M	□-□□ (R	efer to p	age 185	for deta	ils.)		

Intermediate strokes

For manufacture of strokes other than the standard strokes above, add "-X2" at the end of the part number. Applicable strokes:150, 250, 350, 450, 550, 650, 750, 850, 950

Example) LJ1H2021SC-150-F2-X2

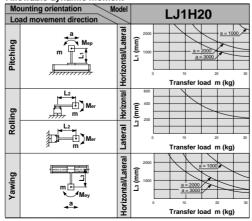
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²) Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

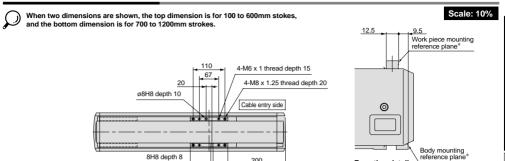
Allowable dynamic moment



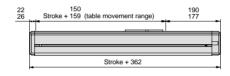


Standard Motor/Horizontal Mount Specification Series LJ1H20

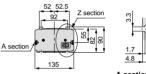
Dimensions/LJ1H202 SC



200 192

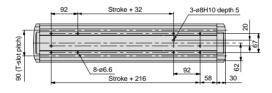


8H8 depth 8



Z section detail

A section detail (Switch groove)





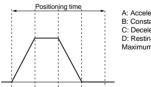
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)								
Positioning d	listance (mm)	1	10	100	600	1200				
	10	0.6	1.5	10.5	60.5	120.5				
Speed (mm/s)	100	0.5	0.6	1.5	6.5	12.5				
(mm/s)	250	0.5	0.6	1.0	3.0	5.4				
	500	0.5	0.6	0.9	1.9	3.1				

^{*} Values will vary slightly depending on the operating conditions



D

В

- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.4sec.)
- Maximum acceleration: 2000mm/s²



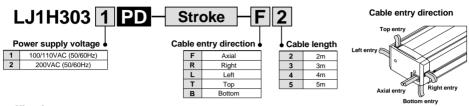
Series LJ1**H30**







How to Order



Specifications

	Standard stroke	mm	200	300	400	500	600	800	1000	1200	1500		
	Body weight	kg	16.0	18.0	20.0	22.0	24.0	28.5	33.0	37.0	43.0		
	Operating temperature range	°C				5 to 40 (w	ith no con	densation))				
Performance	Work load	kg	60										
	Rated thrust	N	144										
	Maximum speed Note)	mm/s	1000 700 500										
	Positioning repeatability	mm	±0.02										
	Motor					AC se	rvomotor ((200W)					
	Encoder		Incremental system										
Main parts	Lead screw		Ground ball screw ø25mm, 25mm lead										
	Guide		High rigidity direct acting guide										
	Motor/Screw connection		With coupling										
Controller	Model				LC1-1B3	SH□-□□ (F	Refer to pa	age 185 fo	r details.)				

Note) The speed is limited by the transfer load. Refer to the maximum speeds for each transfer load on the next page.

Intermediate strokes

For manufacture of strokes other than the standard strokes above, add "-X2" at the end of the part number. Applicable strokes: 250, 350, 450, 550, 650, 700, 750, 850, 900, 950, 1050, 1100, 1150, 1250, 1300, 1350, 1400, 1450 Example) L1H3031PD-250-F2-X2

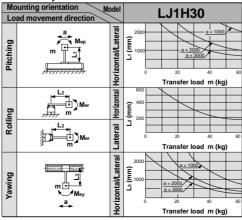
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment

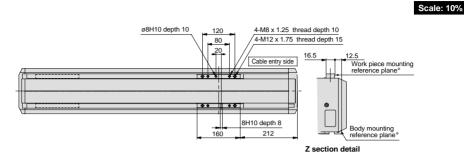


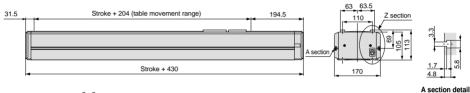


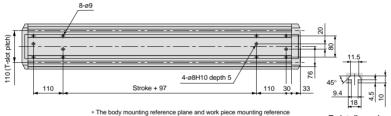
(Switch groove)

Standard Motor/Horizontal Mount Specification Series LJ1H30

Dimensions/LJ1H303 PD





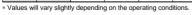


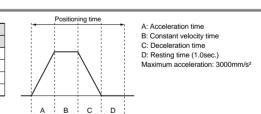
plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

			Positi	oning time	(sec.)	
Positioning of	ositioning distance (mm)		10	100	750	1500
	10	1.1	2.0	11.0	76.0	151.0
Speed	100	1.1	1.2	2.1	8.6	16.1
(mm/s)	500	1.1	1.2	1.4	2.7	4.2
	1000	1.1	1.2	1.4	2.1	2.9





Maximum Speeds for Each Transfer Load

Unit (mm/s)												
Mandal			Transfer	load (kg)			N					
Model	10	20	30	40	50	60	Note					
LJ1H3031PD-200 to 1000-□□	1000	1000	1000	1000	900	800	Dower overhy 100/110/1/00 1109/					
LJ1H3031PD-1200-□□	700	700	700	700	700	700	Power supply: 100/110(V)AC ±10% Compatible controller: LC1-1B3H1-					
LJ1H3031PD-1500-□□	500	500	500	500	500	500	Compatible Controller. LC 1-163H1-					
LJ1H3032PD-200 to 1000-□□	1000	900	800	700	650	600	Power supply: 200(V)AC ±10%					
LJ1H3032PD-1200-□□	700	700	700	700	650	600	Compatible controller: LC1-1B3H2-					
LJ1H3032PD-1500-□□	500	500	500	500	500	500	Compandic controller. LC 1-1B3H2-					
* Consult SMC if outside of the above conditi	one											

Standard Motor Horizontal Mount

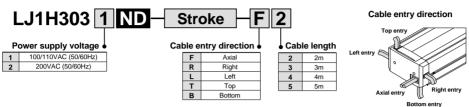
Series LJ1H30







How to Order



Specifications

	Standard stroke	mm	200	300	400	500	600	800	1000	1200	1500	
	Body weight	kg	16.0	18.0	20.0	22.0	24.0	28.5	33.0	37.0	43.0	
	Operating temperature range	°C				5 to 40 (w	ith no con	densation)			
Performance	Work load	kg					60					
Performance	Rated thrust	N	144									
	Maximum speed Note)	mm/s	1000 700							500		
	Positioning repeatability	mm	nm ±0.05									
	Motor		AC servomotor (200W)									
	Encoder		Incremental system									
Main parts	Lead screw		Rolled ball screw ø25mm, 25mm lead									
•	Guide		High rigidity direct acting guide									
	Motor/Screw connection	With coupling										
Controller	Model		LC1-1B3H□-□□ (Refer to page 185 for details.)									

Note) The speed is limited by the transfer load. Refer to the maximum speeds for each transfer load on the next page.

Intermediate strokes

For manufacture of strokes other than the standard strokes above, add "-X2" at the end of the part number. Applicable strokes: 250, 350, 450, 550, 650, 700, 750, 850, 900, 950, 1050, 1100, 1150, 1250, 1300, 1350, 1400, 1450 Example) LJ1H3031ND-250-F2-X2

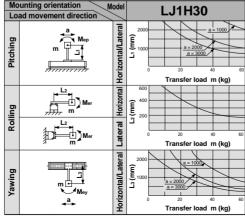
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



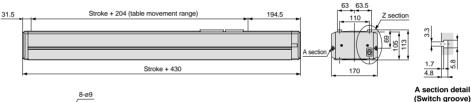
Scale: 10%

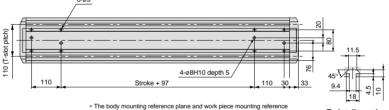
Standard Motor/Horizontal Mount Specification Series LJ1H30

Dimensions/LJ1H303 DD

ø8H10 depth 10 120 4-M8 x 1.25 thread depth 10 4-M12 x 1.75 thread depth 15 80 20 Work piece mounting reference plane* 8H10 depth 8 Body mounting reference plane³ 160 212

Z section detail



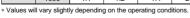


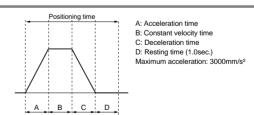
plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)									
Positioning distance (mm)		1	1 10		750	1500					
	10	1.1	2.0	11.0	76.0	151.0					
Speed (mm/s)	100	1.1	1.2	2.1	8.6	16.1					
(mm/s)	500	1.1	1.2	1.4	2.7	4.2					
	1000	1.1	1.2	1.4	2.1	2.9					





Maximum Speeds for Each Transfer Load

	Unit (mm/s										
Model			Transfer								
iviodei	10	20	30	40	50	60	Note				
LJ1H3031ND-200 to 1000-□□	1000	1000	1000	1000	900	800	Power supply: 100/110(V)AC ±10%				
LJ1H3031ND-1200-□□	700	700	700	700	700	700	Compatible controller: LC1-1B3H1-				
LJ1H3031ND-1500-□□	500	500	500	500	500	500	Compatible Controller. LC 1-183H1-				
LJ1H3032ND-200 to 1000-□□	1000	900	800	700	650	600	Power supply: 200(V)AC ±10%				
LJ1H3032ND-1200-□□	700	700	700	700	650	600	Compatible controller: LC1-1B3H2-				
LJ1H3032ND-1500-□□	500	500	500	500	500	500	Compatible controller: EOT TBGHZ				

^{*} Consult SMC if outside of the above conditions.

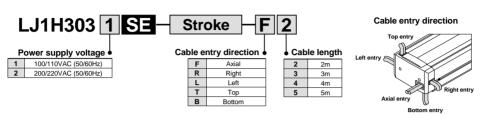
Standard Motor Horizontal Mount

Series LJ1 H30

High Rigidity Direct Acting Guide



How to Order



Specifications

	Standard stroke	mm	200	300	400	500	600	800	1000	1200	1500	
	Body weight	kg	14.9	17.0	19.0	21.1	23.2	27.3	31.5	35.6	41.9	
	Operating temperature range	· °C	5 to 40 (with no condensation)									
Performance	Work load	kg					30					
renomiance	Rated thrust	N	50 m/s 500									
	Maximum speed	mm/s										
	Positioning repeatability	mm	±0.1									
	Motor		AC servomotor (200W)									
	Encoder					Incre	emental sy	/stem				
Main parts	Lead screw					Slide screv	v ø30mm,	40mm lea	ıd			
	Guide					High rigidi	ty direct a	cting guide	9			
	Motor/Screw connection With coupling											
Controller	Model				LC1-1B3	M□-□□ (Refer to p	age 185 fo	or details.)			

Intermediate strokes

For manufacture of strokes other than the standard strokes above, add "-X2" at the end of the part number. Applicable strokes: 250, 350, 450, 550, 650, 700, 750, 850, 900, 950, 1050, 1100, 1150, 1250, 1300, 1350, 1400, 1450 Example) LJ1H3031SE-250-F2-X2

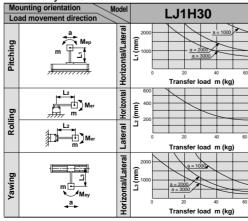
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

- m : Transfer load (kg)
- : Work piece acceleration (mm/s2)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



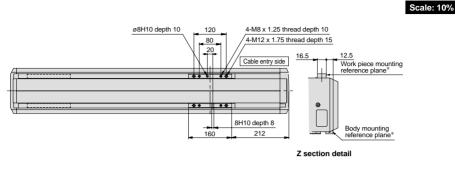


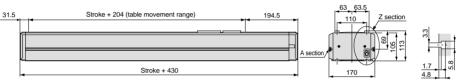
A section detail

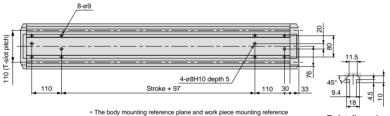
(Switch groove)

Standard Motor/Horizontal Mount Specification Series LJ1H30

Dimensions/LJ1H303□SE







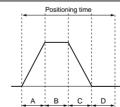
• The body mounting reference plane and work piece mounting referer plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

			Positioning time (sec.)							
Positioning of	distance (mm)	1	10	100	750	1500				
	10	1.2	2.1	11.1	76.1	151.1				
Speed (mm/s)	100	1.1	1.2	2.1	8.6	16.1				
(mm/s)	250	1.1	1.2	1.6	4.2	7.2				
	500	1.1	1.2	1.5	2.8	4.3				

* Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (1.0sec.)
- Maximum acceleration: 2000mm/s²

Standard Motor Vertical Mount

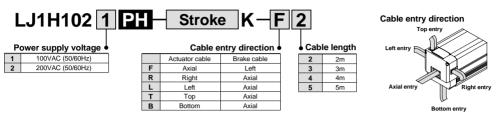
Series LJ1H10







How to Order



Specifications

	Standard strok	e	mm	100	200	300	400	500		
	Body weight		kg	5.5 6.3 7.1 7.8 8.6						
	Operating temper	ature range	°C	5 to 40 (with no condensation)						
Performance	Work load		kg	10						
	Rated thrust		N	225						
	Maximum spee	d	mm/s	400						
	Positioning repe	eatability	mm	±0.02						
	Motor			AC servomotor (100W)						
	Encoder		Incre	mental sy	stem					
	Lead screw	Ground ball screw ø12mm, 8mm lead								
	Guide	High rigidity direct acting guide								
Main parts	Motor/Screw co	nnection		With coupling						
		Specificat	tions	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A						
	Electromagnetic brake	Holding to	orque	0.4N·m						
	Diano	Connection	method	Ball screw mounting						
Controller	Model			LC1-1B1VH□-□□ (Refer to page 185 for details.)						
Regenerative absorption unit	Model			LC7R-K1□A□□ (Refer to page 200 for details.)						

Intermediate strokes

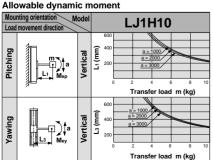
For manufacture of strokes other than the standard strokes on the left. add "-X2" at the end of the part number Applicable strokes: 150, 250, 350,

450 Example) LJ1H1021PH-150K-F2-X2

Allowable Moment (N·m)

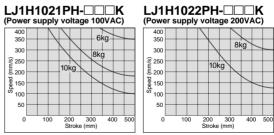
Allowable static moment

- Pitching 10.2 Yawing 10.2
- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²) Me: Dynamic moment
- : Overhang to work piece center of gravity (mm)



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide



When an actuator is operated under conditions that exceed the lines in the graphs above, be sure to use a regenerative absorption unit.

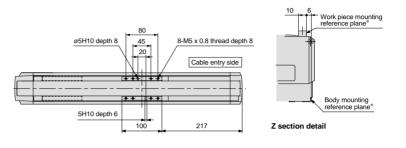
Be sure to refer to page 200 regarding regenerative absorption units. Refer to page 204 regarding brake wiring.



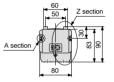
Standard Motor/Vertical Mount Specification Series LJ1H10

Dimensions/LJ1H102 PH

Scale: 15%

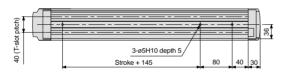








A section detail (Switch groove)

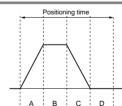




T-slot dimensions

		Positioning time (sec.)						
Positioning of	listance (mm)	1	10	100	250	500		
	10	0.4	1.3	10.3	25.3	50.3		
Speed	100	0.4	0.5	1.4	2.9	5.4		
(mm/s)	200	0.4	0.5	0.9	1.7	2.9		
	400	0.4	0.5	0.7	1.1	1.7		

^{*} Values will vary slightly depending on the operating conditions.



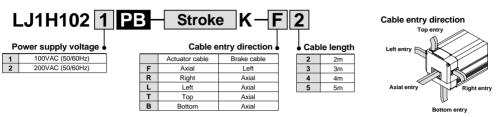
- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)
- Maximum acceleration: 3000mm/s²

^{*} The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.





How to Order



Specifications

	Standard strok	e	mm	100	200	300	400	500		
	Body weight		kg	5.5	6.3	7.1	7.8	8.6		
	Operating tempe	ature range	e °C	5 to 40 (with no condensation)						
Performance	Work load		kg	5						
	Rated thrust		N	150						
	Maximum speed mi					600				
	Positioning repe	eatability	mm	±0.02						
	Motor			AC servomotor (100W)						
	Encoder		Incre	mental sy	stem					
Main parts	Lead screw	Grou	ınd ball so	rew ø12m	nm, 12mm	lead				
	Guide	High rigidity direct acting guide								
	Motor/Screw co	nnection		With coupling						
		Specifica	itions	De-energize	d operation t	ype, Rated vo	oltage 24VDC	±10%, 0.4A		
	Electromagnetic brake	Holding t	orque	0.4N·m						
	Diake	Connection	method	Ball screw mounting						
Controller	Model			LC1-1B1VB□-□□ (Refer to page 185 for details.)						
Regenerative absorption unit	Model			LC7R-K1□A□□ (Refer to page 200 for details.)				or details.)		

Intermediate strokes

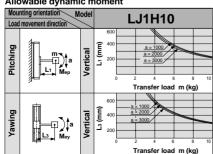
For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number. Applicable strokes: 150, 250, 350,

Example) LJ1H1021PB-150K-F2-X2

Allowable Moment (N·m)

Allowable static moment

- Pitching 10.2 Yawing 10.2
- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²) Me: Dynamic moment
- : Overhang to work piece
- center of gravity (mm)
- Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

It is not necessary to mount a regenerative absorption unit when the work piece load, speed, and stroke are within the actuator rating. However, use of the regenerative absorption unit is recommended under all conditions.

Actuator rating

Work load	5kg
Maximum speed	600mm/s
Maximum stroke	500mm

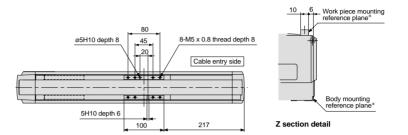
Refer to page 204 regarding brake wiring.

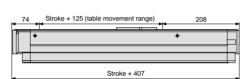


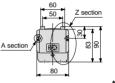
Standard Motor/Vertical Mount Specification Series LJ1H10

Dimensions/LJ1H102□PB

Scale: 15%

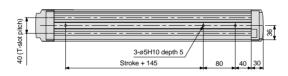








A section detail (Switch groove)

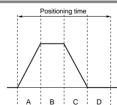




* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

		Positioning time (sec.)							
Positioning d	listance (mm)	1	10 100		250	500			
	10	0.4	1.3	10.3	25.3	50.3			
Speed	100	0.4	0.5	1.4	2.9	5.4			
Speed (mm/s)	300	0.4	0.5	0.8	1.3	2.1			
	600	0.4	0.5	0.7	1.0	1.4			

Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)
- Maximum acceleration: 3000mm/s²

Standard Motor **Vertical Mount**

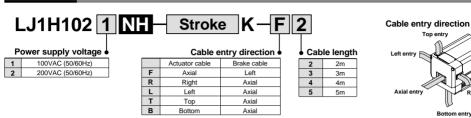
Series LJ1H10







How to Order



Specifications

	Standard strok	æ	mm	100	200	300	400	500			
	Body weight		kg	5.5 6.3 7.1 7.8 8.6							
	Operating temper	ature range	°C	5 to 40 (with no condensation)							
Performance	Work load		kg	10							
renomance	Rated thrust		N			225					
	Maximum spee	d	mm/s			400					
	Positioning repeatability m				±0.05						
	Motor			AC servomotor (100W)							
	Encoder				Incre	mental sy	stem				
	Lead screw	Rol	ed ball sc	rew ø12m	ım, 8mm le	ead					
	Guide	High rigidity direct acting guide									
Main parts	Motor/Screw co	nnection		With coupling							
	Electromagnetic	Specificat	tions	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A							
	brake	Holding to	orque	0.4N·m							
		Connection	method	Ball screw mounting							
Controller	Model			LC1-1B1VH□-□□ (Refer to page 185 for details.)							
Regenerative absorption unit	Model			LC7R-K1□A□□ (Refer to page 200 for details.)				details.)			

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number

Rottom entry

Applicable strokes: 150, 250, 350, 450

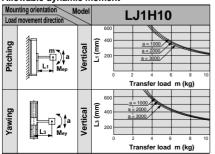
Example) LJ1H1021NH-150K-F2-X2

Allowable Moment (N·m)

Allowable static moment

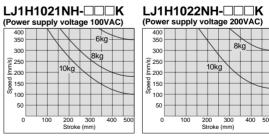
- Pitching 10.2 Yawing 10.2
- m: Transfer load (kg)
- a : Work piece acceleration (mm/s2) Me: Dynamic moment
- : Overhang to work piece
- center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide



When an actuator is operated under conditions that exceed the lines in the graphs above, be sure to use a regenerative absorption

Be sure to refer to page 200 regarding regenerative absorption units. Refer to page 204 regarding brake wiring.



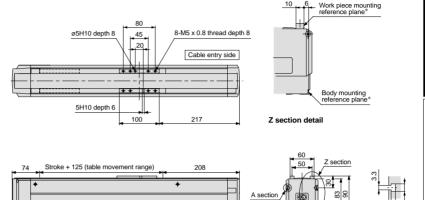
Standard Motor/Vertical Mount Specification Series LJ1H10

Dimensions/LJ1H102□NH

Scale: 15%

4.8

A section detail (Switch groove)



40 (T-slot pitch) 3-ø5H10 depth 5 Stroke + 145 80

Stroke + 407



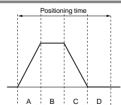
80

T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

			Positioning time (sec.)							
Positioning of	listance (mm)	1	10	100	250	500				
	10	0.4	1.3	10.3	25.3	50.3				
Speed	100	0.4	0.5	1.4	2.9	5.4				
(mm/s)	200	0.4	0.5	0.9	1.7	2.9				
	400	0.4	0.5	0.7	1.1	1.7				

^{*} Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)
- Maximum acceleration: 3000mm/s²



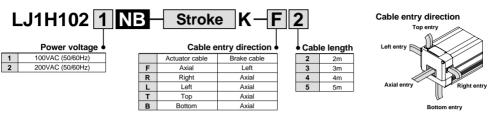
Series LJ1H10







How to Order



Specifications

	Standard strok	e	mm	100	200	300	400	500	
	Body weight		kg	5.5 6.3 7.1 7.8 8.6					
	Operating temper	ature range	°C	5 to 40 (with no condensation)					
Performance	Work load		kg			5			
Performance	Rated thrust		N			150			
	Maximum spee	d	mm/s			600			
	Positioning repe	eatability	mm			±0.05			
	Motor			AC servomotor (100W)					
	Encoder		Incre	mental sy	stem				
	Lead screw	Roll	ed ball sci	rew ø12m	m, 12mm	lead			
	Guide	High rigidity direct acting guide							
Main parts	Motor/Screw co	nnection		With coupling					
		Specificat	ions	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A					
	Electromagnetic brake	Holding to	rque	0.4N·m					
	brano	Connection	method	Ball screw mounting					
Controller	Model			LC1-1B1VB□-□□ (Refer to page 185 for details.)					
Regenerative absorption unit	Model			LC7R-K1□A□□ (Refer to page 200 for details.)					

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part Applicable strokes: 150, 250, 350,

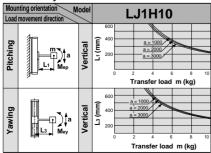
450 Example) LJ1H1021NB-150K-F2-X2

Allowable Moment (N·m)

Allowable static moment

- Pitching 10.2 Yawing 10.2
- m : Transfer load (kg)
- : Work piece acceleration (mm/s²) Me: Dynamic moment
- : Overhang to work piece
- center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data

Regenerative Absorption Unit Selection Guide

It is not necessary to mount a regenerative absorption unit when the work piece load, speed, and stroke are within the actuator rating. However, use of a regenerative absorption unit is recommended under all conditions.

Actuator rating

Work load	5kg
Maximum speed	600mm/s
Maximum stroke	500mm

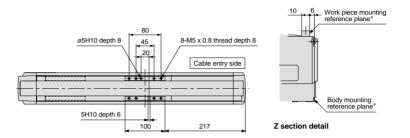
Refer to page 204 regarding brake wiring.

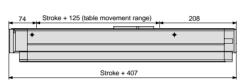


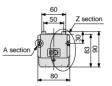
Standard Motor/Vertical Mount Specification Series LJ1H10

Dimensions/LJ1H102 NB

Scale: 15%

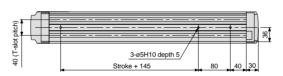








A section detail (Switch groove)

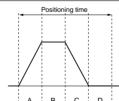




T-slot dimensions

		Positioning time (sec.)							
Positioning of	listance (mm)	1	10	100	250	500			
	10	0.4	1.3	10.3	25.3	50.3			
Speed	100	0.4	0.5	1.4	2.9	5.4			
(mm/s)	300	0.4	0.5	0.8	1.3	2.1			
	600	0.4	0.5	0.7	1.0	1.4			

^{*} Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)
- Maximum acceleration: 3000mm/s²

^{*} The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Standard Motor Vertical Mount

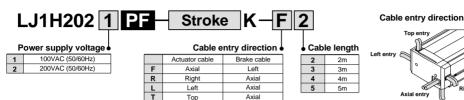
Series LJ1H20







How to Order



Axial

Specifications

	Standard strok	е	mm	100	200	300	400	500	600	
	Body weight		kg	8.0	9.2	10.4	11.5	12.9	14.0	
	Operating temperature range °C				5 to 40	(with no	conden	sation)		
D	Work load		kg			1	5			
Performance	Rated thrust		N			36	60			
	Maximum speed		mm/s			2	50			
	Positioning repeatability n			±0.02						
	Motor			AC servomotor (100W)						
	Encoder			Incremental system						
	Lead screw			Ground ball screw ø15mm, 5mm lead						
	Guide			High rigidity direct acting guide						
Main parts	Motor/Screw co	or/Screw connection		With coupling						
	Electronic media	Specificat	tions	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A						
	Electromagnetic brake	Holding to	orque	0.4N·m						
	Connection method		Ball screw mounting							
Controller	Model			LC1-1B2VF□-□□ (Refer to page 185 for details.)					details.)	
Regenerative absorption unit	Model			LC7R-K1□A□□ (Refer to page 200 for details.				details.)		

В

Bottom

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number. 450, 550

Bottom entry

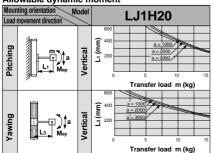
Applicable strokes: 150, 250, 350, Example) LJ1H2021PF-150K-F2-X2

Allowable Moment (N-m)

Allowable static moment Pitching 71 Yawing 75

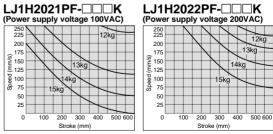
- m : Transfer load (kg)
- a : Work piece acceleration (mm/s2) Me: Dynamic moment
- : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide



When an actuator is operated under conditions that exceed the lines in the graphs above, be sure to use a regenerative absorption unit.

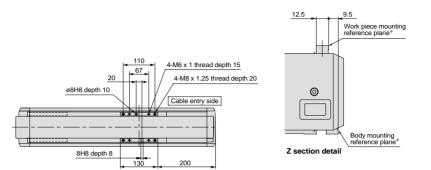
Be sure to refer to page 200 regarding regenerative absorption units. Refer to page 204 regarding brake wiring.

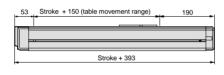


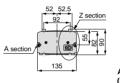
Standard Motor/Vertical Mount Specification Series LJ1H20

Dimensions/LJ1H202 PF

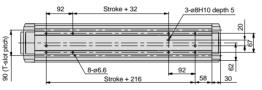
Scale: 10%

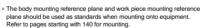










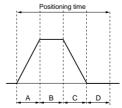




T-slot dimensions

		Positioning time (sec.)							
Positioning of	listance (mm)	1	10	100	300	600			
	10	0.5	1.4	10.4	30.4	60.4			
Speed (mm/s)	100	0.5	0.6	1.5	3.5	6.5			
(mm/s)	125	0.5	0.6	1.3	2.9	5.3			
	250	0.5	0.6	0.9	1.7	2.9			
. 1/-1	91 P. L.	I London Por			Pet				

^{*} Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.4sec.)
 - Maximum acceleration: 3000mm/s²

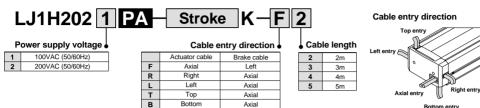
Vertical Mount

Series LJ1 H20



Ground Ball Screw \emptyset 15_{mm}/10_{mm lead}

How to Order



Specifications

	Standard strok	e	mm	100	200	300	400	500	600
	Body weight	kg	8.0	9.2	10.4	11.5	12.9	14.0	
	Operating temper	ature range	°C		5 to 40	(with no	conden	sation)	
Performance	Work load		kg			8	3		
renomiance	Rated thrust		N			18	30		
	Maximum speed		mm/s			50	00		
	Positioning repe	mm			±0	.02			
	Motor			AC servomotor (100W)					
	Encoder			Incremental system					
	Lead screw			Ground ball screw ø15mm, 10mm lead					
Main nanta	Guide			High rigidity direct acting guide					
Main parts	Motor/Screw co	w connection		With coupling					
	Electromagnetic	Specificati	ions	De-energized operation type, Rated voltage 24VDC ±10			10%, 0.4A		
	brake	Holding to	rque	0.4N·m					
		Connection method		Ball screw mounting					
Controller	Model			LC1-1B2VA□-□□ (Refer to page 185 for details.)					details.)
Regenerative absorption unit	Model			LC7R-K1□A□□ (Refer to page 200 for details.)				details.)	

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left. add "-X2" at the end of the part number. Applicable strokes: 150, 250, 350,

450 550 Example) LJ1H2021PA-150K-F2-X2

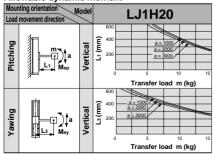
Allowable Moment (N·m)

Allowable static moment Pitching 71

Yawing

- m : Transfer load (kg)
 - a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

75 Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

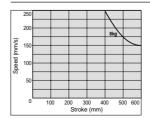
LJ1H2021PA-

It is not necessary to mount a regenerative absorption unit when the work piece load, speed, and stroke are within the actuator rating. However, use of a regenerative absorption unit is recommended under all conditions.

Actuator rating

Work load	8kg
Maximum speed	500mm/s
Maximum stroke	600mm

LJ1H2022PA-



When an actuator is operated under conditions that exceed the lines in the graphs above, be sure to use a regenerative absorption unit.

Be sure to refer to page 200 regarding regenerative absorption units

Refer to page 204 regarding brake wiring.

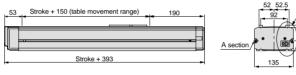


Scale: 10%

Standard Motor/Vertical Mount Specification Series LJ1H20

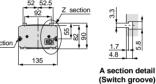
Dimensions/LJ1H202□PA

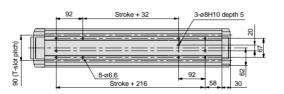
12.5 9.5 Work piece mounting reference plane* 4-M6 x 1 thread depth 15 4-M8 x 1.25 thread depth 20 ø8H8 depth 10 0 Cable entry side Body mounting reference plane* Z section detail 8H8 depth 8



130

200



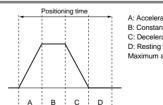




* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

		Positioning time (sec.)							
Positioning d	istance (mm)	1	10	100	300	600			
	10	0.5	1.4	10.4	30.4	60.4			
Speed	100	0.5	0.6	1.5	3.5	6.5			
(mm/s)	250	0.5	0.6	0.9	1.7	2.9			
	500	0.5	0.6	0.8	1.2	1.8			

^{*} Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.4sec.)
- Maximum acceleration: 3000mm/s²

Standard Motor Vertical Mount

Series LJ1H20



2

4

5

2m

3m

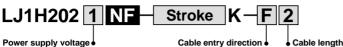
4m

5m





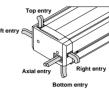
How to Order



Р	ower supply voltage
1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

Actuator cable Brake cable F Axial Left R Right Axial L Left т Avial Top В Bottom Axial

Cable entry direction



Specifications

	Standard strok	æ	mm	100	200	300	400	500	600
	Body weight		kg	8.0	9.2	10.4	11.5	12.9	14.0
	Operating temper	ature range	°C		5 to 40	(with no	conden	sation)	
D f	Work load		kg			1:	5		
Performance	Rated thrust		N			36	60		
	Maximum spee	d	mm/s			25	50		
	Positioning repeatability					±0	.05		
	Motor			AC servomotor (100W)					
	Encoder			Incremental system					
	Lead screw			Rolled ball screw ø15mm, 5mm lead					
	Guide			High rigidity direct acting guide					
Main parts	Motor/Screw co	connection		With coupling					
	Clastromo anotio	Specificati	ions	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A					
	Electromagnetic brake	Holding to	rque	0.4N·m					
	Connection met		method	Ball screw mounting					
Controller	Model			LC1-1B2V F□-□□ (Refer to page 185 for details.)					details.)
Regenerative absorption unit	Model			LC7R-K1□A□□ (Refer to page 200 for details.				details.)	

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number. Applicable strokes: 150, 250, 350, 450, 550

Example) LJ1H2021NF-150K-F2-X2

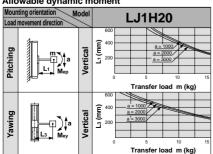
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Yawing	75

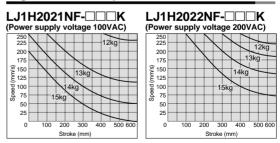
- m : Transfer load (kg)
- a : Work piece acceleration (mm/s2)
- Me: Dynamic moment : Overhang to work piece
- center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data

Regenerative Absorption Unit Selection Guide



When an actuator is operated under conditions that exceed the lines in the graphs above, be sure to use a regenerative absorption unit.

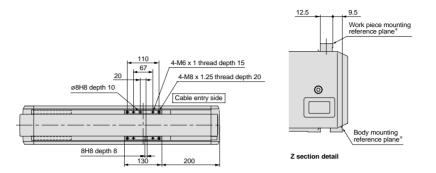
Be sure to refer to page 200 regarding regenerative absorption units. Refer to page 204 regarding brake wiring.

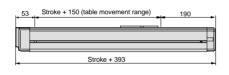


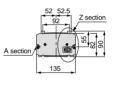
Standard Motor/Vertical Mount Specification Series LJ1H20

Dimensions/LJ1H202 NF

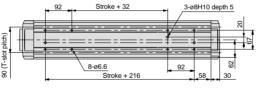
Scale: 10%

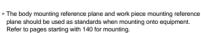












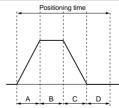


T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)				
Positioning of	distance (mm)	1	10	100	300	600
	10	0.5	1.4	10.4	30.4	60.4
Speed	100	0.5	0.6	1.5	3.5	6.5
(mm/s)	125	0.5	0.6	1.3	2.9	5.3
	250	0.5	0.6	0.9	1.7	2.9

^{*} Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.4sec.)

Maximum acceleration: 3000mm/s²



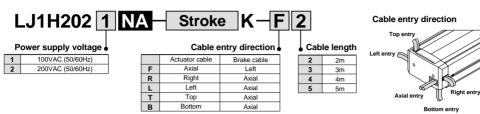
Series LJ1 H20







How to Order



Specifications

	Standard strok	е	mm	100	200	300	400	500	600	
	Body weight kg			8.0 9.2 10.4 11.5 12.9 14.0					14.0	
	Operating temper	Operating temperature range °C			5 to 40 (with no condensation)					
Performance	Work load		kg			8	3			
renomiance	Rated thrust		N			18	30			
	Maximum spee	t	mm/s			50	00			
	Positioning repe	mm	±0.05							
	Motor			AC servomotor (100W)						
	Encoder			Incremental system						
	Lead screw			Rolled ball screw ø15mm, 10mm lead						
Main parts	Guide			High rigidity direct acting guide						
Iviairi parts	Motor/Screw co	nnection		With coupling						
	Electromagnetic	Specificat	ions	De-energized operation type, Rated voltage 24VDC ±10%, 0.4.					10%, 0.4A	
	brake	Holding to	rque			0.4	N⋅m			
	Connection n		method	Ball screw mounting						
Controller	Model			LC1-1B2VA□-□□ (Refer to page 185 for details.)						
Regenerative absorption unit	Model			LC7R-K1□A□□ (Refer to page 200 for details.)			details.)			

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.

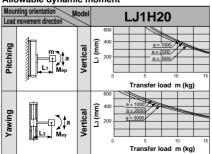
Applicable strokes: 150, 250, 350, 450, 550 Example) LJ1H2021NA-150K-F2-X2

Allowable Moment (N·m)

Allowable static	moment
D:: 1:	

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²) Pitching Me: Dynamic moment Yawing 75
 - L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

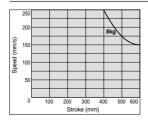
LJ1H2021NA- (Power supply voltage100VAC)

It is not necessary to mount a regenerative absorption unit when the work piece load, speed, and stroke are within the actuator rating. However, use of a regenerative absorption unit is recommended under all conditions.

Actuator rating

Work load	8kg
Maximum speed	500mm/s
Maximum stroke	600mm

LJ1H2022NA-□ (Power supply voltage 200VAC)



When an actuator is operated under conditions that exceed the lines in the graphs above, be sure to use a regenerative absorption unit.

Be sure to refer to page 200 regarding regenerative absorption

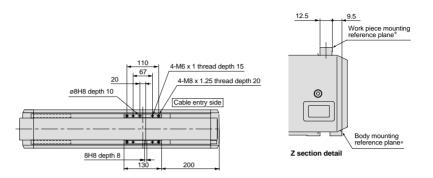
Refer to page 204 regarding brake wiring.

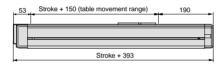


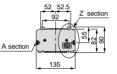
Standard Motor/Vertical Mount Specification Series LJ1H20

Dimensions/LJ1H202 NA

Scale: 10%

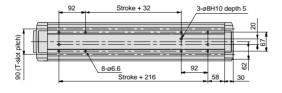








A section detail (Switch groove)





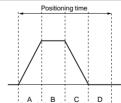
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning d	listance (mm)	1	10	100	300	600
	10	0.5	1.4	10.4	30.4	60.4
Speed	100	0.5	0.6	1.5	3.5	6.5
(mm/s)	250	0.5	0.6	0.9	1.7	2.9
	500	0.5	0.6	0.8	1.2	1.8

^{*} Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.4sec.)
- Maximum acceleration: 3000mm/s²

Standard Motor Vertical Mount

Series LJ1 H30



Cable length 2m

3m

4m

3

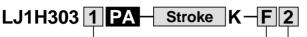
4

5





How to Order



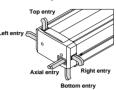
Dower supply voltage

	ono. ouppi, ronugo
1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
Т	Тор	Axial
В	Bottom	Axial

Cable entry direction



Specifications

	Standard strok	е	mm	200	300	400	500	600
	Body weight		kg	16.3	18.3	20.3	22.3	24.3
	Operating temperature range °C				to 40 (wi	th no cond	densation)	
5 (Work load		kg			20		
Performance	Rated thrust		N			360		
	Maximum speed	d	mm/s			500		
	Positioning repe	mm			±0.02			
	Motor			AC servomotor (200W)				
	Encoder			Incremental system				
	Lead screw			Ground ball screw ø20mm, 10mm lead				
	Guide			High rigidity direct acting guide				
Main parts	Motor/Screw co	nnection		With coupling				
	Electronic metic	Specificati	ions	De-energized operation type, Rated voltage 24VDC ±10%, 0.9				±10%, 0.5A
	Electromagnetic brake	Holding to	rque	1.0N·m				
Conne		Connection	method	Ball screw mounting				
Controller	Model			LC1-1B3VA□-□□ (Refer to page 185 for details.			or details.)	
Regenerative absorption unit	Model			LC7R-K1□A□□ (Refer to page 200 for details			r details.)	

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number Applicable strokes: 250, 350, 450, 550

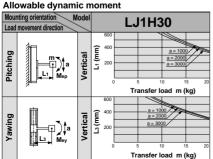
Example) LJ1H3031PA-250K-F2-X2

Allowable Moment (N·m)

Allowable static moment

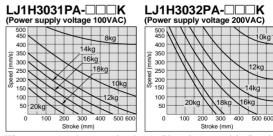
Pitching	117
Yawing	123

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²) Me: Dynamic moment
- L : Overhang to work piece
- center of gravity (mm)



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide



When an actuator is operated under conditions that exceed the lines in the graphs above, be sure to use a regenerative absorption unit.

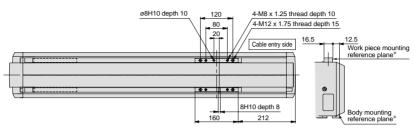
Be sure to refer to page 200 regarding regenerative absorption units. Refer to page 204 regarding brake wiring.



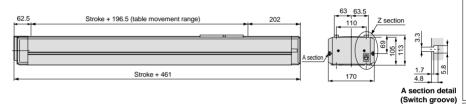
Standard Motor/Vertical Mount Specification Series LJ1H30

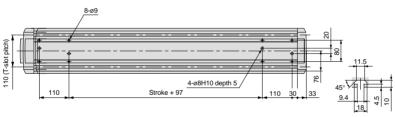
Dimensions/LJ1H303 PA

Scale: 10%



Z section detail





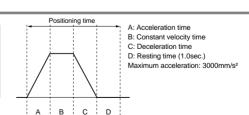
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)				
Positioning d	listance (mm)	1	10	100	300	600
	10	1.1	2.0	11.0	31.0	61.0
Speed	100	1.1	1.2	2.1	4.1	7.1
(mm/s)	250	1.1	1.2	1.5	2.3	3.5
	500	1.1	1.2	1.4	1.8	2.4

^{*} Values will vary slightly depending on the operating conditions.



Standard Motor

Vertical Mount

Series LJ1H30



Cable length

2

3 4

5

2m

3m

4m

5m





How to Order



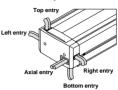
Power supply voltage

		•	
1	100VAC	(50	/60Hz)
2	200VAC	(50	/60Hz)

Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
Т	Тор	Axial
В	Bottom	Axial

Cable entry direction



Specifications

	Standard strok	æ	mm	200	300	400	500	600	
	Body weight		kg	16.3	18.3	20.3	22.3	24.3	
	Operating temper	ature range	°C	į	5 to 40 (wi	th no cond	densation)		
Df	Performance Work load Rated thrust Maximum speed		kg			20			
Performance			N			360			
			mm/s			500			
	Positioning repe	eatability	mm			±0.05			
	Motor			AC servomotor (200W)					
	Encoder			Incremental system					
	Lead screw			Rolled ball screw ø20mm, 10mm lead					
	Guide			High rigidity direct acting guide					
Main parts	Motor/Screw co	nnection		With coupling					
	Electronic metic	Specificat	ions	De-energized operation type, Rated voltage 24VDC ±10%, 0.5A					
	Electromagnetic brake	Holding to	orque			1.0N·m			
	Connection method		Ball screw mounting						
Controller	Model		LC1-1B3VA□-□□ (Refer to page 185 for details.)						
Regenerative absorption unit	Model			LC7R-K1□A□□ (Refer to page 200 for details.				r details.)	

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.

Applicable strokes: 250, 350, 450, 550

Example) LJ1H3031NA-250K-F2-X2

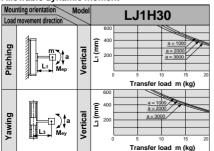
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Yawing	123

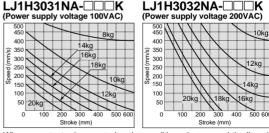
- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²) Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide



When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption** unit.

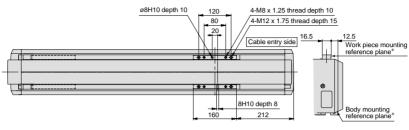
Be sure to refer to page 200 regarding regenerative absorption units. Refer to page 204 regarding brake wiring.



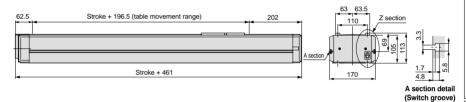
Standard Motor/Vertical Mount Specification Series LJ1H30

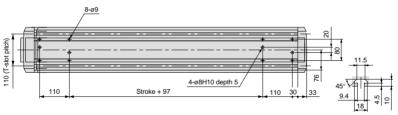
Dimensions/LJ1H303□NA

Scale: 10%



Z section detail



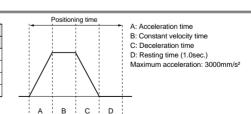


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)								
Positioning distance (mm)		1	10	100	300	600				
	10	0.5	2.0	11.0	31.0	61.0				
Speed	100	1.1	1.2	2.1	4.1	7.1				
(mm/s)	250	1.1	1.2	1.5	2.3	3.5				
	500	1.1	1.2	1.4	1.8	2.4				



Non-standard Motor **Horizontal Mount**

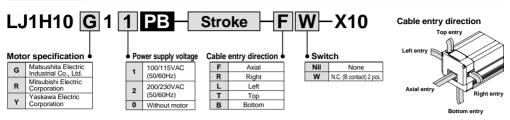
Series LJ1H10







How to Order



Specifications

	Standard stroke	mm	100	200	300	400	500			
	Body weight (without motor)	kg	4.8	5.6	6.4	7.1	7.9			
	Operating temperature range	°C	5 to 40 (with no condensation)							
Performance	Work load	kg			10					
	Maximum speed	mm/s			600					
	Positioning repeatability mm ±0.02									
	Motor	AC servomotor (50W)								
	Encoder	Incremental system								
Main parts	Lead screw		Grou	ind ball so	rew ø12m	m, 12mm	lead			
	Guide		High rigidity direct acting guide							
	Motor/Screw connection			V	ith couplin	ng				
	Model		D-Y7GL							
Switch	Specifications	Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or le Internal voltage drop: 1.5V or less				ss)mA or less				

Intermediate strokes

Stokes other than the standard strokes on the left are available by special order. Consult SMC.

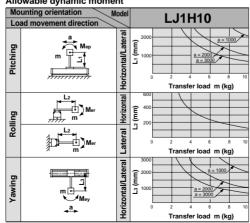
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

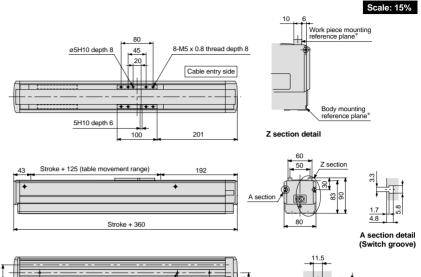
- m : Transfer load (kg)
- : Work piece acceleration (mm/s2)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

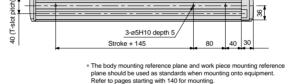
Allowable dynamic moment



Refer to page 145 for deflection data.

Dimensions/LJ1H10□1□PB(X10)





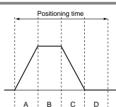
18

T-slot dimensions

Positioning Time Guide

			Positioning time (sec.)								
Positioning d	listance (mm)	1	10	100	250	500					
	10	0.4	1.3	10.3	25.3	50.3					
Speed (mm/s)	100	0.4	0.5	1.4	2.9	5.4					
(mm/s)	300	0.4	0.5	0.8	1.3	2.1					
	600	0.4	0.5	0.7	1.0	1.4					

^{*} Values will vary slightly depending on the operating conditions.



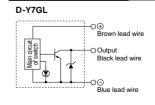
- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)* Maximum acceleration: 3000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model	
Matsushita Electric	50	100/115	MSM5AZP1A	MSD5A1P1E	
Industrial Co., Ltd.	50	200/230	IVISIVISAZPTA	MSD5A3P1E	
Mitsubishi Electric	50	100/115	LIO DOOFO	MR-C10A1	
Corporation	50	200/230	HC-PQ053	MR-C10A	
Yaskawa Electric	50	100/115	SGME-A5BF12	SGDE-A5BP	
Corporation	50	200/230	SGME-A5AF12	SGDE-A5AP	

^{*} For motor mounting dimensions, refer to the dimensions for series LJ1H10 on page 143 as a reference for mounting

SMC



^{*} Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each

^{*} For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers

Non-standard Motor Horizontal Mount

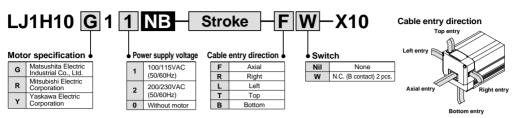
Series LJ1H10 50w







How to Order



Specifications

	Standard stroke	mm	100	200	300	400	500	
	Body weight (without motor)	kg	4.8 5.6 6.4 7.1 7					
	Operating temperature range		5 to 40 (wi	th no cond	densation)			
Performance	Work load	kg			10			
renomance	Maximum speed m				600			
	Positioning repeatability	mm			±0.05			
		AC servomotor (50W)						
	Encoder	Incremental system						
Main parts	Lead screw		Rolled ball screw ø12mm, 12mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Model		D-Y7GL					
Switch	Specifications	Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or l Internal voltage drop: 1.5V or less				s mA or less		

Intermediate strokes

Stokes other than the standard strokes on the left are available by special order. Consult SMC.

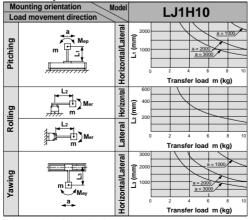
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

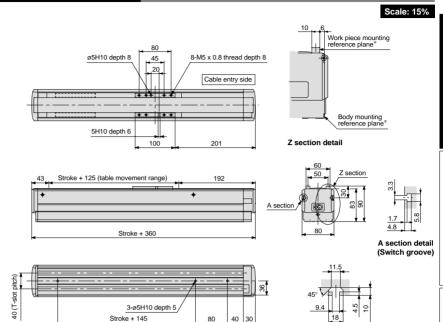
- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²) Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data.

Dimensions/LJ1H10□1□NB(X10)



^{*} The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

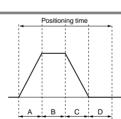
SMC

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)								
Positioning distance (mm)		1 10		100	100 250					
	10	0.4	1.3	10.3	25.3	50.3				
Speed (mm/s)	100	0.4	0.5	1.4	2.9	5.4				
(mm/s)	300	0.4	0.5	0.8	1.3	2.1				
	600	0.4	0.5	0.7	1.0	1.4				

^{*} Values will vary slightly depending on the operating conditions.

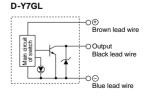


- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time D: Resting time (0.3sec.)*
- Maximum acceleration: 3000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	50	100/115	MOMEATOAA	MSD5A1P1E
Industrial Co., Ltd.	50	200/230	MSM5AZP1A	MSD5A3P1E
Mitsubishi Electric	50	100/115	HC-PQ053	MR-C10A1
Corporation	50	200/230	nc-PQ053	MR-C10A
Yaskawa Electric	50	100/115	SGME-A5BF12	SGDE-A5BP
Corporation	50	200/230	SGME-A5AF12	SGDE-A5AP

^{*} For motor mounting dimensions, refer to the dimensions for series LJ1H10 on page 143 as a reference for mounting and design.



^{*} Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each

^{*} For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Non-standard Motor Horizontal Mount

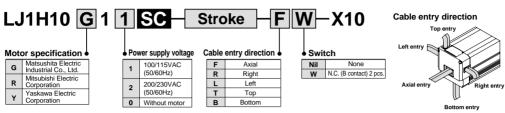
Series LJ1H10







How to Order



Specifications

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000
	Body weight (without motor)	kg	4.9	5.8	6.8	7.6	8.4	9.3	10.1	10.9	11.8	12.6
	Operating temperature range	°C		5 to 40 (with no condensation) 10 500								
Performance	Work load	kg										
	Maximum speed	mm/s										
	Positioning repeatability	mm		±0.1								
	Motor		AC servomotor (50W)									
	Encoder					I	ncremen	tal systen	n			
Main parts	Lead screw					Slide s	crew ø20	mm, 20m	ım lead			
	Guide					High r	igidity dire	ect acting	guide			
	Motor/Screw connection						With co	oupling				
	Model		D-Y7GL									
Switch	Specifications		Control	Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or les						V or less		

Strokes other than the standard strokes above are available by special order. Consult SMC.

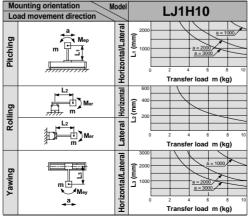
Allowable Moment (N·m)

Allowable static moment

i itoiiiig	10.2	
Rolling	12.8	
Yawing	10.2	
•		

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- Coverhang to work piece center of gravity (mm)

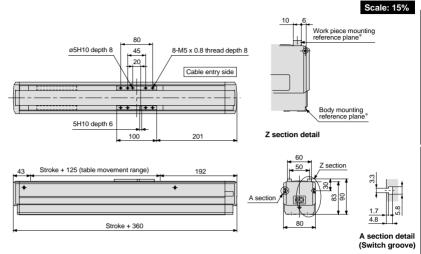
Allowable dynamic moment

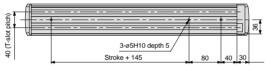


Refer to page 145 for deflection data.



Dimensions/LJ1H10 1 SC(X10)







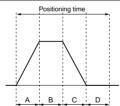
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)					
Positioning d	listance (mm)	1	10	100	500	1000	
	10	0.5	1.4	10.4	50.4	100.4	
Speed	100	0.4	0.5	1.4	5.4	10.4	
(mm/s)	250	0.4	0.5	0.9	2.5	4.5	
	500	0.4	0.5	0.8	1.6	2.6	

^{*} Values will vary slightly depending on the operating conditions.

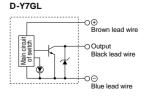


- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)
- Maximum acceleration: 2000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

Power supply Motor output Compatible driver model voltage Motor model (W) (VAC) 100/115 MSD5A1P1E Matsushita Electric 50 MSM5AZP1A Industrial Co., Ltd. MSD5A3P1E 200/230 Mitsubishi Electric 100/115 MR-C10A1 HC-PQ053 50 Corporation 200/230 MR-C10A 100/115 SGME-A5BF12 SGDE-A5BP Yaskawa Electric 50 Corporation SGME-A5AF12 SGDE-A5AP 200/230

- For motor mounting dimensions, refer to the dimensions for series LJ1H10 on page 143 as a reference for mounting and design.
- * Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each
- * For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers







Horizontal Mount

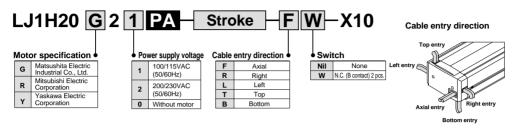
Series LJ1H20







How to Order



Specifications

	Standard stroke	mm	100	200	300	400	500	600
	Body weight (without motor)	kg	7.2	8.4	9.6	10.7	12.1	13.2
	Operating temperature range	°C		5 to 40) (with n	o conde	nsation)	
Performance	Work load	kg			3	30		
	Maximum speed mm/s				5	00		
	Positioning repeatability mm				±C	0.02		
	Motor	AC servomotor (100W)						
	Encoder		Incremental system					
Main parts	Lead screw		Ground ball screw ø15mm, 10mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Model		D-Y7GL					
Switch Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less						

Allowable dynamic moment Mounting orientation

Intermediate strokes

Stokes other than the standard strokes on the left are available by special order. Consult SMC.

Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

- m: Transfer load (kg)
- a : Work piece acceleration (mm/s2)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

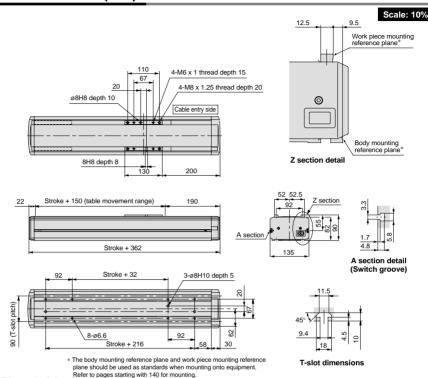
Model **LJ1H20** Load movement direction Horizontal/Lateral Pitching Transfer load m (kg) Horizontal (mm) Rolling Lateral Transfer load m (kg) Horizontal/Lateral (mm) 1000 Yawing

Refer to page 145 for deflection data.



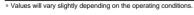
Transfer load m (kg)

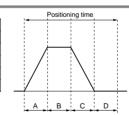
Dimensions/LJ1H20 2 PA(X10)



Positioning Time Guide

			Positioning time (sec.)						
Positioning di	istance (mm)	1	10	100	300	600			
	10	0.5	1.4	10.4	30.4	60.4			
Speed	100	0.5	0.6	1.5	3.5	6.5			
(mm/s)	250	0.5	0.6	0.9	1.7	2.9			
	500	0.5	0.6	0.8	1.2	1.8			



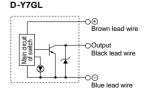


- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.4sec.)*
- Maximum acceleration: 3000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may
- vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	100	100/115	MSM011P1A	MSD011P1E
Industrial Co., Ltd.	100	200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric	400	100/115	UO DO40	MR-C10A1
Corporation	100	200/230	HC-PQ13	MR-C10A
Yaskawa Electric	400	100/115	SGME-01BF12	SGDE-01BP
Corporation	100	200/230	SGME-01AF12	SGDE-01AP

* For motor mounting dimensions, refer to the dimensions for series LJ1^H_S20 on page 143 as a reference for mounting and design.





Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

^{*} For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Non-standard Motor

Horizontal Mount

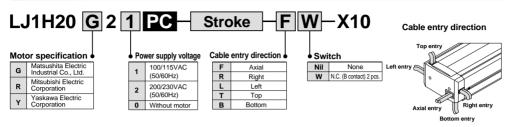
Series LJ1H20







How to Order



Specifications

	Standard stroke	mm	500	600	700	800	900	1000
	Body weight (without motor) kg		12.1	13.2	14.4	15.6	16.8	18.0
	Operating temperature range	°C		5 to 40	(with no	conden	sation)	•
Performance	Work load	kg			3	0		
	Maximum speed Note)	mm/s	/s 1000 1000 930 740 6		600	500		
	Positioning repeatability mm				±0.	.02		
	Motor		AC servomotor (100W)					
	Encoder		Incremental system					
Main parts	Lead screw		Ground ball screw ø15mm, 20mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Model		D-Y7GL					
Switch	Switch Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less					

Intermediate strokes

Stokes other than the standard strokes on the left are available by special order. Consult SMC.

Note) The speed is limited by the transfer load.

Consult each motor manufacturer regarding the maximum speed for each transfer load.

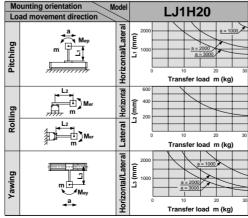
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

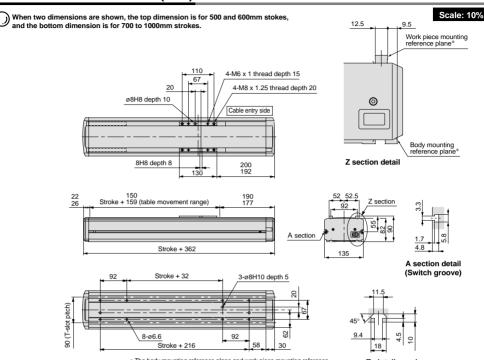
Allowable dynamic moment



Refer to page 145 for deflection data



Dimensions/LJ1H20 2 PC(X10)



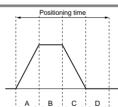
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

			Positioning time (sec.)						
Positioning of	distance (mm)	1	10	100	500	1000			
	10	0.6	1.5	10.5	50.5	100.5			
Speed (mm/s)	100	0.5	0.6	1.5	5.5	10.5			
(mm/s)	500	0.5	0.6	0.9	1.7	2.7			
	1000	0.5	0.6	0.9	1.4	1.9			

* Values will vary slightly depending on the operating conditions.

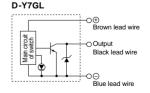


- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.4sec.)*
- Maximum acceleration: 2000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	400	100/115	MSM011P1A	MSD011P1E
Industrial Co., Ltd.	100	200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric	400	100/115	HC-PQ13	MR-C10A1
Corporation	100	200/230	nc-PQ13	MR-C10A
Yaskawa Electric	400	100/115	SGME-01BF12	SGDE-01BP
Corporation	100	200/230	SGME-01AF12	SGDE-01AP

- * For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting and design.
- Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.
- * For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers





Non-standard Motor

Horizontal Mount

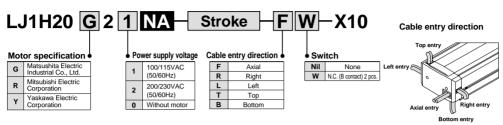
Series LJ1H20







How to Order



Specifications

	Standard stroke	mm	100	200	300	400	500	600
Body weight (without motor) k		kg	7.2	8.4	9.6	10.7	12.1	13.2
	Operating temperature range	°C		5 to 40	(with n	conde	nsation)	
Performance	Work load	kg			3	30		
	Maximum speed	mm/s			5	00		
	Positioning repeatability mm				±0	.05		
	Motor		AC servomotor (100W)					
	Encoder		Incremental system					
Main parts	Lead screw		Rolled ball screw ø15mm, 10mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Model		D-Y7GL					
			Power supply voltage: 4.5 to 28VDC					
Switch	Specifications		Current consumption: 10mA or less					
	Specifications		Control output: Open collector					
			Load curr	ent: 40mA	or less, Int	ernal volta	ge drop: 1.	5V or less

Intermediate strokes

Stokes other than the standard strokes on the left are available by special order. Consult SMC.

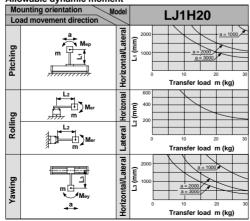
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

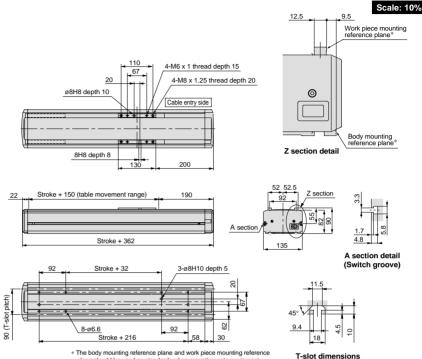
Allowable dynamic moment



Refer to page 145 for deflection data.



Dimensions/LJ1H20 2 NA(X10)

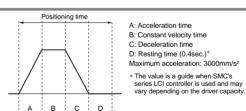


plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

			Positioning time (sec.)									
Positioning d	listance (mm)	1	10	100	300	600						
	10	0.5	1.4	10.4	30.4	60.4						
Speed (mm/s)	100	0.5	0.6	1.5	3.5	6.5						
(mm/s)	250	0.5	0.6	0.9	1.7	2.9						
	500	0.5	0.6	0.8	1.2	1.8						

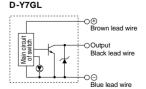
Values will vary slightly depending on the operating conditions.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	100	100/115	MSM011P1A	MSD011P1E
Industrial Co., Ltd.	100	200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric	400	100/115	HC-PQ13	MR-C10A1
Corporation	100	200/230	HC-PQ13	MR-C10A
Yaskawa Electric	100	100/115	SGME-01BF12	SGDE-01BP
Corporation	100	200/230	SGME-01AF12	SGDE-01AP

- * For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting and design.
- * Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer
- * For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable
- that connects the motor and driver is optional. Refer to page 100 for part numbers.





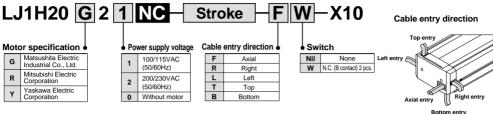
Series LJ1H20







How to Order



Specifications

	Standard stroke	500	600	700	800	900	1000			
	Body weight (without motor)	kg	12.1	13.2	14.4	15.6	16.8	18.0		
	Operating temperature range	°C		5 to 40	(with no	conden	sation)	•		
Performance	Work load	kg			3	0				
	Maximum speed Note)	mm/s	1000	1000	930	740	600	500		
	Positioning repeatability			±0.	05					
	Motor				AC servomotor (100W)					
	Encoder		Incremental system							
Main parts	Lead screw		Rolled ball screw ø15mm, 20mm lead							
'	Guide		High rigidity direct acting guide							
	Motor/Screw connection		With coupling							
	Model			D-Y7GL						
Switch	Switch Specifications			Current output: Ope	upply volt consump en collecto I voltage	tion: 10m r, Load cu	A or less			

Intermediate strokes

Stokes other than the standard strokes on the left are available by special order. Consult SMC.

Note) The speed is limited by the transfer load.

Consult each motor manufacturer regarding the maximum speed for each transfer load.

Allowable dynamic moment Mounting orientation

Allowable Moment (N·m)

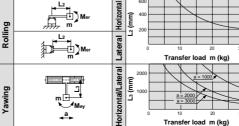
Allowable static moment

Pitching	71
Rolling	83
Yawing	75

- m : Transfer load (kg)
- : Work piece acceleration (mm/s2)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

LJ1H20 Load movement direction Horizontal/Lateral L1 (mm) Transfer load m (kg)

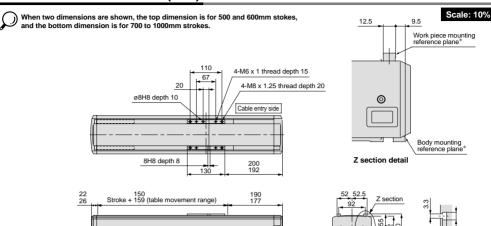
Model

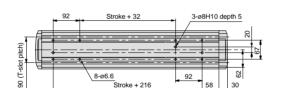


Refer to page 145 for deflection data



Dimensions/LJ1H20 2 NC(X10)





Stroke + 362

18

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)								
Positioning distance (mm)		1	1 10 100		500	1000				
	10	0.6	1.5	10.5	50.5	100.5				
Speed	100	0.5	0.6	1.5	5.5	10.5				
(mm/s)	500	0.5	0.6	0.9	1.7	2.7				
	1000	0.5	0.6	0.9	1.4	1.9				

^{*} Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.4sec.)* Maximum acceleration: 2000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

A section detail (Switch groove)

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model	
Matsushita Electric	100	100/115	MSM011P1A	MSD011P1E	
Industrial Co., Ltd.	100	200/230	MSM012P1A	MSD013P1E	
Mitsubishi Electric	400	100/115	U0 D040	MR-C10A1	
Corporation	100	200/230	HC-PQ13	MR-C10A	
Yaskawa Electric	400	100/115	SGME-01BF12	SGDE-01BP	
Corporation	100	200/230	SGME-01AF12	SGDE-01AP	

- * For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting and design.
- Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.
- * For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers

Switch Internal Circuit

D-Y7GL Brown lead wire O Output Black lead wire) () Blue lead wire

SMC

В С D



Horizontal Mount

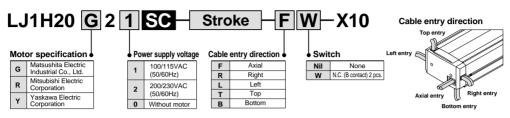
Series LJ1H20







How to Order



Specifications

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000	1200
	Body weight (without motor)	kg	7.5	8.5	9.6	10.8	12.3	13.8	16.3	16.8	18.6	20.4	24.2
	Operating temperature range	°C				5 to	o 40 (wit	h no con	densatio	on)			
Performance	Work load	kg						15					
	Maximum speed	mm/s						500					
	Positioning repeatability	mm	±0.1										
	Motor		AC servomotor (100W)										
	Encoder						Increr	nental sy	/stem				
Main parts	Lead screw					Slid	e screw	ø20mm,	20mm l	ead			
	Guide					Hig	h rigidity	direct a	cting gu	ide			
	Motor/Screw connection						Wi	th coupli	ng				
	Model		D-Y7GL										
Switch	Specifications		Control					VDC, Cui nt: 40mA				or less Irop: 1.5V	or less

Immediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

Allowable dynamic moment

Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Mounting orientation Model **LJ1H20** Load movement direction Horizontal/Lateral L1 (mm) Transfer load m (kg) Horizontal L2 (mm) Rolling Lateral Transfer load m (kg) lorizontal/Lateral L3 (mm)

Refer to page 145 for deflection data.

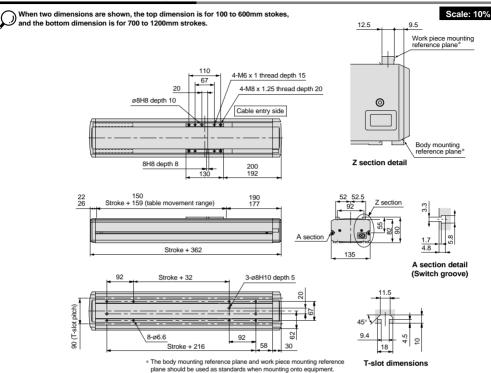


Transfer load m (kg)

. [

Non-standard Motor/Horizontal Mount Specification Series LJ1H20

Dimensions/LJ1H20 2 PC(X10)



Refer to pages starting with 140 for mounting.

Positioning Time Guide

			Positio	oning time	(sec.)	
Positioning d	istance (mm)	1	10	100	500	1000
	10	0.6	1.5	10.5	60.5	120.5
Speed (mm/s)	100	0.5	0.6	1.5	6.5	12.5
(mm/s)	250	0.5	0.6	1.0	3.0	5.4
	500	0.5	0.6	0.9	19	3.1

^{*} Values will vary slightly depending on the operating conditions.

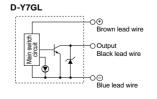
Positioning time A B C D

- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.4sec.)*
- Maximum acceleration: 2000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	400	100/115	MSM011P1A	MSD011P1E
Industrial Co., Ltd.	100	200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric	400	100/115	110 0040	MR-C10A1
Corporation	100	200/230	HC-PQ13	MR-C10A
Yaskawa Electric	100	100/115	SGME-01BF12	SGDE-01BP
Corporation	100	200/230	SGME-01AF12	SGDE-01AP

- \ast For motor mounting dimensions, refer to the dimensions for series LJ1 $_S^H20$ on page 143 as a reference for mounting and design.
- * Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.
- * For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.





Horizontal Mount

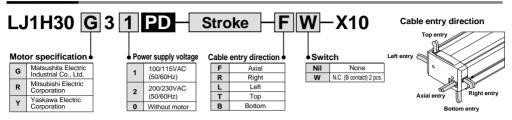
Series LJ1H30







How to Order



Specifications

	Standard stroke mm			300	400	500	600	800	1000	1200	1500
	Body weight (without motor)	kg	14.9	16.9	18.9	20.9	22.9	27.4	31.9	35.9	41.9
	Operating temperature range	°C				5 to 40 (w	ith no cond	densation)			
Performance	Work load	kg					60				
	Maximum speed	mm/s				1000				700	500
	Positioning repeatability	mm	±0.02								
	Motor		AC servomotor (200W)								
	Encoder					Incre	mental sy	stem			
Main parts	Lead screw				Grou	und ball sc	rew ø25m	m, 25mm	lead		
	Guide					High rigidit	y direct ac	ting guide			
	Motor/Screw connection					W	ith couplin	ıg			
	Model		D-Y7GL								
Switch	Specifications		Control or			e: 4.5 to 28 Load curre					5V or less

Immediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

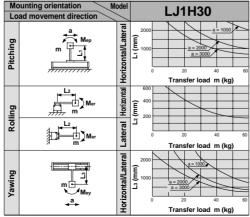
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment Mounting orientation Mod



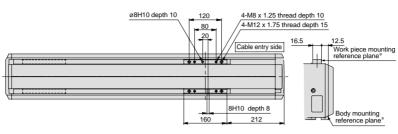
Refer to page 145 for deflection data.



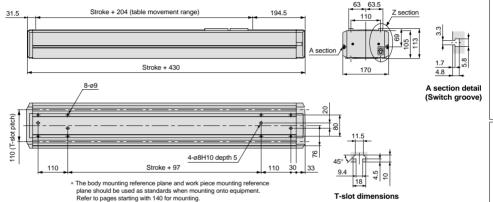
Scale: 10%

Non-standard Motor/Horizontal Mount Specification Series LJ1H30

Dimensions/LJ1H30 3 PD(X10)



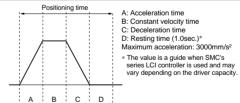
Z section detail



Positioning Time Guide

			Positioning time (sec.)						
Positioning of	listance (mm)	1	1 10 100 750 1500						
	10	1.1	2.0	11.0	76.0	151.0			
Speed (mm/s)	100	1.1	1.2	2.1	8.6	16.1			
(mm/s)	500	1.1	1.2	1.4	2.7	4.2			
	1000	1.1	1.2	1.4	2.1	2.9			

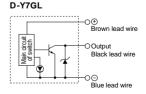
^{*} Values will vary slightly depending on the operating conditions.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	000	100/115 MSM		MSD021P1E
Industrial Co., Ltd.	200	200/230	MSM022P1A	MSD023P1E
Mitsubishi Electric		100/115	LIO BOOO	MR-C20A1
Corporation	200	200/230	HC-PQ23	MR-C20A
Yaskawa Electric	000	100/115	SGME-02BF12	SGDE-02BP
Corporation	200	200/230	SGME-02AF12	SGDE-02AP

^{*} For motor mounting dimensions, refer to the dimensions for series LJ1H30 on page 143 as a reference for mounting





^{*} Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer

^{*} For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Non-standard Motor Horizontal Mount

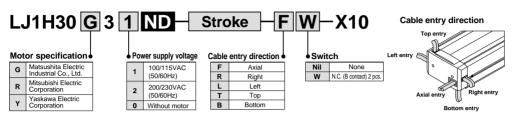
Series LJ1H30







How to Order



Specifications

	Standard stroke	mm	200	300	400	500	600	800	1000	1200	1500
	Body weight (without motor)	kg	14.9	16.9	18.9	20.9	22.9	27.4	31.9	35.9	41.9
	Operating temperature range	°C				5 to 40 (wi	ith no cond	densation)			
Performance	Work load	kg					60				
	Maximum speed	mm/s				1000)			700	500
	Positioning repeatability	mm	±0.05								
	Motor		AC servomotor (200W)								
	Encoder					Incre	mental sy	stem			
Main parts	Lead screw				Roll	ed ball scr	ew ø25mi	m, 25mm l	ead		
	Guide					High rigidit	y direct ac	ting guide	,		
	Motor/Screw connection					W	ith couplir	ng			
	Model		D-Y7GL								
Switch	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or le				5V or less				

Immediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

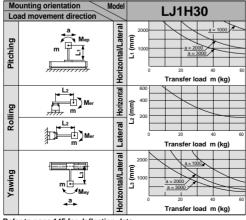
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



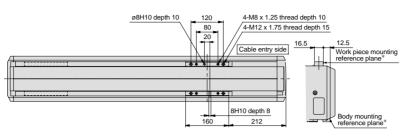
Refer to page 145 for deflection data.



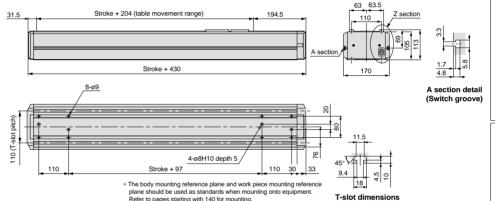
Scale: 10%

Non-standard Motor/Horizontal Mount Specification Series LJ1H30

Dimensions/LJ1H30 3 ND(X10)



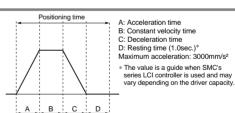
Z section detail



Positioning Time Guide

		Positioning time (sec.)						
Positioning d	listance (mm)	1	10	100	750	1500		
	10	1.1	2.0	11.0	76.0	151.0		
Speed (mm/s)	100	1.1	1.2	2.1	8.6	16.1		
(mm/s)	500	1.1	1.2	1.4	2.7	4.2		
	1000	1.1	1.2	1.4	2.1	2.9		

^{*} Values will vary slightly depending on the operating conditions.



D-Y7GL

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

Refer to pages starting with 140 for mounting.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	200	100/115 MSM021P		MSD021P1E
Industrial Co., Ltd.	200	200/230	MSM022P1A	MSD023P1E
Mitsubishi Electric		100/115	HC-PQ23	MR-C20A1
Corporation	200	200/230	HC-PQ23	MR-C20A
Yaskawa Electric	200	100/115	SGME-02BF12	SGDE-02BP
Corporation	200	200/230	SGME-02AF12	SGDE-02AP

- For motor mounting dimensions, refer to the dimensions for series LJ1H30 on page 143 as a reference for mounting and design.
- * Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each
- * For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers

Switch Internal Circuit

ЭŒ Brown lead wire OOutput Black lead wire Blue lead wire



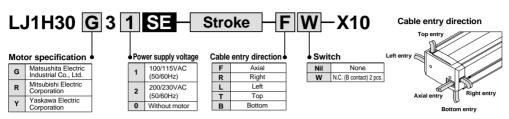
Series LJ1H30







How to Order



Specifications

	Standard stroke	mm	200	300	400	500	600	800	1000	1200	1500
	Body weight (without motor)	kg	13.8	15.9	17.9	20.0	22.1	26.2	30.4	34.5	40.8
	Operating temperature range	°C			,	5 to 40 (wit	th no cond	lensation)		•	
Performance	Work load	kg					30				
	Maximum speed	mm/s					500				
	Positioning repeatability	mm	±0.1								
	Motor		AC servomotor (200W)								
	Encoder					Incre	mental sys	stem			
Main parts	Lead screw				S	lide screw	ø30mm, 4	40mm lead	i		
	Guide				ŀ	ligh rigidit	y direct ac	ting guide			
	Motor/Screw connection					W	ith couplin	g			
	Model		D-Y7GL								
Switch	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or les				5V or less				

Immediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

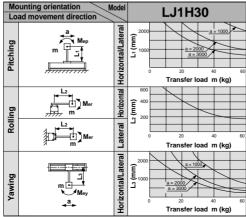
Allowable Moment (N·m)

Allowable static moment

ritting	117	
Rolling	137	
Yawing	123	

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

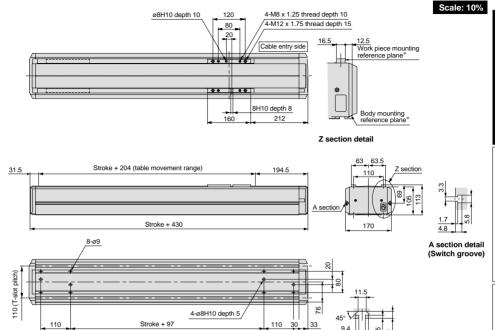
Allowable dynamic moment



Refer to page 145 for deflection data.



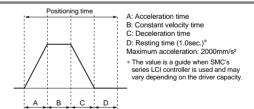
Dimensions/LJ1H30 3 SE(X10)



Positioning Time Guide

			Positioning time (sec.)						
Positioning d	listance (mm)	1	10	100	750	1500			
	10	1.2	2.1	11.1	76.1	151.1			
Speed (mm/s)	100	1.1	1.2	2.1	8.6	16.1			
(mm/s)	250	1.1	1.2	1.6	4.2	7.2			
	500	1.1	1.2	1.5	2.8	4.3			

^{*} Values will vary slightly depending on the operating conditions.



18

T-slot dimensions

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

* The body mounting reference plane and work piece mounting reference

plane should be used as standards when mounting onto equipment.

Refer to pages starting with 140 for mounting.

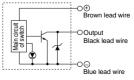
	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model	
Matsushita Electric			MSM021P1A	MSD021P1E	
Industrial Co., Ltd.	200	200/230	MSM022P1A	MSD023P1E	
Mitsubishi Electric		100/115	LIO BOOO	MR-C20A1	
Corporation	200	200/230	HC-PQ23	MR-C20A	
Yaskawa Electric	000	100/115	SGME-02BF12	SGDE-02BP	
Corporation	200	200/230	SGME-02AF12	SGDE-02AP	

- * For motor mounting dimensions, refer to the dimensions for series LJ1H30 on page 143 as a reference for mounting and design.
- * Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.
- * For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

SMC

Switch Internal Circuit

D-Y7GL



Vertical Mount

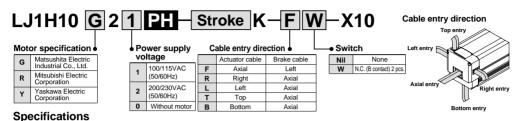
Series LJ1H10







How to Order



	Standard strok	æ	mm	100	200	300	400	500	
	Body weight (wit	hout motor)	kg	5.1 5.9 6.7 7.4 8.2					
	Operating temperature range °C				5 to 40 (w	ith no cond	densation)		
Performance	Work load kg		kg			10			
	Rated thrust		N			225			
	Maximum spee	d	mm/s			400			
	Positioning repe	eatability	mm			±0.02			
	Motor				AC se	rvomotor (100W)		
	Encoder			Incremental system					
	Lead screw			Ground ball screw ø12mm, 8mm lead					
	Guide			High rigidity direct acting guide					
Main parts	Motor/Screw co	nnection		With coupling					
		Specificati	ions	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A					
	Electromagnetic brake	Holding to	rque	0.4N·m					
	Diano	Connection	method	Ball screw mounting					
	Model			D-Y7GL					
Switch	Specifications			Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less					
Regenerati	ve absorption u	Regenerative absorption unit			Refer to the selection guide below.				

Intermediate strokes Strokes other than the standard strokes on the left are available by special order. Consult SMC.

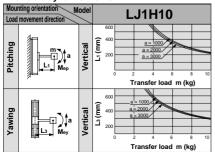
Allowable Moment (N·m)

Allowable static moment

Allowable Static	moment
Pitching	10.2
Yawing	10.2

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²) Me: Dynamic moment
- L : Overhang to work piece
- center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

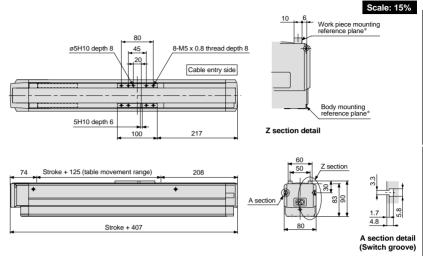
Regenerative energy = Motor coil energy consumption

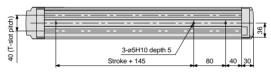
- + Driver capacitor energy consumption (A)
- + Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.



Dimensions/LJ1H10 2 PH(X10)







The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

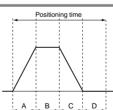
SMC

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)				
Positioning d	listance (mm)	1	10	100	250	500
	10	0.4	1.3	10.3	25.3	50.3
Speed (mm/s)	100	0.4	0.5	1.4	2.9	5.4
(mm/s)	200	0.4	0.5	0.9	1.7	2.9
	400	0.4	0.5	0.7	1.1	1.7

^{*} Values will vary slightly depending on the operating conditions.



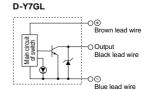
- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)*

 Maximum acceleration: 3000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	400	100/115	MSM011P1A	MSD011P1E
Industrial Co., Ltd.	100	200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric	tsubishi Electric		UO DO40	MR-C10A1
Corporation	100	200/230	HC-PQ13	MR-C10A
Yaskawa Electric	Yaskawa Electric		SGME-01BF12	SGDE-01BP
Corporation	100	200/230	SGME-01AF12	SGDE-01AP

- For motor mounting dimensions, refer to the dimensions for series LJ1⁸₈10 on page 143 as a reference for mounting and design.
- * Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.
- *For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.



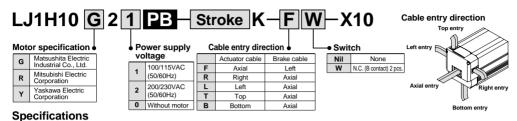
Series LJ1 H10 **Vertical Mount**







How to Order



100 200 300 400 500 Standard stroke mm Body weight (without motor) kg 5.1 5.9 6.7 7.4 8.2 Operating temperature range 5 to 40 (with no condensation) °C Work load 5 Performance Rated thrust 150 600 Maximum speed mm/s Positioning repeatability mm ±0.02 Motor AC servomotor (100W) Encoder Incremental system Lead screw Ground ball screw ø12mm, 12mm lead Guide High rigidity direct acting guide Main parts Motor/Screw connection With coupling Specifications De-energized operation type, Rated voltage 24VDC ±10%, 0.4A Electromagnetic Holding torque 0.4N.m brake Connection method Ball screw mounting Model D-Y7GL Power supply voltage: 4.5 to 28VDC Switch Current consumption: 10mA or less Specifications Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less Regenerative absorption unit Refer to the selection guide below.

Intermediate strokes Strokes other than the standard strokes on the left are available by

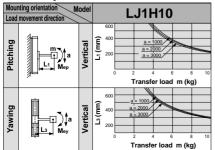
special order. Consult SMC.

Allowable Moment (N·m)

Allowable Static Illollielli					
Pitching	10.2				
Yawing	10.2				

- m: Transfer load (kg)
- : Work piece acceleration (mm/s2) Me: Dynamic moment
- Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mounting specification. How to determine regenerative energy is shown below.

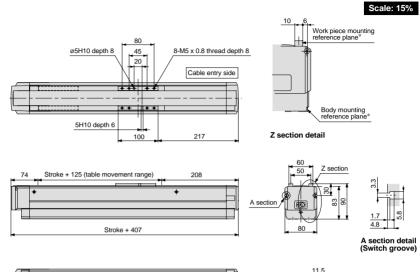
Regenerative energy = Motor coil energy consumption

- + Driver capacitor energy consumption (A)
- + Regenerative resistor energy consumption (B)

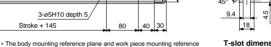
(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.



Dimensions/LJ1H10□2□PB(X10)







В С D

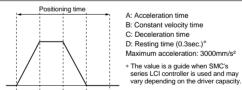
plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)				
Positioning d	listance (mm)	1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	300	0.4	0.5	0.8	1.3	2.1
	600	0.4	0.5	0.7	1.0	1.4

^{*} Values will vary slightly depending on the operating conditions.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

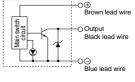
	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	100	100/115	MSM011P1A	MSD011P1E
Industrial Co., Ltd.		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	400	100/115	HC-PQ13	MR-C10A1
	100	200/230		MR-C10A
Yaskawa Electric	100	100/115	SGME-01BF12	SGDE-01BP
Corporation	100	200/230	SGME-01AF12	SGDE-01AP

- * For motor mounting dimensions, refer to the dimensions for series LJ1H 10 on page 143 as a reference for mounting and design.
- * Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

SMC

Switch Internal Circuit

D-Y7GL



^{*} For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

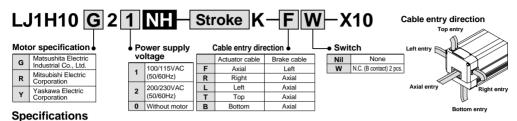
Series LJ1H10







How to Order



100 200 300 400 500 Standard stroke mm Body weight (without motor) kg 5.1 5.9 6.7 7.4 8.2 Operating temperature range °C 5 to 40 (with no condensation) 10 Work load kg Performance Rated thrust N 225 400 Maximum speed mm/s Positioning repeatability mm ±0.05 Motor AC servomotor (100W) Encoder Incremental system Lead screw Rolled ball screw ø12mm, 8mm lead Guide High rigidity direct acting guide Main parts Motor/Screw connection With coupling Specifications De-energized operation type, Rated voltage 24VDC ±10%, 0.4A Electromagnetic Holding torque brake Connection method Ball screw mounting Model D-Y7GL Power supply voltage: 4.5 to 28VDC Switch Current consumption: 10mA or less Specifications Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

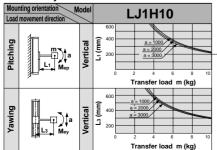
Allowable Moment (N·m)

Regenerative absorption unit

Allowable static moment				
Pitching	10.2			
Yawing	10.2			

- m : Transfer load (kg)
 - a : Work piece acceleration (mm/s²)
 - Me: Dynamic moment L : Overhang to work piece
 - center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data

Regenerative Absorption Unit/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mounting specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

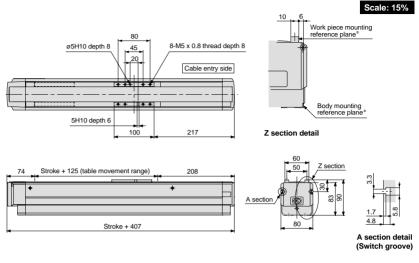
- + Driver capacitor energy consumption (A)
- + Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.



Refer to the selection guide below

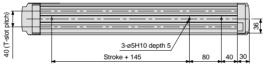
Dimensions/LJ1H10 2 NH(X10)



Positioning time

С D

В





* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

			Positioning time (sec.)				
Positioning d	tioning distance (mm) 1 10 100 250 500					500	
	10	0.4	1.3	10.3	25.3	50.3	
Speed (mm/s)	100	0.4	0.5	1.4	2.9	5.4	
(mm/s)	200	0.4	0.5	0.9	1.7	2.9	
	400	0.4	0.5	0.7	1.1	1.7	

^{*} Values will vary slightly depending on the operating conditions.

A: Acceleration time

- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)* Maximum acceleration: 3000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

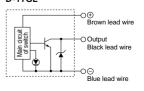
Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	100	100/115	MSM011P1A	MSD011P1E
Industrial Co., Ltd.	100	200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric	Mitsubishi Electric		UO DO40	MR-C10A1
Corporation	100	200/230	HC-PQ13	MR-C10A
Yaskawa Electric	Electric 100		SGME-01BF12	SGDE-01BP
Corporation	100	200/230	SGME-01AF12	SGDE-01AP

- * For motor mounting dimensions, refer to the dimensions for series LJ1H10 on page 143 as a reference for mounting and design.
- * Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.
- * For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



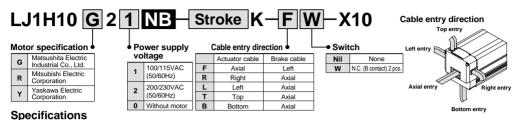
Series LJ1H10 Vertical Mount







How to Order



Standard stroke 100 200 300 400 500 mm Body weight (without motor) kg 5.1 5.9 6.7 7.4 8.2 Operating temperature range °C 5 to 40 (with no condensation) Work load 5 kg Performance Rated thrust 150 Maximum speed 600 mm/s +0.05 Positioning repeatability mm Motor AC servomotor (100W) Encoder Incremental system Lead screw Rolled ball screw ø12mm, 12mm lead Guide High rigidity direct acting guide Main parts Motor/Screw connection With coupling De-energized operation type, Rated voltage 24VDC $\pm 10\%$, 0.4A Specifications Electromagnetic Holding torque brake Connection method Ball screw mounting Model D-Y7GL Power supply voltage: 4.5 to 28VDC Switch Current consumption: 10mA or less Specifications Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less

Intermediate strokes Manufacture of strokes other than the standard strokes on the left will be treated as a special order. Consult SMC

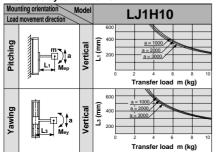
Allowable Moment (N·m)

Regenerative absorption unit

Allowable static moment

Pitching	10.2
Yawing	10.2

- m : Transfer load (kg)
 - a : Work piece acceleration (mm/s2)
 - Me: Dynamic moment
 - L : Overhang to work piece center of gravity (mm)
- Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mounting specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

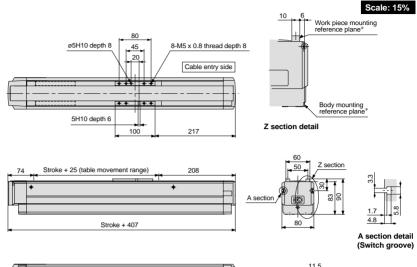
- + Driver capacitor energy consumption (A)
- + Regenerative resistor energy consumption (B)

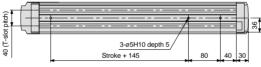
(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.



Refer to the selection guide below

Dimensions/LJ1H10 2 NB(X10)







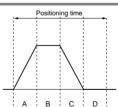
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)				
Positioning of	ning distance (mm) 1 10 100 250 500					500
Speed	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
Speed (mm/s)	300	0.4	0.5	0.8	1.3	2.1
	600	0.4	0.5	0.7	2.0	1.4

^{*} Values will vary slightly depending on the operating conditions.



- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)* Maximum acceleration: 3000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
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Industrial Co., Ltd.		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric	400	100/115	HC-PQ13	MR-C10A1
Corporation	100	200/230	nc-PQ13	MR-C10A
Yaskawa Electric		100/115	SGME-01BF12	SGDE-01BP
Corporation	100	200/230	SGME-01AF12	SGDE-01AP

- * For motor mounting dimensions, refer to the dimensions for series LJ1510 on page 143 as a reference for mounting and
- * Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer
- * For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

SMC

