Single Axis Electric Actuator

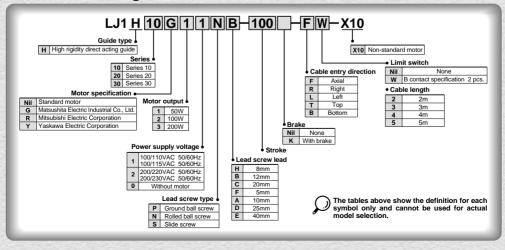
Series LJ1H

High Rigidity Direct Acting Guide

Series	Motor type	Guide type	Mounting	Madal	Lea	ad screw (lead) n	nm	Dawa
Selles II	wotor type	Guide type	orientation	Model	Ground ball screw	Rolled ball screw	Slide screw	Page
				LJ1H10	12	12	20	2
			Horizontal	LJ1H20	10 20	10 20	20	8
Standard motor			LJ1H30	25	25	40	18	
	motor	High rigidity direct acting guide	Vertical	LJ1H10	8 12	8 12		24
				LJ1H20	5 10	5 10		32
LJ1H				LJ1H30	10	10		40
LJIN				LJ1H10	12	12	20	44
			Horizontal	LJ1H20	10 20	10 20	20	50
	Non-standard		1 1	LJ1H30	25	25	40	60
motor				LJ1H10	8 12	8 12		66
			Vertical	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



Non-standard Motor Horizontal Mount

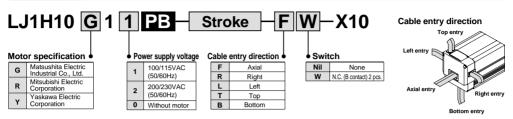
Series LJ1H10







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			10				
	Maximum speed	AC servomotor (50W)						
	Positioning repeatability	±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					
Guide High rigidity direct	ith couplin	ng						
	Model		D-Y7GL					
Switch	Specifications				ss mA or less			

Intermediate strokes

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

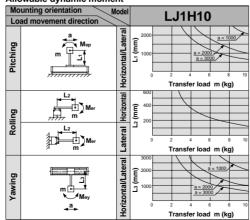
Allowable Moment (N·m)

Allowable static moment

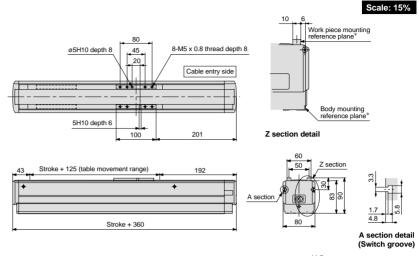
Pitching	10.2
Rolling	12.8
Yawing	10.2

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

Allowable dynamic moment



Dimensions/LJ1H10□1□PB(X10)







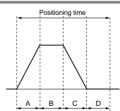
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)								
Positioning distance (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.



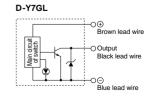
- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)* Maximum acceleration: 3000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

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

Switch Internal Circuit



^{*} 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

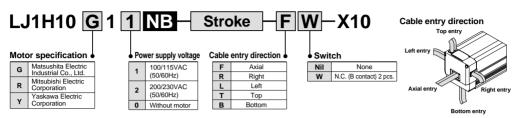
Series LJ1H10 50w







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	7.9
	Operating temperature range	°C		5 to 40 (wi	th no cond	densation))
Performance	Work load			10			
renomance	Maximum speed			600			
	Positioning repeatability			±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				
	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 les 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.

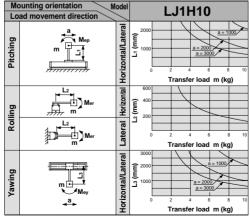
Allowable Moment (N·m)

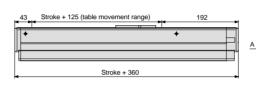
Allowable static moment

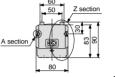
Pitching	10.2
Rolling	12.8
Yawing	10.2

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

Allowable dynamic moment

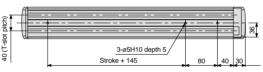








(Switch groove)





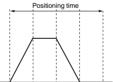
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)							
Positioning distance (mm)		1	10	100	250	500			
Speed	10	0.4	1.3	10.3	25.3	50.3			
	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.



D

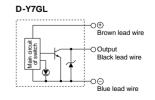
- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)*
- Maximum acceleration: 3000mm/s²
 - The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

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 LJ1½10 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





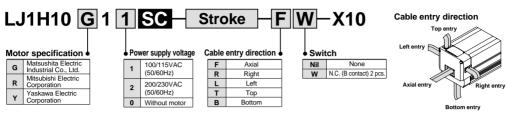
Series LJ1H10







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)									
Performance	Work load	kg					1	0				
	Maximum speed	mm/s					50	00				
	Positioning repeatability	mm	±0.1									
	Motor	AC servomotor (50W)										
	Encoder		Incremental system									
Main parts	Lead screw		Slide screw ø20mm, 20mm lead									
	Guide					High r	igidity dire	ect 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										

Intermediate strokes

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

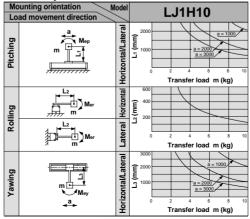
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2	
Rolling	12.8	
Yawing	10.2	

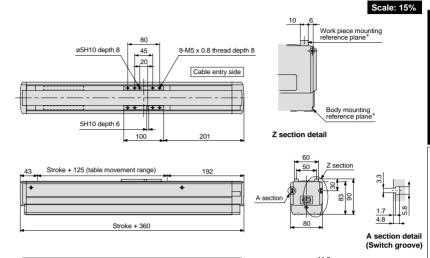
- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- Coverhang to work piece center of gravity (mm)

Allowable dynamic moment





Dimensions/LJ1H10 1 SC(X10)



3-e5H10 depth 5 Stroke + 145



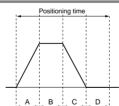
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)					
Positioning 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.



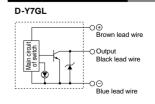
- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3sec.)*
- Maximum acceleration: 2000mm/s²

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	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 LJ1^H_S10 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





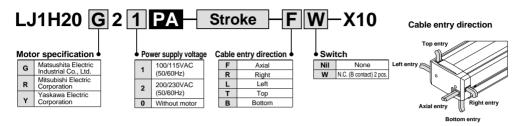
The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Horizontal Mount





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						

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

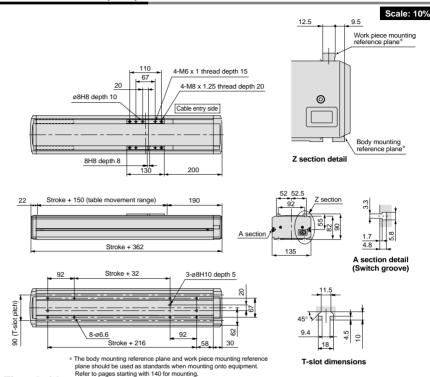
Pitching	71
Rolling	83
Yawing	75

- 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 Mounting orientation 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 Transfer load m (kg)

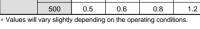


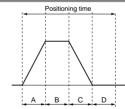
Dimensions/LJ1H20 2 PA(X10)



Positioning Time Guide

		Positioning time (sec.)					
Positioning di	stance (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	





- 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	400	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

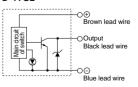
* For motor mounting dimensions, refer to the dimensions for series LJ1^H_S20 on page 143 as a reference for mounting and design.

* 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



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

Non-standard Motor

Horizontal Mount

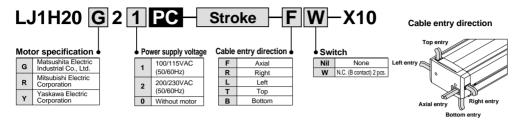
Series LJ1H20







How to Order



Specifications

	Standard stroke	mm	500	600	700	800	900	1000
	Body weight (without motor)		12.1	13.2	14.4	15.6	16.8	18.0
	Operating temperature range	°C				conden		
Performance	Work load	kg			3	0		
	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					
	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						

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.

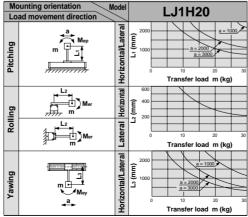
Allowable Moment (N·m)

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)

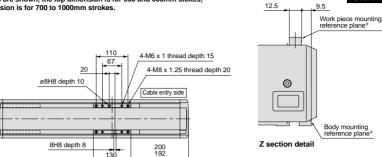
Allowable dynamic moment

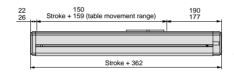


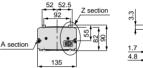
Scale: 10%

Dimensions/LJ1H20 2 PC(X10)

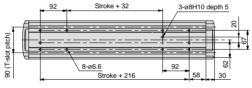








A section detail (Switch groove)





* 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	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.

Positioning time A: Acceleration time B: Constant velocity time

В С D

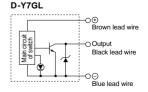
- C: Deceleration time
- D: Resting time (0.4sec.)*
- Maximum acceleration: 2000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

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 MS		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	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





Horizontal Mount

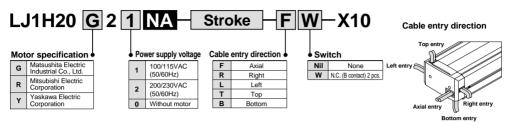
Series LJ1H20

Motor Output 100w





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			±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					
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	

Intermediate strokes

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

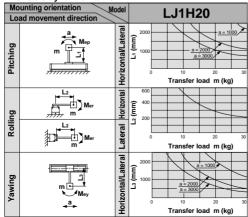
Allowable Moment (N·m)

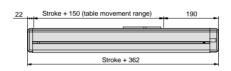
Allowable static moment

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





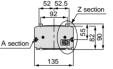
ø8H8 depth 10

8H8 depth 8

67

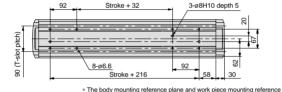
130

200





A section detail (Switch groove)



Refer to pages starting with 140 for mounting.

plane should be used as standards when mounting onto equipment.



T-slot dimensions

Positioning Time Guide

			Positioning time (sec.)								
Positioning of	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.

Positioning time 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	110 0040	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

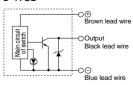
- * For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting and design.
- * Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer
- * For a non-standard motor 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.

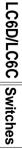
Switch Internal Circuit

D-Y7GL

D

В





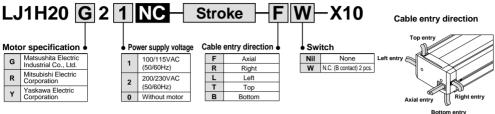
Series LJ1H20







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	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					
	Model	D-Y7GL						
Switch Specifications			Control o	Current output: Ope	consump en collecto	age: 4.5 to tion: 10m or, Load cu drop: 1.5\	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.

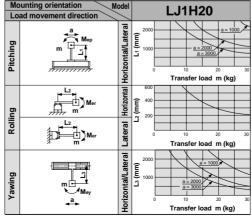
Allowable Moment (N·m)

Allowable static moment

/ IIIO II GDIO OLGLIO	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Pitching	71
Rolling	83
Yawing	75

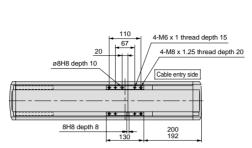
- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

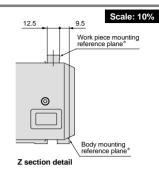
Allowable dynamic moment

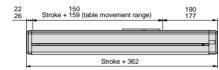


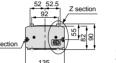
Dimensions/LJ1H20 2 NC(X10)

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



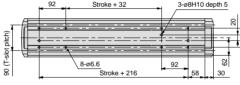








A section detail (Switch groove)





* 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.

Positioning time

B | C | D

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						

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

- A: Acceleration time
- 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	100	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	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.

 * Plant to page classica with 205 for driver dimensions, etc. Furthermore for detailed excelligations, etc., control each
- 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 Output Black lead wire Blue lead wire



Horizontal Mount

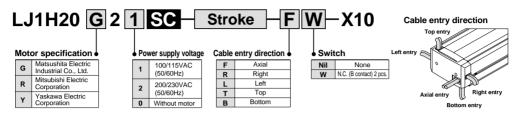
Series LJ1H20







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	n)		•	
Performance	Work load	kg						15					
	Maximum speed	mm/s						500					
	Positioning repeatability	mm	±0.1										
	Motor		AC servomotor (100W)										
	Encoder						Increr	nental sy	ystem				
Main parts	Lead screw					Slid	e screw	ø20mm,	20mm l	ead			
	Guide					Hig	h rigidity	direct a	cting gu	ide			
	Motor/Screw connection		With coupling										
	Model		D-Y7GL										
Switch	Specifications		Control						rrent con or less,			or less Irop: 1.5V	or less

Immediate strokes

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

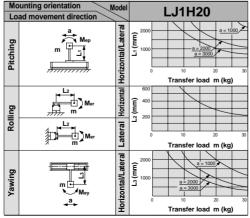
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

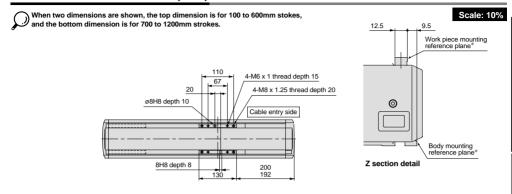
- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment





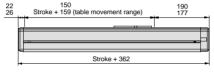
Dimensions/LJ1H20 2 PC(X10)

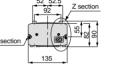


plane should be used as standards when mounting onto equipment.

Positioning time

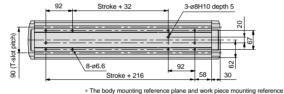
B C D







(Switch groove)



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	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.

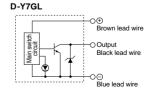
- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.4sec.)*
- Maximum acceleration: 2000mm/s²
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

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	

- 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.

Switch Internal Circuit







Horizontal Mount

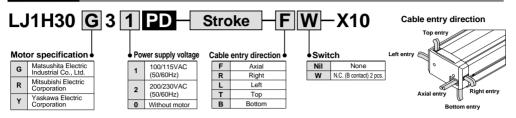
Series LJ1H30







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	th 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 couplir	ng						
	Model		D-Y7GL											
Switch	Specifications		Control or								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			

Immediate strokes

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

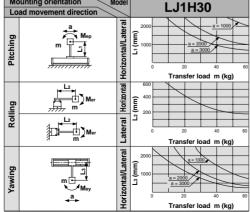
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

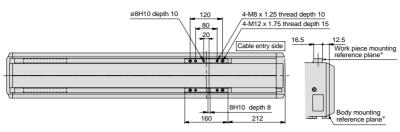
- m : Transfer load (kg)
- a : Work piece acceleration (mm/s2)
- Me: Dynamic moment
- L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment Mounting orientation Model Load movement direction

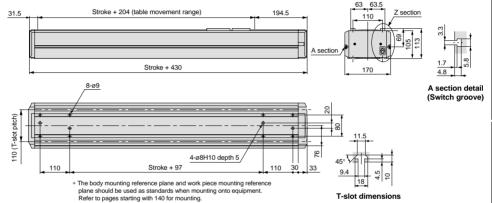




Dimensions/LJ1H30□3□PD(X10)

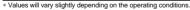


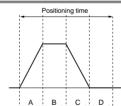
Z section detail



Positioning Time Guide

			Positioning time (sec.)									
Positioning of	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						





- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time D: Resting time (1.0sec.)*
- 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.

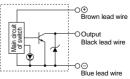
	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	000	100/115	MSM021P1A	MSD021P1E
Industrial Co., Ltd.	200	200/230	MSM022P1A	MSD023P1E
Mitsubishi Electric		100/115	LIO BOOO	MR-C20A1
Corporation	200	200/230	HC-PQ23	MR-C20A
Yaskawa Electric	000	100/115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

- * For motor mounting dimensions, refer to the dimensions for series LJ1^H_S30 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





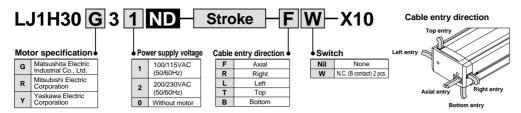
Series LJ1H30







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 (with no condensation) 60									
Performance	Work load	kg										
	Maximum speed	mm/s	1000 700 5					500				
	Positioning repeatability	mm	±0.05						•			
	Motor		AC servomotor (200W)									
	Encoder		Incremental system									
Main parts	Lead screw				Roll	ed ball scr	ew ø25mr	m, 25mm l	ead			
	Guide					High rigidit	y direct ac	ting guide	,			
	Motor/Screw connection					W	ith couplin	ng				
	Model	D-Y7GL										
Switch Specifications Power supply voltage: 4.5 to 28VDC, Current consult Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Load current: 40mA or less, Interest Control output: Open collector, Interest Contr						5V or less						

Immediate strokes

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

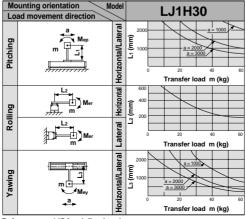
Allowable Moment (N·m)

Allowable static moment

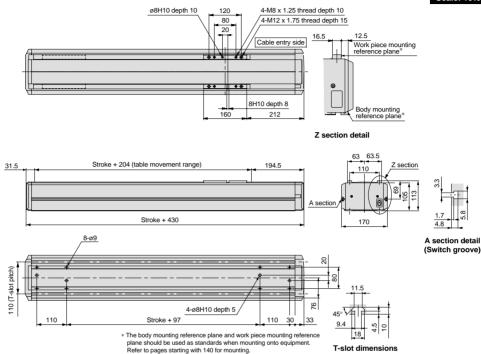
Pitching	117
Rolling	137
Yawing	123

- 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



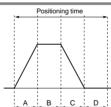




Positioning Time Guide

		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.



- A: Acceleration time
- B: Constant velocity time C: Deceleration time
- D: Resting time (1.0sec.)*
- 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.

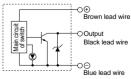
Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	000	100/115	MSM021P1A	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	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 LJ1^H_S30 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

D-Y7GL

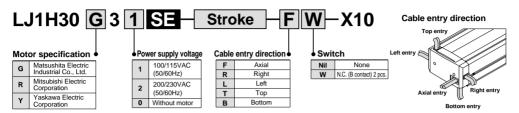


Horizontal Mount





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 (with no condensation)						•				
Performance	Work load	kg	30								
	Maximum speed	mm/s									
	Positioning repeatability	mm									
Motor AC servomotor (200W)											
	Encoder		Incremental system								
Main parts	Lead screw				S	lide screw	ø30mm, 4	40mm lead	i		
	Guide				ŀ	ligh rigidit	y direct ac	ting 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: 1.5					5V or less			

Immediate strokes

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

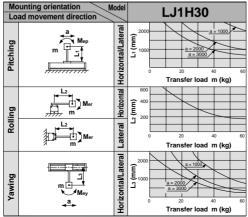
Allowable Moment (N·m)

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)

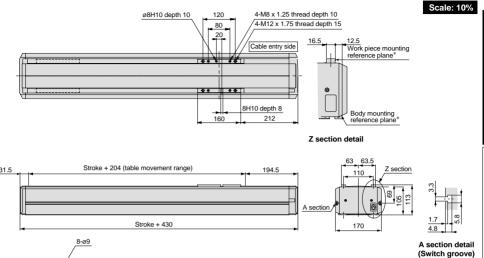
Allowable dynamic moment



Refer to page 145 for deflection data.



Dimensions/LJ1H30 3 SE(X10)



4-ø8H10 depth 5

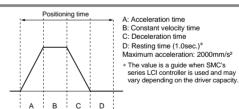
Positioning Time Guide

110

110 (T-slot pitch)

			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

9/

30 33

110

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

Stroke + 97

Refer to pages starting with 140 for mounting.

* The body mounting reference plane and work piece mounting reference

plane should be used as standards when mounting onto equipment.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	000	100/115	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

Non-standard Motor

Vertical Mount

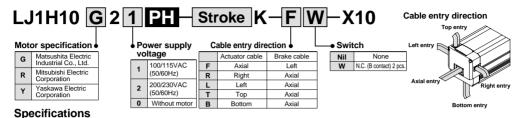
Series LJ1H10

Motor Output 100w





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) Work load kg 10 Performance Rated thrust Ν 225 400 Maximum speed mm/s +0.02 Positioning repeatability mm Motor AC servomotor (100W) Encoder Incremental system Lead screw Ground 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

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

special order. Consult SMC.

Allowable Moment (N·m)

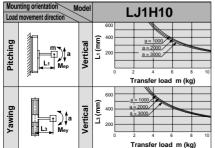
Regenerative absorption unit

Allowable static moment

Allowable Static	moment
Pitching	10.2
Yawing	10.2

- m : Transfer load (kg)
- a : Work piece acceleration (mm/s²)
- Me: Dynamic moment
- 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

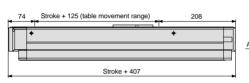
- + Driver capacitor energy consumption (A)
- + Regenerative resistor energy consumption (B)

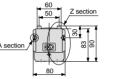
(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available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



Internal voltage drop: 1.5V or less

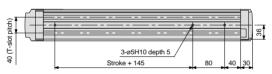
Refer to the selection guide below.







(Switch groove)





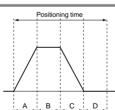
The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)								
Positioning 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.

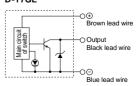
Power supply Motor output voltage (VAC) Motor model Compatible driver model (W) 100/115 MSM011P1A MSD011P1E Matsushita Electric 100 Industrial Co., Ltd. MSM012P1A MSD013P1E 200/230 MR-C10A1 Mitsubishi Electric 100/115 HC-PQ13 100 Corporation 200/230 MR-C10A 100/115 SGME-01BF12 SGDE-01BP Yaskawa Electric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

- * For motor mounting dimensions, refer to the dimensions for series LJ1 H10 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

D-Y7GL





Non-standard Motor

Vertical Mount

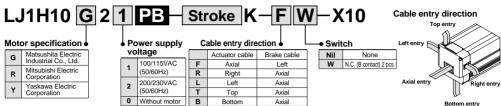
Series LJ1H10







How to Order



Specifications

	Standard strok	(e	mm	100	200	300	400	500	
	Body weight (without motor) kg			5.1	5.9	6.7	7.4	8.2	
	Operating tempe	rature range	°C		5 to 40 (w	ith no con	densation)	
Performance	Work load		kg			5			
	Rated thrust		N			150			
	Maximum speed mm/s Positioning repeatability mm		mm/s			600			
					±0.02				
	Motor				AC se	rvomotor ((100W)		
	Encoder	ncoder		Incremental system					
	Lead screw			Ground ball screw ø12mm, 12mm lead					
Main parts	Guide			High rigidity direct acting guide					
waiii parts	Motor/Screw co	onnection		With coupling					
	Electromagnetic Specification		ions	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A					
	brake	Holding to	Holding torque		0.4N·m				
		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 les Internal voltage drop: 1.5V or less				ss OmA or less	
Regenerati	ve absorption u	nit		Refer to the selection guide below.					

Intermediate strokes

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

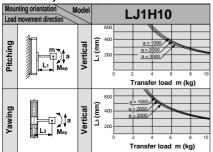
Allowable Moment (N·m)

Allowable static moment

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

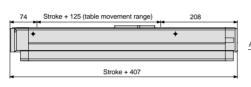
Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mounting specification. How to determine regenerative energy is shown below.

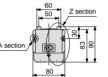
Regenerative energy = Motor coil energy consumption

- + 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.

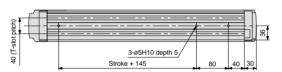








(Switch groove)





* 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

BICID

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)					
Positioning distance (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.

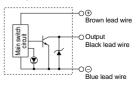
Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	100	100/115 MSM011P1A		MSD011P1E
Industrial Co., Ltd.		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric	400	100/115	110 0010	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_S10 on page 143 as a reference for mounting and design.

Switch Internal Circuit

D-Y7GL





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

Vertical Mount

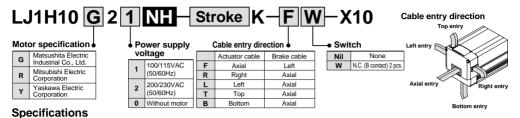
Series LJ1H10

Motor Output 100w





How to Order



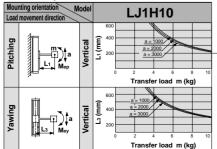
	Standard strok	æ	mm	100	200	300	400	500	
	Body weight (without motor) kg			5.1	5.9	6.7	7.4	8.2	
	Operating temper	rature range	°C		5 to 40 (wi	th no cond	densation)		
Performance	Work load		kg			10			
	Rated thrust		N			225			
	Maximum spee	d	mm/s			400			
	Positioning repe	eatability	mm	m ±0.05					
	Motor				AC ser	vomotor (100W)		
	Encoder			Incremental system					
	Lead screw			Rolled ball screw ø12mm, 8mm lead					
Main parts	Guide			High rigidity direct acting guide					
mam parte	Motor/Screw connection			With coupling					
	Electromagnetic	Specificat	ions	De-energized operation type, Rated voltage 24VDC ±10%, 0.4/					
	brake	Holding to	rque	0.4N·m					
	Connection method		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 les Internal voltage drop: 1.5V or less				ss ImA or less	
Regenerativ	e absorption ur	nit		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
Pitching	10.2
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.

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.

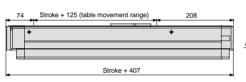
Regenerative energy = Motor coil energy consumption

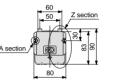
- + Driver capacitor energy consumption (A)
- + Regenerative resistor energy consumption (B)

(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.



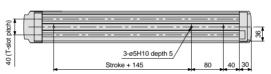
Scale: 15% 10 Work piece mounting reference plane 80 ø5H10 depth 8 8-M5 x 0.8 thread depth 8 45 20 Cable entry side + + 11++ Body mounting reference plane¹ 5H10 depth 6 100 217 Z section detail







(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

С D

В

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)					
Positioning distance (mm)		1	1 10 100 250				
	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 value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

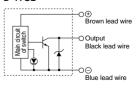
Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	100	100/115 MSM011P1A		MSD011P1E
Industrial Co., Ltd.		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric	400	100/115	UO DO40	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 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





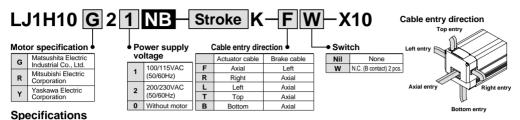


Series LJ1H10





How to Order



Ball screw mounting

D-Y7GL 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

Refer to the selection guide below

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

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

brake

Model

Specifications

Allowable static	moment
Pitching	10.2

Yawing

Switch

m : Transfer load (kg)

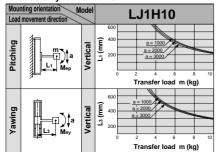
a : Work piece acceleration (mm/s2) Me: Dynamic moment

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

Holding torque

Connection method

10.2 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)

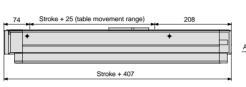
(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available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



8-M5 x 0.8 thread depth 8

Cable entry side

217



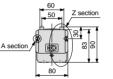
45

20

100

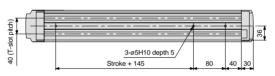
ø5H10 depth 8

5H10 depth 6





(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.

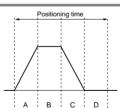
SMC

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)					
Positioning d	listance (mm)	m) 1 10 100 250 500			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	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.

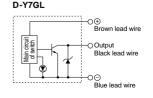
Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric	100	100/115 MSM011P1A		MSD011P1E
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	100/115	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







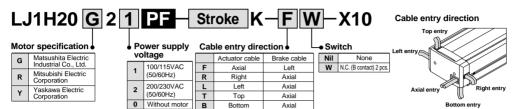
Vertical Mount

Series LJ1H20





How to Order



Specifications

	Standard strok	æ	mm	100	200	300	400	500	600
	Body weight (wit	hout motor)	kg	7.5	8.7	9.9	11.0	12.4	13.5
	Operating temper	rature range	°C		5 to 40	(with no	conden	sation)	
Performance	Work load		kg			1	5		
renomiance	Rated thrust		N			36	60		
	Maximum speed mm/s					25	50		
	Positioning repe	eatability	mm ±0.02						
	Motor				AC	servom	otor (100	W)	
	Encoder			Incremental system					
	Lead screw			Ground ball screw ø15mm, 5mm lead					
Main parts	Guide			High rigidity direct acting guide					
waiii parts	Motor/Screw connection			With coupling					
	Specifications		ions	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A					
	Electromagnetic brake	Holding to	Holding torque		0.4N·m				
	brake	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	nit		Refer to the selection guide below.					

Intermediate strokes

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

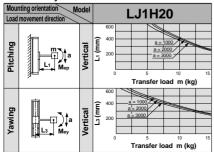
Allowable Moment (N·m)

Allowable static moment

Allowable static	Inomen
Pitching	71
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.

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.

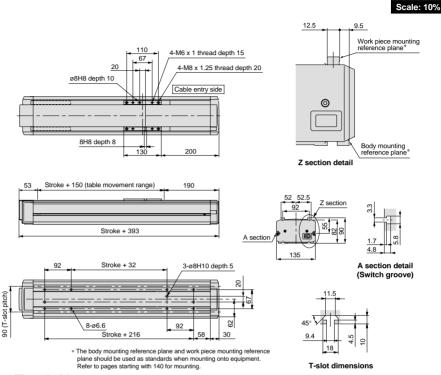
Regenerative energy = Motor coil energy consumption

- + 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.

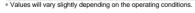


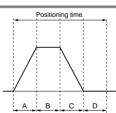
Dimensions/LJ1H20 2 PF(X10)



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 (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			





A: Acceleration time

* 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

^{*} For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting

SMC

Switch Internal Circuit

D-Y7GL OΘ

B: Constant velocity time

C: Deceleration time

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

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



Vertical Mount

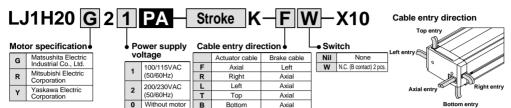
Series LJ1H20







How to Order



Specifications

Standard stroke mm				100	200	300	400	500	600	
	Body weight (wit	hout motor)	kg	7.5 8.7 9.9 11.0 12.4 13.5						
	Operating temper	ature range	°C		5 to 40	(with no	conden	sation)		
Performance	Work load		kg			8	3			
i ciromianoc	Rated thrust		N			18	30			
	Maximum speed	d	mm/s			50	00			
	Positioning repeatability mm					±0.	.02			
	Motor				AC	servom	otor (100	W)		
	Encoder			Incremental system						
	Lead screw			Ground ball screw ø15mm, 10mm lead						
	Guide			High rigidity direct acting guide						
Main parts	Motor/Screw connection			With coupling						
		Specificat	ions	De-energized operation type, Rated voltage 24VDC ±10%, 0.					10%, 0.4A	
	Electromagnetic brake	Holding to	rque	0.4N·m						
	brake	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	nit		Refer to the selection guide below.					1.	

Intermediate strokes

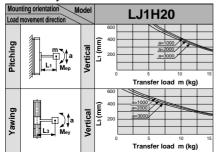
Strokes other than the standard strokes on the left are available by special order. Consult SMC.

Allowable Moment (N·m)

Allowable static	c moment
Pitching	71
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.

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.

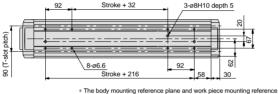
Regenerative energy = Motor coil energy consumption

- + 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.

A section detail

(Switch groove)



Refer to pages starting with 140 for mounting.

110

67

130

ø8H8 depth 10

8H8 depth 8

Stroke + 150 (table movement range)

Stroke + 393

4-M6 x 1 thread depth 15

Cable entry side

200

190

4-M8 x 1.25 thread depth 20

plane should be used as standards when mounting onto equipment.

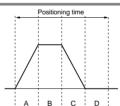
T-slot dimensions

11.5

Positioning Time Guide

Positioning time (sec.)						
Positioning of	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.



Z section

- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Settling 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.

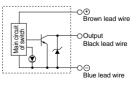
Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model	
Matsushita Electric	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	no-PQ13	MR-C10A	
Yaskawa Electric			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







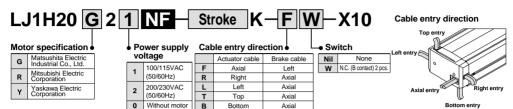
Vertical Mount

Series LJ1H20





How to Order



Specifications

Standard stroke mm			100	200	300	400	500	600		
	Body weight (wit	hout motor)	kg	7.5	8.7	9.9	11.0	12.4	13.5	
	Operating temperature range °C				5 to 40	(with no	conden	sation)		
Performance	Work load		kg			1	5			
	Rated thrust		N			36	0			
	Maximum speed	4	mm/s			25	50			
	Positioning repeatability mm					±0.	.05			
	Motor				AC	servom	otor (100	W)		
	Encoder			Incremental system						
	Lead screw			Rolled ball screw ø15mm, 5mm lead						
	Guide			High rigidity direct acting guide						
Main parts	Motor/Screw connection			With coupling						
		Specificat	ions	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A						
	Electromagnetic brake	Holding to	rque	0.4·Nm						
	brake	Connection	method	Ball screw mounting						
	Model	, and the second		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						
Regenerat	ive absorption (ınit		Refer to the selection guide below.						

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

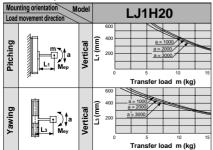
Allowable Moment (N·m)

Allowable static me

Allowable Statis	, illollici
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/Regenerative Resistor Selection Guide

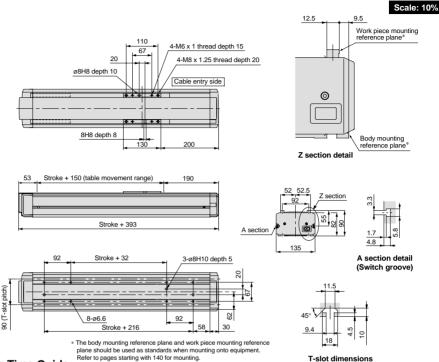
Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

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.

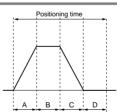
Dimensions/LJ1H20 2 NF(X10)



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)	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
- * 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	110 0040	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
- * 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 Output Black lead wire Blue lead wire



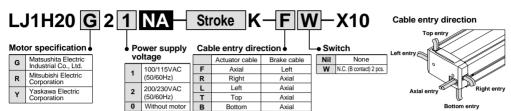
Vertical Mount

Series LJ1H20





How to Order



Specifications

	Standard strok	(e	mm	100	200	300	400	500	600	
	Body weight (wit	thout moto	r) kg	7.5	8.7	9.9	11.0	12.4	13.5	
	Operating tempe	rature rang	je °C		5 to 40	(with no	conden	sation)		
Performance	Work load	Work load kg				8	3			
Circinianoc	Rated thrust N					18	30			
	Maximum speed mm/s					50	00			
	Positioning repeatability mm					±0	.05			
	Motor				AC	servom	otor (100	W)		
	Encoder			Incremental system						
	Lead screw			Rolled ball screw ø15mm, 10mm lead						
Main parts	Guide			High rigidity direct acting guide						
Maiii parts	Motor/Screw connection			With coupling						
		Specifica	ations	De-energized operation type, Rated voltage 24VDC ±10%, 0.4					10%, 0.4A	
	Electromagnetic brake	Holding t	torque	0.4N·m						
	brake	Connection	n 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						
Regenerat	ive absorption (unit		Refer to the selection guide below.						

Intermediate strokes

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

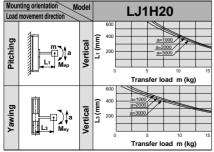
Allowable Moment (N·m)

Allowable static moment

Allowable Static	illollici
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/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.



110

67

130

20

ø8H8 depth 10

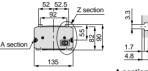
8H8 depth 8

4-M6 x 1 thread depth 15

Cable entry side

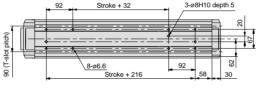
200

4-M8 x 1.25 thread depth 20





(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.

18

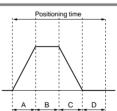
11.5

T-slot dimensions

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	
Speed (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
- * The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

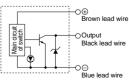
Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	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		100/115	HC-PQ13	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





Vertical Mount

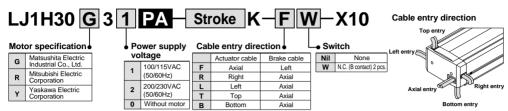
Series LJ1H30







How to Order



Specifications

	Standard strok	æ	mm	200	300	400	500	600
	Body weight (without motor) kg			15.2	17.2	19.2	21.2	23.2
	Operating temper	rature range	°C	;	5 to 40 (w	ith no cond	densation)	
Performance	Work load		kg			20		
	Rated thrust		N			360		
	Maximum speed mm/s					500		
	Positioning repeatability mm					±0.02		
	Motor			AC servomotor (200W)				
	Encoder			Incremental system				
	Lead screw			Ground ball screw ø20mm, 10mm lead				
l . [Guide			High rigidity direct acting guide				
Main parts	Motor/Screw connection			With coupling				
		Specifications		De-energized operation type, Rated voltage 24VDC ±10%, 0.5A				
	Electromagnetic brake	Holding torque		1.0N·m				
	Connection method		method	Ball screw mounting				
	Model			D-Y7GL				
Switch	vitch Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or les Internal voltage drop: 1.5V or less			ss)mA or less		
Regenerat	ive absorption ι	ınit		Re	efer to the	selection	guide belo	w.

Intermediate strokes

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

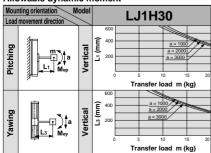
Allowable Moment (N·m)



Time transie etatie	
Pitching	117
Yawing	123

- 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/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.

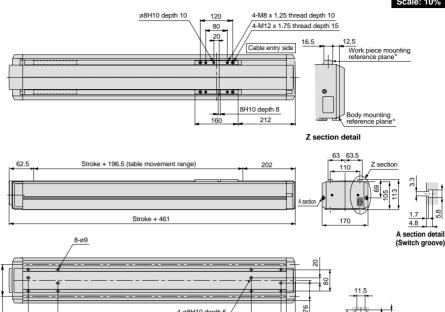
Regenerative energy = Motor coil energy consumption

- + 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/LJ1H30 3 PA(X10)



Positioning Time Guide

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

Stroke + 97

4-ø8H10 depth 5

Positioning time (sec.) Positioning distance (mm) 10 100 300 600 11.0 31.0 61.0 1.1 2.0 100 1.1 1.2 2.1 4.1 7.1 250 1 1 1.2 1.5 23 3.5 1.1 1.2 1.4 1.8 2.4

110

110 (T-slot pitch)

Speed

(mm/s)

series LCI controller is used and may vary depending on the driver capacity. В

45°

A: Acceleration time

B: Constant velocity time C: Deceleration time

D: Resting time (1.0sec.)*

Maximum acceleration: 3000mm/s²

* The value is a guide when SMC's

T-slot dimensions

30 110

Positioning time

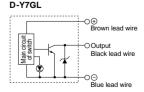
33

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	200	100/115	MSM021P1A	MSD021P1E
Industrial Co., Ltd.	200	200/230	MSM022P1A	MSD023P1E
Mitsubishi Electric	200	100/115	LIO DOOO	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 LJ1 H 30 on page 143 as a reference for mounting and design.

Switch Internal Circuit



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

^{*} 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.



Vertical Mount

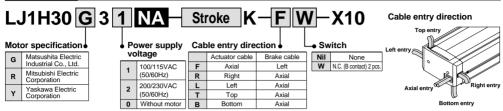
Series LJ1H30







How to Order



Specifications

	Standard strok	æ	mm	200	300	400	500	600
	Body weight (without motor) kg			15.2	17.2	19.2	21.2	23.2
	Operating temper	rature range	°C		5 to 40 (w	ith no cond	densation)	
Performance	Work load k		kg	20				
Cironnance	Rated thrust N					360		
	Maximum speed mm/s					500		
	Positioning repeatability mm					±0.05		
	Motor			AC servomotor (200W)				
	Encoder			Incremental system				
	Lead screw			Rolled ball screw ø20mm, 10mm lead				
Main parts	Guide			High rigidity direct acting guide				
main parts	Motor/Screw connection			With coupling				
	Specifications		tions	De-energized operation type, Rated voltage 24VDC $\pm 10\%$, 0.5A				
	Electromagnetic brake	Holding torque		1.0N·m				
	Connect		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			ss OmA or less	
Regenerat	ive absorption ι	ınit		Refer to the selection guide below.				

Intermediate strokes

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

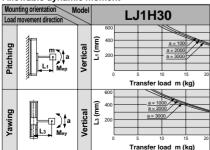
Allowable Moment (N·m)

Allowable static moment

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/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.

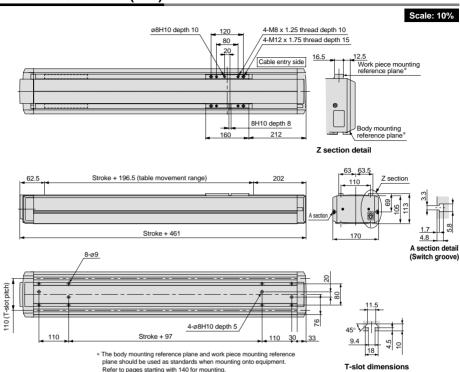
Regenerative energy = Motor coil energy consumption

- + 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.



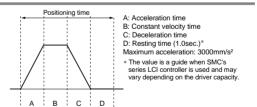
Dimensions/LJ1H30 3 NA(X10)



Positioning Time Guide

		Positioning time (sec.)						
Positioning distance (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		
Speed (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.



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	MSM021P1A	MSD021P1E
Industrial Co., Ltd.	200	200/230	MSM022P1A	MSD023P1E
Mitsubishi Electric	200	100/115	110 5000	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 LJ1530 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

