Single Axis Electric Actuator

Series LJ1H

High Rigidity Direct Acting Guide

Series	Motor type	Guide type	Mounting orientation	Model	Lead screw (lead) mm		Page
					Ground ball screw	Rolled ball screw	
LJ1H	Standard motor	High rigidity direct acting guide	Horizontal	LJ1H10	12	12	P.494
				LJ1H20	10 20	10 20	P.503
				LJ1H30	25	25	P.518
			Vertical	LJ1H10	8 12	8 12	P.527
				LJ1H20	5 10	5 10	P.535
				LJ1H30	10	10	P.543
	Non-standard motor		Horizontal	LJ1H10	12	12	P.547
				LJ1H20	10 20	10 20	P.562
				LJ1H30	25	25	P.587
			Vertical	LJ1H10	8 12	8 12	P.602
				LJ1H20	5 10	5 10	P.614
				LJ1H30	10	10	P.626

Part Number Designations

LJ1 H 10 □ R 1 1 N B – 100 □ – F W – X10

Guide type

H	High rigidity direct acting guide

Series

10	Series 10
20	Series 20
30	Series 30

controller

Nil	LC1 controller compatible
8	LC8 controller compatible

Motor specification

Nil	Standard motor
R	Mitsubishi Electric Corporation

Motor output

1	50 W
2	100 W
3	200 W

Power supply voltage

1	100/110 VAC 50/60 Hz 100/115 VAC 50/60 Hz
2	200/220 VAC 50/60 Hz 200/230 VAC 50/60 Hz
0	Without motor

Lead screw type

P	Ground ball screw
N	Rolled ball screw

Lead screw lead

H	8 mm
B	12 mm
C	20 mm
F	5 mm
A	10 mm
D	25 mm

Stroke (mm)

Brake

Nil	None
K	With brake

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.
H	N.C. (B contact) PNP: 2 pcs.

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

X10 Non-standard motor

The tables above show the definition for each symbol only and cannot be used for actual model selection.

Standard Motor
Horizontal Mount
Series LJ1H10

Motor Output 50 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø12 mm/12 mm lead

How to Order

LC1 controller compatible LJ1H10 **11 PB – 300 – F 2**

LC8 controller compatible LJ1H108 **11 PB – 300 – F 2 –** □

Power supply voltage

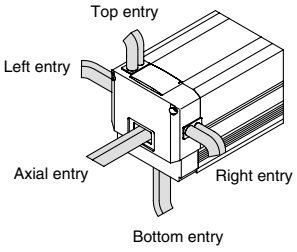
Symbol	Power supply voltage	Compatible controller
11	100/110 VAC (50/60 Hz)	LC1, LC8
12*	200/220 VAC (50/60 Hz)	LC1
	200/230 VAC (50/60 Hz)	LC8

* The power supply voltage range will differ according to each controller series.

Stroke (mm)
Refer to page 495 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

CE marking

Nil	—
Q	CE marked products

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)			100	200	300	400	500
Performance	Body mass (kg)		5.2	6.0	6.8	7.5	8.3
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		10				
	Maximum speed (mm/s)		600				
	Positioning repeatability (mm)		±0.02				
Main parts	Motor		AC servomotor (50 W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw ø12 mm, 12 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
Controller	Model	LC1	LC1-1B1H□-□□ (Refer to page 829 for details.)				
		LC8	LC8-B1H□□-□□-□ (Refer to page 853 for details.)				

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example 1) **LJ1H1011PB-150-F2-X2**
Example 2) **LJ1H10811PB-150-F2-X2-Q**

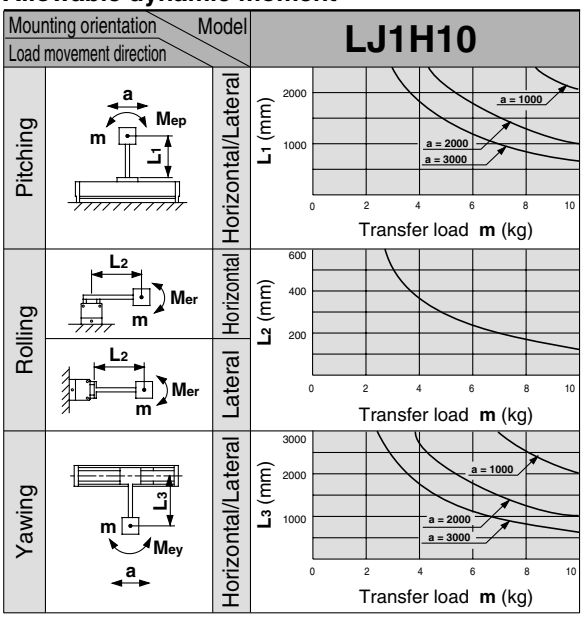
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

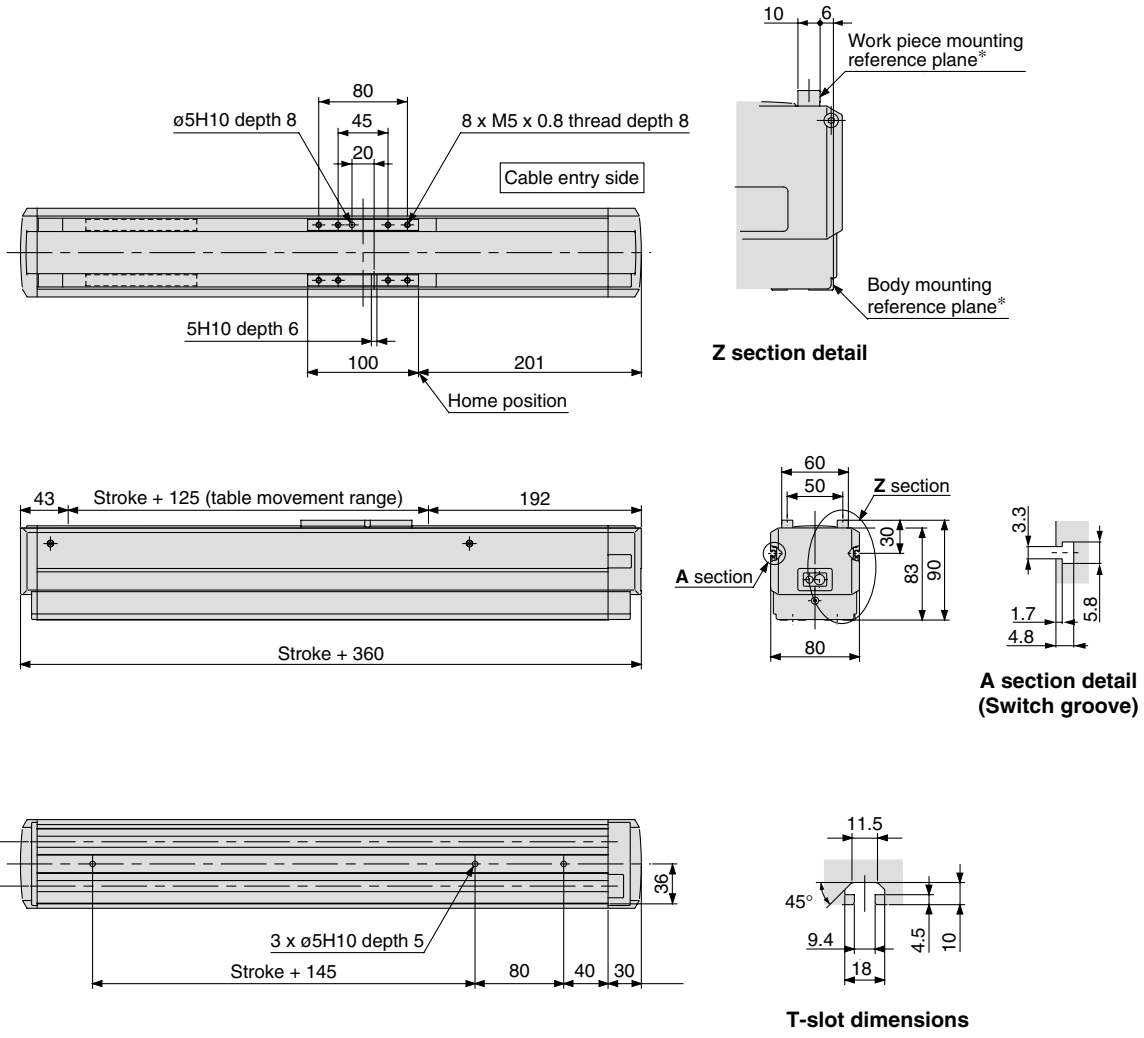
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H10□PB, LJ1H108□PB

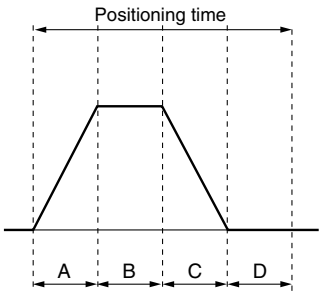


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.3 sec.)
Maximum acceleration: 3000 mm/s^2

Standard Motor
Horizontal Mount
Series LJ1H10

Motor Output 50 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø12 mm/12 mm lead

How to Order

LC1 controller compatible LJ1H10 11 NB – 300 – F 2

LC8 controller compatible LJ1H108 11 NB – 300 – F 2 – □

Power supply voltage

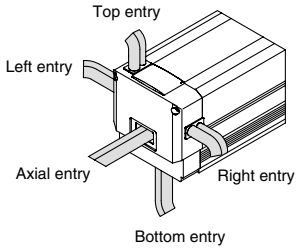
Symbol	Power supply voltage	Compatible controller
11	100/110 VAC (50/60 Hz)	LC1, LC8
12*	200/220 VAC (50/60 Hz)	LC1
	200/230 VAC (50/60 Hz)	LC8

* The power supply voltage range will differ according to each controller series.

Stroke (mm)
Refer to page 498 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

CE marking

Nil	—
Q	CE marked products

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)			100	200	300	400	500
Performance	Body mass (kg)		5.2	6.0	6.8	7.5	8.3
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		10				
	Maximum speed (mm/s)		600				
	Positioning repeatability (mm)		±0.05				
Main parts	Motor		AC servomotor (50 W)				
	Encoder		Incremental system				
	Lead screw		Rolled ball screw ø12 mm, 12 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
Controller	Model	LC1	LC1-1B1H□-□□ (Refer to page 829 for details.)				
		LC8	LC8-B1H□□-□□-□ (Refer to page 853 for details.)				

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example 1) **LJ1H1011NB-150-F2-X2**
Example 2) **LJ1H10811NB-150-F2-X2**

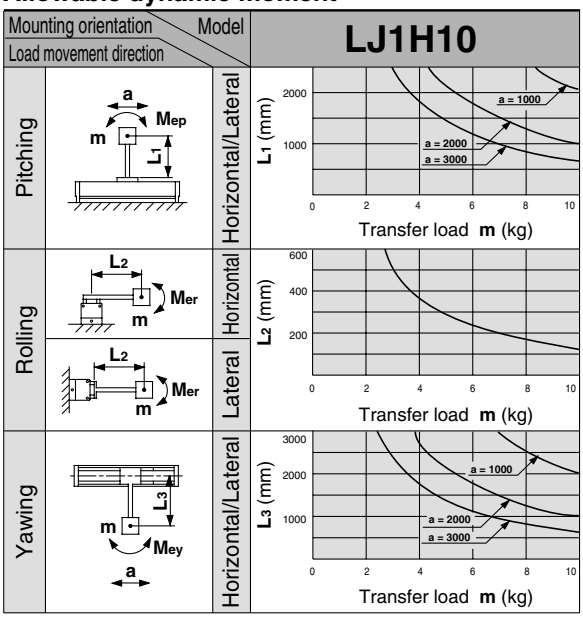
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

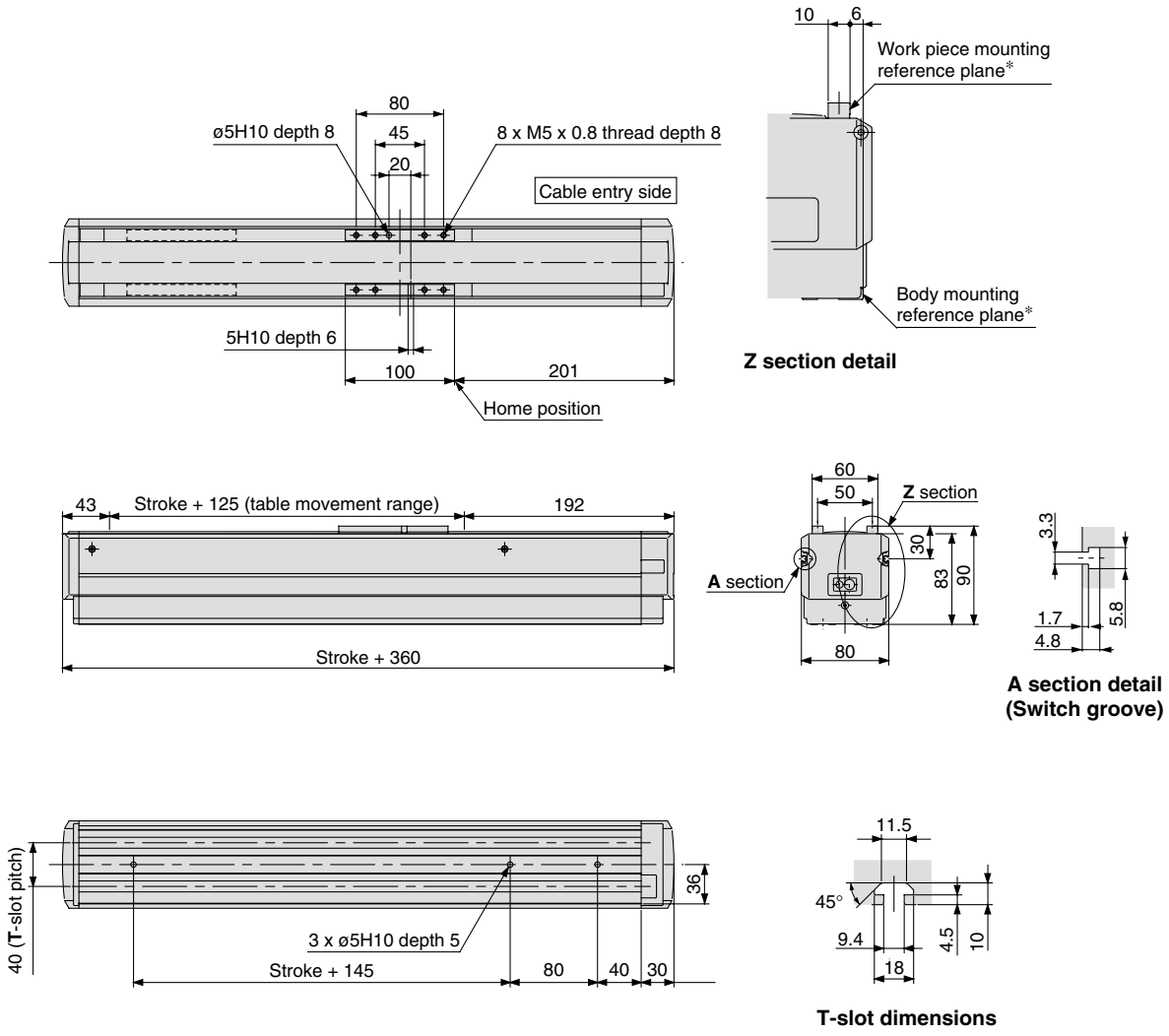
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H10□NB, LJ1H108□NB

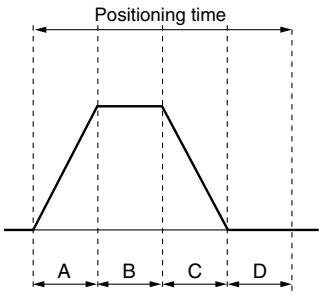


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.3 sec.)
Maximum acceleration: 3000 mm/s^2

Standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø15 mm/10 mm lead

How to Order

LC1 controller compatible LJ1H20 21 PA – 300 – F 2

LC8 controller compatible LJ1H208 21 PA – 300 – F 2 – □

Power supply voltage

Symbol	Power supply voltage	Compatible controller
21	100/110 VAC (50/60 Hz)	LC1, LC8
22*	200/220 VAC (50/60 Hz)	LC1
	200/230 VAC (50/60 Hz)	LC8

* The power supply voltage range will differ according to each controller series.

Stroke (mm)
Refer to page 504 for details.

Cable length

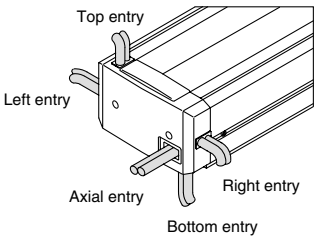
2	2 m
3	3 m
4	4 m
5	5 m

CE marking

Nil	—
Q	CE marked products

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)			100	200	300	400	500	600
Performance	Body mass (kg)		7.7	8.9	10.1	11.2	12.6	13.7
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		30					
	Maximum speed (mm/s)		500					
	Positioning repeatability (mm)		±0.02					
Main parts	Motor		AC servomotor (100W)					
	Encoder		Incremental system					
	Lead screw		Ground ball screw ø15 mm, 10 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
Controller	Model	LC1	LC1-1B2H□-□□ (Refer to page 829 for details.)					
		LC8	LC8-B2H□□-□□-□ (Refer to page 853 for details.)					

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550
Example 1) **LJ1H2021PA-150-F2-X2**
Example 2) **LJ1H20821PA-150-F2-X2-Q**

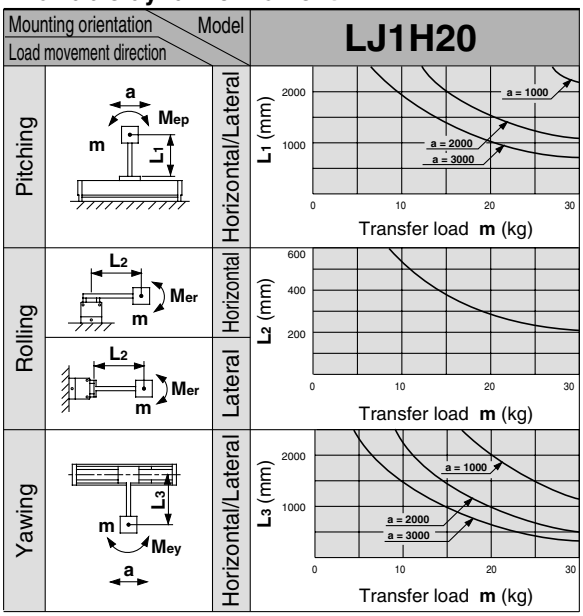
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

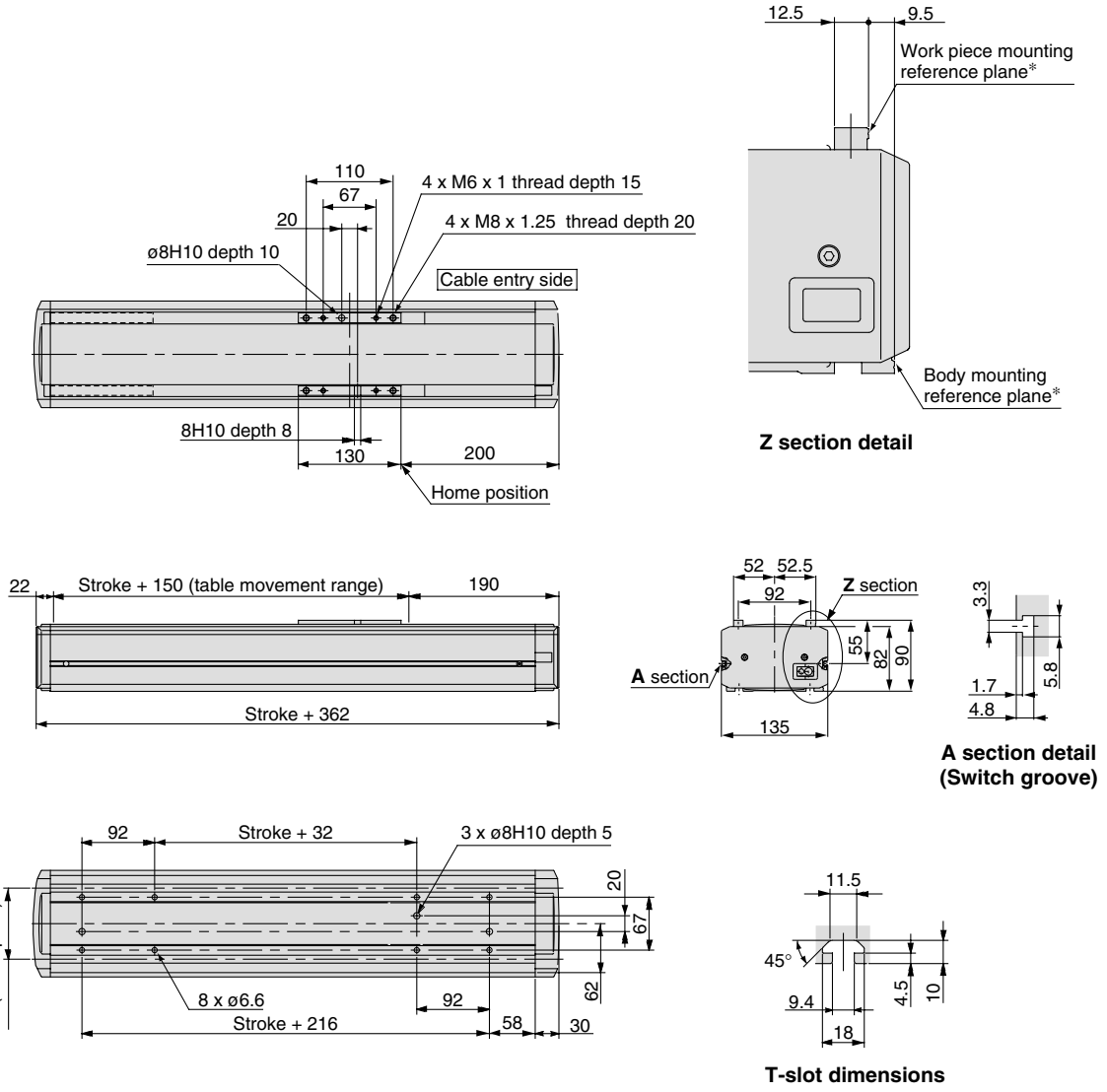
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H20□PA, LJ1H208□PA

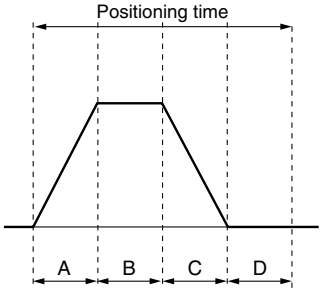


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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 (0.4 sec.)
Maximum acceleration: 3000 mm/s^2

Standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø15 mm/20 mm lead

How to Order

LC1 controller compatible LJ1H20 **21 PC – 500 – F 2**

LC8 controller compatible LJ1H208 **21 PC – 500 – F 2 –** □

Power supply voltage

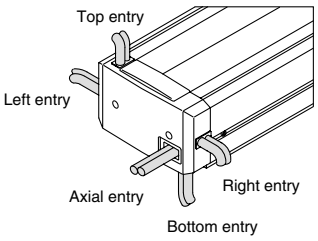
Symbol	Power supply voltage	Compatible controller
21	100/110 VAC (50/60 Hz)	LC1, LC8
22*	200/220 VAC (50/60 Hz)	LC1
	200/230 VAC (50/60 Hz)	LC8

* The power supply voltage range will differ according to each controller series.

Stroke (mm)
Refer to page 507 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction

CE marking

Nil	—
Q	CE marked products

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)			500	600	700	800	900	1000
Performance	Body mass (kg)		12.6	13.7	14.5	15.3	17.2	18.6
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		30					
	Maximum speed (mm/s) Note)		1000	1000	930	740	600	500
	Positioning repeatability (mm)		±0.02					
Main parts	Motor		AC servomotor (100 W)					
	Encoder		Incremental system					
	Lead screw		Ground ball screw ø15 mm, 20 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
Controller	Model	LC1	LC1-1B2H□-□□ (Refer to page 829 for details.)					
		LC8	LC8-B2H□□-□□-□ (Refer to page 853 for details.)					

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

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 550, 650, 750, 850, 950
Example 1) **LJ1H2021PC-550-F2-X2**
Example 2) **LJ1H20821PC-550-F2-X2-Q**

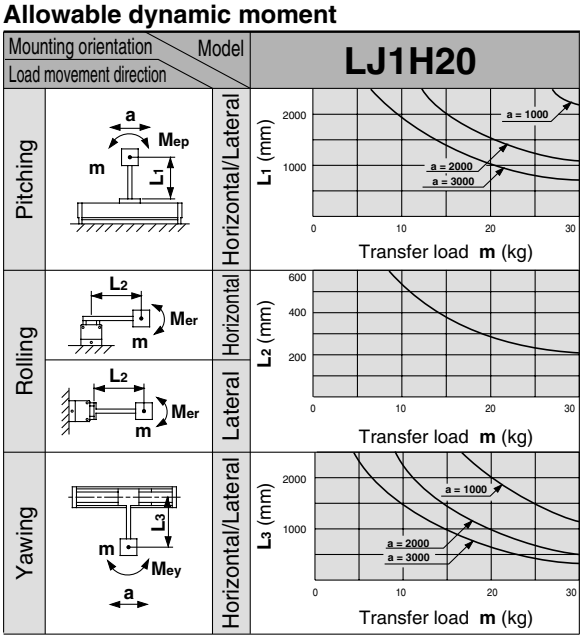
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

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

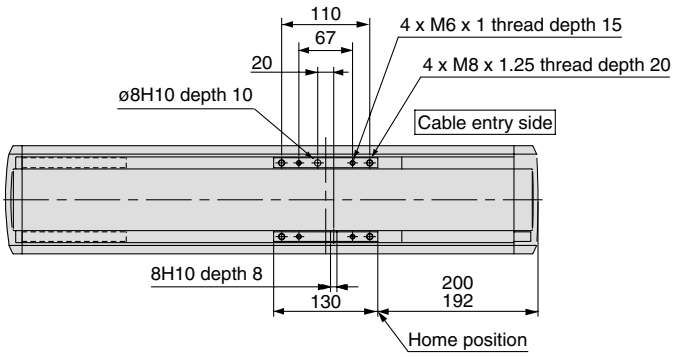
Allowable dynamic moment

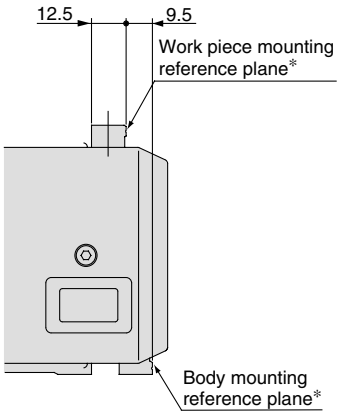


Refer to page 670 for deflection data.

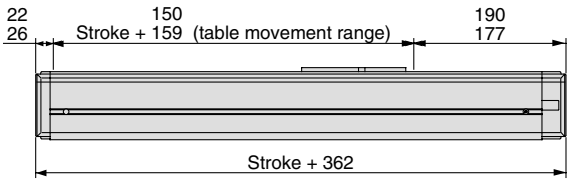
Dimensions/LJ1H20□PC, LJ1H208□PC

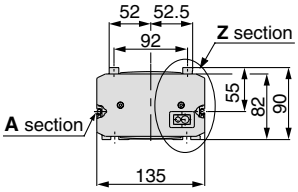
When two dimensions are shown, the top dimension is for 500 and 600 mm strokes, and the bottom dimension is for 700 to 1000 mm strokes.

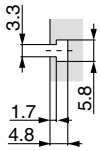




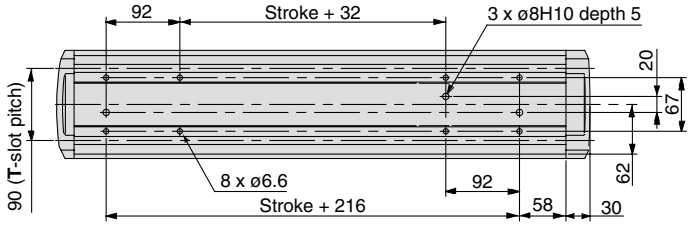
Z section detail

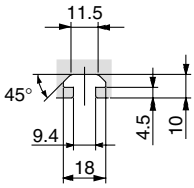






A section detail (Switch groove)





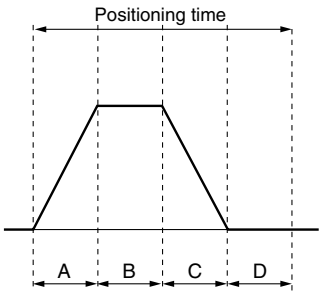
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.



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

Maximum Speeds for Each Transfer Load

Unit (mm/s)

Model	Transfer load (kg)				Note
	15	20	25	30	
LJ1H20□□PC-500-□□	1000	700	500	500	Power supply: 100/110 (V)AC ±10% Compatible controller: LC1-1B2H1-□□ Power supply: 200/220 (V)AC ±10% Compatible controller: LC1-1B2H2-□□
LJ1H20□□PC-600-□□	1000	700	500	500	
LJ1H20□□PC-700-□□	930	600	500	500	
LJ1H20□□PC-800-□□	740	600	500	500	
LJ1H20□□PC-900-□□	600	500	500	500	
LJ1H20□□PC-1000-□□	500	500	500	500	

Standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø15 mm/10 mm lead

How to Order

LC1 controller compatible LJ1H20 21 NA – 300 – F 2

LC8 controller compatible LJ1H208 21 NA – 300 – F 2 – □

Power supply voltage

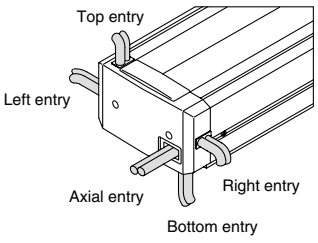
Symbol	Power supply voltage	Compatible controller
21	100/110 VAC (50/60 Hz)	LC1, LC8
22*	200/220 VAC (50/60 Hz)	LC1
	200/230 VAC (50/60 Hz)	LC8

* The power supply voltage range will differ according to each controller series.

Stroke (mm)
Refer to page 510 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

CE marking

Nil	—
Q	CE marked products

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)			100	200	300	400	500	600
Performance	Body mass (kg)		7.7	8.9	10.1	11.2	12.6	13.7
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		30					
	Maximum speed (mm/s)		500					
	Positioning repeatability (mm)		±0.05					
Main parts	Motor		AC servomotor (100 W)					
	Encoder		Incremental system					
	Lead screw		Rolled ball screw ø15 mm, 10 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
Controller	Model	LC1	LC1-1B2H□-□□ (Refer to page 829 for details.)					
		LC8	LC8-B2H□□-□□-□ (Refer to page 853 for details.)					

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550
Example 1) **LJ1H2021NA-150-F2-X2**
Example 2) **LJ1H20821NA-150-F2-X2-Q**

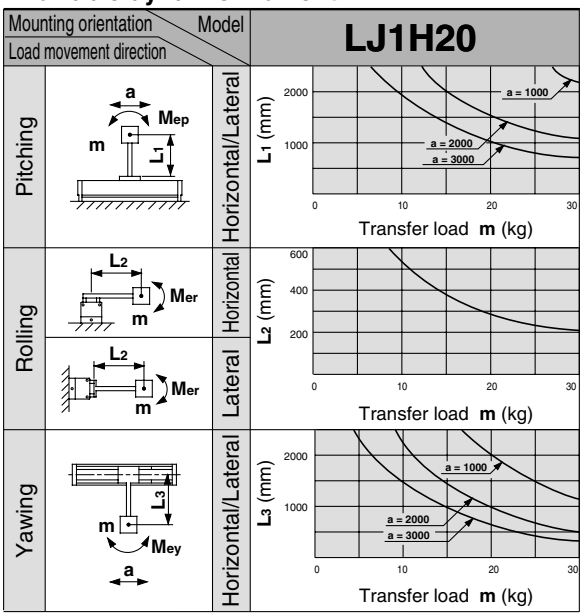
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

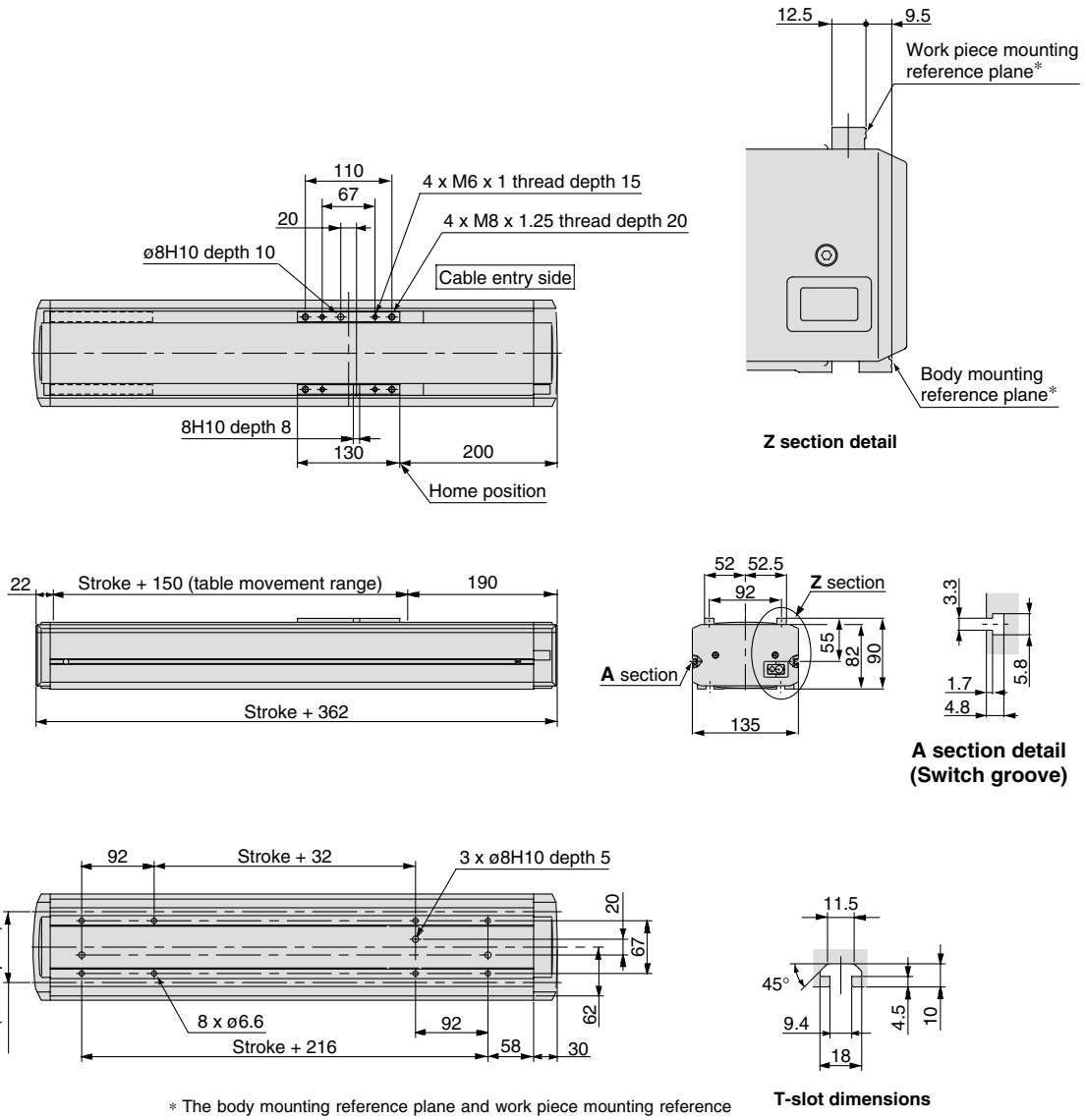
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H20□NA, LJ1H208□NA

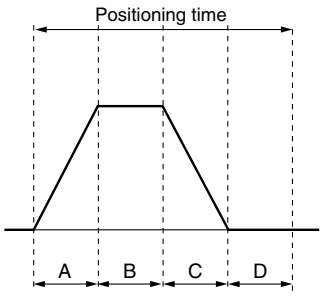


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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 (0.4 sec.)
Maximum acceleration: 3000 mm/s^2

Standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø15 mm/20 mm lead

How to Order

LC1 controller compatible LJ1H20 21 NC – 500 – F 2

LC8 controller compatible LJ1H208 21 NC – 500 – F 2 –

Power supply voltage

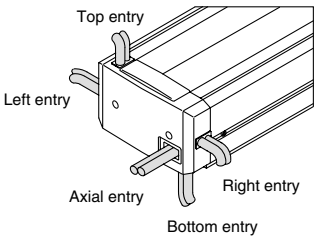
Symbol	Power supply voltage	Compatible controller
21	100/110 VAC (50/60 Hz)	LC1, LC8
22*	200/220 VAC (50/60 Hz)	LC1
	200/230 VAC (50/60 Hz)	LC8

* The power supply voltage range will differ according to each controller series.

Stroke (mm)
Refer to page 513 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

CE marking

Nil	—
Q	CE marked products

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)			500	600	700	800	900	1000
Performance	Body mass (kg)		12.6	13.7	14.5	15.3	17.2	18.6
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		30					
	Maximum speed (mm/s) Note)		1000	1000	930	740	600	500
	Positioning repeatability (mm)		±0.05					
Main parts	Motor		AC servomotor (100 W)					
	Encoder		Incremental system					
	Lead screw		Rolled ball screw ø15 mm, 20 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
Controller	Model	LC1	LC1-1B2H□-□□ (Refer to page 829 for details.)					
		LC8	LC8-B2H□□-□□-□ (Refer to page 853 for details.)					

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

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 550, 650, 750, 850, 950
Example 1) **LJ1H2021NC-550-F2-X2**
Example 2) **LJ1H20821NC-550-F2-X2-Q**

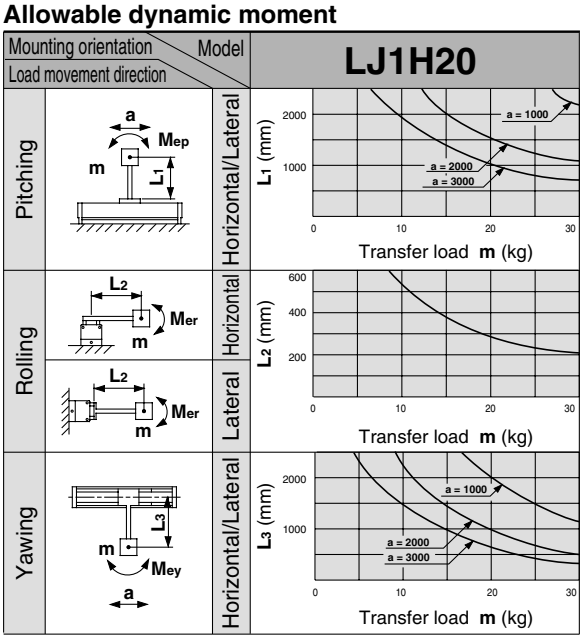
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

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

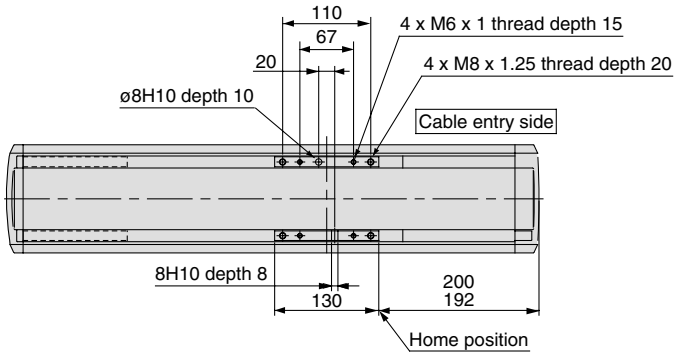
Allowable dynamic moment

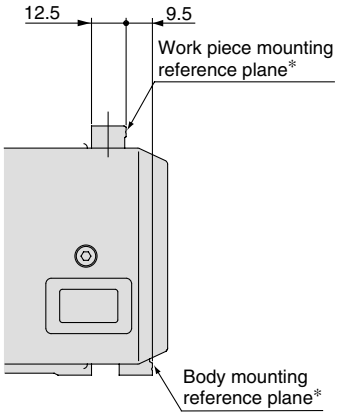


Refer to page 670 for deflection data.

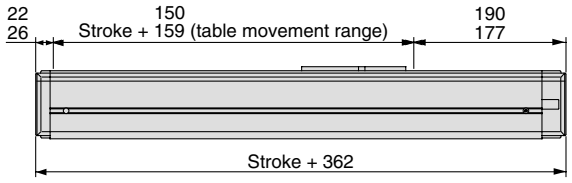
Dimensions/LJ1H20□NC, LJ1H208□NC

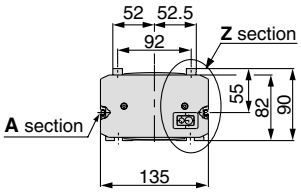
When two dimensions are shown, the top dimension is for 500 and 600 mm strokes, and the bottom dimension is for 700 to 1000 mm strokes.

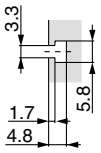




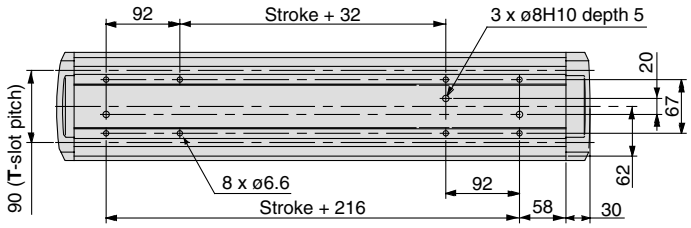
Z section detail

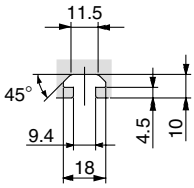






A section detail (Switch groove)





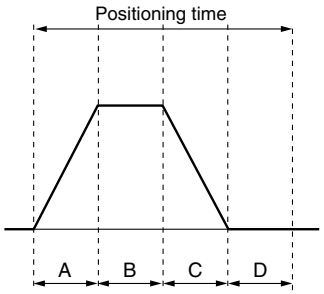
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.4 sec.)
Maximum acceleration: 2000 mm/s^2

Maximum Speeds for Each Transfer Load

Unit (mm/s)

Model	Transfer load (kg)				Note
	15	20	25	30	
LJ1H20□□NC-500-□□	1000	700	500	500	Power supply: 100/110 (V)AC ±10% Compatible controller: LC1-1B2H1-□□ Power supply: 200/220 (V)AC ±10% Compatible controller: LC1-1B2H2-□□
LJ1H20□□NC-600-□□	1000	700	500	500	
LJ1H20□□NC-700-□□	930	600	500	500	
LJ1H20□□NC-800-□□	740	600	500	500	
LJ1H20□□NC-900-□□	600	500	500	500	
LJ1H20□□NC-1000-□□	500	500	500	500	

Standard Motor
Horizontal Mount
Series LJ1H30

Motor Output 200 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø25 mm/25 mm lead

How to Order

LC1 controller compatible LJ1H30 **31 PD – 300 – F 2**

LC8 controller compatible LJ1H308 **31 PD – 300 – F 2 –** □

Power supply voltage

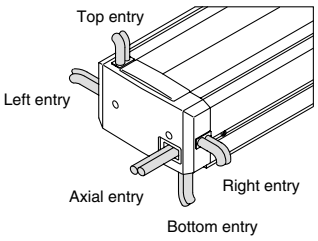
Symbol	Power supply voltage	Compatible controller
31	100/110 VAC (50/60 Hz)	LC1, LC8
32*	200 VAC (50/60 Hz)	LC1
	200/230 VAC (50/60 Hz)	LC8

* The power supply voltage range will differ according to each controller series.

Stroke (mm)
Refer to page 519 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction

CE marking

Nil	—
Q	CE marked products

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)			200	300	400	500	600	800	1000	1200	1500
Performance	Body mass (kg)		16.0	18.0	20.0	22.0	24.0	28.5	33.0	37.0	43.0
	Operating temperature range (°C)		5 to 40 (No condensation)								
	Work load (kg)		60								
	Maximum speed (mm/s) Note)		1000							700	500
	Positioning repeatability (mm)		±0.02								
Main parts	Motor		AC servomotor (200 W)								
	Encoder		Incremental system								
	Lead screw		Ground ball screw ø25 mm, 25 mm lead								
	Guide		High rigidity direct acting guide								
	Motor/Screw connection		With coupling								
Controller	Model	LC1	LC1-1B3H□-□□ (Refer to page 829 for details.)								
		LC8	LC8-B3H□□-□□-□ (Refer to page 853 for details.)								

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

Intermediate strokes

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

Example 1) **LJ1H3031PD-250-F2-X2**
Example 2) **LJ1H30831PD-250-F2-X2-Q**

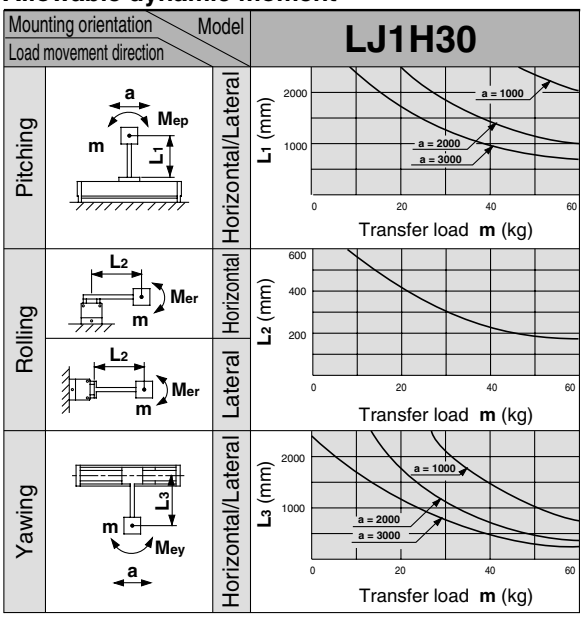
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

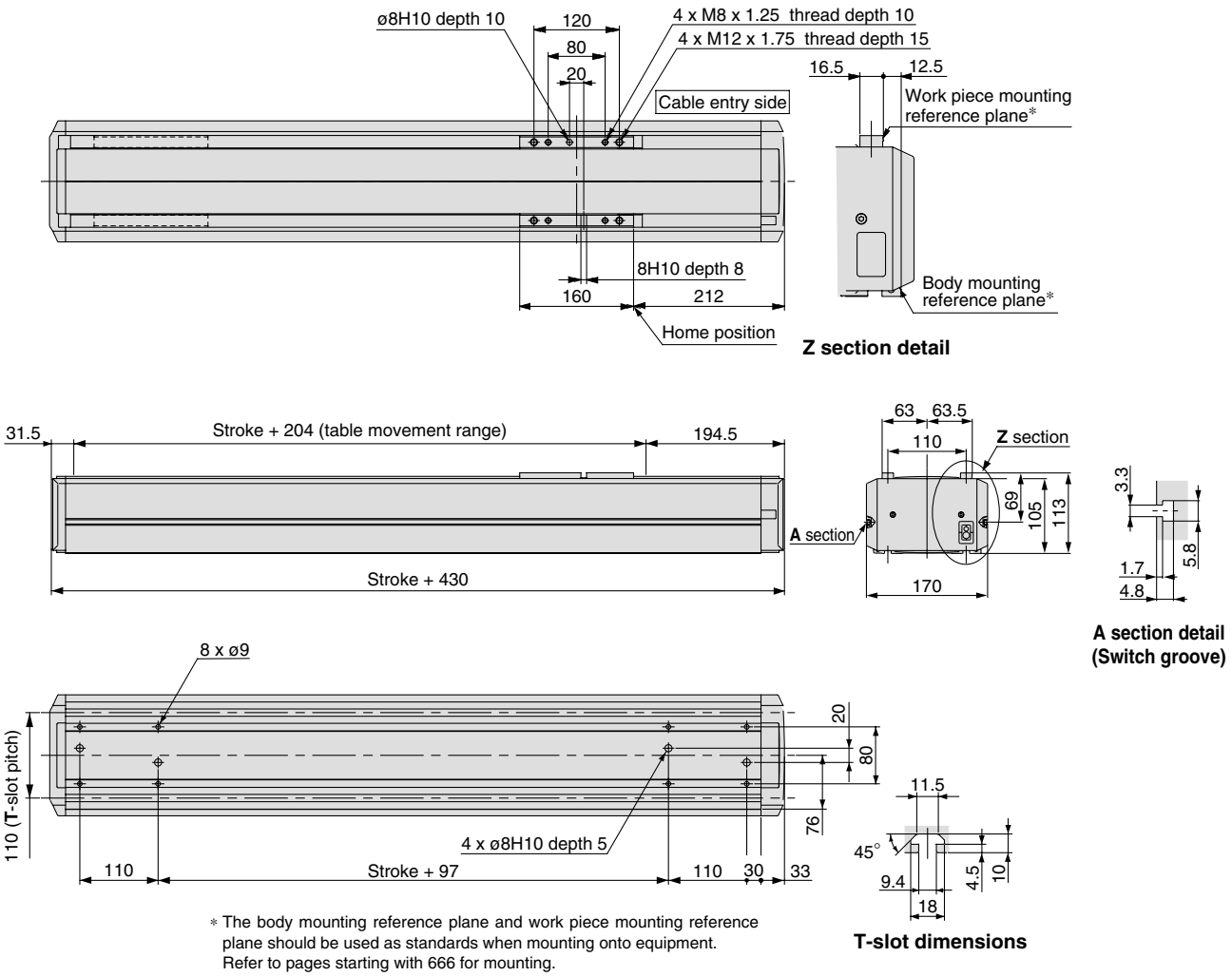
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H30□PD, LJ1H308□PD

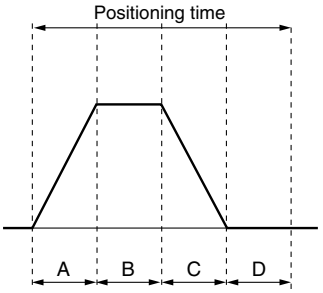


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	750	1500
Speed (mm/s)	10	1.1	2.0	11.0	76.0	151.0
	100	1.1	1.2	2.1	8.6	16.1
	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 (1.0 sec.)
Maximum acceleration: 3000 mm/s^2

Maximum Speeds for Each Transfer Load

Unit (mm/s)

Model	Transfer load (kg)						Note
	10	20	30	40	50	60	
LJ1H30□31PD-200 to 1000-□□	1000	1000	1000	1000	900	800	Power supply: 100/110 (V)AC ±10% Compatible controller: LC1-1B3H1-□□
LJ1H30□31PD-1200-□□	700	700	700	700	700	700	
LJ1H30□31PD-1500-□□	500	500	500	500	500	500	
LJ1H30□32PD-200 to 1000-□□	1000	900	800	700	650	600	Power supply: 200 (V)AC ±10% Compatible controller: LC1-1B3H2-□□
LJ1H30□32PD-1200-□□	700	700	700	700	650	600	
LJ1H30□32PD-1500-□□	500	500	500	500	500	500	

* Consult SMC if outside of the above conditions.

Standard Motor
Horizontal Mount
Series LJ1H30

Motor Output 200 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø25 mm/25 mm lead

How to Order

LC1 controller compatible LJ1H30 31 ND – 300 – F 2

LC8 controller compatible LJ1H308 31 ND – 300 – F 2 – □

Power supply voltage

Symbol	Power supply voltage	Compatible controller
31	100/110 VAC (50/60 Hz)	LC1, LC8
32*	200 VAC (50/60 Hz)	LC1
	200/230 VAC (50/60 Hz)	LC8

* The power supply voltage range will differ according to each controller series.

Stroke (mm)
Refer to page 522 for details.

Cable length

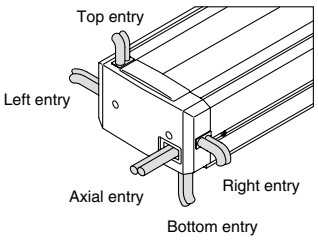
2	2 m
3	3 m
4	4 m
5	5 m

CE marking

Nil	—
Q	CE marked products

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)			200	300	400	500	600	800	1000	1200	1500
Performance	Body mass (kg)		16.0	18.0	20.0	22.0	24.0	28.5	33.0	37.0	43.0
	Operating temperature range (°C)		5 to 40 (No condensation)								
	Work load (kg)		60								
	Maximum speed (mm/s) Note)		1000							700	500
	Positioning repeatability (mm)		±0.05								
Main parts	Motor		AC servomotor (200 W)								
	Encoder		Incremental system								
	Lead screw		Rolled ball screw ø25 mm, 25 mm lead								
	Guide		High rigidity direct acting guide								
	Motor/Screw connection		With coupling								
Controller	Model	LC1	LC1-1B3H□-□□ (Refer to page 829 for details.)								
		LC8	LC8-B3H□□-□□-□ (Refer to page 853 for details.)								

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

Intermediate strokes

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

Example 1) **LJ1H3031ND-250-F2-X2**
Example 2) **LJ1H30831ND-250-F2-X2-Q**

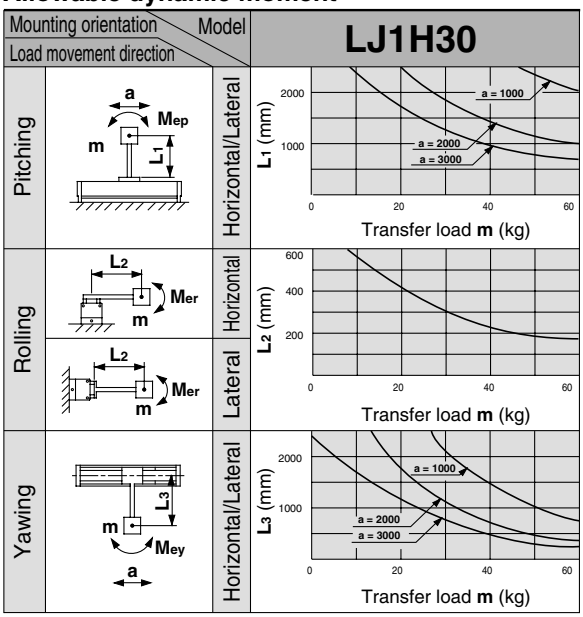
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

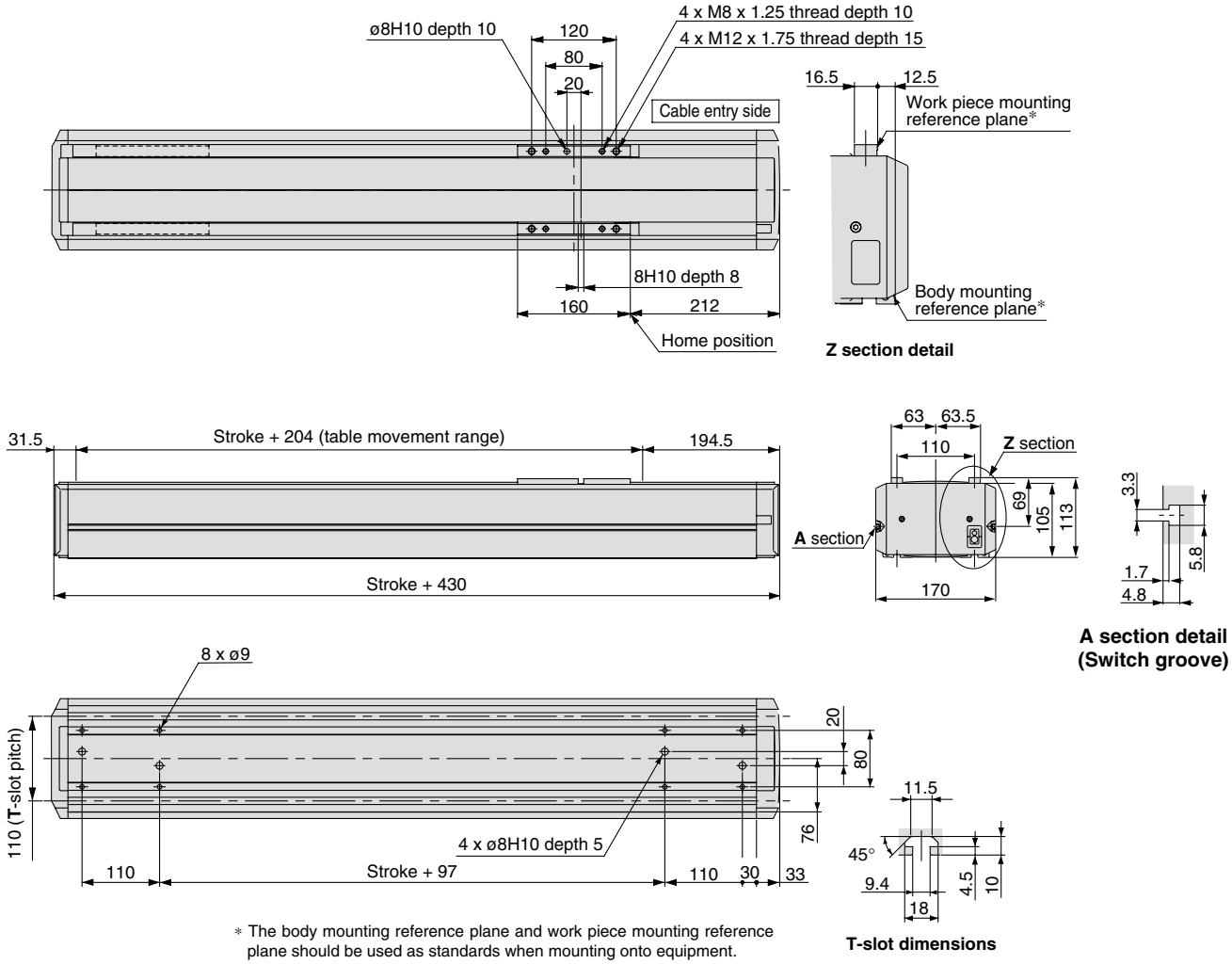
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H30□ND, LJ1H308□ND

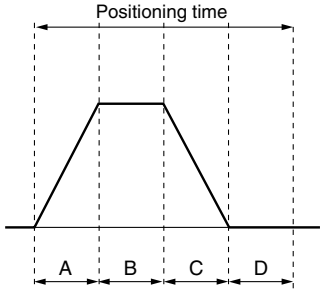


∗ The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	750	1500
Speed (mm/s)	10	1.1	2.0	11.0	76.0	151.0
	100	1.1	1.2	2.1	8.6	16.1
	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 (1.0 sec.)
Maximum acceleration: 3000 mm/s²

Maximum Speeds for Each Transfer Load

Unit (mm/s)

Model	Transfer load (kg)						Note
	10	20	30	40	50	60	
LJ1H30□31ND-200 to 1000-□□	1000	1000	1000	1000	900	800	Power supply: 100/110(V)AC ±10% Compatible controller: LC1-1B3H1-□□
LJ1H30□31ND-1200-□□	700	700	700	700	700	700	
LJ1H30□31ND-1500-□□	500	500	500	500	500	500	
LJ1H30□32ND-200 to 1000-□□	1000	900	800	700	650	600	Power supply: 200(V)AC ±10% Compatible controller: LC1-1B3H2-□□
LJ1H30□32ND-1200-□□	700	700	700	700	650	600	
LJ1H30□32ND-1500-□□	500	500	500	500	500	500	

∗ Consult SMC if outside of the above conditions.

Standard Motor
Vertical Mount
Series LJ1H10

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø12 mm/8 mm lead

How to Order

LC1 controller compatible

LJ1H102 1 PH – 300 K – F 2

Power supply voltage

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

Stroke (mm)
Refer to the standard stroke.

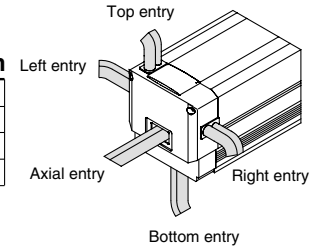
Cable entry direction

Symbol	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Cable entry direction



Specifications

Standard stroke (mm)			100	200	300	400	500
Performance	Body mass (kg)		5.5	6.3	7.1	7.8	8.6
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		10				
	Maximum speed (mm/s)		400				
	Positioning repeatability (mm)		±0.02				
Main parts	Motor		AC servomotor (100 W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw ø12 mm, 8 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A				
		Holding torque	0.4 N·m				
		Connection method	Ball screw mounting				
Controller	Model		LC1-1B1VH□-□□ (Refer to page 829 for details.)				
Regenerative absorption unit	Model		LC7R-K1□A□□ (Refer to page 846 for details.)				

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example) **LJ1H1021PH-150K-F2-X2**

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

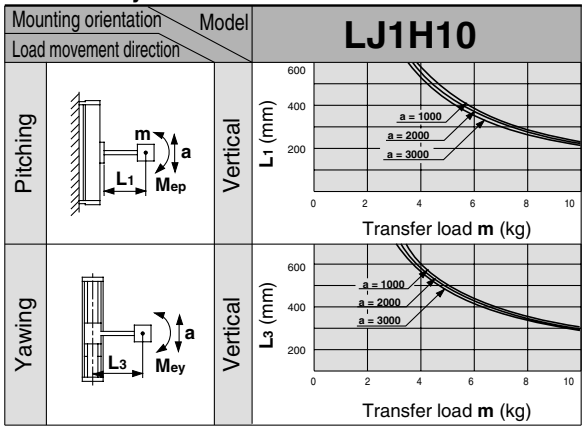
Allowable Moment (N·m)

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)

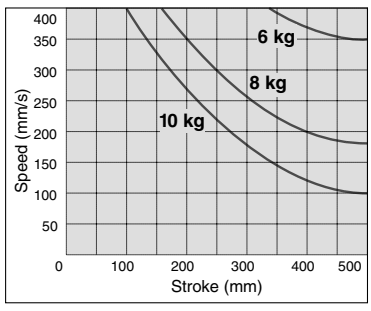
Allowable dynamic moment



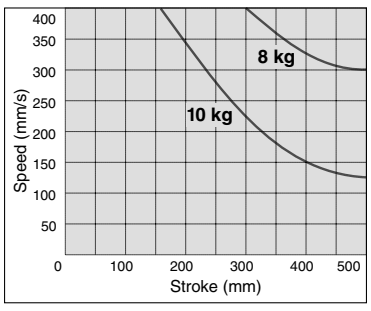
Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H1021PH-□□□K
(Power supply voltage 100 VAC)



LJ1H1022PH-□□□K
(Power supply voltage 200 VAC)

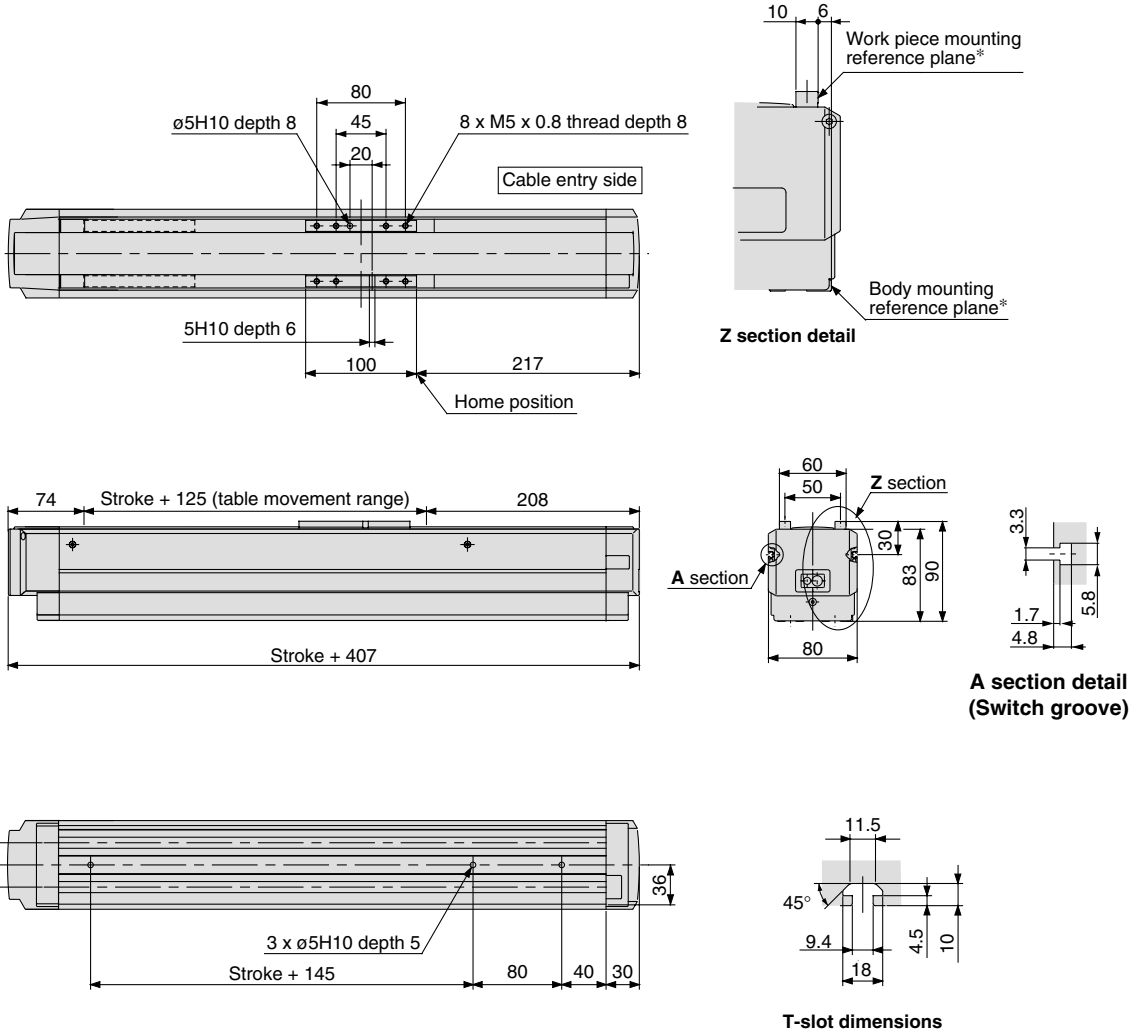


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 846 regarding regenerative absorption units.

Refer to page 850 regarding brake wiring.

Dimensions/LJ1H102□PH

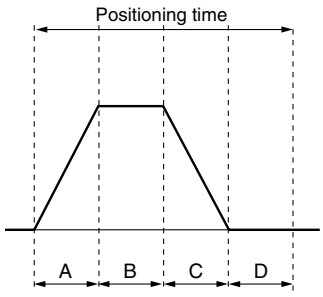


∗ The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment.
Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	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 (0.3 sec.)
Maximum acceleration: 3000 mm/s²

Standard Motor
Vertical Mount
Series LJ1H10

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø12 mm/12 mm lead

How to Order

LC1 controller compatible

LJ1H102 1 PB – 300 K – F 2

Power supply voltage

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

Stroke (mm)
Refer to the standard stroke.

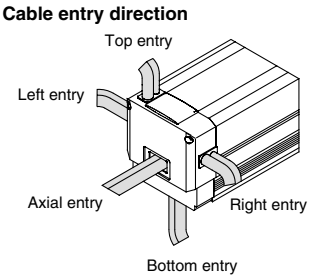
Cable entry direction

Symbol	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Cable entry direction



Specifications

Standard stroke (mm)			100	200	300	400	500
Performance	Body mass (kg)		5.5	6.3	7.1	7.8	8.6
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		5				
	Maximum speed (mm/s)		600				
	Positioning repeatability (mm)		±0.02				
Main parts	Motor		AC servomotor (100 W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw ø12 mm, 12 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A				
		Holding torque	0.4 N·m				
		Connection method	Ball screw mounting				
Controller	Model		LC1-1B1VB□-□□ (Refer to page 829 for details.)				
Regenerative absorption unit	Model		LC7R-K1□A□□ (Refer to page 846 for details.)				

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example) **LJ1H1021PB-150K-F2-X2**

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

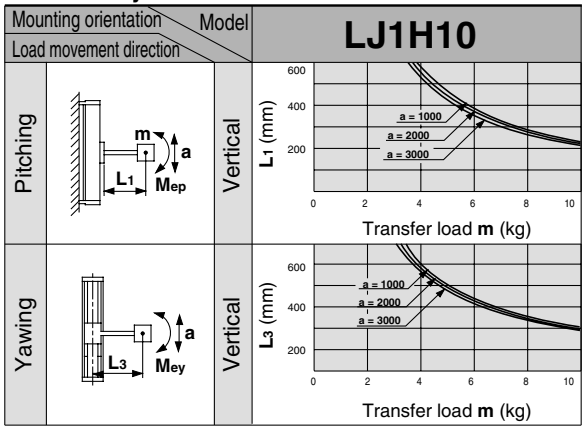
Allowable Moment (N·m)

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 670 for deflection data.

Regenerative Absorption Unit Selection Guide

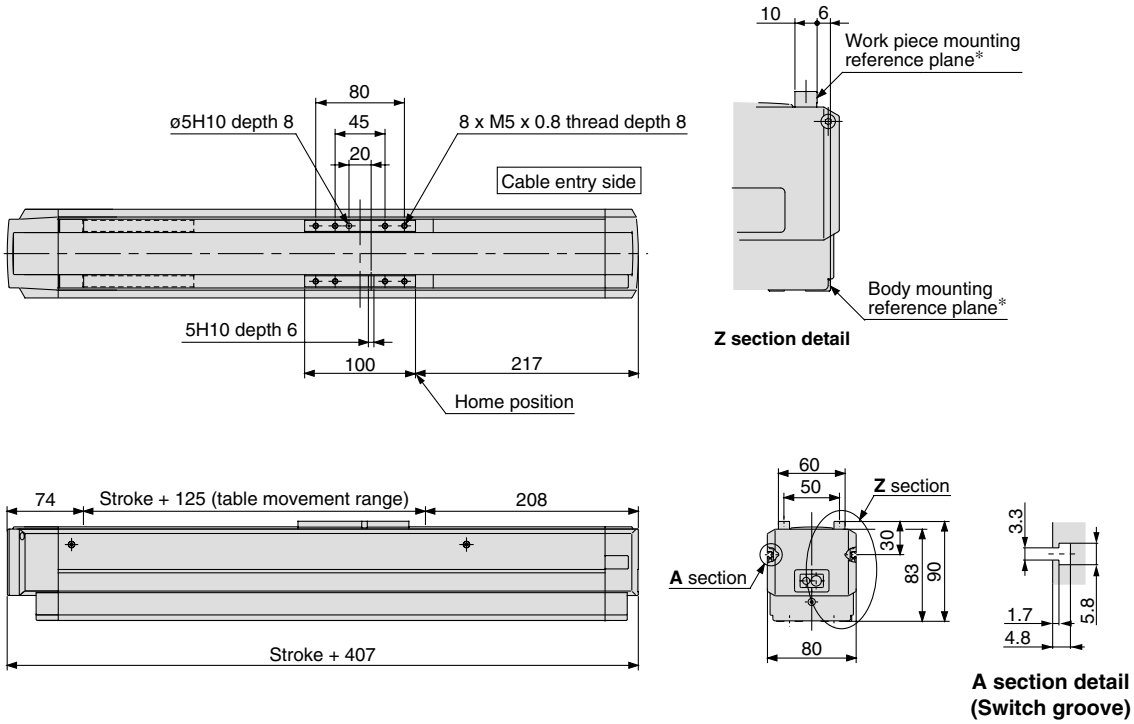
It is not necessary to mount a regenerative absorption unit when the work piece load, speed, and stroke are within the actuator rating. However, use of the regenerative absorption unit is recommended under all conditions.

Actuator rating

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

Refer to page 850 regarding brake wiring.

Dimensions/LJ1H102□PB

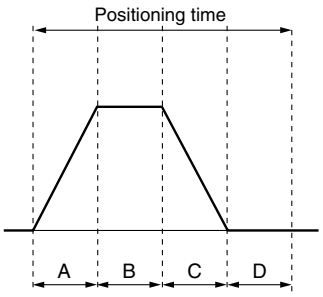


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.



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

Standard Motor Vertical Mount

Series LJ1H10

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø12 mm/8 mm lead

How to Order

LC1 controller compatible

LJ1H102 1 NH – 300 K – F 2

Power supply voltage

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

Stroke (mm)
Refer to the standard stroke.

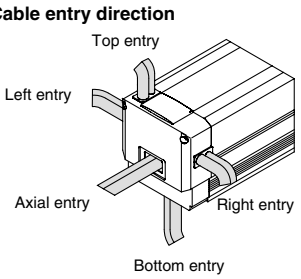
Cable entry direction

Symbol	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Cable entry direction



Specifications

Standard stroke (mm)			100	200	300	400	500
Performance	Body mass (kg)		5.5	6.3	7.1	7.8	8.6
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		10				
	Maximum speed (mm/s)		400				
	Positioning repeatability (mm)		±0.05				
Main parts	Motor		AC servomotor (100 W)				
	Encoder		Incremental system				
	Lead screw		Rolled ball screw ø12 mm, 8 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A				
		Holding torque	0.4 N·m				
		Connection method	Ball screw mounting				
Controller	Model		LC1-1B1VH□-□□ (Refer to page 829 for details.)				
Regenerative absorption unit	Model		LC7R-K1□A□□ (Refer to page 846 for details.)				

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example) **LJ1H1021NH-150K-F2-X2**

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

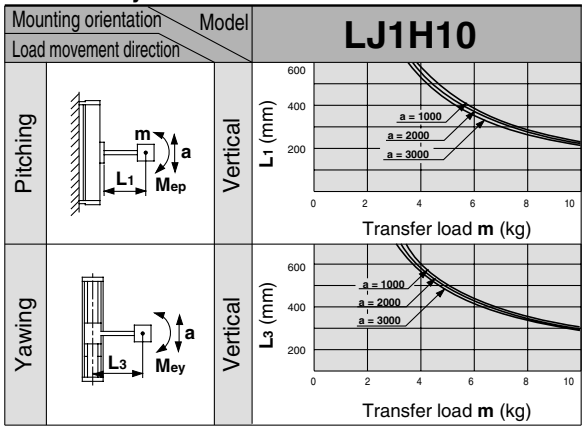
Allowable Moment (N·m)

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)

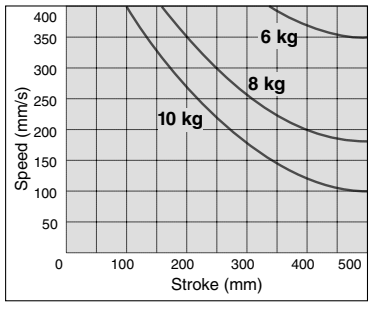
Allowable dynamic moment



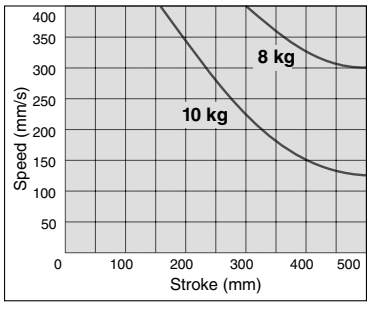
Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H1021NH-□□□K
(Power supply voltage 100 VAC)



LJ1H1022NH-□□□K
(Power supply voltage 200 VAC)

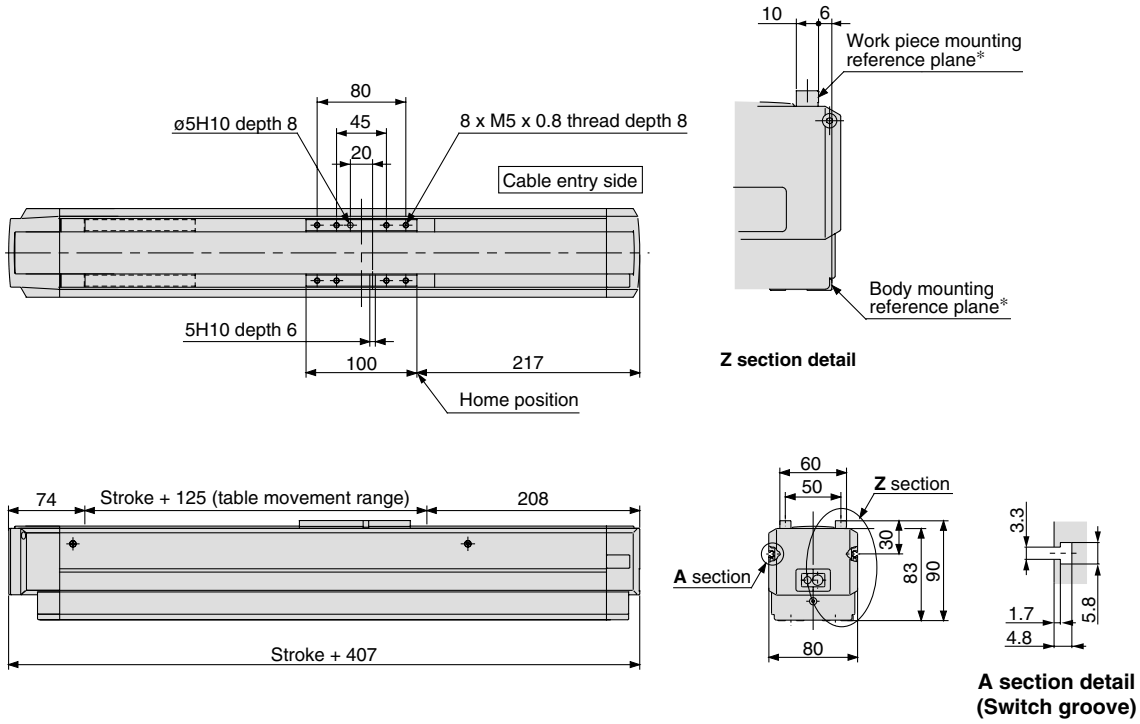


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 846 regarding regenerative absorption units.

Refer to page 850 regarding brake wiring.

Dimensions/LJ1H102□NH

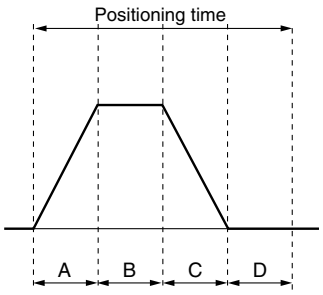


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	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 (0.3 sec.)
Maximum acceleration: 3000 mm/s²

Standard Motor
Vertical Mount
Series LJ1H10

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø12 mm/12 mm lead

How to Order

LC1 controller compatible

LJ1H102 1 NB – 300 K – F 2

Power supply voltage

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

Stroke (mm)
Refer to the standard stroke.

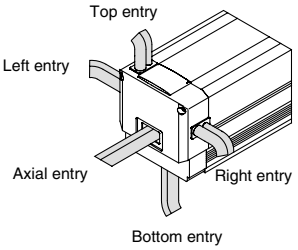
Cable entry direction

Symbol	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Cable entry direction



Specifications

Standard stroke (mm)			100	200	300	400	500
Performance	Body mass (kg)		5.5	6.3	7.1	7.8	8.6
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		5				
	Maximum speed (mm/s)		600				
	Positioning repeatability (mm)		±0.05				
Main parts	Motor		AC servomotor (100 W)				
	Encoder		Incremental system				
	Lead screw		Rolled ball screw ø12 mm, 12 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A				
		Holding torque	0.4 N·m				
		Connection method	Ball screw mounting				
Controller	Model		LC1-1B1VB□-□□ (Refer to page 829 for details.)				
Regenerative absorption unit	Model		LC7R-K1□A□□ (Refer to page 846 for details.)				

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example) **LJ1H1021NB-150K-F2-X2**

Made to order specifications (For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

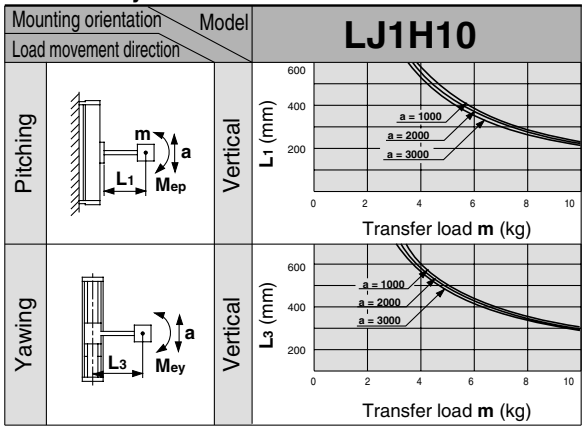
Allowable Moment (N·m)

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 670 for deflection data.

Regenerative Absorption Unit Selection Guide

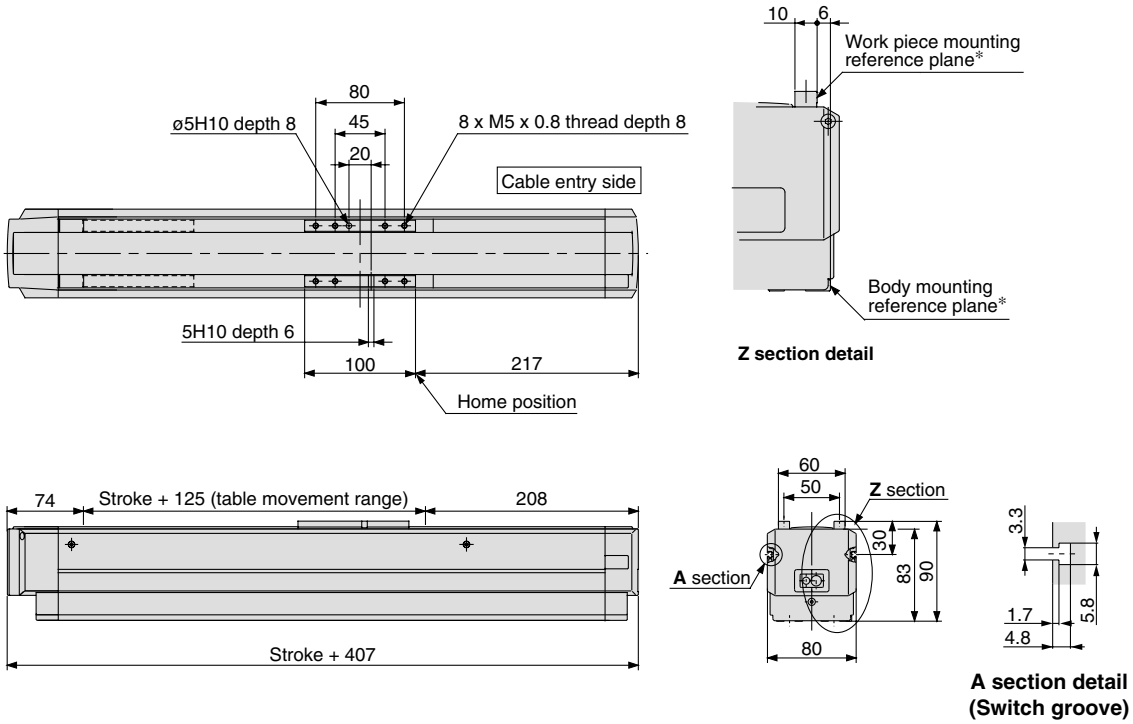
It is not necessary to mount a regenerative absorption unit when the work piece load, speed, and stroke are within the actuator rating. However, use of the regenerative absorption unit is recommended under all conditions.

Actuator rating

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

Refer to page 850 regarding brake wiring.

Dimensions/LJ1H102□NB

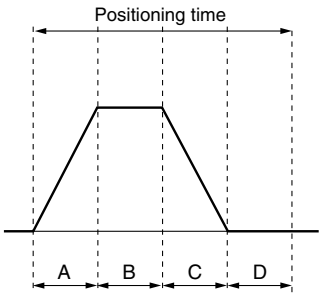


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.



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

Standard Motor
Vertical Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø15 mm/5 mm lead

How to Order

LC1 controller compatible

LJ1H202 1 PF – 300 K – F 2

Power supply voltage

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

Stroke (mm)
Refer to the standard stroke.

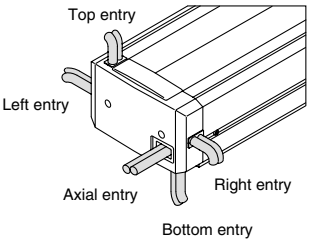
Cable entry direction

Symbol	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Cable entry direction



Specifications

Standard stroke (mm)			100	200	300	400	500	600
Performance	Body mass (kg)		8.0	9.2	10.4	11.5	12.9	14.0
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		15					
	Maximum speed (mm/s)		250					
	Positioning repeatability (mm)		±0.02					
Main parts	Motor		AC servomotor (100 W)					
	Encoder		Incremental system					
	Lead screw		Ground ball screw ø15 mm, 5 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A					
		Holding torque	0.4 N·m					
		Connection method	Ball screw mounting					
Controller	Model		LC1-1B2VF□-□□ (Refer to page 829 for details.)					
Regenerative absorption unit	Model		LC7R-K1□A□□ (Refer to page 846 for details.)					

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550
Example) **LJ1H2021PF-150K-F2-X2**

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Allowable Moment (N·m)

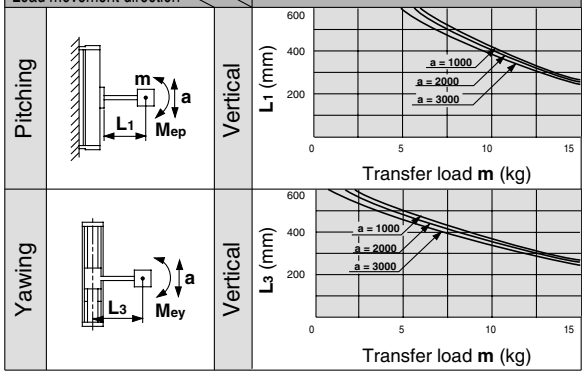
Allowable static moment

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

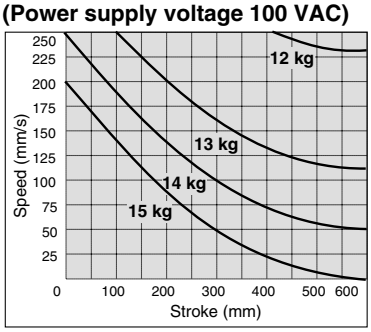
Mounting orientation / Load movement direction \ Model: **LJ1H20**



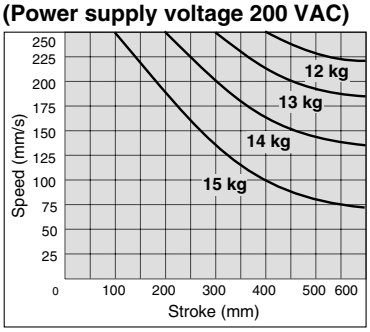
Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H2021PF-□□□K
(Power supply voltage 100 VAC)



LJ1H2022PF-□□□K
(Power supply voltage 200 VAC)

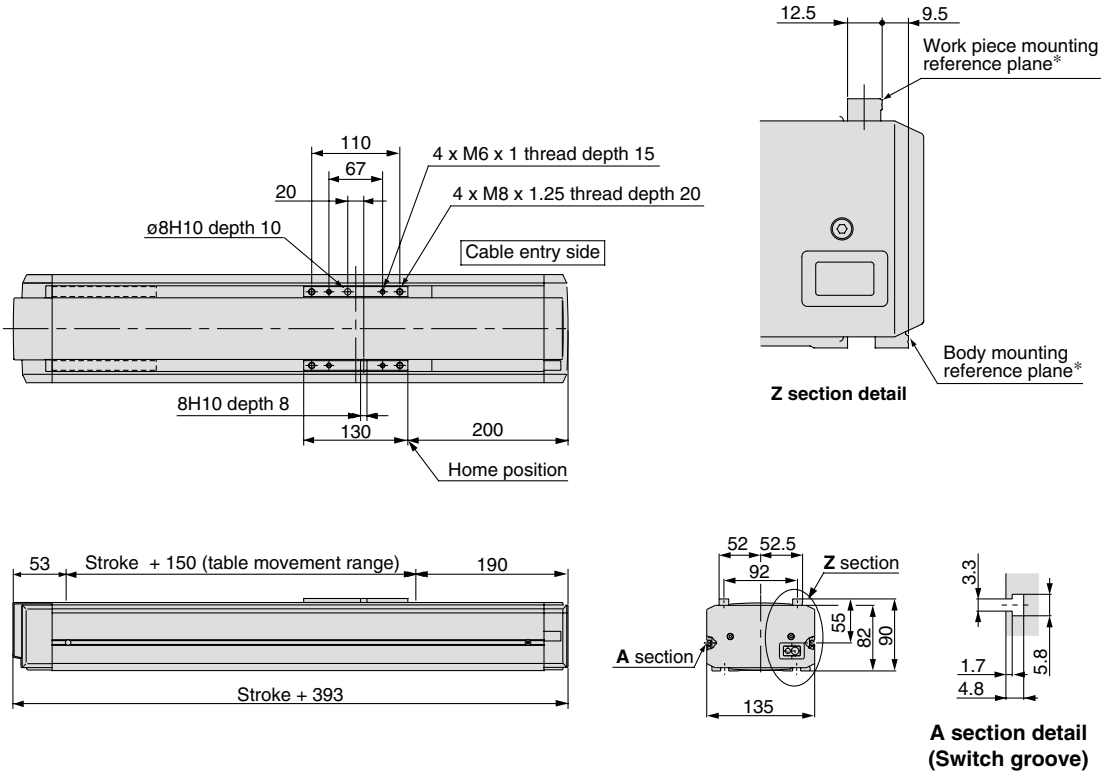


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 846 regarding regenerative absorption units.

Refer to page 850 regarding brake wiring.

Dimensions/LJ1H202□PF

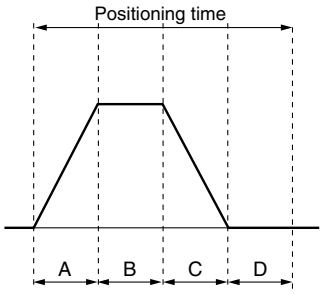


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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 (0.4 sec.)
Maximum acceleration: 3000 mm/s²

Standard Motor Vertical Mount

Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø15 mm/10 mm lead

How to Order

LC1 controller compatible

LJ1H202 1 PA – 300 K – F 2

Power supply voltage

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

Stroke (mm)
Refer to the standard stroke.

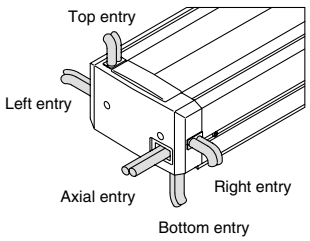
Cable entry direction

Symbol	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Cable entry direction



Specifications

Standard stroke (mm)			100	200	300	400	500	600
Performance	Body mass (kg)		8.0	9.2	10.4	11.5	12.9	14.0
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		8					
	Maximum speed (mm/s)		500					
	Positioning repeatability (mm)		±0.02					
Main parts	Motor		AC servomotor (100 W)					
	Encoder		Incremental system					
	Lead screw		Ground ball screw ø15 mm, 10 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A					
		Holding torque	0.4 N·m					
		Connection method	Ball screw mounting					
Controller	Model		LC1-1B2VA□-□□ (Refer to page 829 for details.)					
Regenerative absorption unit	Model		LC7R-K1□A□□ (Refer to page 846 for details.)					

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550
Example) **LJ1H2021PA-150K-F2-X2**

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

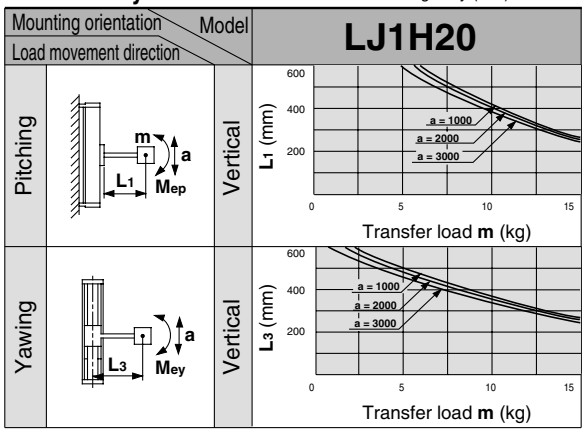
Allowable Moment (N·m)

Allowable static 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 670 for deflection data.

Regenerative Absorption Unit Selection Guide

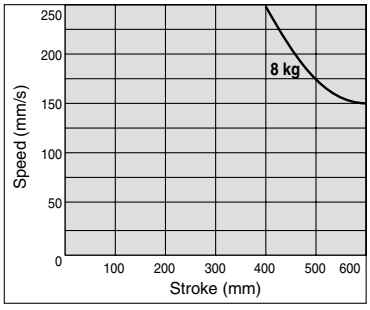
LJ1H2021PA-□□□K (Power supply voltage 100 VAC)

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

Actuator rating

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

LJ1H2022PA-□□□K (Power supply voltage 200 VAC)

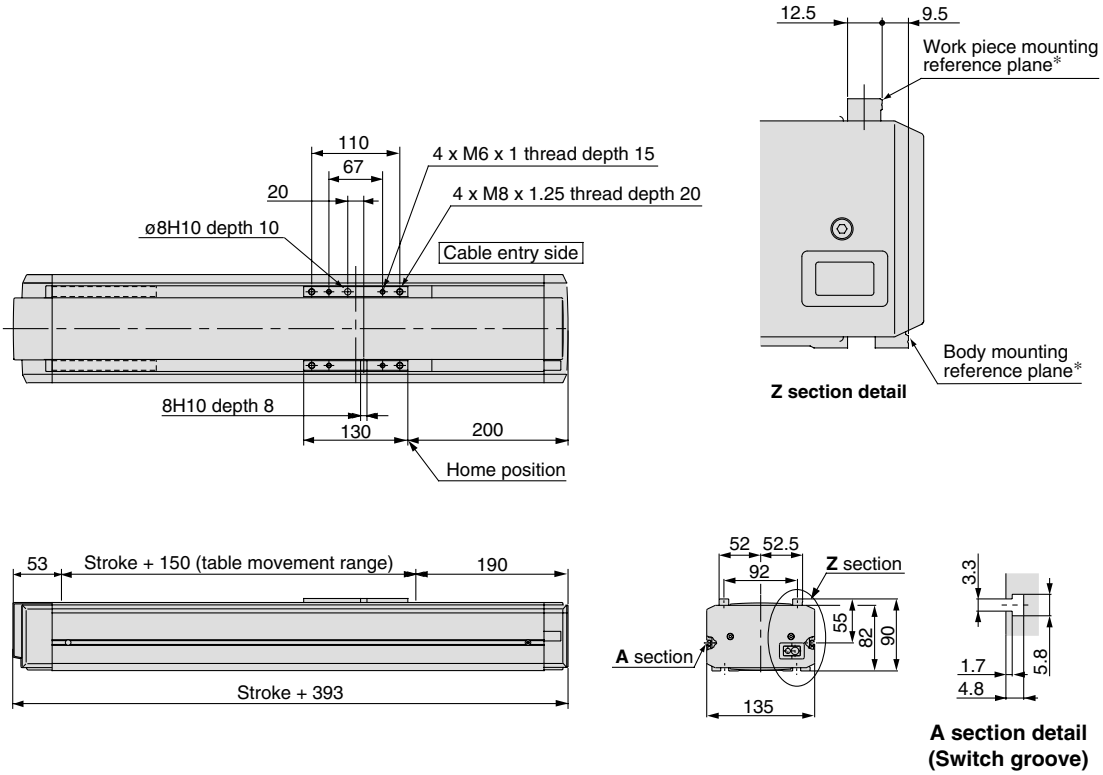


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 846 regarding regenerative absorption units.

Refer to page 850 regarding brake wiring.

Dimensions/LJ1H202□PA

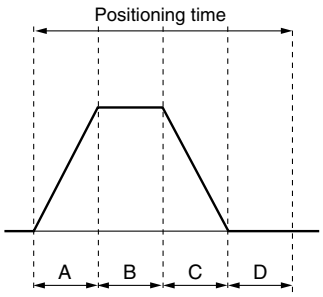


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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 (0.4 sec.)
Maximum acceleration: 3000 mm/s²

Standard Motor
Vertical Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø15 mm/5 mm lead

How to Order

LC1 controller compatible

LJ1H202 1 NF – 300 K – F 2

Power supply voltage

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

Stroke (mm)
Refer to the standard stroke.

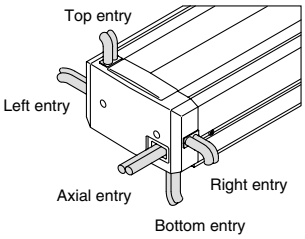
Cable entry direction

Symbol	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Cable entry direction



Specifications

Standard stroke (mm)			100	200	300	400	500	600
Performance	Body mass (kg)		8.0	9.2	10.4	11.5	12.9	14.0
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		15					
	Maximum speed (mm/s)		250					
	Positioning repeatability (mm)		±0.05					
Main parts	Motor		AC servomotor (100 W)					
	Encoder		Incremental system					
	Lead screw		Rolled ball screw ø15 mm, 5 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A					
		Holding torque	0.4 N·m					
		Connection method	Ball screw mounting					
Controller	Model		LC1-1B2VF□-□□ (Refer to page 829 for details.)					
Regenerative absorption unit	Model		LC7R-K1□A□□ (Refer to page 846 for details.)					

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550
Example) **LJ1H2021NF-150K-F2-X2**

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

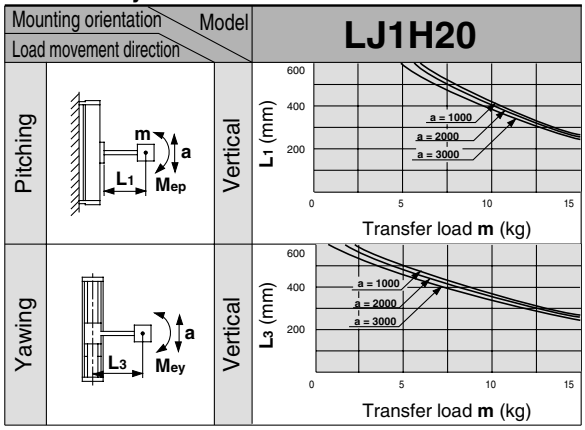
Allowable Moment (N·m)

Allowable static 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)

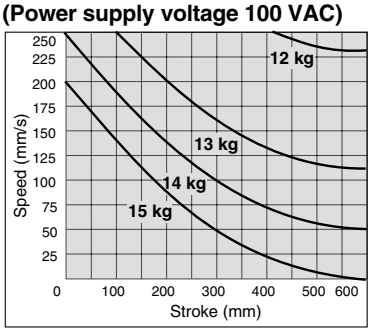
Allowable dynamic moment



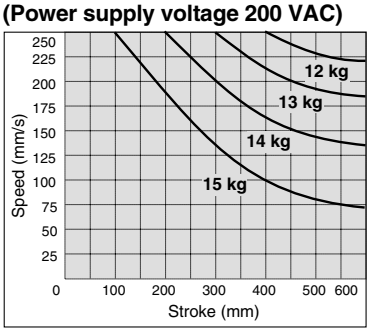
Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H2021NF-□□□K
(Power supply voltage 100 VAC)



LJ1H2022NF-□□□K
(Power supply voltage 200 VAC)

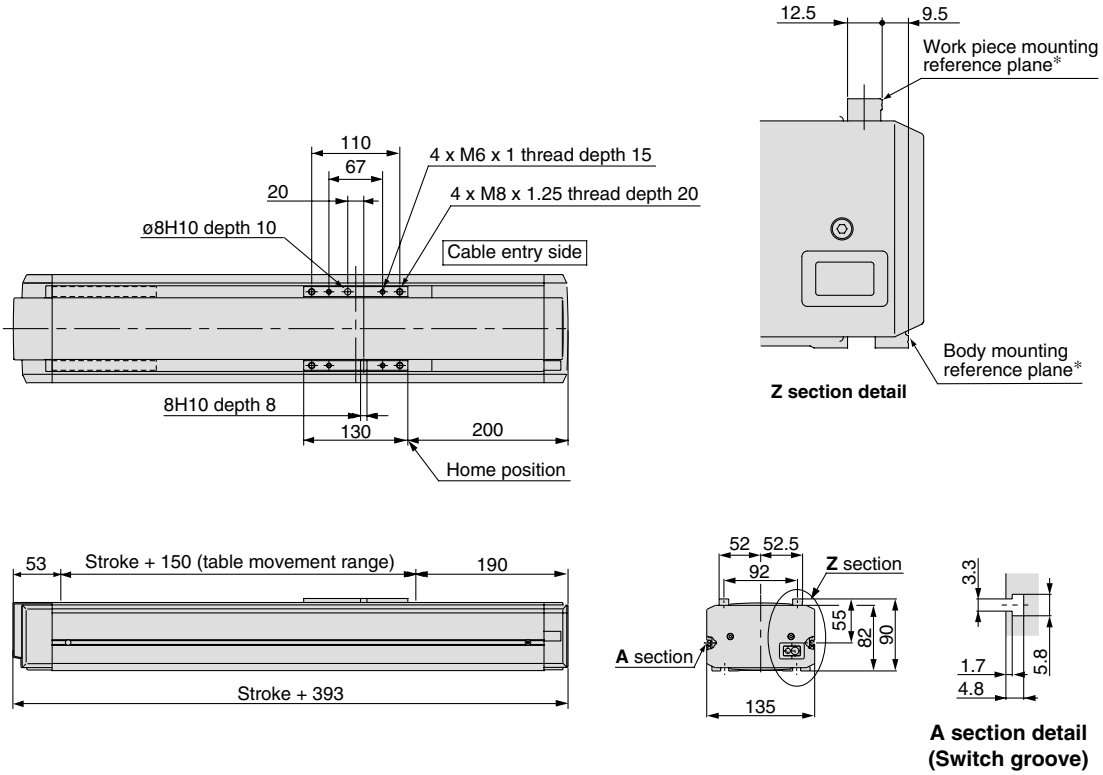


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 846 regarding regenerative absorption units.

Refer to page 850 regarding brake wiring.

Dimensions/LJ1H202□NF

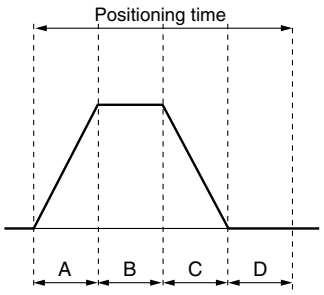


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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 (0.4 sec.)
Maximum acceleration: 3000 mm/s²

Standard Motor Vertical Mount

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø15 mm/10 mm lead

Series LJ1H20

How to Order

LC1 controller compatible

LJ1H202 1 NA – 300 K – F 2

Power supply voltage

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

Stroke (mm)
Refer to the standard stroke.

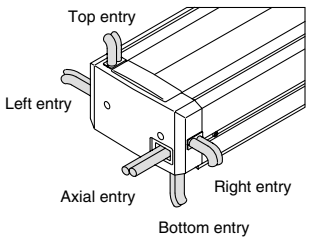
Cable entry direction

Symbol	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Cable entry direction



Specifications

Standard stroke (mm)			100	200	300	400	500	600
Performance	Body mass (kg)		8.0	9.2	10.4	11.5	12.9	14.0
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		8					
	Maximum speed (mm/s)		500					
	Positioning repeatability (mm)		±0.05					
Main parts	Motor		AC servomotor (100W)					
	Encoder		Incremental system					
	Lead screw		Rolled ball screw ø15 mm, 10 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A					
		Holding torque	0.4 N·m					
		Connection method	Ball screw mounting					
Controller	Model		LC1-1B2VA□-□□ (Refer to page 829 for details.)					
Regenerative absorption unit	Model		LC7R-K1□A□□ (Refer to page 846 for details.)					

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550
Example) **LJ1H2021NA-150K-F2-X2**

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

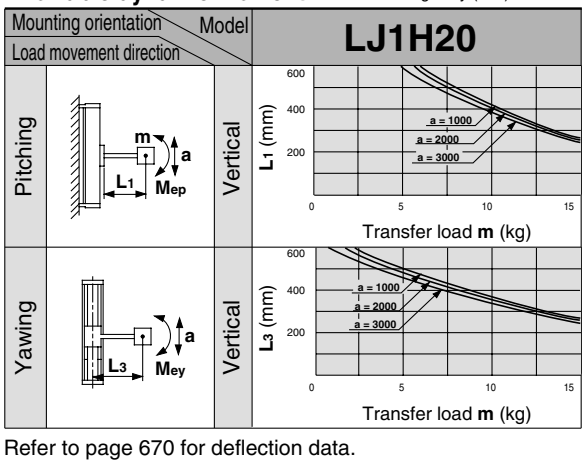
Allowable Moment (N·m)

Allowable static 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 670 for deflection data.

Regenerative Absorption Unit Selection Guide

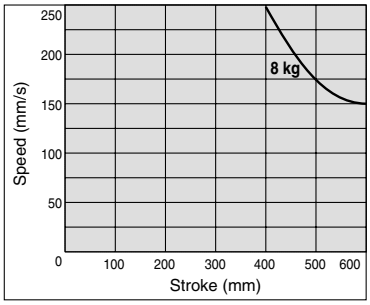
LJ1H2021NA-□□□K (Power supply voltage100 VAC)

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

Actuator rating

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

LJ1H2022NA-□□□K (Power supply voltage 200 VAC)

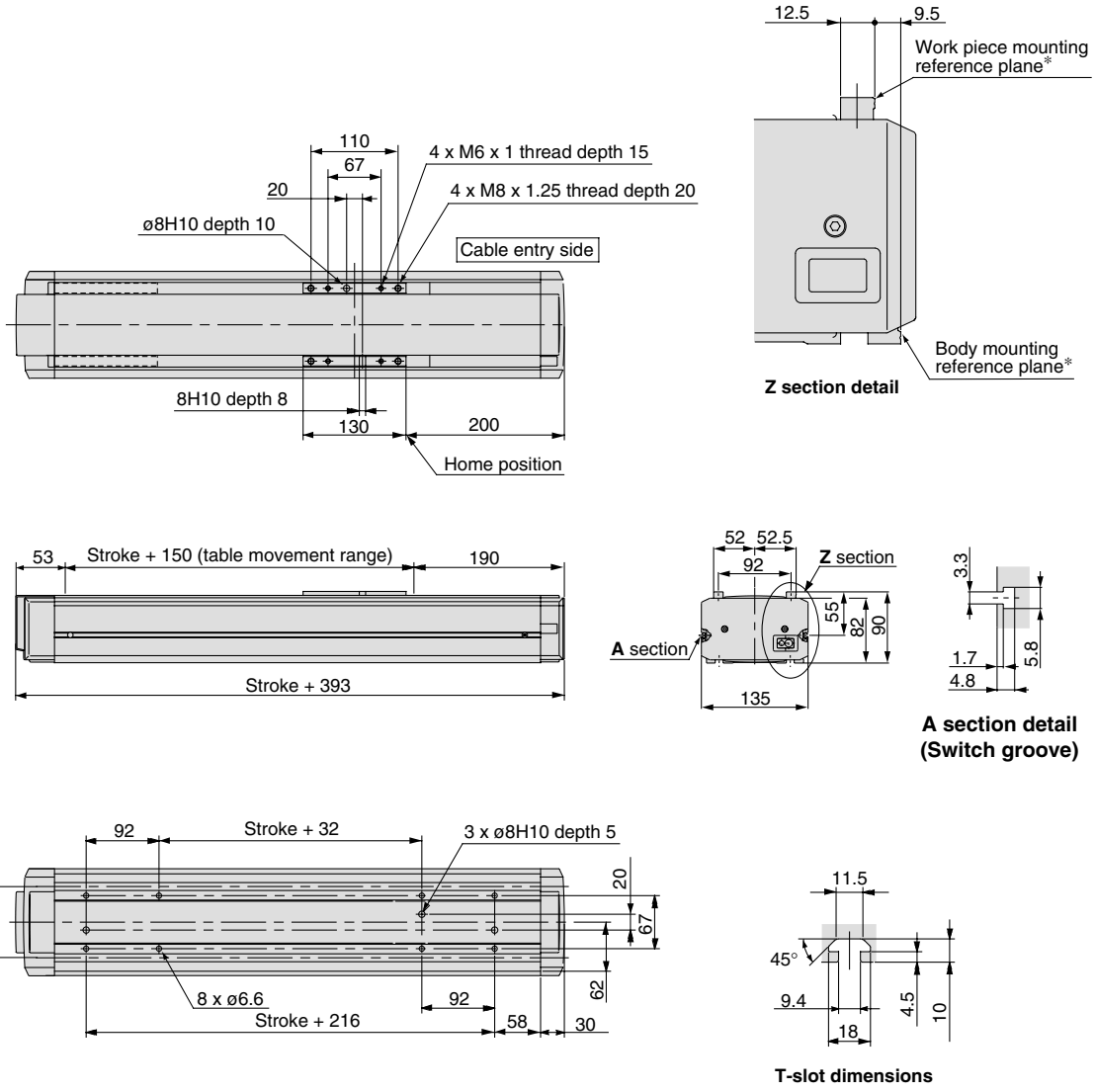


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 846 regarding regenerative absorption units.

Refer to page 850 regarding brake wiring.

Dimensions/LJ1H202□NA

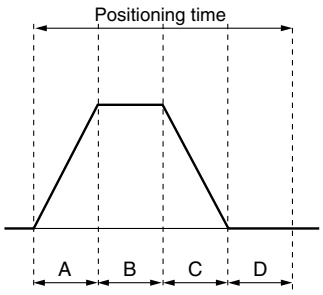


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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 (0.4 sec.)
Maximum acceleration: 3000 mm/s²

Standard Motor
Vertical Mount
Series LJ1H30

Motor Output 200 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø20 mm/10 mm lead

How to Order

LC1 controller compatible

LJ1H303 [1] [PA] – [300] K – [F] [2]

Power supply voltage

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

Stroke (mm)
Refer to the standard stroke.

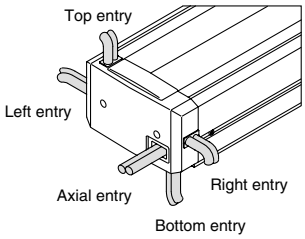
Cable entry direction

Symbol	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Cable entry direction



Specifications

Standard stroke (mm)			200	300	400	500	600
Performance	Body mass (kg)		16.3	18.3	20.3	22.3	24.3
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		20				
	Maximum speed (mm/s)		500				
	Positioning repeatability (mm)		±0.02				
Main parts	Motor		AC servomotor (200 W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw ø20 mm, 10 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.5 A				
		Holding torque	1.0 N·m				
		Connection method	Ball screw mounting				
Controller	Model		LC1-1B3VA□-□□ (Refer to page 829 for details.)				
Regenerative absorption unit	Model		LC7R-K1□A□□ (Refer to page 846 for details.)				

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 250, 350, 450, 550
Example) **LJ1H3031PA-250K-F2-X2**

Made to order specifications (For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Allowable Moment (N·m)

Allowable static moment

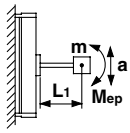
Pitching	117
Yawing	123

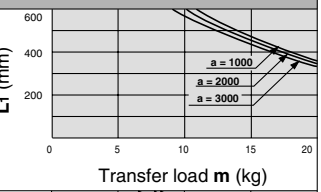
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment

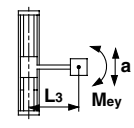
Mounting orientation / Load movement direction / Model — LJ1H30

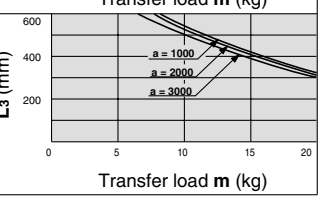
Pitching — Vertical





Yawing — Vertical

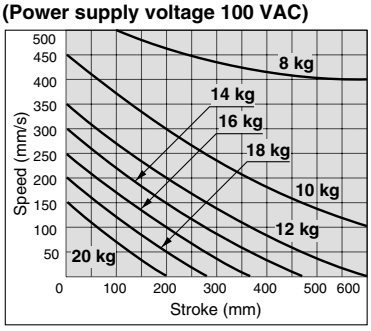




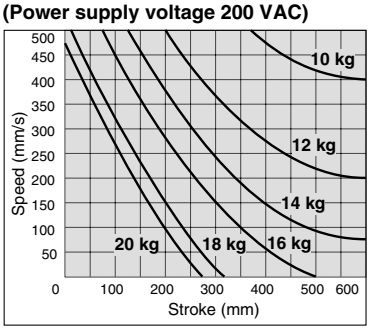
Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H3031PA-□□□K
(Power supply voltage 100 VAC)



LJ1H3032PA-□□□K
(Power supply voltage 200 VAC)

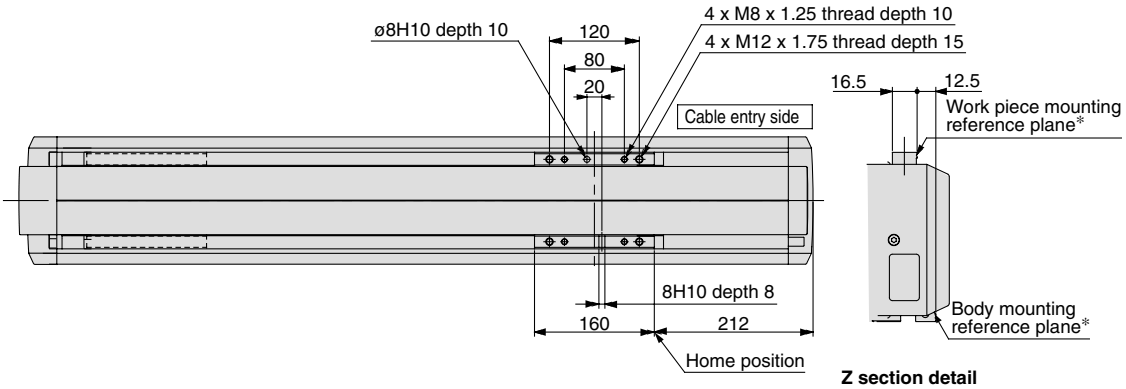


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

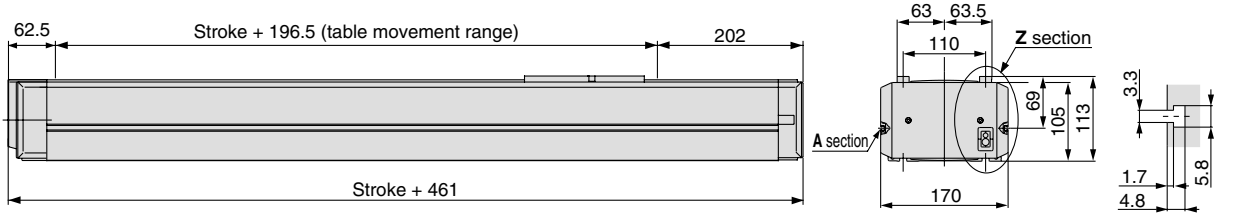
Be sure to refer to page 846 regarding regenerative absorption units.

Refer to page 850 regarding brake wiring.

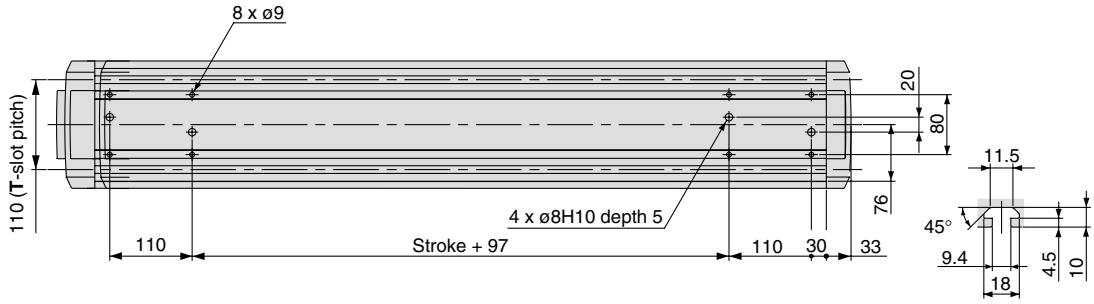
Dimensions/LJ1H303□PA



Z section detail



A section detail (Switch groove)



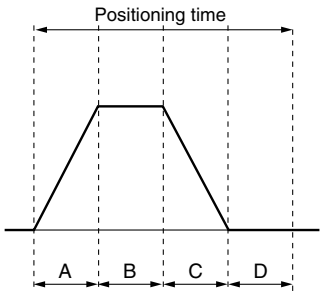
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	1.1	2.0	11.0	31.0	61.0
	100	1.1	1.2	2.1	4.1	7.1
	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.



A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (1.0 sec.)
Maximum acceleration: 3000 mm/s²

Standard Motor
Vertical Mount
Series LJ1H30

Motor Output 200 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø20 mm/10 mm lead

How to Order

LC1 controller compatible

LJ1H303 1 NA – 300 K – F 2

Power supply voltage

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

Stroke (mm)
Refer to the standard stroke.

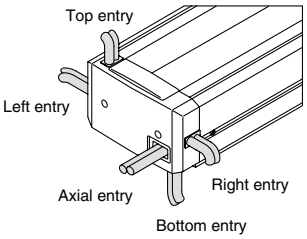
Cable entry direction

Symbol	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2 m
3	3 m
4	4 m
5	5 m

Cable entry direction



Specifications

Standard stroke (mm)			200	300	400	500	600
Performance	Body mass (kg)		16.3	18.3	20.3	22.3	24.3
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		20				
	Maximum speed (mm/s)		500				
	Positioning repeatability (mm)		±0.05				
Main parts	Motor		AC servomotor (200 W)				
	Encoder		Incremental system				
	Lead screw		Rolled ball screw ø20 mm, 10 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.5 A				
		Holding torque	1.0 N·m				
		Connection method	Ball screw mounting				
Controller	Model		LC1-1B3VA□-□□ (Refer to page 829 for details.)				
Regenerative absorption unit	Model		LC7R-K1□A□□ (Refer to page 846 for details.)				

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "**-X2**" at the end of the part number.
Applicable strokes: 250, 350, 450, 550
Example) **LJ1H3031NA-250K-F2-X2**

Made to order specifications (For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

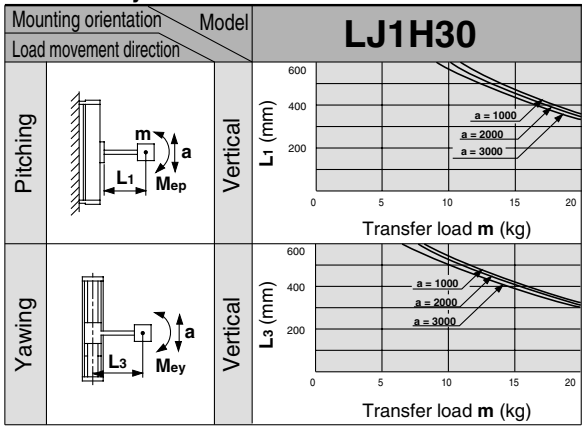
Allowable Moment (N·m)

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)

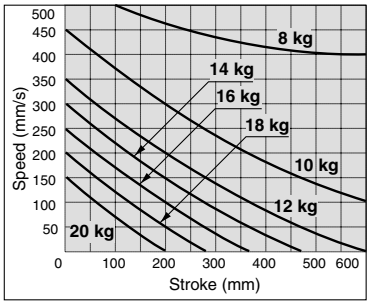
Allowable dynamic moment



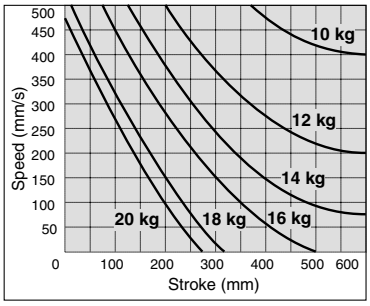
Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H3031NA-□□□K
(Power supply voltage 100 VAC)



LJ1H3032NA-□□□K
(Power supply voltage 200 VAC)

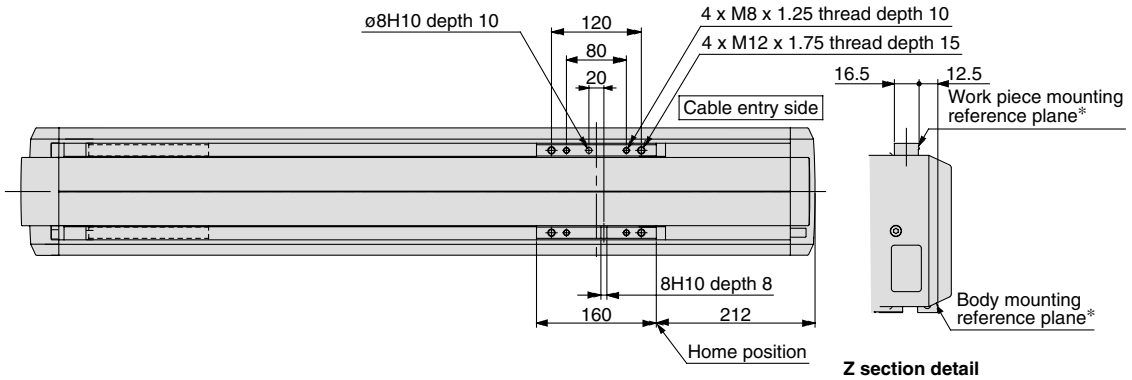


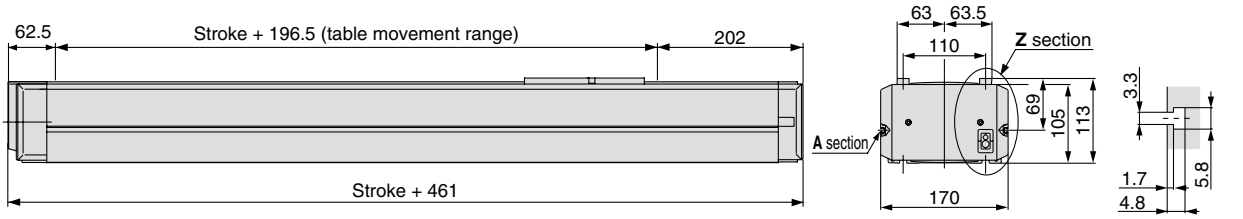
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

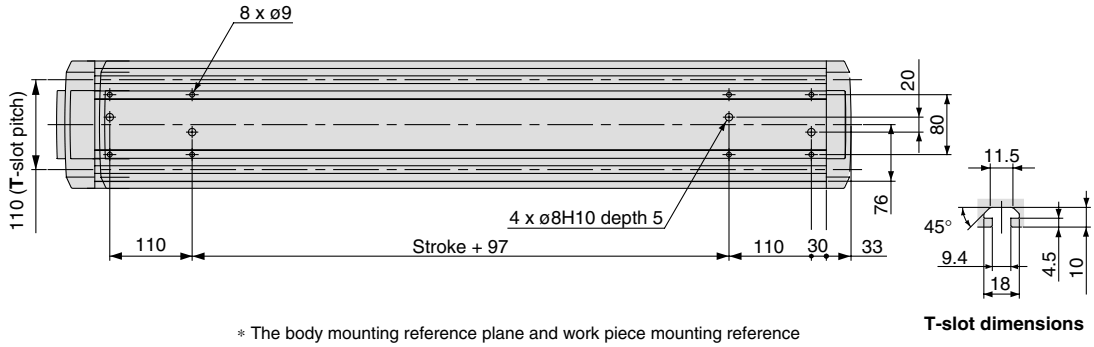
Be sure to refer to page 846 regarding regenerative absorption units.

Refer to page 850 regarding brake wiring.

Dimensions/LJ1H303□NA





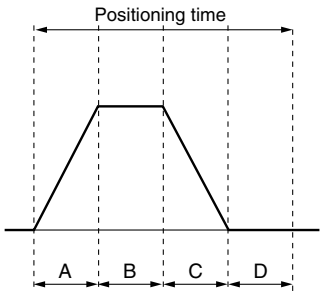


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	2.0	11.0	31.0	61.0
	100	1.1	1.2	2.1	4.1	7.1
	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.



A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (1.0 sec.)
Maximum acceleration: 3000 mm/s²

Non-standard Motor
Horizontal Mount
Series LJ1H10

Motor Output 50 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø12 mm/12 mm lead

How to Order

LJ1H10 R11 PB – 300 – F W –X10

Stroke (mm)
Refer to page 548 for details.

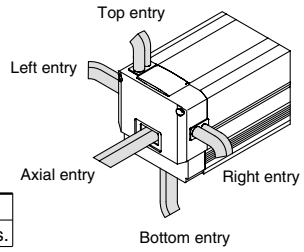
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R11	Mitsubishi Electric Corporation	HC-PQ053	50 W	MR-C10A1	100/115 VAC
R12				MR-C10A	200/230 VAC
R10		—	—	—	—

∗ Motor/driver is included for R11 and R12.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500
Performance	Body mass (without motor) (kg)	4.8	5.6	6.4	7.1	7.9
	Operating temperature range (°C)	5 to 40 (No condensation)				
	Work load (kg)	10				
	Maximum speed (mm/s)	600				
	Positioning repeatability (mm)	±0.02				
Main parts	Motor	AC servomotor (50 W)				
	Encoder	Incremental system				
	Lead screw	Ground ball screw ø12 mm, 12 mm lead				
	Guide	High rigidity direct acting guide				
	Motor/Screw connection	With coupling				
Switch	Model	D-Y7GL				

Intermediate strokes

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

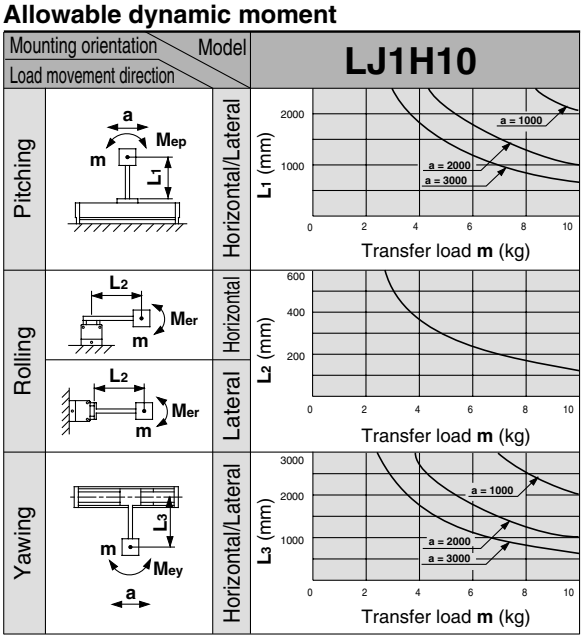
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

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

Allowable dynamic moment



Refer to page 670 for deflection data.

Non-standard Motor
Horizontal Mount
Series LJ1H10

Motor Output 50 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø12 mm/12 mm lead

How to Order

LJ1H10 **R11** **PB** – **300** – **F** **H** – X10 – **Q**

Stroke (mm)
Refer to page 550 for details.

CE marking

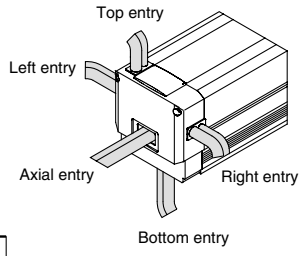
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
H	N.C. (B contact) PNP: 2 pcs.
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R11	Mitsubishi Electric Corporation *2	HC-PQ053	50 W	MR-C10A1-UE	100/115 VAC
R12				MR-C10A-UE	200/230 VAC
R19				—	—
R10*1		—	—	—	—
RM11		HC-MFS053	50 W	MR-J2S-10A1	100/115 VAC
RM12				MR-J2S-10A	200/230 VAC
RM19				—	—
RM10*1		—	—	—	—
RK11		HC-KFS053	50 W	MR-J2S-10A1	100/115 VAC
RK12				MR-J2S-10A	200/230 VAC
RK19				—	—
RK10*1		—	—	—	—
RP11		HF-KP053	50 W	MR-J3-10A1	100/115 VAC
RP12				MR-J3-10A	200/230 VAC
RP19				—	—
RP10*1		—	—	—	—

*1 Without motor/driver. Refer to page 669 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.
*3 For with RP (motor symbol) motors, the motor will not come attached, but packed in the same container as the main body.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500
Performance	Body mass (without motor) (kg)	4.8	5.6	6.4	7.1	7.9
	Operating temperature range (°C)	5 to 40 (No condensation)				
	Work load (kg)	10				
	Maximum speed (mm/s)	600				
	Positioning repeatability (mm)	±0.02				
Main parts	Motor	AC servomotor (50 W)				
	Encoder	Incremental system				
	Lead screw	Ground ball screw ø12 mm, 12 mm lead				
	Guide	High rigidity direct acting guide				
	Motor/Screw connection	With coupling				
Switch	Model	D-Y7HL, D-Y7GL (Refer to page 1079 for details.)				

Intermediate strokes

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

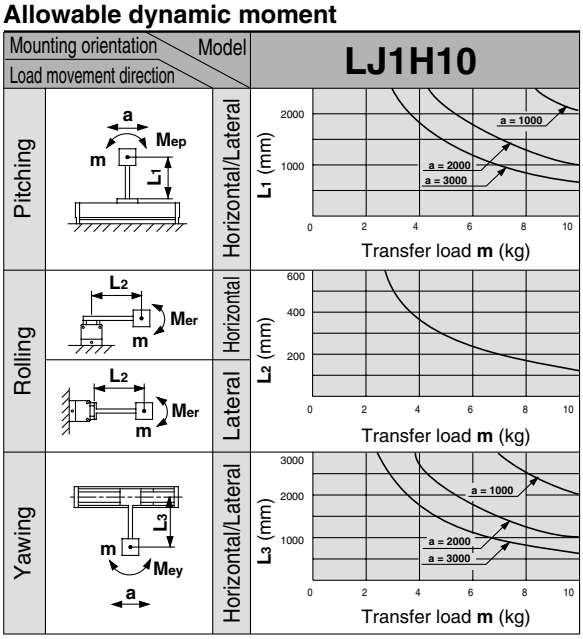
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

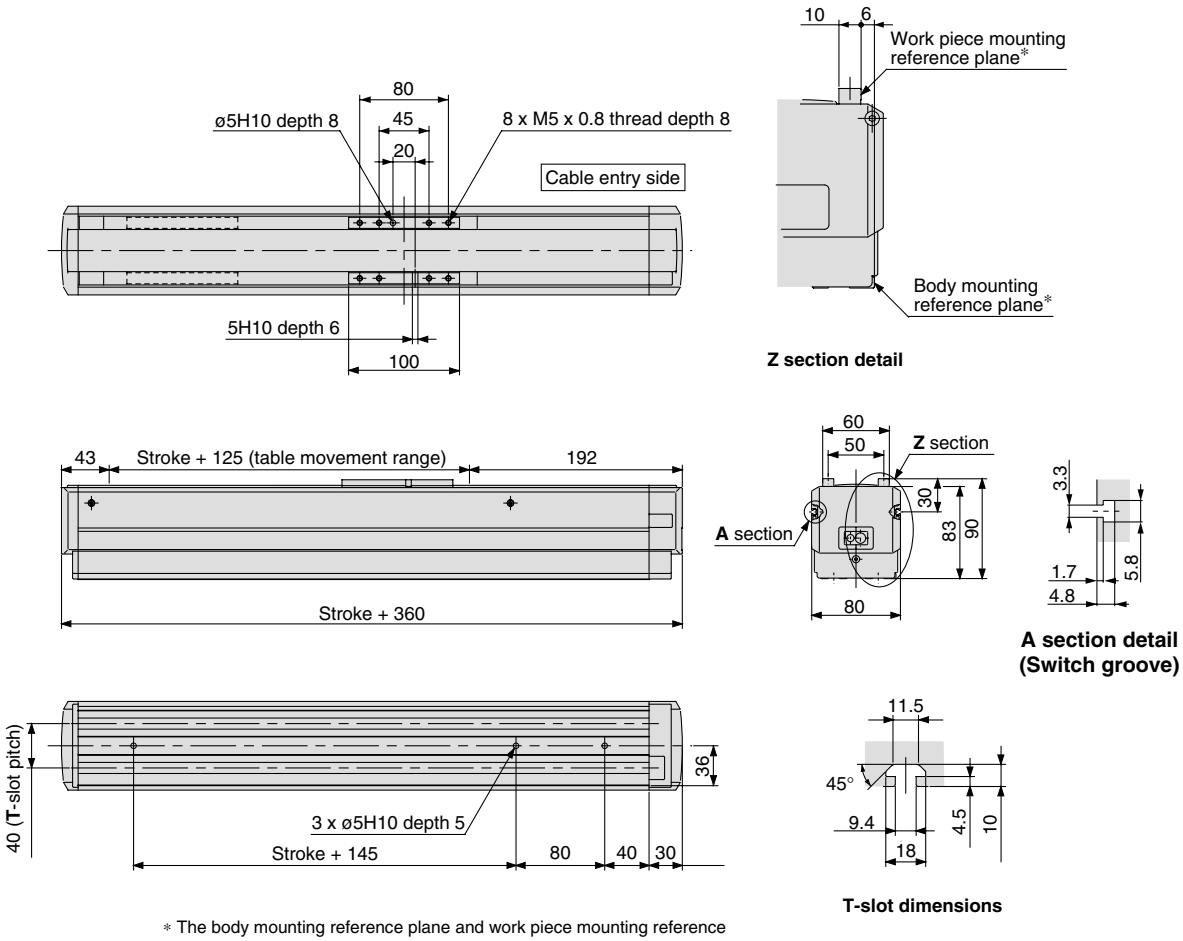
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H10□1□PB (X10)

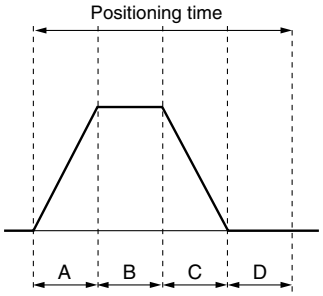


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.

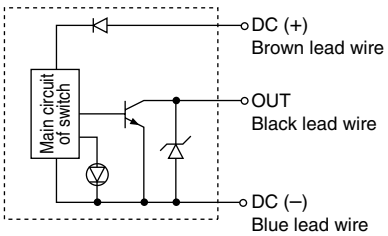


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.3 sec.)*
Maximum acceleration: 3000 mm/s²

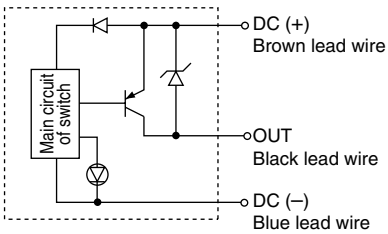
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor
Horizontal Mount
Series LJ1H10

Motor Output 50 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø12 mm/12 mm lead

How to Order

LJ1H10 R11 NB – 300 – F W –X10

Stroke (mm)
Refer to page 553 for details.

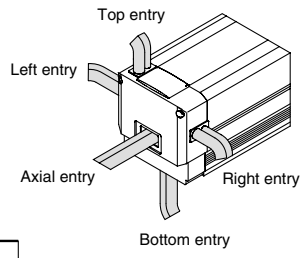
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R11	Mitsubishi Electric Corporation	HC-PQ053	50 W	MR-C10A1	100/115 VAC
R12				MR-C10A	200/230 VAC
R10		—	—	—	—

∗ Motor/driver is included for R11 and R12.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500
Performance	Body mass (without motor) (kg)	4.8	5.6	6.4	7.1	7.9
	Operating temperature range (°C)	5 to 40 (No condensation)				
	Work load (kg)	10				
	Maximum speed (mm/s)	600				
	Positioning repeatability (mm)	±0.05				
Main parts	Motor	AC servomotor (50 W)				
	Encoder	Incremental system				
	Lead screw	Rolled ball screw ø12 mm, 12 mm lead				
	Guide	High rigidity direct acting guide				
	Motor/Screw connection	With coupling				
Switch	Model	D-Y7GL (Refer to page 1079 for details.)				

Intermediate strokes

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

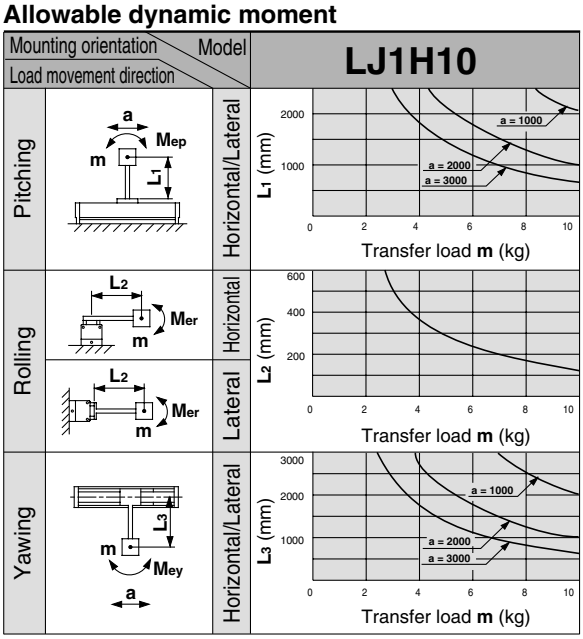
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

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

Allowable dynamic moment



Refer to page 670 for deflection data.

Non-standard Motor
Horizontal Mount
Series LJ1H10

Motor Output 50 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø12 mm/12 mm lead

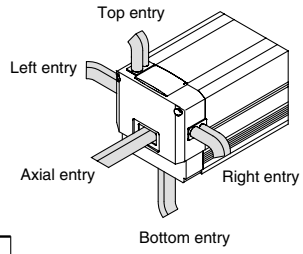
How to Order

LJ1H10 R11 NB – 300 – F H –X10 – Q

Stroke (mm)
Refer to page 555 for details.

CE marking

Cable entry direction



Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
H	N.C. (B contact) PNP: 2 pcs.
W	N.C. (B contact) NPN: 2 pcs.

Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R11	Mitsubishi Electric Corporation *2	HC-PQ053	50 W	MR-C10A1-UE	100/115 VAC
R12				MR-C10A-UE	200/230 VAC
R19				—	—
R10∗1		—	—	—	—
RM11		HC-MFS053	50 W	MR-J2S-10A1	100/115 VAC
RM12				MR-J2S-10A	200/230 VAC
RM19				—	—
RM10∗1		—	—	—	—
RK11		HC-KFS053	50 W	MR-J2S-10A1	100/115 VAC
RK12				MR-J2S-10A	200/230 VAC
RK19				—	—
RK10∗1		—	—	—	—
RP11		HF-KP053	50 W	MR-J3-10A1	100/115 VAC
RP12				MR-J3-10A	200/230 VAC
RP19				—	—
RP10∗1		—	—	—	—

∗1 Without motor/driver. Refer to page 669 for motor mounting dimensions.
∗2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.
∗3 For with RP (motor symbol) motors, the motor will not come attached, but packed in the same container as the main body.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500
Performance	Body mass (without motor) (kg)	4.8	5.6	6.4	7.1	7.9
	Operating temperature range (°C)	5 to 40 (No condensation)				
	Work load (kg)	10				
	Maximum speed (mm/s)	600				
	Positioning repeatability (mm)	±0.05				
Main parts	Motor	AC servomotor (50 W)				
	Encoder	Incremental system				
	Lead screw	Rolled ball screw ø12 mm, 12 mm lead				
	Guide	High rigidity direct acting guide				
	Motor/Screw connection	With coupling				
Switch	Model	D-Y7HL, D-Y7GL (Refer to page 1079 for details.)				

Intermediate strokes

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

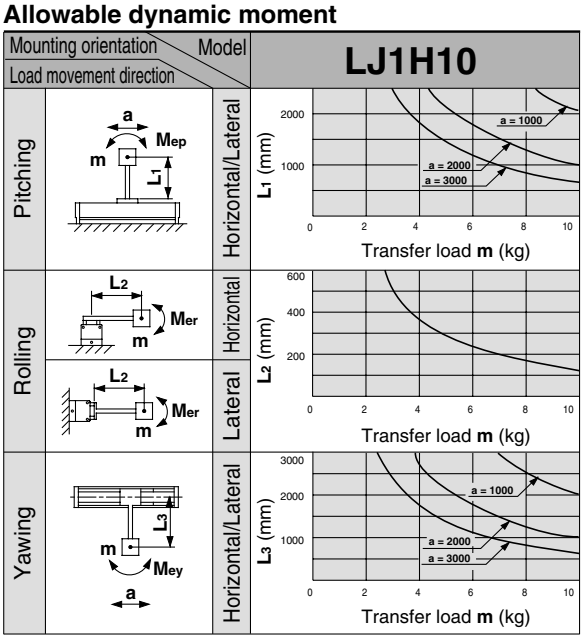
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

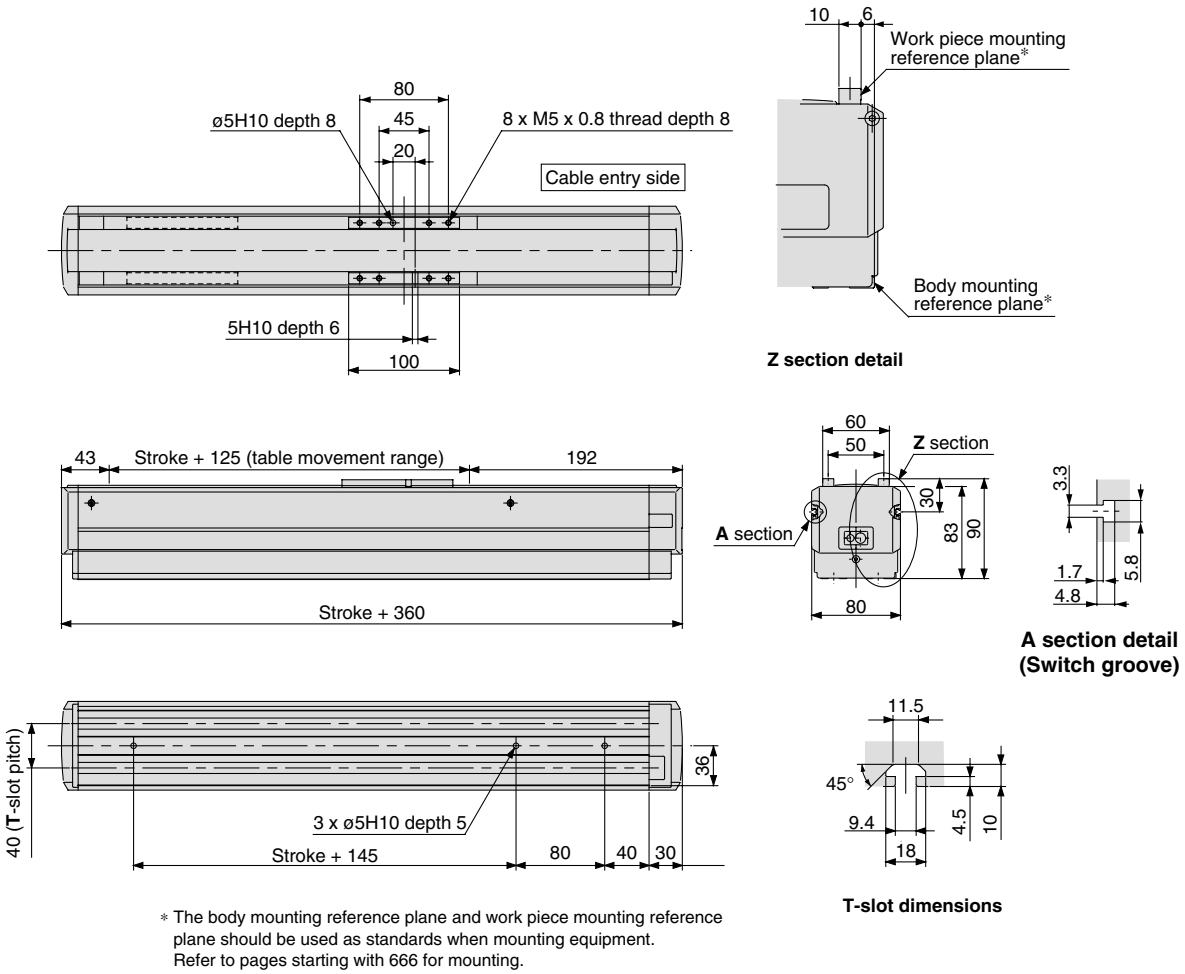
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H10□1□NB (X10)

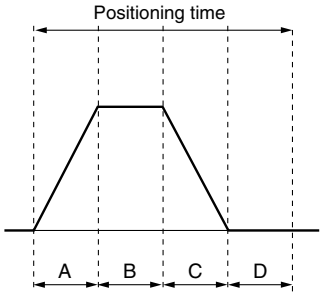


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.

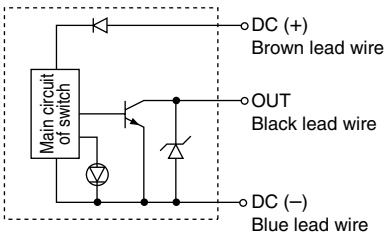


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.3 sec.)*
Maximum acceleration: 3000 mm/s²

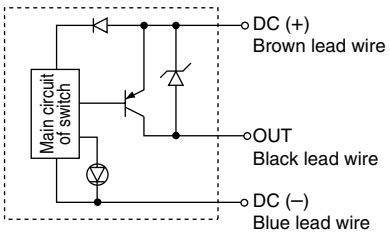
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø15 mm/10 mm lead

How to Order

LJ1H20 R21 PA – 300 – F W –X10

Stroke (mm)
Refer to page 563 for details.

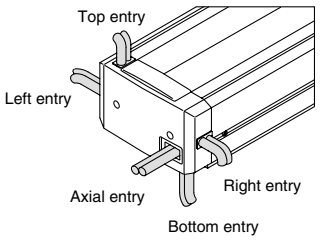
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500	600
Performance	Body mass (without motor) (kg)	7.2	8.4	9.6	10.7	12.1	13.2
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	30					
	Maximum speed (mm/s)	500					
	Positioning repeatability (mm)	±0.02					
Main parts	Motor	AC servomotor (100 W)					
	Encoder	Incremental system					
	Lead screw	Ground ball screw ø15 mm, 10 mm lead					
	Guide	High rigidity direct acting guide					
	Motor/Screw connection	With coupling					
Switch	Model	D-Y7GL (Refer to page 1079 for details.)					

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

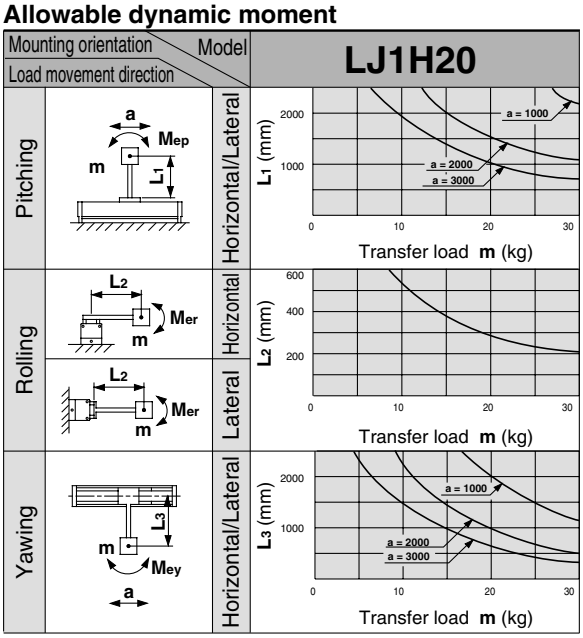
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

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

Allowable dynamic moment



Refer to page 670 for deflection data.

Non-standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø15 mm/10 mm lead

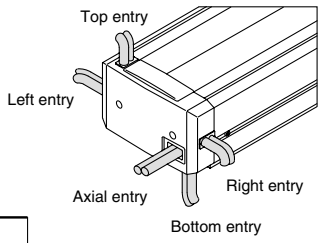
How to Order

LJ1H20 R21 PA – 300 – F H – X10 – Q

Stroke (mm)
Refer to page 565 for details.

CE marking

Cable entry direction



Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
H	N.C. (B contact) PNP: 2 pcs.
W	N.C. (B contact) NPN: 2 pcs.

Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation*2	HC-PQ13	100 W	MR-C10A1-UE	100/115 VAC
R22				MR-C10A-UE	200/230 VAC
R29				—	—
R20*1		—	—	—	—
RM21		HC-MFS13	100 W	MR-J2S-10A1	100/115 VAC
RM22				MR-J2S-10A	200/230 VAC
RM29				—	—
RM20*1		—	—	—	—
RK21		HC-KFS13	100 W	MR-J2S-10A1	100/115 VAC
RK22				MR-J2S-10A	200/230 VAC
RK29				—	—
RK20*1		—	—	—	—
RP21		HF-KP13	100 W	MR-J3-10A1	100/115 VAC
RP22				MR-J3-10A	200/230 VAC
RP29				—	—
RP20*1		—	—	—	—

*1 Without motor/driver. Refer to page 669 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.
*3 For with RP (motor symbol) motors, the motor will not come attached, but packed in the same container as the main body.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500	600
Performance	Body mass (without motor) (kg)	7.2	8.4	9.6	10.7	12.1	13.2
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	30					
	Maximum speed (mm/s)	500					
	Positioning repeatability (mm)	±0.02					
Main parts	Motor	AC servomotor (100 W)					
	Encoder	Incremental system					
	Lead screw	Ground ball screw ø15 mm, 10 mm lead					
	Guide	High rigidity direct acting guide					
	Motor/Screw connection	With coupling					
Switch	Model	D-Y7HL, D-Y7GL (Refer to page 1079 for details.)					

Intermediate strokes

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

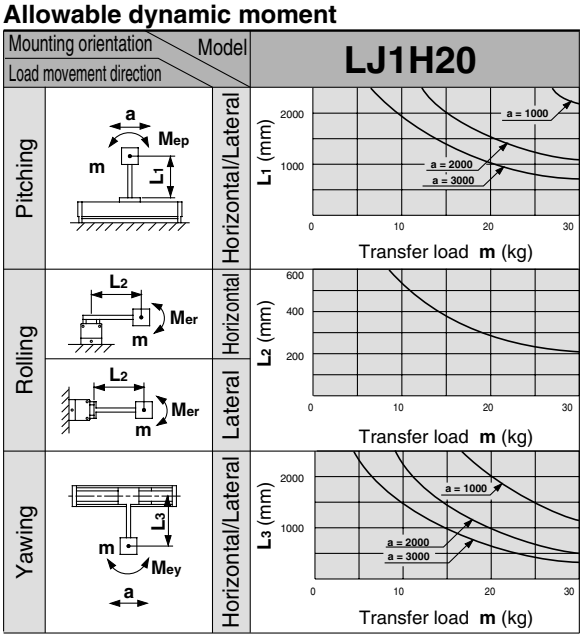
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

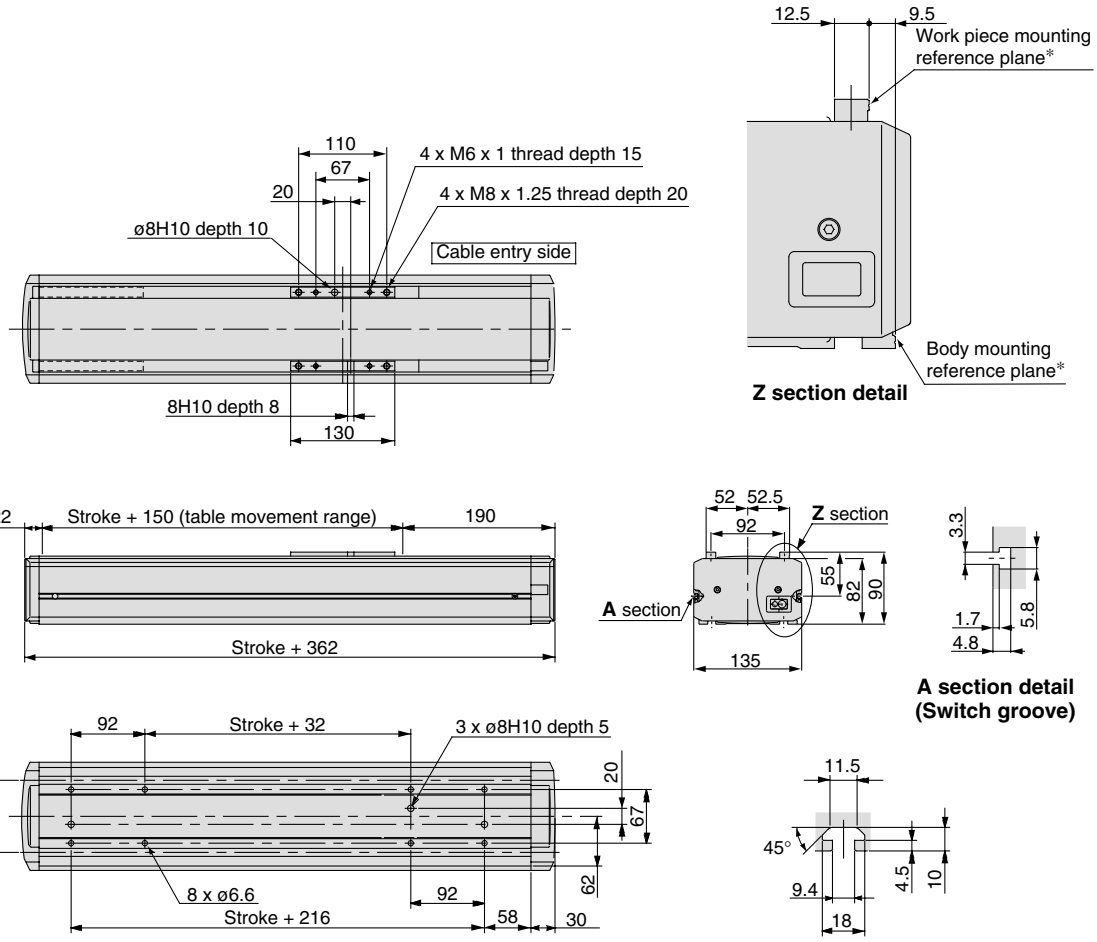
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H20□2□PA (X10)

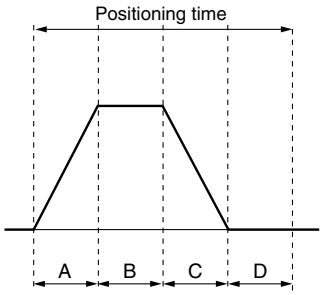


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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.

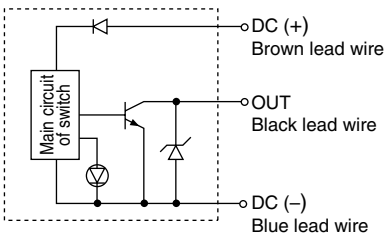


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.4 sec.)*
Maximum acceleration: 3000 mm/s²

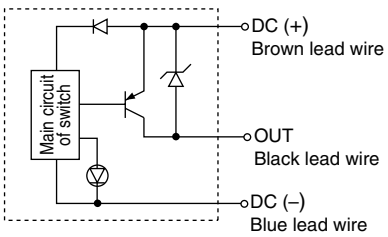
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø15 mm/20 mm lead

How to Order

LJ1H20 R21 PC – 500 – F W –X10

Stroke (mm)
Refer to page 568 for details.

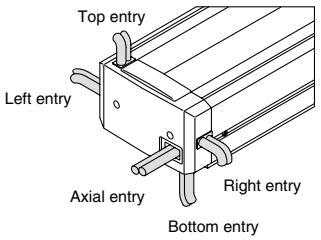
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		500	600	700	800	900	1000
Performance	Body mass (without motor) (kg)	12.1	13.2	14.4	15.6	16.8	18.0
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	30					
	Maximum speed (mm/s) Note)	1000	1000	930	740	600	500
	Positioning repeatability (mm)	±0.02					
Main parts	Motor	AC servomotor (100 W)					
	Encoder	Incremental system					
	Lead screw	Ground ball screw ø15 mm, 20 mm lead					
	Guide	High rigidity direct acting guide					
	Motor/Screw connection	With coupling					
Switch	Model	D-Y7GL (Refer to page 1079 for details.)					

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

Note) The speed is limited by the transfer load. Consult each motor manufacturer regarding the maximum speed for each transfer load.

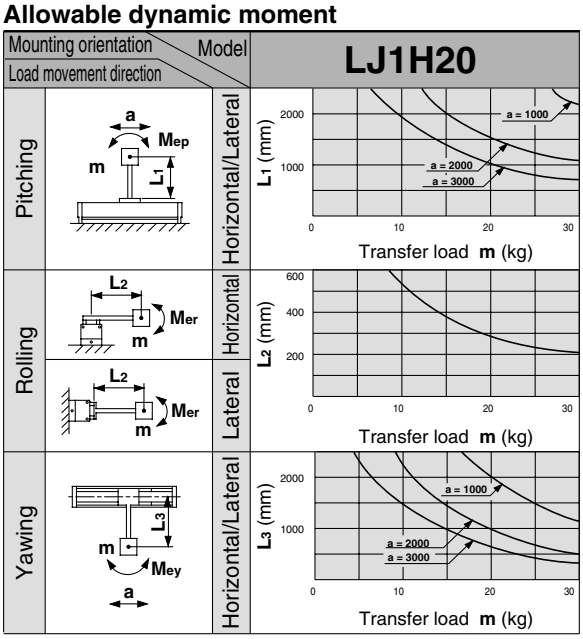
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

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

Allowable dynamic moment



Refer to page 670 for deflection data.

Non-standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø15 mm/20 mm lead

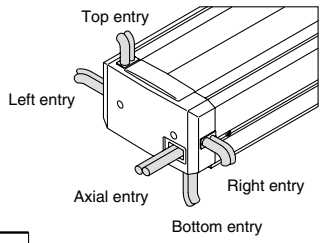
How to Order

LJ1H20 R21 PC – 500 – F H – X10 – Q

Stroke (mm)
Refer to page 570 for details.

CE marking

Cable entry direction



Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
H	N.C. (B contact) PNP: 2 pcs.
W	N.C. (B contact) NPN: 2 pcs.

Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation*2	HC-PQ13	100 W	MR-C10A1-UE	100/115 VAC
R22				MR-C10A-UE	200/230 VAC
R29				—	—
R20*1		—	—	—	—
RM21		HC-MFS13	100 W	MR-J2S-10A1	100/115 VAC
RM22				MR-J2S-10A	200/230 VAC
RM29				—	—
RM20*1		—	—	—	—
RK21		HC-KFS13	100 W	MR-J2S-10A1	100/115 VAC
RK22				MR-J2S-10A	200/230 VAC
RK29				—	—
RK20*1		—	—	—	—
RP21		HF-KP13	100 W	MR-J3-10A1	100/115 VAC
RP22				MR-J3-10A	200/230 VAC
RP29				—	—
RP20*1		—	—	—	—

*1 Without motor/driver. Refer to page 669 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.
*3 For with RP (motor symbol) motors, the motor will not come attached, but packed in the same container as the main body.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		500	600	700	800	900	1000
Performance	Body mass (without motor) (kg)	12.1	13.2	14.4	15.6	16.8	18.0
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	30					
	Maximum speed (mm/s) Note)	1000	1000	930	740	600	500
	Positioning repeatability (mm)	±0.02					
Main parts	Motor	AC servomotor (100 W)					
	Encoder	Incremental system					
	Lead screw	Ground ball screw ø15 mm, 20 mm lead					
	Guide	High rigidity direct acting guide					
	Motor/Screw connection	With coupling					
Switch	Model	D-Y7HL, D-Y7GL (Refer to page 1079 for details.)					

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

Note) The speed is limited by the transfer load. Consult each motor manufacturer regarding the maximum speed for each transfer load.

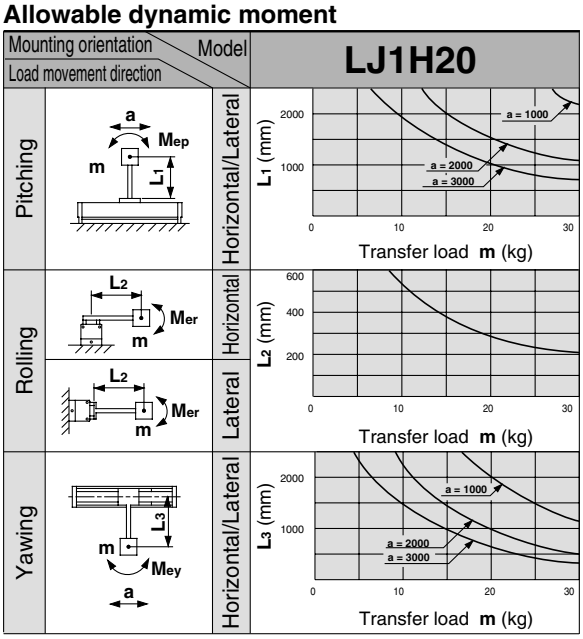
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

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

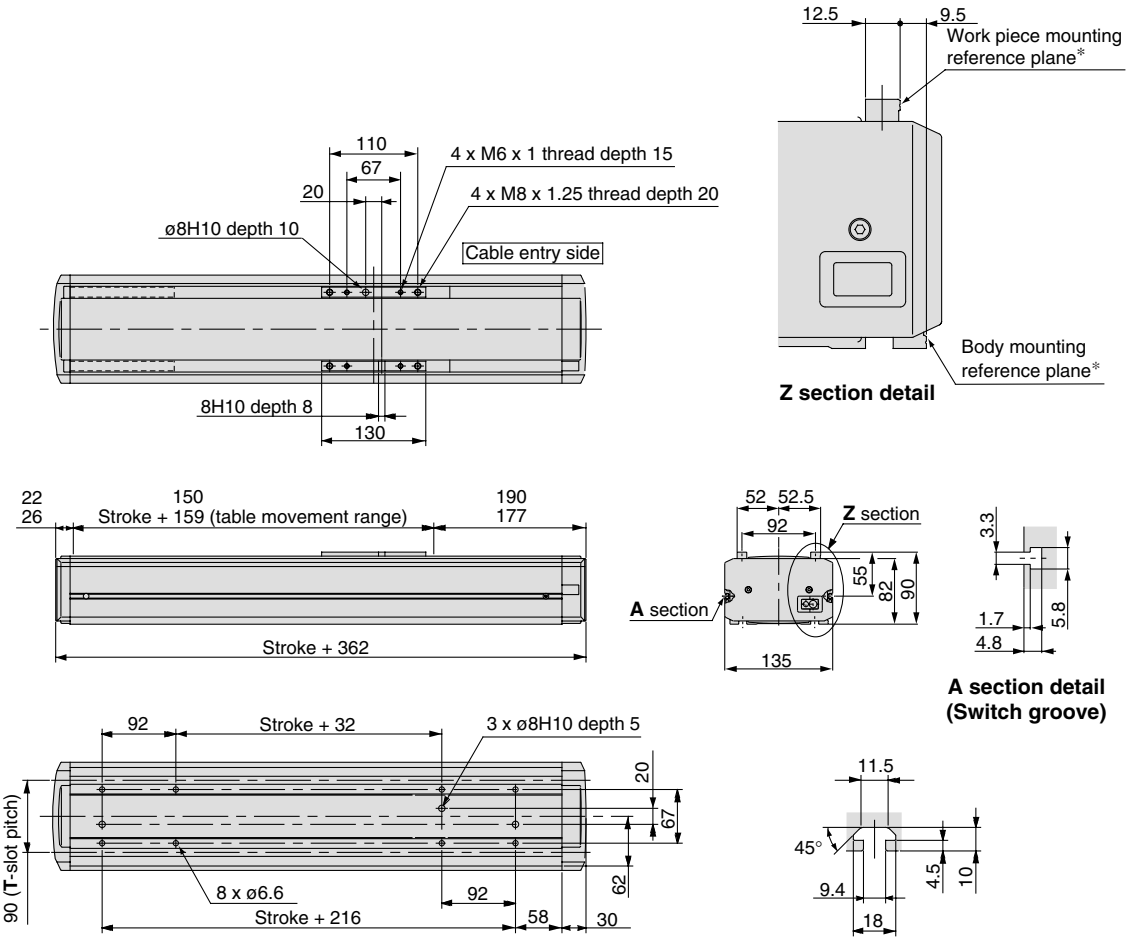
Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H20□2□PC (X10)

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

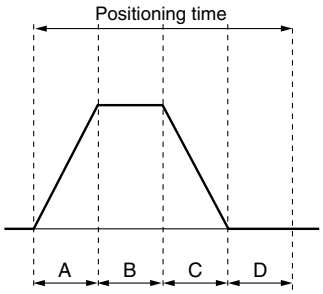


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.

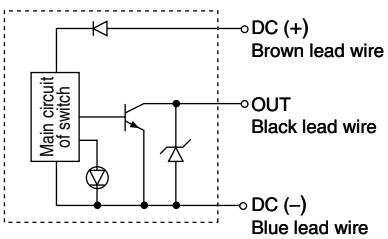


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.4 sec.)*
Maximum acceleration: 2000 mm/s²

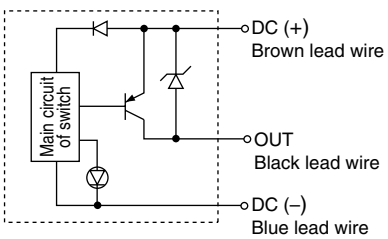
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø15 mm/10 mm lead

How to Order

LJ1H20 R21 NA – 300 – F W –X10

Stroke (mm)
Refer to page 573 for details.

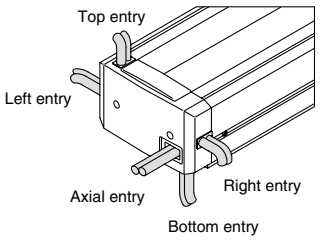
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500	600
Performance	Body mass (without motor) (kg)	7.2	8.4	9.6	10.7	12.1	13.2
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	30					
	Maximum speed (mm/s)	500					
	Positioning repeatability (mm)	±0.05					
Main parts	Motor	AC servomotor (100 W)					
	Encoder	Incremental system					
	Lead screw	Rolled ball screw ø15 mm, 10 mm lead					
	Guide	High rigidity direct acting guide					
	Motor/Screw connection	With coupling					
Switch	Model	D-Y7GL (Refer to page 1079 for details.)					

Intermediate strokes

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

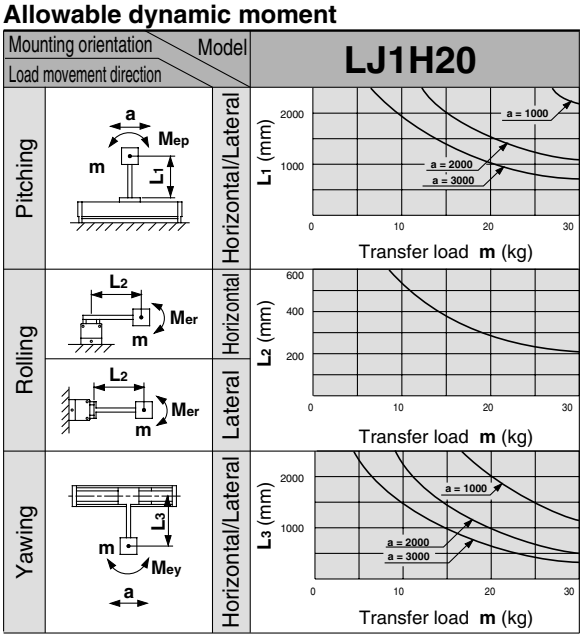
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

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

Allowable dynamic moment



Refer to page 670 for deflection data.

Non-standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø15 mm/10 mm lead

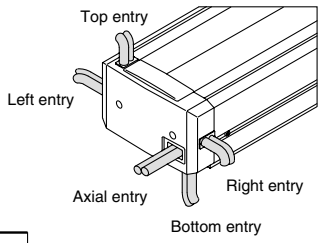
How to Order

LJ1H20 R21 NA – 300 – F H – X10 – Q

Stroke (mm)
Refer to page 575 for details.

CE marking

Cable entry direction



Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
H	N.C. (B contact) PNP: 2 pcs.
W	N.C. (B contact) NPN: 2 pcs.

Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation*2	HC-PQ13	100 W	MR-C10A1-UE	100/115 VAC
R22				MR-C10A-UE	200/230 VAC
R29				—	—
R20*1		—	—	—	—
RM21		HC-MFS13	100 W	MR-J2S-10A1	100/115 VAC
RM22				MR-J2S-10A	200/230 VAC
RM29				—	—
RM20*1		—	—	—	—
RK21		HC-KFS13	100 W	MR-J2S-10A1	100/115 VAC
RK22				MR-J2S-10A	200/230 VAC
RK29				—	—
RK20*1		—	—	—	—
RP21		HF-KP13	100 W	MR-J3-10A1	100/115 VAC
RP22				MR-J3-10A	200/230 VAC
RP29				—	—
RP20*1		—	—	—	—

*1 Without motor/driver. Refer to page 669 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.
*3 For with RP (motor symbol) motors, the motor will not come attached, but packed in the same container as the main body.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500	600
Performance	Body mass (without motor) (kg)	7.2	8.4	9.6	10.7	12.1	13.2
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	30					
	Maximum speed (mm/s)	500					
	Positioning repeatability (mm)	±0.05					
Main parts	Motor	AC servomotor (100 W)					
	Encoder	Incremental system					
	Lead screw	Rolled ball screw ø15 mm, 10 mm lead					
	Guide	High rigidity direct acting guide					
	Motor/Screw connection	With coupling					
Switch	Model	D-Y7HL, D-Y7GL (Refer to page 1079 for details.)					

Intermediate strokes

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

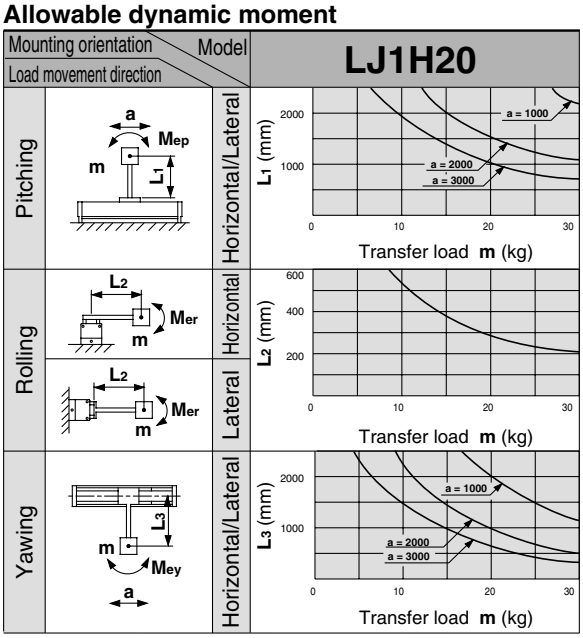
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

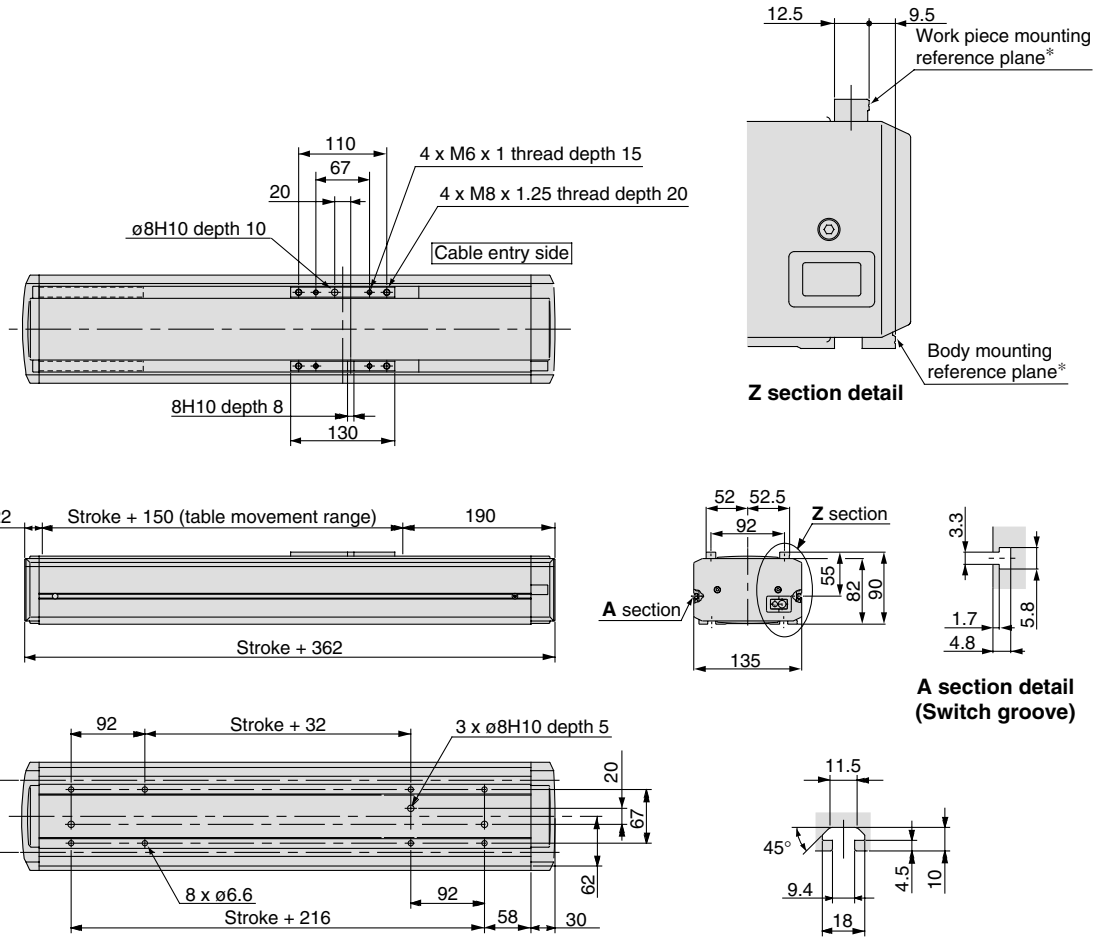
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H20□2□NA (X10)

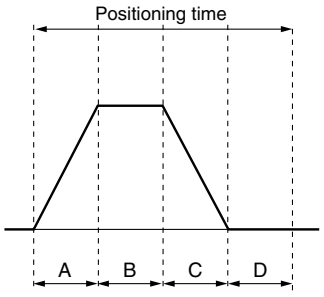


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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.

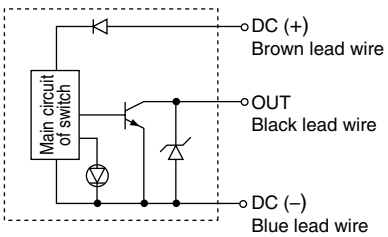


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.4 sec.)*
Maximum acceleration: 3000 mm/s²

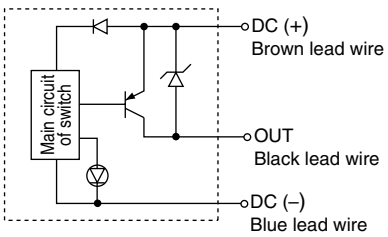
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø15 mm/20 mm lead

How to Order

LJ1H20 R21 NC – 500 – F W –X10

Stroke (mm)
Refer to page 578 for details.

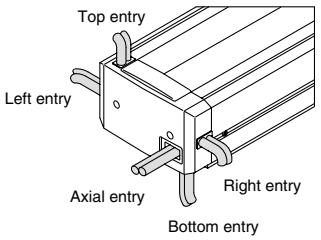
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		500	600	700	800	900	1000
Performance	Body mass (without motor) (kg)	12.1	13.2	14.4	15.6	16.8	18.0
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	30					
	Maximum speed (mm/s) Note)	1000	1000	930	740	600	500
	Positioning repeatability (mm)	±0.05					
Main parts	Motor	AC servomotor (100 W)					
	Encoder	Incremental system					
	Lead screw	Rolled ball screw ø15 mm, 20 mm lead					
	Guide	High rigidity direct acting guide					
	Motor/Screw connection	With coupling					
Switch	Model	D-Y7GL (Refer to page 1079 for details.)					

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

Note) The speed is limited by the transfer load. Consult each motor manufacturer regarding the maximum speed for each transfer load.

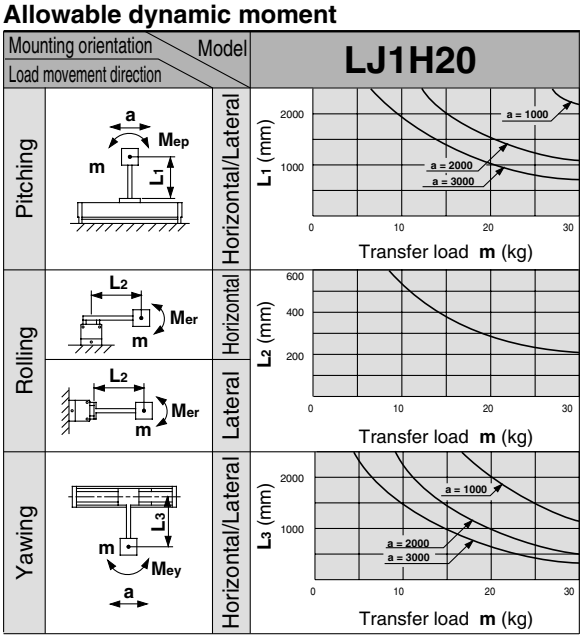
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

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

Allowable dynamic moment



Refer to page 670 for deflection data.

Non-standard Motor
Horizontal Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø15 mm/20 mm lead

How to Order

LJ1H20 R21 NC – 500 – F H – X10 – Q

Stroke (mm)
Refer to page 580 for details.

CE marking

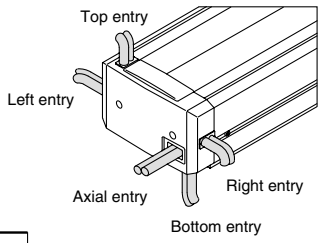
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
H	N.C. (B contact) PNP: 2 pcs.
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation*2	HC-PQ13	100 W	MR-C10A1-UE	100/115 VAC
R22				MR-C10A-UE	200/230 VAC
R29				—	—
R20*1		—	—	—	—
RM21		HC-MFS13	100 W	MR-J2S-10A1	100/115 VAC
RM22				MR-J2S-10A	200/230 VAC
RM29				—	—
RM20*1		—	—	—	—
RK21		HC-KFS13	100 W	MR-J2S-10A1	100/115 VAC
RK22				MR-J2S-10A	200/230 VAC
RK29				—	—
RK20*1		—	—	—	—
RP21		HF-KP13	100 W	MR-J3-10A1	100/115 VAC
RP22				MR-J3-10A	200/230 VAC
RP29				—	—
RP20*1		—	—	—	—

*1 Without motor/driver. Refer to page 669 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.
*3 For with RP (motor symbol) motors, the motor will not come attached, but packed in the same container as the main body.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		500	600	700	800	900	1000
Performance	Body mass (without motor) (kg)	12.1	13.2	14.4	15.6	16.8	18.0
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	30					
	Maximum speed (mm/s) Note)	1000	1000	930	740	600	500
	Positioning repeatability (mm)	±0.05					
Main parts	Motor	AC servomotor (100 W)					
	Encoder	Incremental system					
	Lead screw	Rolled ball screw ø15 mm, 20 mm lead					
	Guide	High rigidity direct acting guide					
	Motor/Screw connection	With coupling					
Switch	Model	D-Y7HL, D-Y7GL (Refer to page 1079 for details.)					

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

Note) The speed is limited by the transfer load. Consult each motor manufacturer regarding the maximum speed for each transfer load.

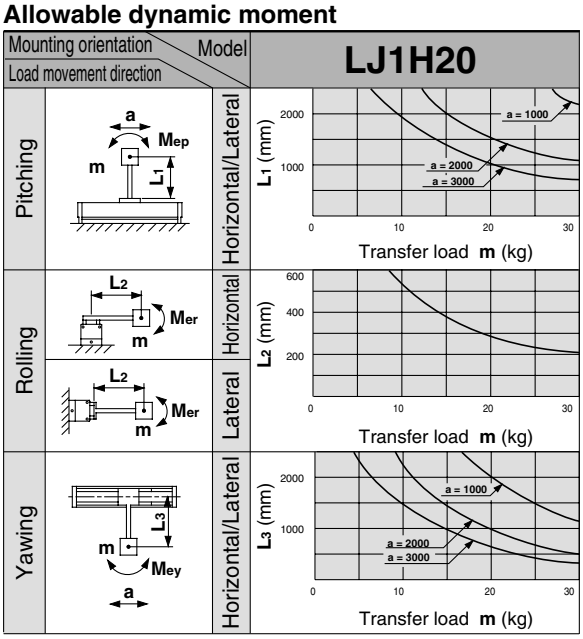
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

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

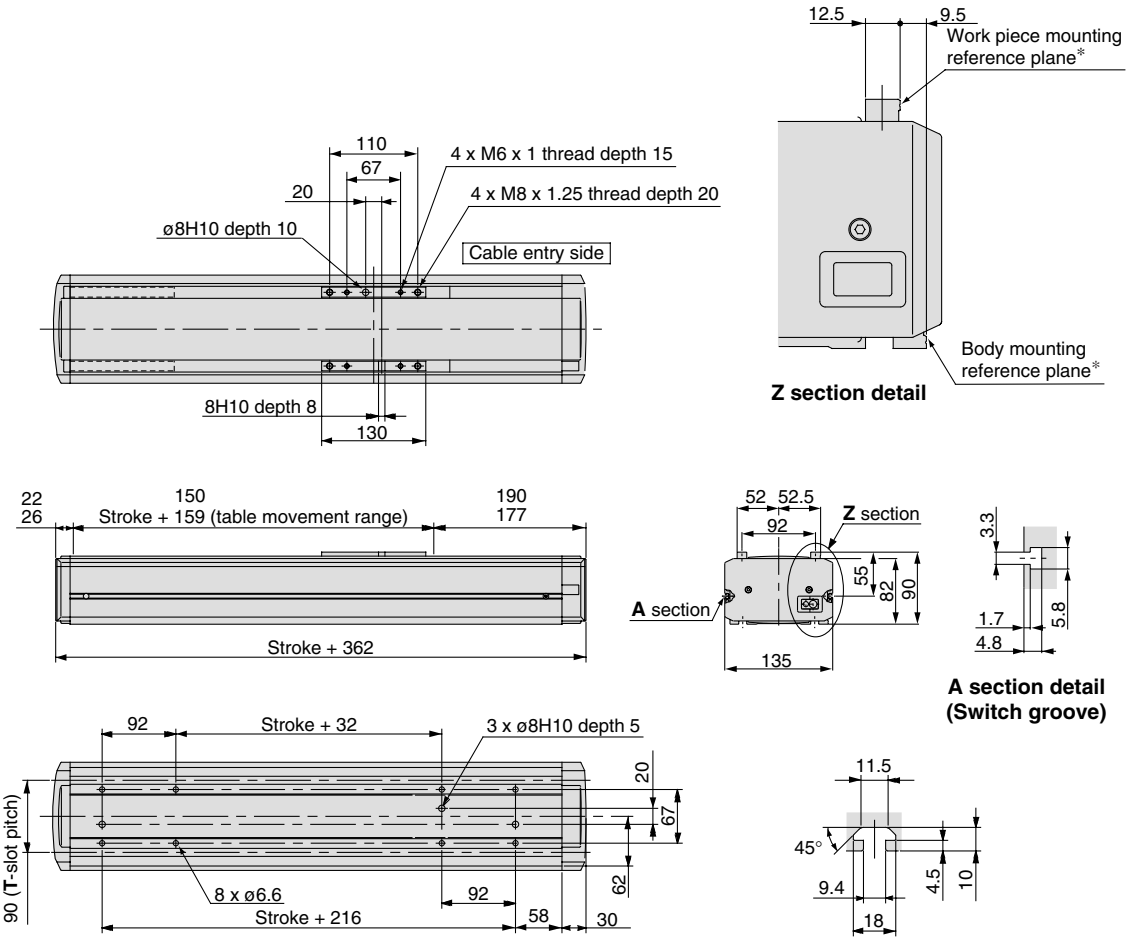
Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H20□2□NC (X10)

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

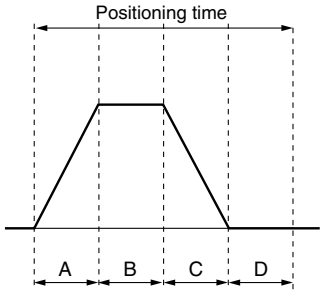


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.

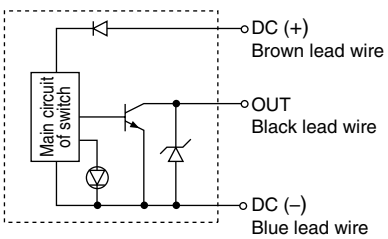


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.4 sec.)*
Maximum acceleration: 2000 mm/s²

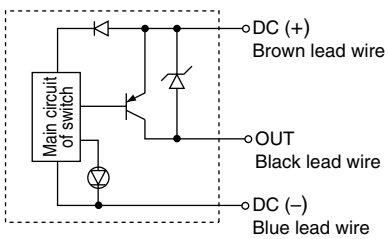
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor
Horizontal Mount
Series LJ1H30

Motor Output 200 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø25 mm/25 mm lead

How to Order

LJ1H30 R31 PD – 300 – F W –X10

Stroke (mm)
Refer to page 588 for details.

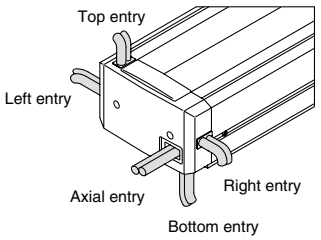
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R31	Mitsubishi Electric Corporation	HC-PQ23	200 W	MR-C20A1	100/115 VAC
R32				MR-C20A	200/230 VAC
R30		—	—	—	—

∗ Motor/driver is included for R31 and R32.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		200	300	400	500	600	800	1000	1200	1500
Performance	Body mass (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 (No condensation)								
	Work load (kg)	60								
	Maximum speed (mm/s)	1000							700	500
	Positioning repeatability (mm)	±0.02								
Main parts	Motor	AC servomotor (200 W)								
	Encoder	Incremental system								
	Lead screw	Ground ball screw ø25 mm, 25 mm lead								
	Guide	High rigidity direct acting guide								
	Motor/Screw connection	With coupling								
Switch	Model	D-Y7GL (Refer to page 1079 for details.)								

Immediate strokes

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

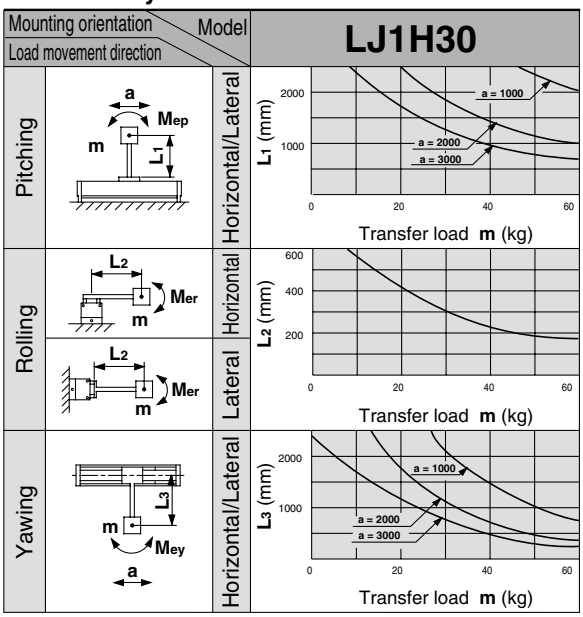
Allowable Moment (N·m)

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 670 for deflection data.

Non-standard Motor
Horizontal Mount
Series LJ1H30

Motor Output 200 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø25 mm/25 mm lead

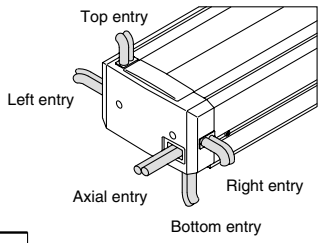
How to Order

LJ1H30 R31 PD – 300 – F H – X10 – Q

Stroke (mm)
Refer to page 590 for details.

CE marking

Cable entry direction



Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
H	N.C. (B contact) PNP: 2 pcs.
W	N.C. (B contact) NPN: 2 pcs.

Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R31	Mitsubishi Electric Corporation*2	HC-PQ23	200 W	MR-C20A1-UE	100/115 VAC
R32				MR-C20A-UE	200/230 VAC
R39				—	—
R30*1		—	—	—	—
RM31		HC-MFS23	200 W	MR-J2S-20A1	100/115 VAC
RM32				MR-J2S-20A	200/230 VAC
RM39				—	—
RM30*1		—	—	—	—
RK31		HC-KFS23	200 W	MR-J2S-20A1	100/115 VAC
RK32				MR-J2S-20A	200/230 VAC
RK39				—	—
RK30*1		—	—	—	—
RP31		HF-KP23	200 W	MR-J3-20A1	100/115 VAC
RP32				MR-J3-20A	200/230 VAC
RP39				—	—
RP30*1		—	—	—	—

*1 Without motor/driver. Refer to page 669 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.
*3 For with RP (motor symbol) motors, the motor will not come attached, but packed in the same container as the main body.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		200	300	400	500	600	800	1000	1200	1500
Performance	Body mass (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 (No condensation)								
	Work load (kg)	60								
	Maximum speed (mm/s)	1000							700	500
	Positioning repeatability (mm)	±0.02								
Main parts	Motor	AC servomotor (200 W)								
	Encoder	Incremental system								
	Lead screw	Ground ball screw ø25 mm, 25 mm lead								
	Guide	High rigidity direct acting guide								
	Motor/Screw connection	With coupling								
Switch	Model	D-Y7HL, D-Y7GL (Refer to page 1079 for details.)								

Immediate strokes

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

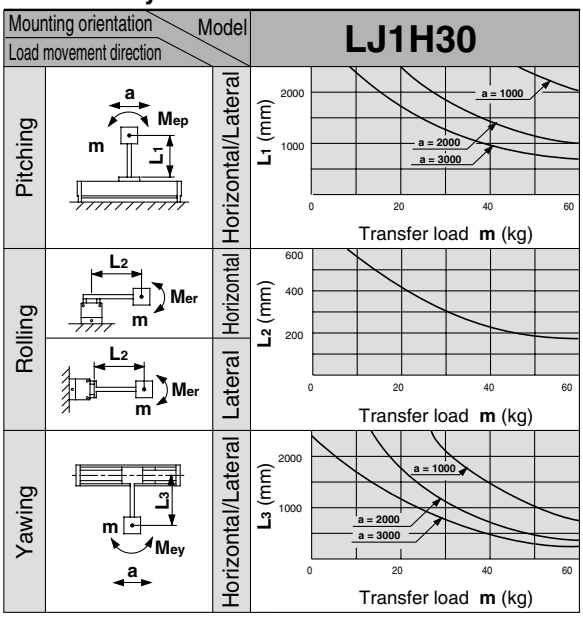
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

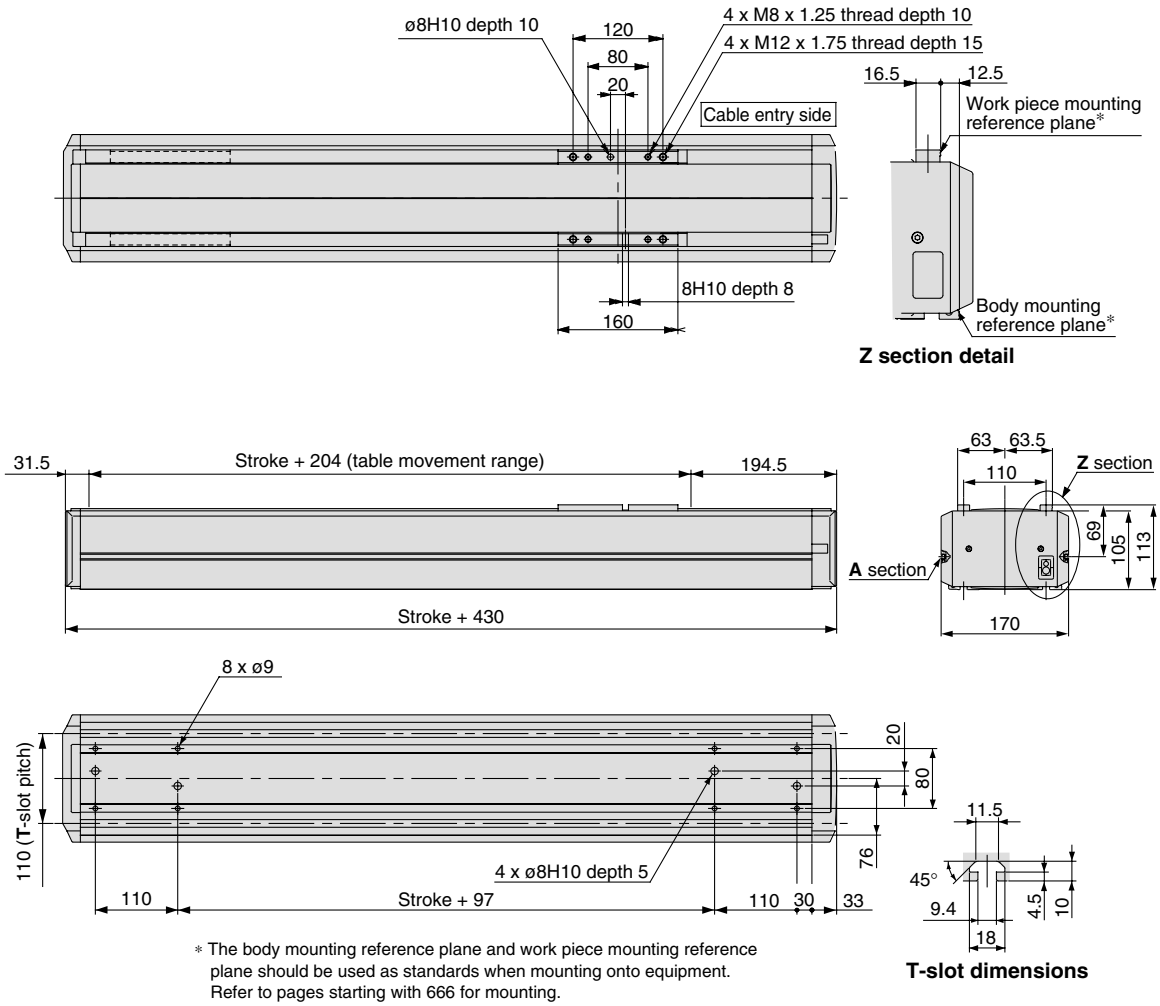
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H30□3□PD (X10)

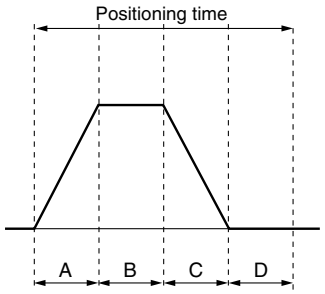


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

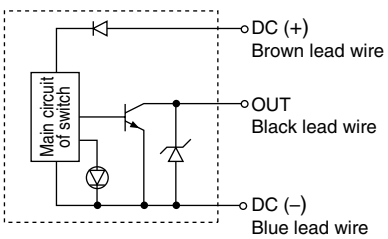


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (1.0 sec.)*
Maximum acceleration: 3000 mm/s²

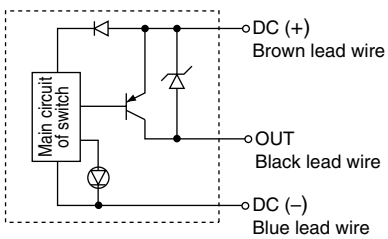
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor
Horizontal Mount
Series LJ1H30

Motor Output 200 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø25 mm/25 mm lead

How to Order

LJ1H30 R31 ND – 300 – F W –X10

Stroke (mm)
Refer to page 593 for details.

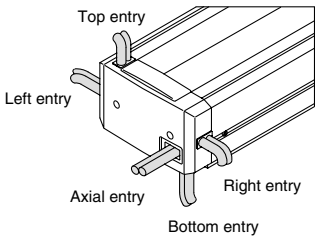
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R31	Mitsubishi Electric Corporation	HC-PQ23	200 W	MR-C20A1	100/115 VAC
R32				MR-C20A	200/230 VAC
R30		—	—	—	—

∗ Motor/driver is included for R31 and R32.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		200	300	400	500	600	800	1000	1200	1500
Performance	Body mass (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 (No condensation)								
	Work load (kg)	60								
	Maximum speed (mm/s)	1000							700	500
	Positioning repeatability (mm)	±0.05								
Main parts	Motor	AC servomotor (200 W)								
	Encoder	Incremental system								
	Lead screw	Rolled ball screw ø25 mm, 25 mm lead								
	Guide	High rigidity direct acting guide								
	Motor/Screw connection	With coupling								
Switch	Model	D-Y7GL (Refer to page 1079 for details.)								

Immediate strokes

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

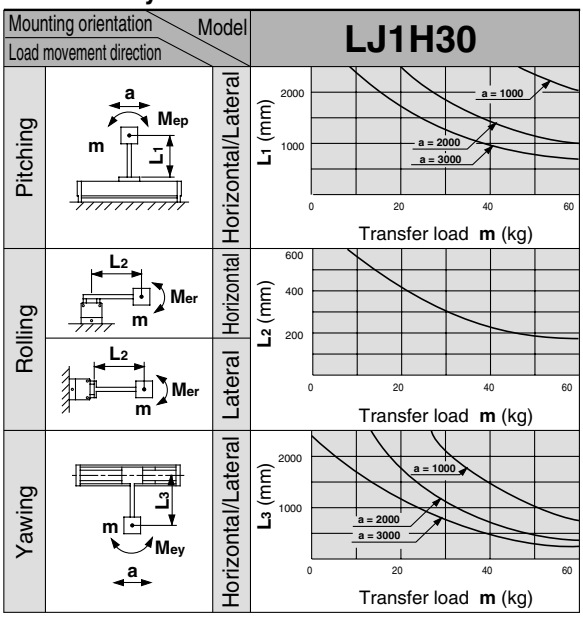
Allowable Moment (N·m)

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 670 for deflection data.

Non-standard Motor
Horizontal Mount
Series LJ1H30

Motor Output 200 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø25 mm/25 mm lead

How to Order

LJ1H30 R31 ND – 300 – F H – X10 – Q

Stroke (mm)
Refer to page 595 for details.

CE marking

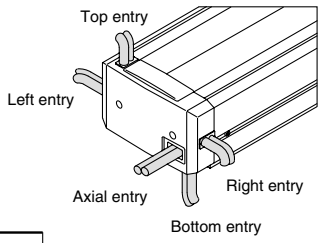
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
H	N.C. (B contact) PNP: 2 pcs.
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R31	Mitsubishi Electric Corporation*2	HC-PQ23	200 W	MR-C20A1-UE	100/115 VAC
R32				MR-C20A-UE	200/230 VAC
R39				—	—
R30*1		—	—	—	—
RM31		HC-MFS23	200 W	MR-J2S-20A1	100/115 VAC
RM32				MR-J2S-20A	200/230 VAC
RM39				—	—
RM30*1		—	—	—	—
RK31		HC-KFS23	200 W	MR-J2S-20A1	100/115 VAC
RK32				MR-J2S-20A	200/230 VAC
RK39				—	—
RK30*1		—	—	—	—
RP31		HF-KP23	200 W	MR-J3-20A1	100/115 VAC
RP32				MR-J3-20A	200/230 VAC
RP39				—	—
RP30*1		—	—	—	—

*1 Without motor/driver. Refer to page 669 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.
*3 For with RP (motor symbol) motors, the motor will not come attached, but packed in the same container as the main body.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		200	300	400	500	600	800	1000	1200	1500
Performance	Body mass (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 (No condensation)								
	Work load (kg)	60								
	Maximum speed (mm/s)	1000							700	500
	Positioning repeatability (mm)	±0.05								
Main parts	Motor	AC servomotor (200 W)								
	Encoder	Incremental system								
	Lead screw	Rolled ball screw ø25 mm, 25 mm lead								
	Guide	High rigidity direct acting guide								
	Motor/Screw connection	With coupling								
Switch	Model	D-Y7HL, D-Y7GL (Refer to page 1079 for details.)								

Immediate strokes

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

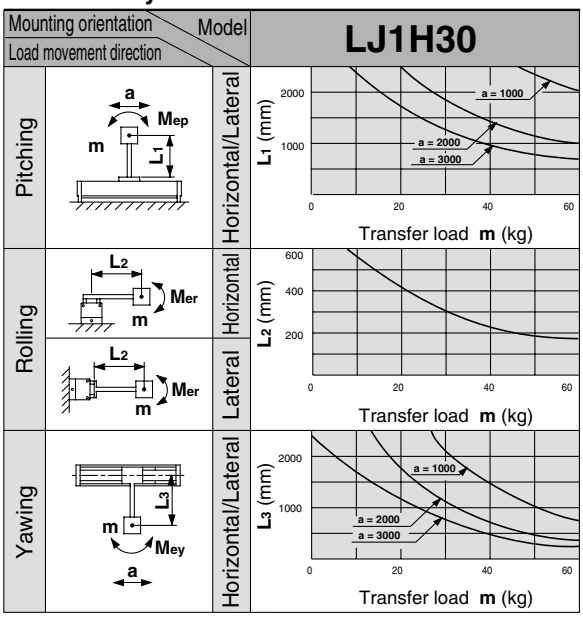
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

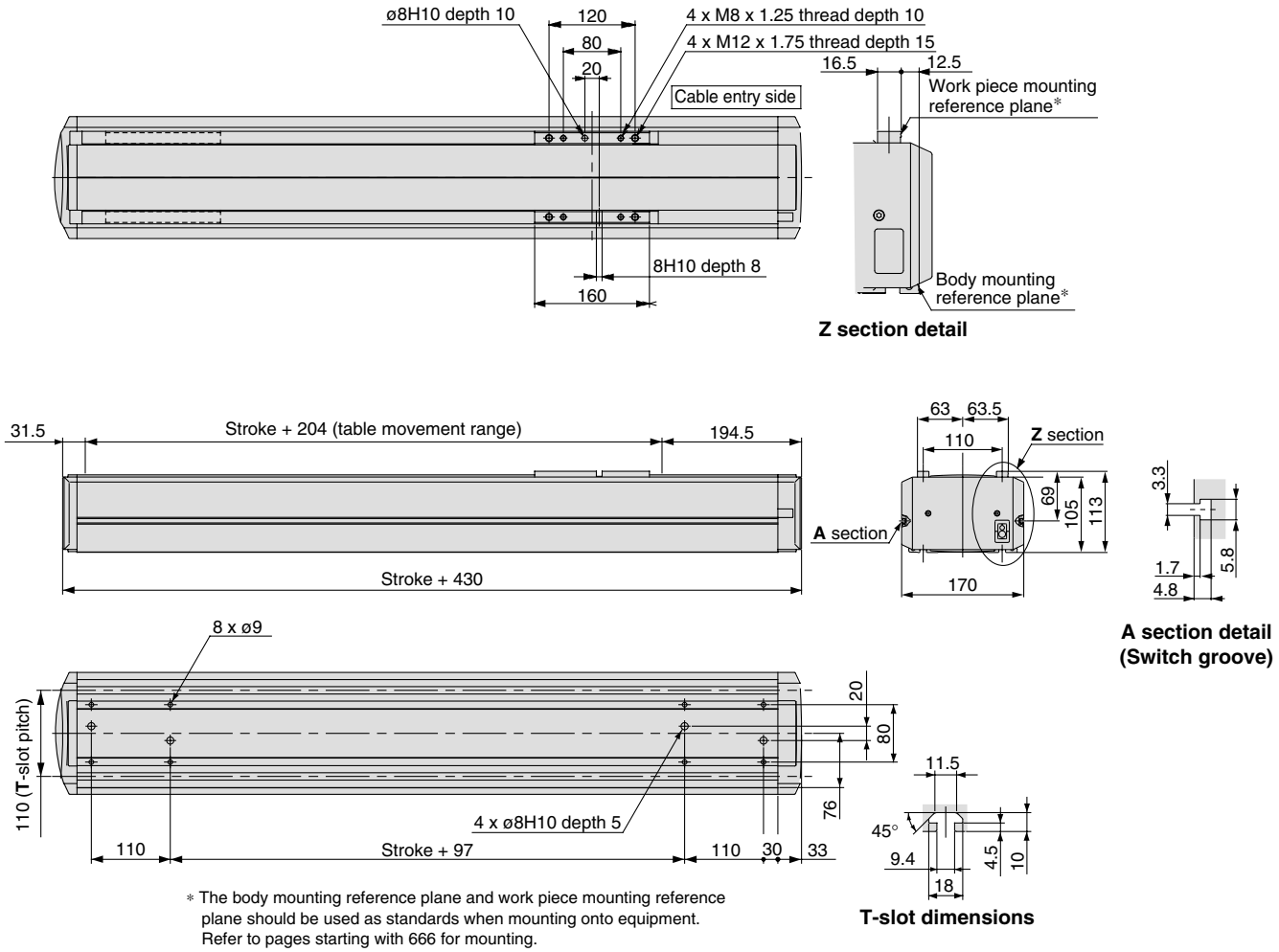
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H30□3□ND (X10)

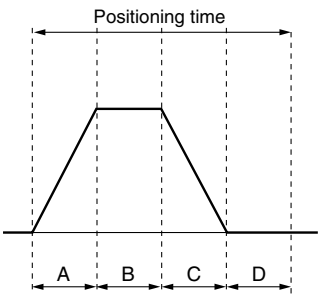


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

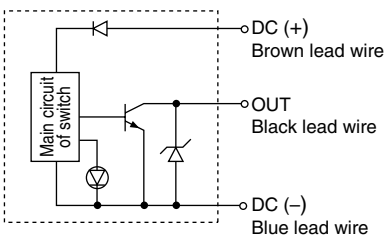


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (1.0 sec.)*
Maximum acceleration: 3000 mm/s²

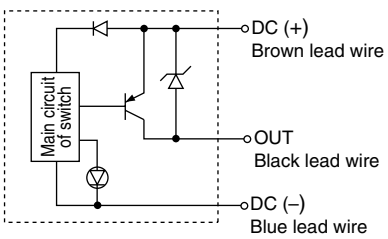
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor
Vertical Mount
Series LJ1H10

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø12 mm/8 mm lead

How to Order

LJ1H10 R21 PH – 300 K– F W –X10

Stroke (mm)
Refer to page 603 for details.

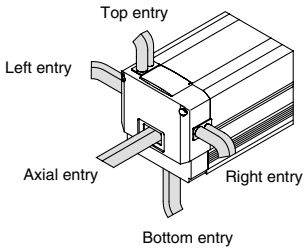
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Specifications

Standard stroke (mm)			100	200	300	400	500
Performance	Body mass (without motor) (kg)		5.1	5.9	6.7	7.4	8.2
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		10				
	Maximum speed (mm/s)		400				
	Positioning repeatability (mm)		±0.02				
Main parts	Motor		AC servomotor (100 W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw ø12 mm, 8 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A				
		Holding torque	0.4 N·m				
		Connection method	Ball screw mounting				
Switch	Model		D-Y7GL (Refer to page 1079 for details.)				
Regenerative absorption unit			Refer to the selection guide below.				

Intermediate strokes

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

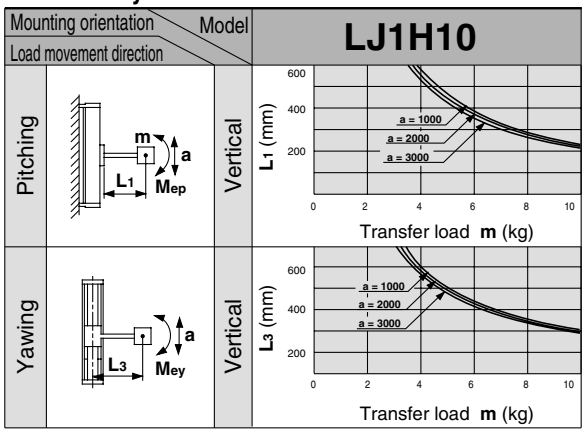
Allowable Moment (N·m)

Allowable static moment

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 670 for deflection data.

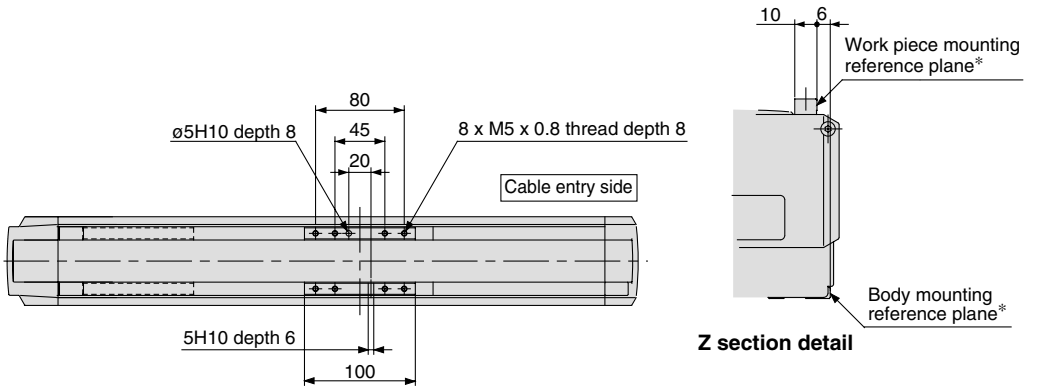
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

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 846.

Dimensions/LJ1H10□2□PH (X10)

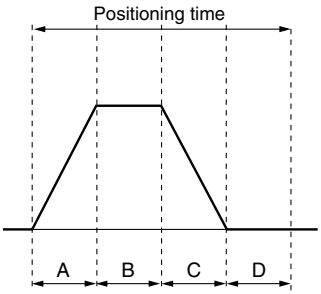


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	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.

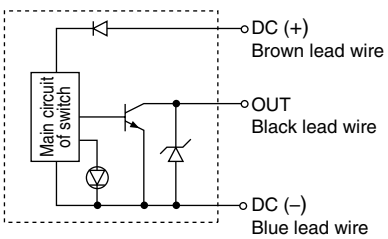


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.3 sec.)*
Maximum acceleration: 3000 mm/s²

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



Non-standard Motor
Vertical Mount
Series LJ1H10

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø12 mm/12 mm lead

How to Order

LJ1H10 R21 PB – 300 K – F W – X10

Stroke (mm)
Refer to page 606 for details.

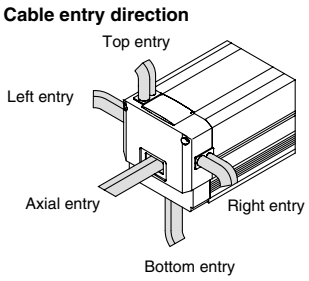
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Specifications

Standard stroke (mm)			100	200	300	400	500
Performance	Body mass (without motor) (kg)		5.1	5.9	6.7	7.4	8.2
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		5				
	Maximum speed (mm/s)		600				
	Positioning repeatability (mm)		±0.02				
Main parts	Motor		AC servomotor (100 W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw ø12 mm, 12 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A				
		Holding torque	0.4 N·m				
		Connection method	Ball screw mounting				
Switch	Model		D-Y7GL (Refer to page 1079 for details.)				
Regenerative absorption unit			Refer to the selection guide below.				

Intermediate strokes

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

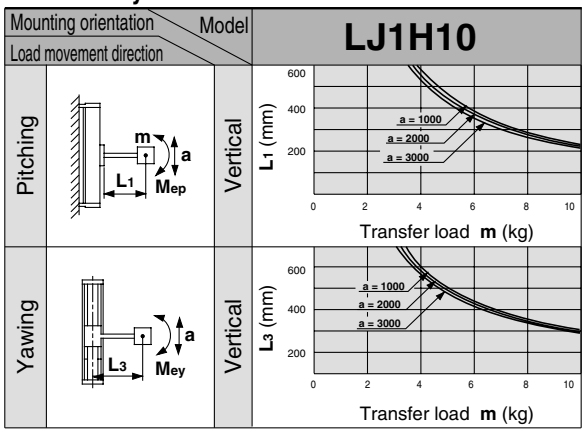
Allowable Moment (N·m)

Allowable static moment

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 670 for deflection data.

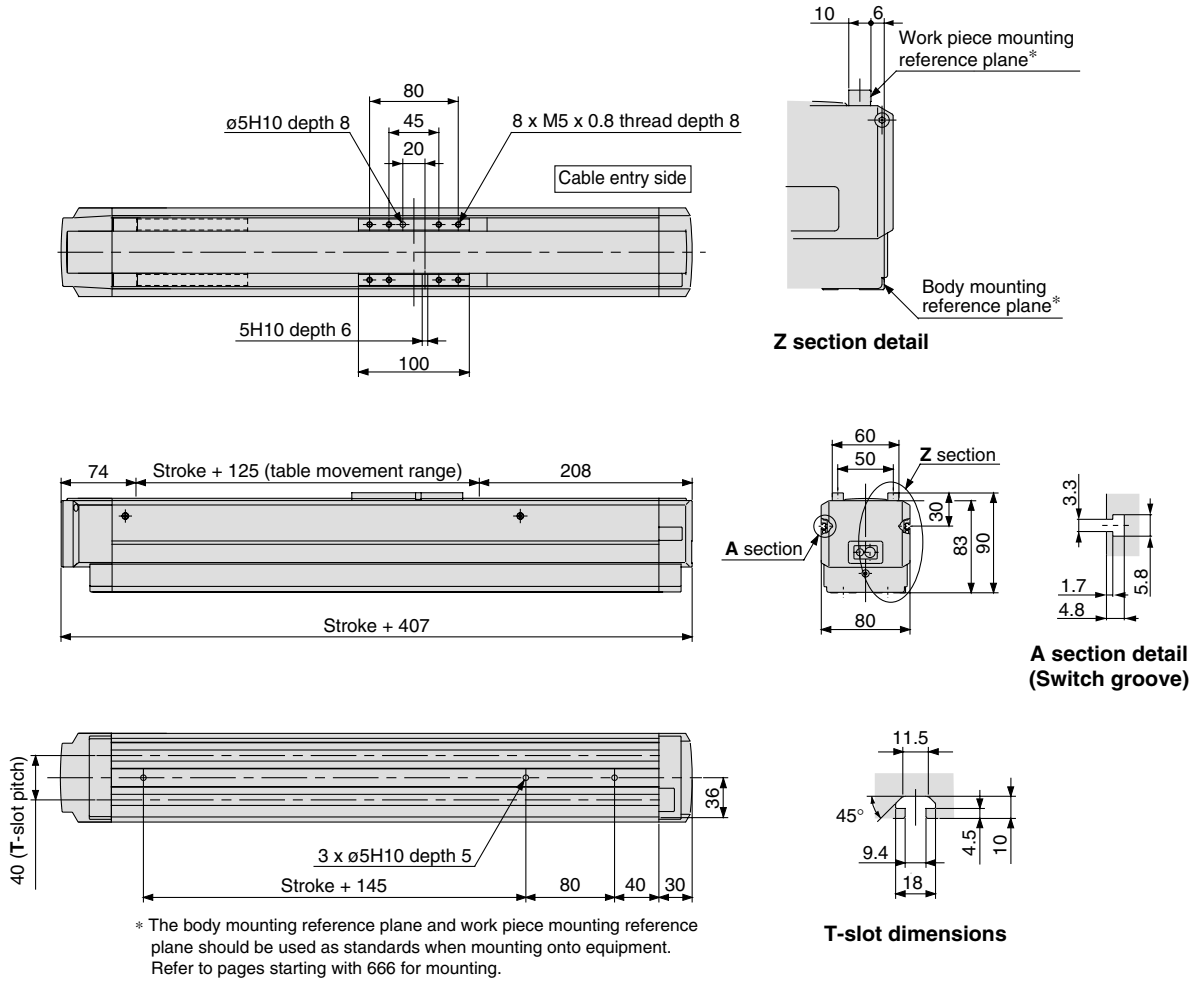
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

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 846.

Dimensions/LJ1H10□2□PB (X10)

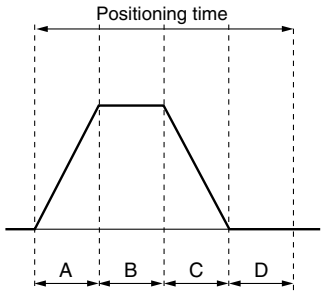


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.

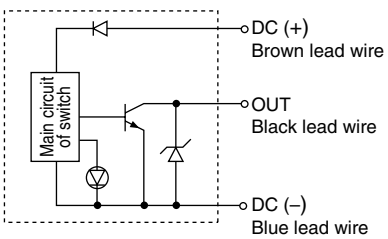


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.3 sec.)*
Maximum acceleration: 3000 mm/s²

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



Non-standard Motor
Vertical Mount
Series LJ1H10

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø12 mm/8 mm lead

How to Order

LJ1H10 R21 NH – 300 K– F W –X10

Stroke (mm)
Refer to page 609 for details.

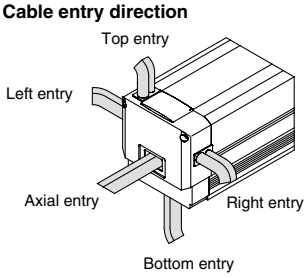
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Specifications

Standard stroke (mm)			100	200	300	400	500
Performance	Body mass (without motor) (kg)		5.1	5.9	6.7	7.4	8.2
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		10				
	Maximum speed (mm/s)		400				
	Positioning repeatability (mm)		±0.05				
Main parts	Motor		AC servomotor (100 W)				
	Encoder		Incremental system				
	Lead screw		Rolled ball screw ø12 mm, 8 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A				
		Holding torque	0.4 N·m				
		Connection method	Ball screw mounting				
Switch	Model		D-Y7GL (Refer to page 1079 for details.)				
Regenerative absorption unit			Refer to the selection guide below.				

Intermediate strokes

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

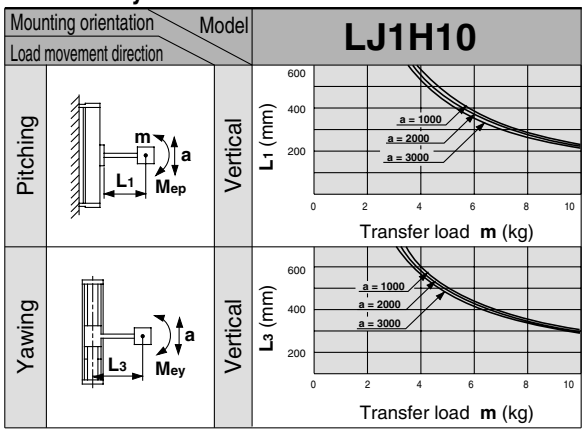
Allowable Moment (N·m)

Allowable static moment

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 670 for deflection data.

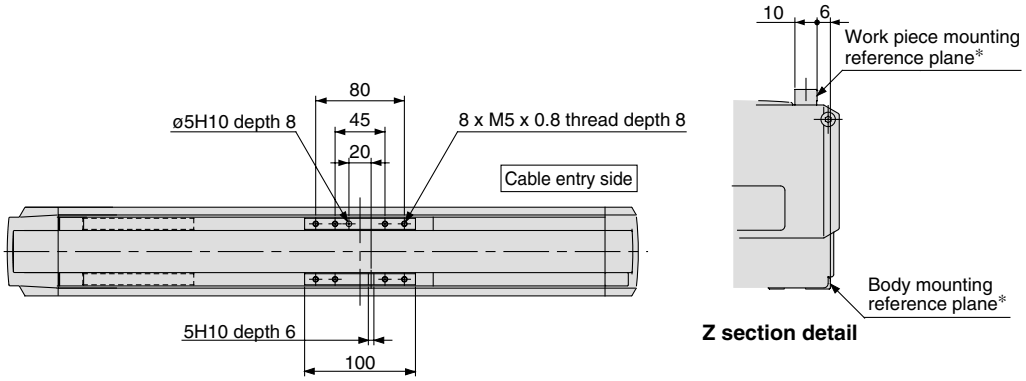
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

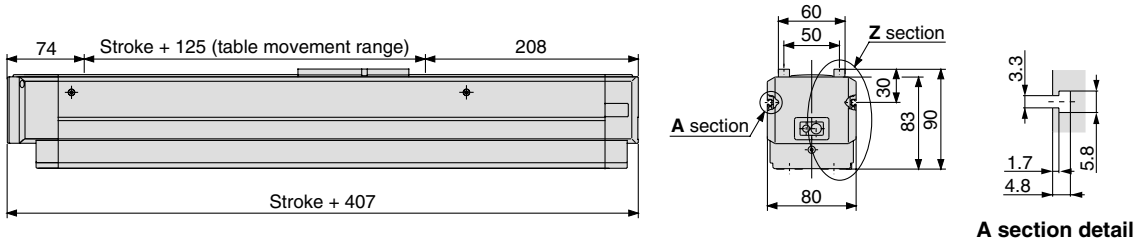
Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

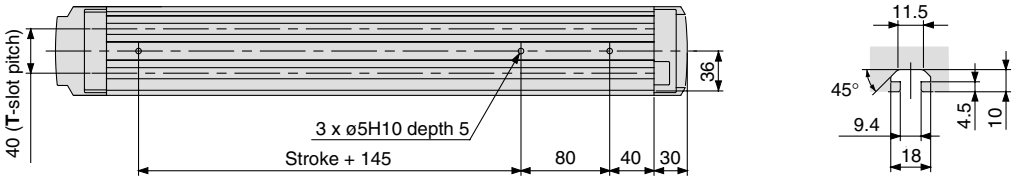
Regenerative energy = Motor coil energy consumption
+ Driver capacitor energy consumption (A)
+ Regenerative resistor energy consumption (B)

(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 846.

Dimensions/LJ1H10□2□NH (X10)





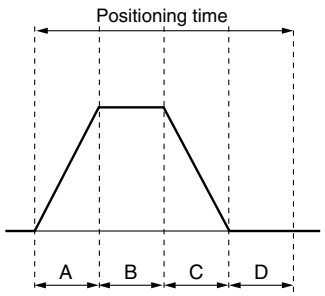


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	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.

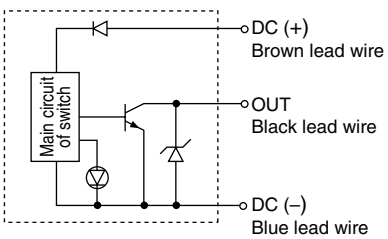


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.3 sec.)*
Maximum acceleration: 3000 mm/s²

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



Non-standard Motor
Vertical Mount
Series LJ1H10

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø12 mm/12 mm lead

How to Order

LJ1H10 R21 NB – 300 K– F W –X10

Stroke (mm)
Refer to page 612 for details.

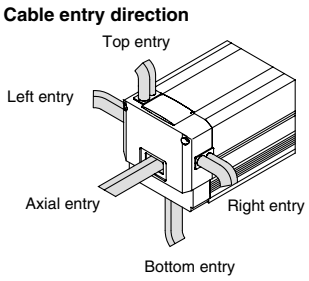
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Specifications

Standard stroke (mm)			100	200	300	400	500
Performance	Body mass (without motor) (kg)		5.1	5.9	6.7	7.4	8.2
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		5				
	Maximum speed (mm/s)		600				
	Positioning repeatability (mm)		±0.05				
Main parts	Motor		AC servomotor (100 W)				
	Encoder		Incremental system				
	Lead screw		Rolled ball screw ø12 mm, 8 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A				
		Holding torque	0.4 N·m				
		Connection method	Ball screw mounting				
Switch	Model		D-Y7GL (Refer to page 1079 for details.)				
Regenerative absorption unit			Refer to the selection guide below.				

Intermediate strokes

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

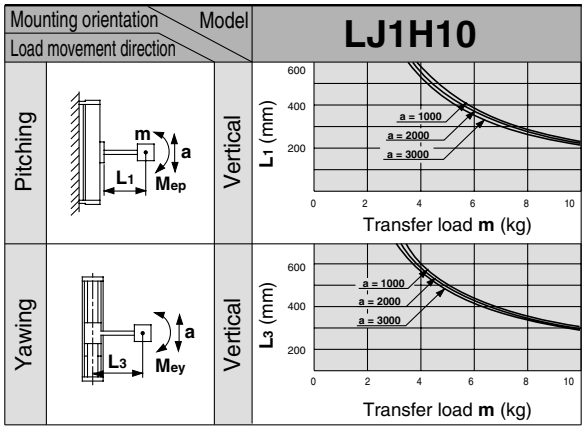
Allowable Moment (N·m)

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 670 for deflection data.

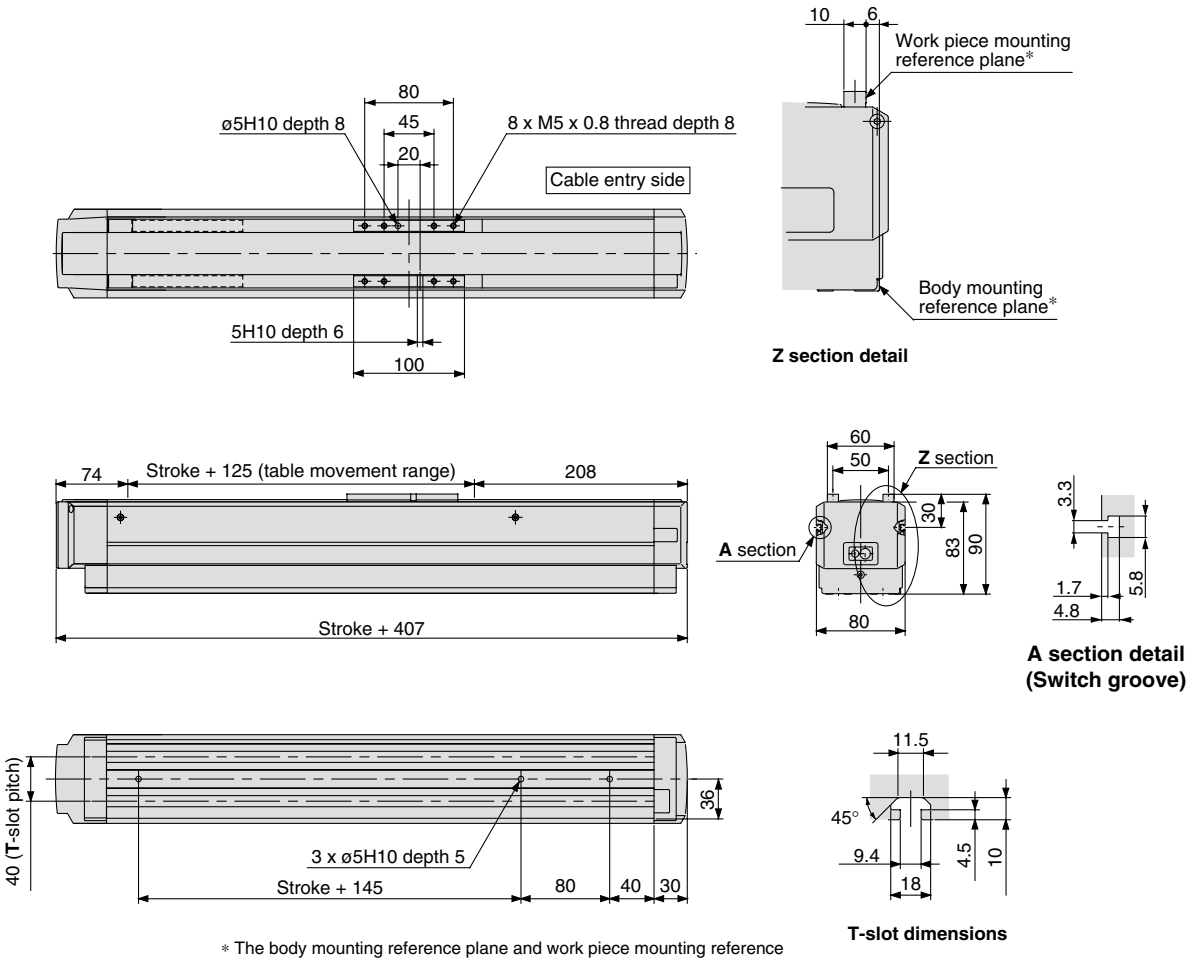
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

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 846.

Dimensions/LJ1H10□2□NB (X10)

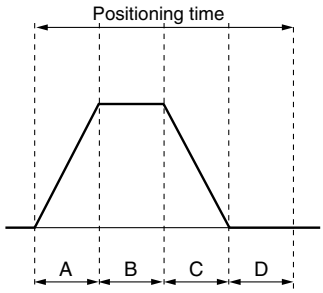


∗ The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

∗ Values will vary slightly depending on the operating conditions.

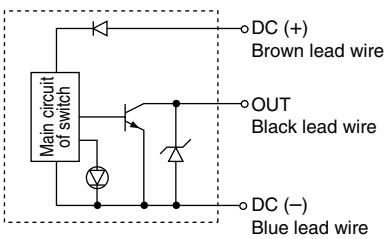


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.3 sec.)∗
Maximum acceleration: 3000 mm/s²

∗ The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



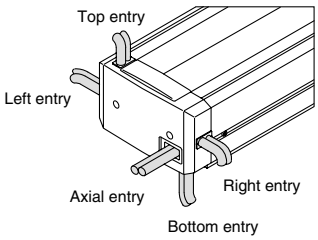
Non-standard Motor
Vertical Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø15 mm/5 mm lead

How to Order

LJ1H20 R21 PF – 300 K– F W –X10

Cable entry direction



Stroke (mm)
Refer to page 615 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Specifications

Standard stroke (mm)			100	200	300	400	500	600
Performance	Body mass (without motor) (kg)		7.5	8.7	9.9	11.0	12.4	13.5
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		15					
	Maximum speed (mm/s)		250					
	Positioning repeatability (mm)		±0.02					
Main parts	Motor		AC servomotor (100 W)					
	Encoder		Incremental system					
	Lead screw		Ground ball screw ø15 mm, 5 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A					
		Holding torque	0.4 N·m					
		Connection method	Ball screw mounting					
Switch	Model		D-Y7GL (Refer to page 1079 for details.)					
Regenerative absorption unit			Refer to the selection guide below.					

Intermediate strokes

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

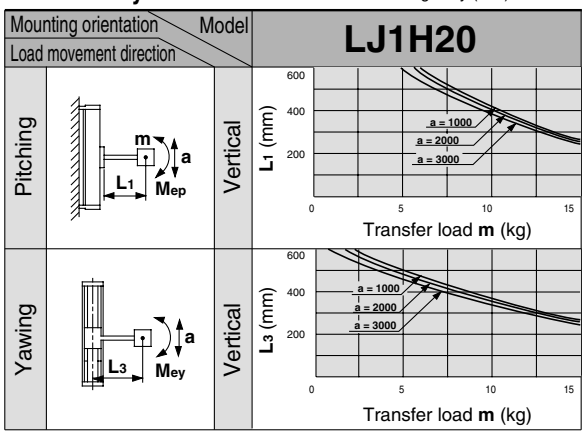
Allowable Moment (N·m)

Allowable static 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 670 for deflection data.

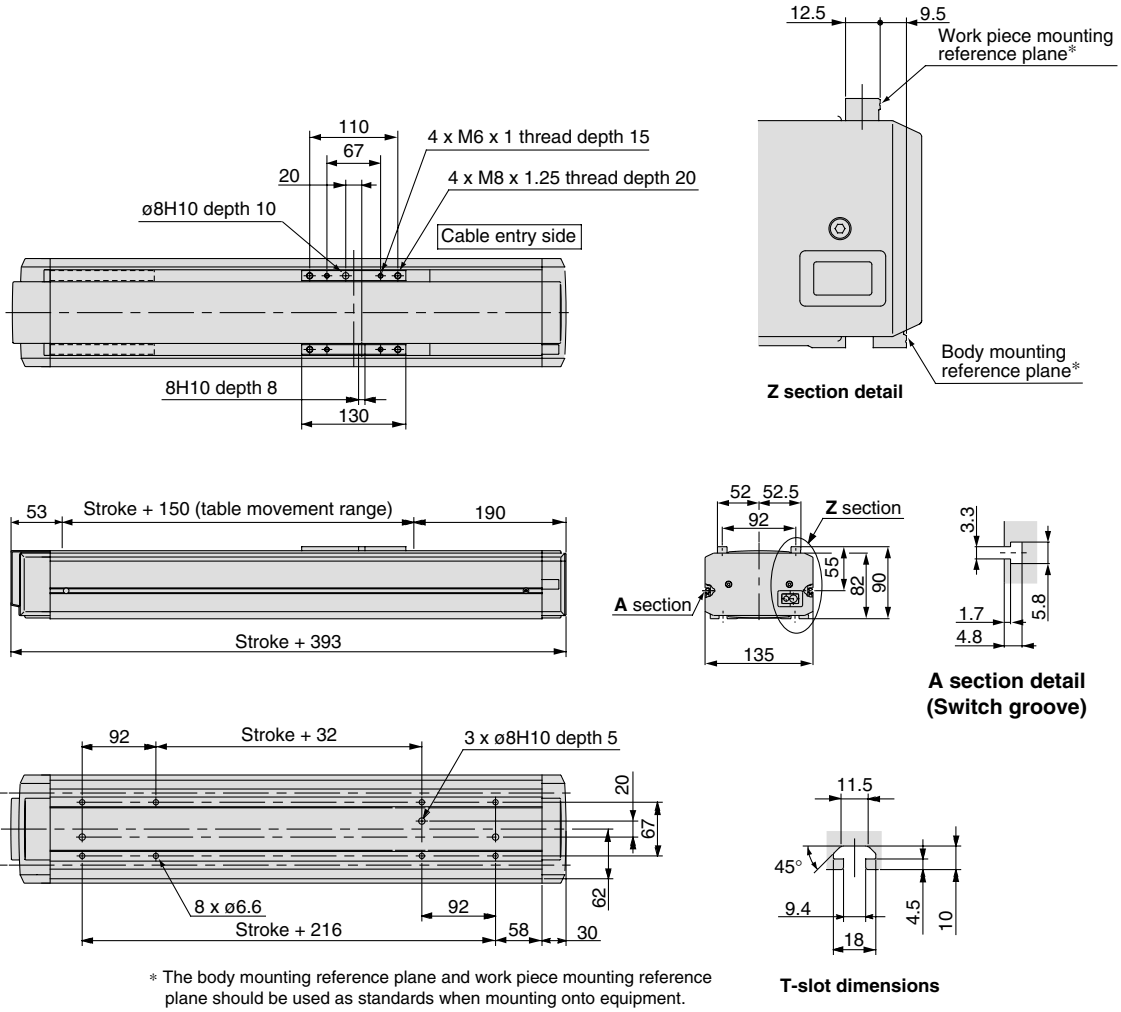
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

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 846.

Dimensions/LJ1H20□2□PF (X10)

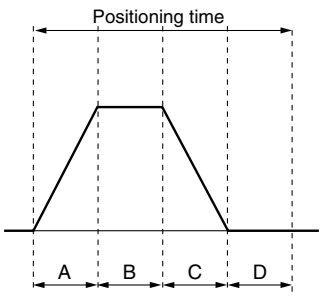


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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.

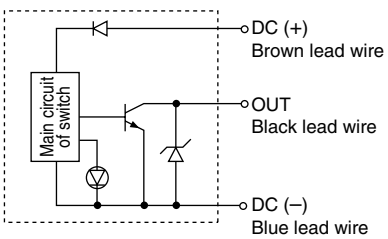


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.4 sec.)*
Maximum acceleration: 3000 mm/s²

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



Non-standard Motor
Vertical Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø15 mm/10 mm lead

How to Order

LJ1H20 R21 PA – 300 K– F W –X10

Stroke (mm)
Refer to page 618 for details.

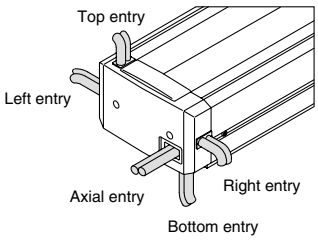
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Specifications

Standard stroke (mm)			100	200	300	400	500	600
Performance	Body mass (without motor) (kg)		7.5	8.7	9.9	11.0	12.4	13.5
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		8					
	Maximum speed (mm/s)		500					
	Positioning repeatability (mm)		±0.02					
Main parts	Motor		AC servomotor (100 W)					
	Encoder		Incremental system					
	Lead screw		Ground ball screw ø15 mm, 10 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A					
		Holding torque	0.4 N·m					
		Connection method	Ball screw mounting					
Switch	Model		D-Y7GL (Refer to page 1079 for details.)					
Regenerative absorption unit			Refer to the selection guide below.					

Intermediate strokes

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

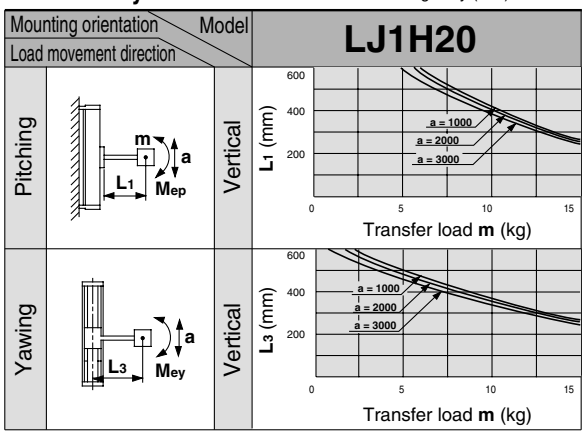
Allowable Moment (N·m)

Allowable static 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 670 for deflection data.

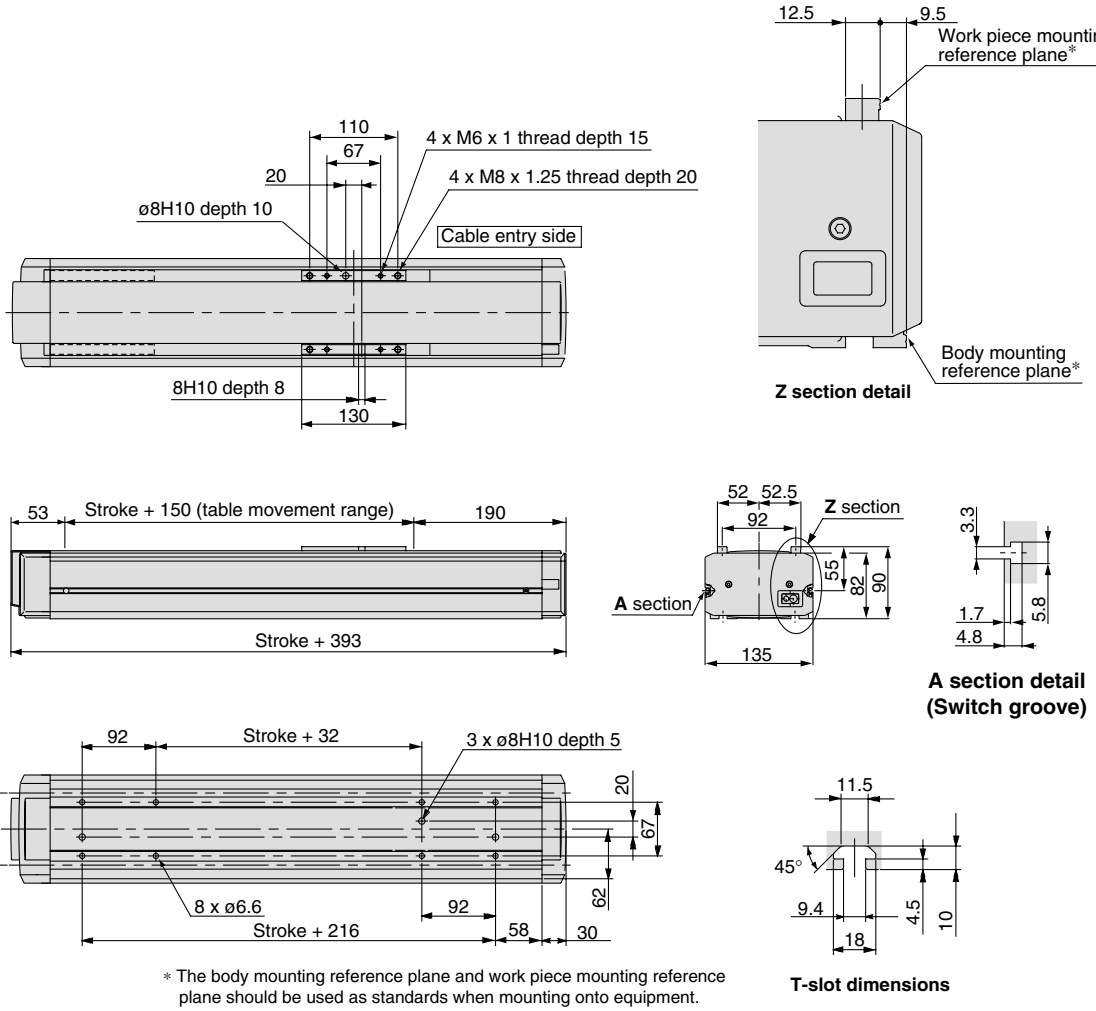
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

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 846.

Dimensions/LJ1H20□2□PA (X10)

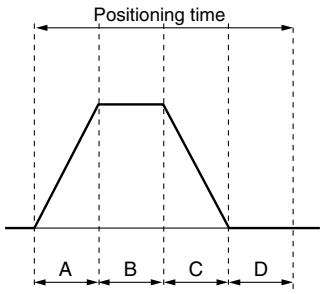


∗ The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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.

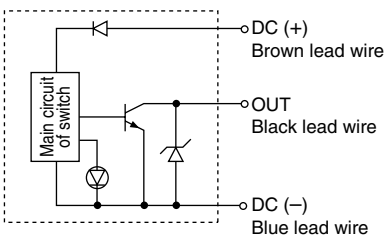


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.4 sec.)∗
Maximum acceleration: 3000 mm/s²

∗ The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



Non-standard Motor
Vertical Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø15 mm/5 mm lead

How to Order

LJ1H20 R21 NF – 300 K– F W –X10

Stroke (mm)
Refer to page 621 for details.

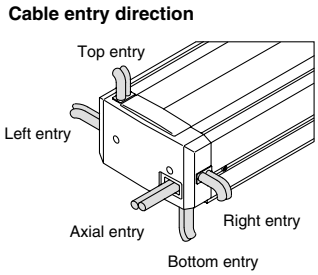
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Specifications

Standard stroke (mm)			100	200	300	400	500	600
Performance	Body mass (without motor) (kg)		7.5	8.7	9.9	11.0	12.4	13.5
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		15					
	Maximum speed (mm/s)		250					
	Positioning repeatability (mm)		±0.05					
Main parts	Motor		AC servomotor (100 W)					
	Encoder		Incremental system					
	Lead screw		Rolled ball screw ø15 mm, 5 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A					
		Holding torque	0.4 N·m					
		Connection method	Ball screw mounting					
Switch	Model		D-Y7GL (Refer to page 1079 for details.)					
Regenerative absorption unit			Refer to the selection guide below.					

Intermediate strokes

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

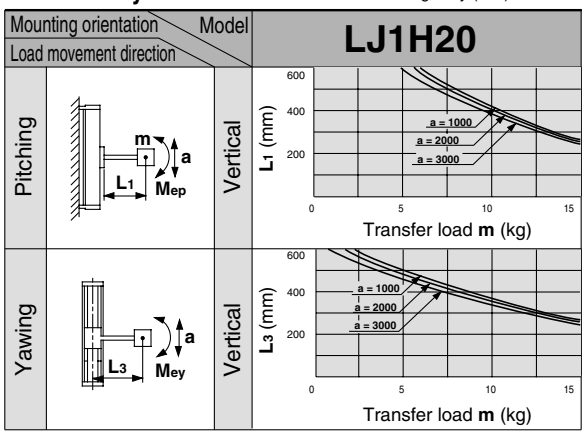
Allowable Moment (N·m)

Allowable static 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 670 for deflection data.

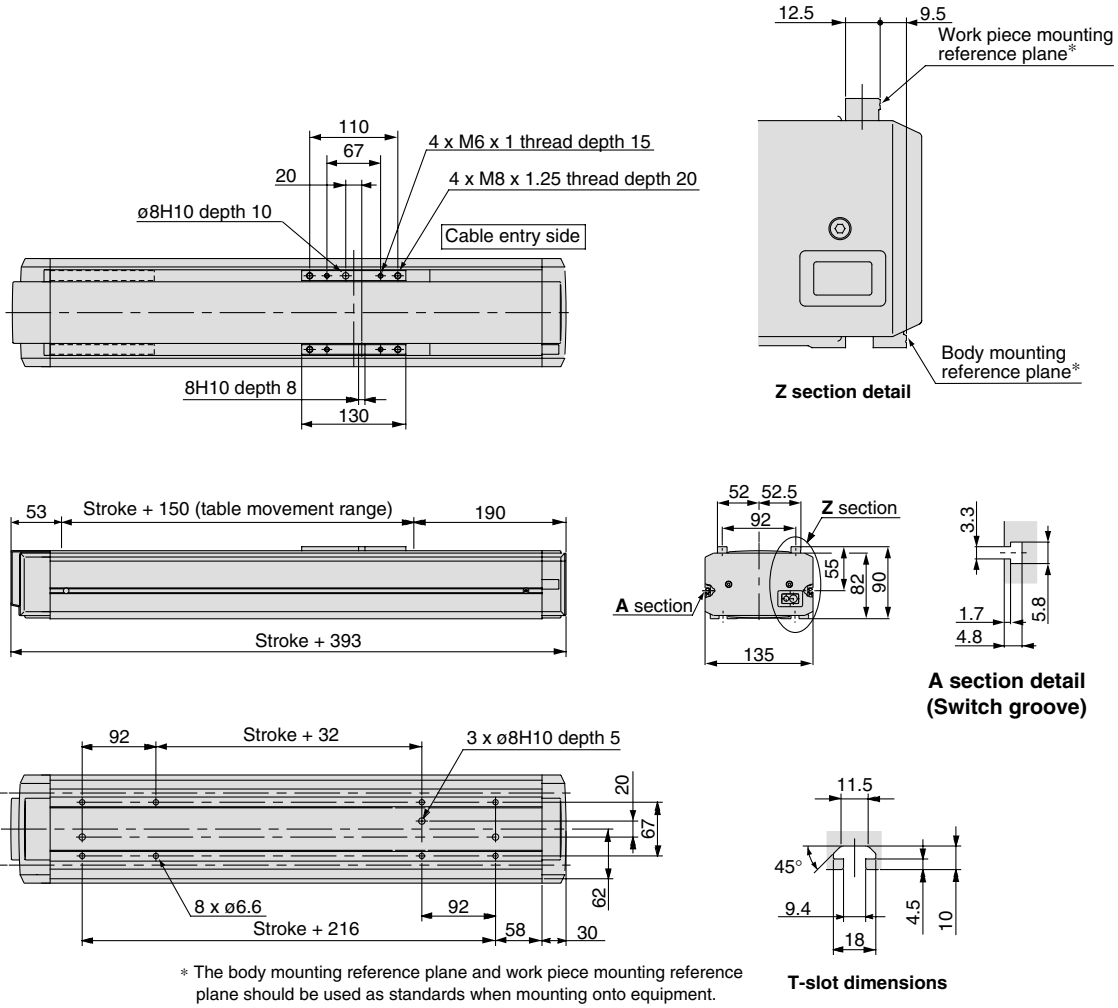
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

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 846.

Dimensions/LJ1H20□2□NF (X10)

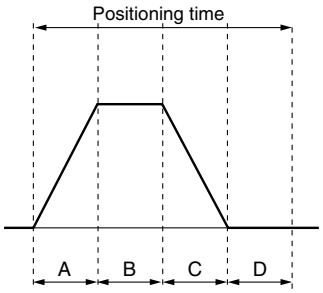


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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.

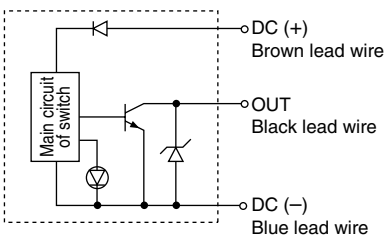


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.4 sec.)*
Maximum acceleration: 3000 mm/s²

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



Non-standard Motor
Vertical Mount
Series LJ1H20

Motor Output 100 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø15 mm/10 mm lead

How to Order

LJ1H20 R21 NA – 300 K– F W –X10

Stroke (mm)
Refer to page 624 for details.

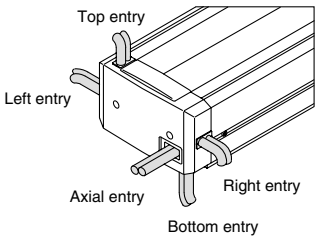
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R21	Mitsubishi Electric Corporation	HC-PQ13	100 W	MR-C10A1	100/115 VAC
R22				MR-C10A	200/230 VAC
R20		—	—	—	—

∗ Motor/driver is included for R21 and R22.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Specifications

Standard stroke (mm)			100	200	300	400	500	600
Performance	Body mass (without motor) (kg)		7.5	8.7	9.9	11.0	12.4	13.5
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		8					
	Maximum speed (mm/s)		500					
	Positioning repeatability (mm)		±0.05					
Main parts	Motor		AC servomotor (100 W)					
	Encoder		Incremental system					
	Lead screw		Rolled ball screw ø15 mm, 10 mm lead					
	Guide		High rigidity direct acting guide					
	Motor/Screw connection		With coupling					
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.4 A					
		Holding torque	0.4 N·m					
		Connection method	Ball screw mounting					
Switch	Model		D-Y7GL (Refer to page 1079 for details.)					
Regenerative absorption unit			Refer to the selection guide below.					

Intermediate strokes

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

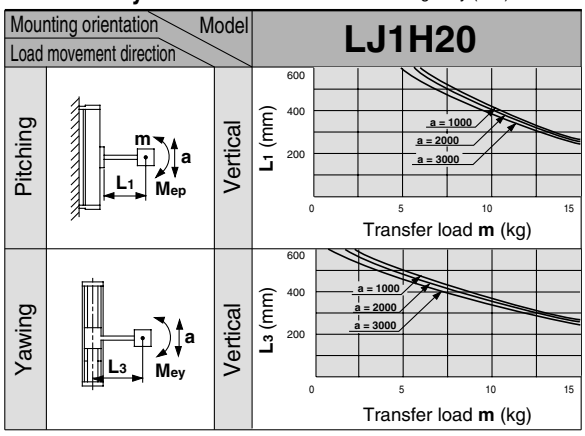
Allowable Moment (N·m)

Allowable static 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 670 for deflection data.

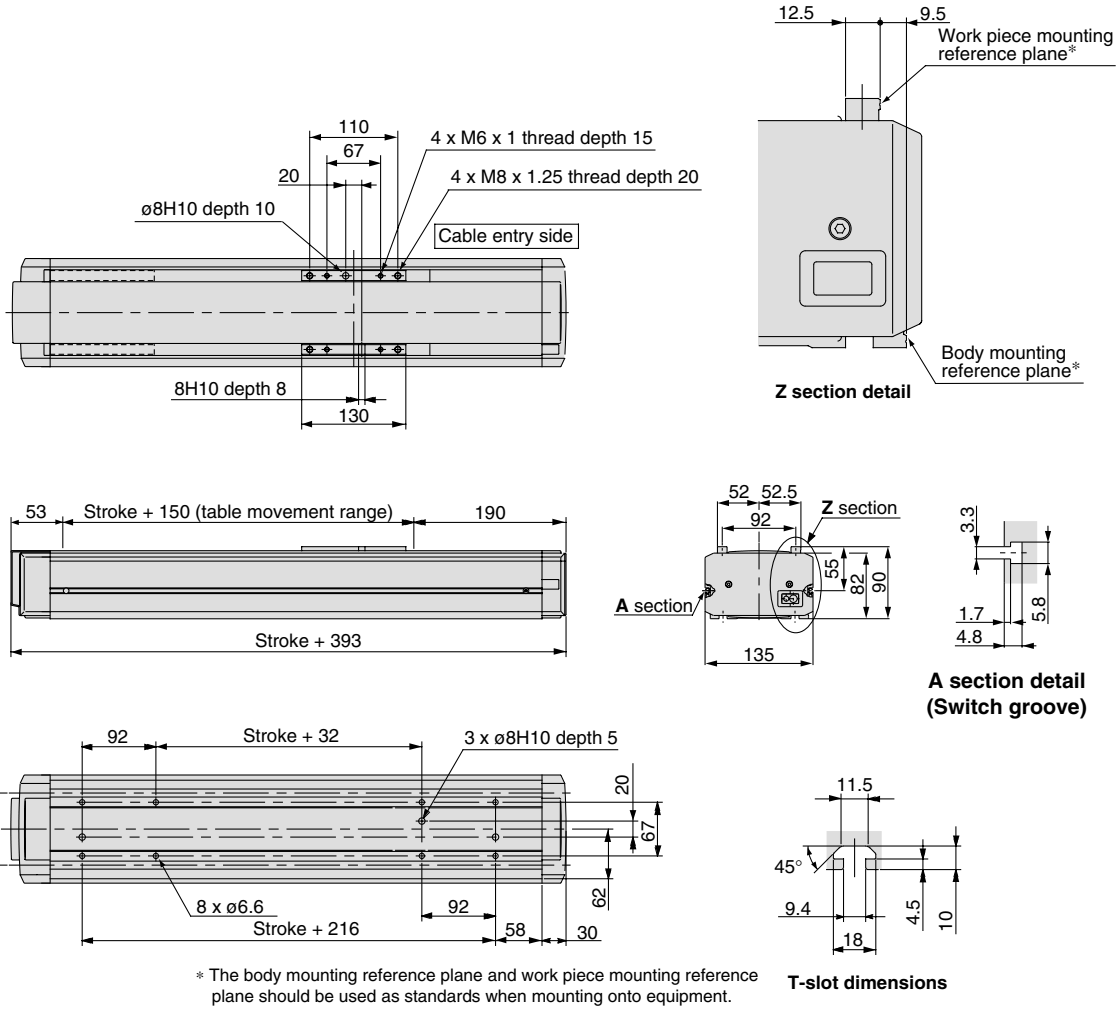
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

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 846.

Dimensions/LJ1H20□2□NA (X10)

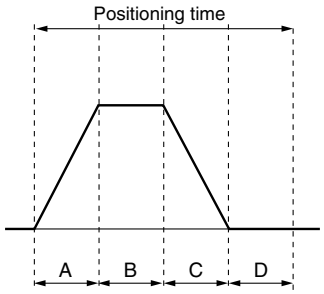


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	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.

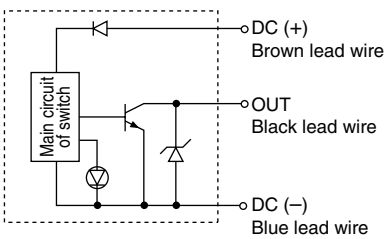


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.4 sec.)*
Maximum acceleration: 3000 mm/s²

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



Non-standard Motor
Vertical Mount
Series LJ1H30

Motor Output 200 W | High Rigidity Direct Acting Guide | Ground Ball Screw ø20 mm/10 mm lead

How to Order

LJ1H30 R31 PA – 300 K – F W – X10

Stroke (mm)
Refer to page 627 for details.

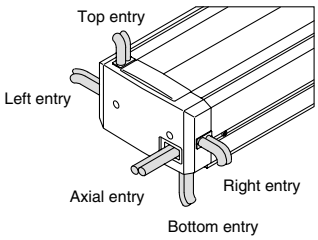
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R31	Mitsubishi Electric Corporation	HC-PQ23	200 W	MR-C20A1	100/115 VAC
R32				MR-C20A	200/230 VAC
R30		—	—	—	—

∗ Motor/driver is included for R31 and R32.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Specifications

Standard stroke (mm)			200	300	400	500	600
Performance	Body mass (without motor) (kg)		15.2	17.2	19.2	21.2	23.2
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		20				
	Maximum speed (mm/s)		500				
	Positioning repeatability (mm)		±0.02				
Main parts	Motor		AC servomotor (200 W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw ø20 mm, 10 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.5 A				
		Holding torque	1.0 N·m				
		Connection method	Ball screw mounting				
Switch	Model		D-Y7GL (Refer to page 1079 for details.)				
Regenerative absorption unit			Refer to the selection guide below.				

Intermediate strokes

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

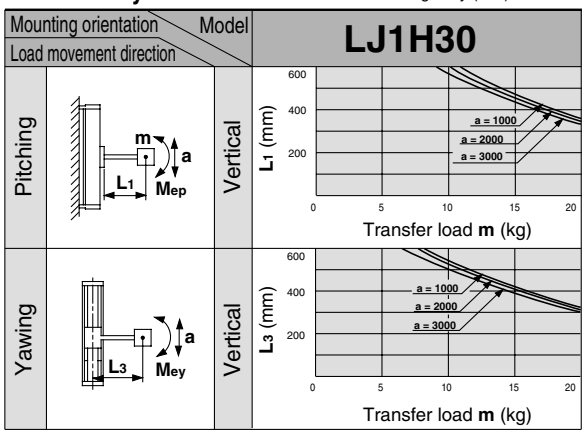
Allowable Moment (N·m)

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 670 for deflection data.

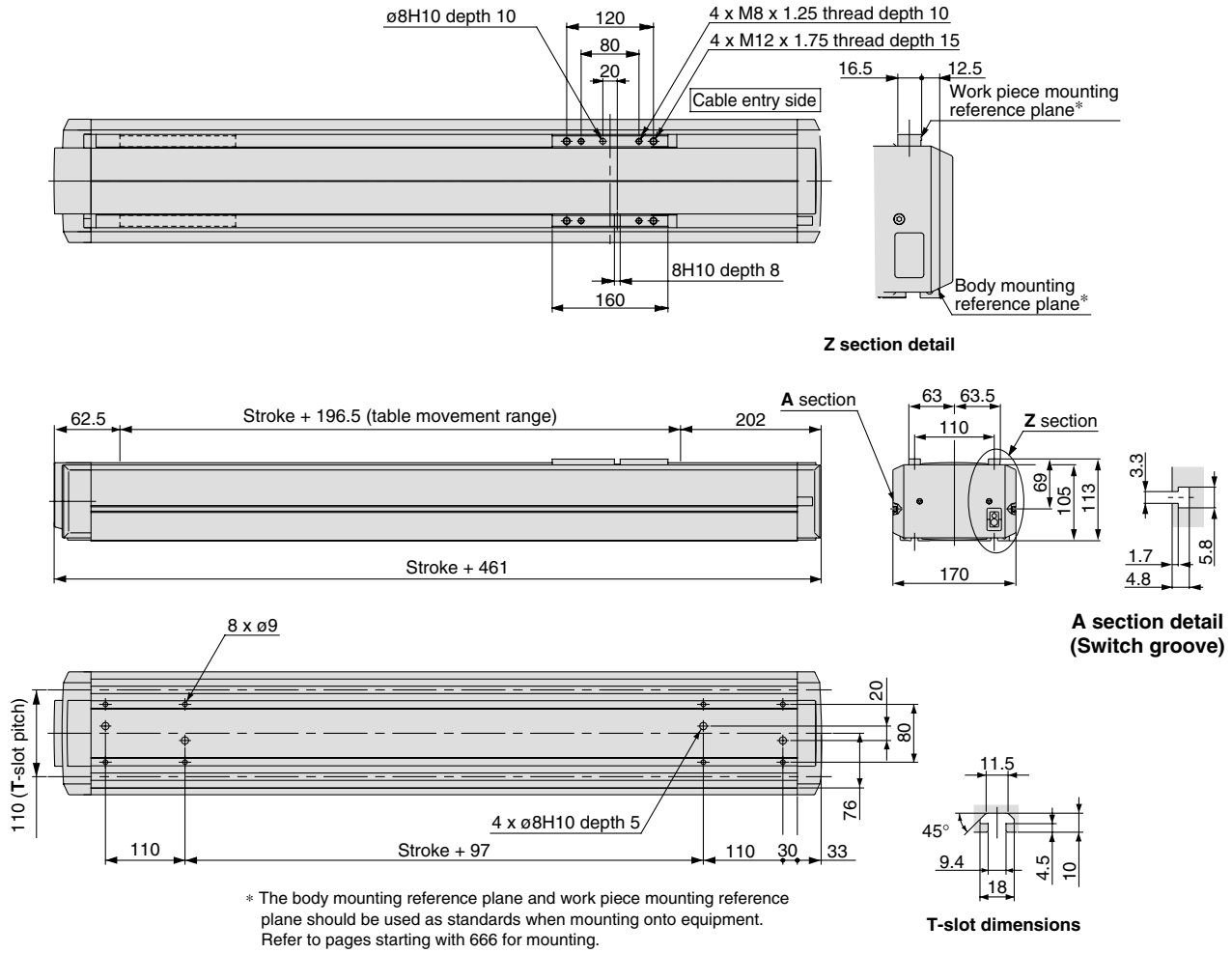
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

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 846.

Dimensions/LJ1H30□3□PA (X10)

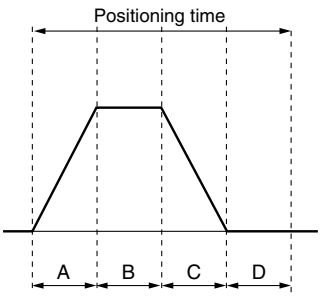


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	1.1	2.0	11.0	31.0	61.0
	100	1.1	1.2	2.1	4.1	7.1
	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.

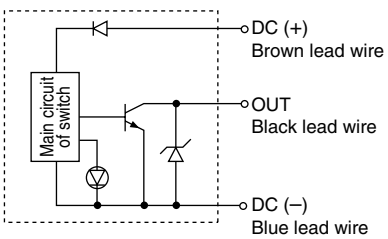


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (1.0 sec.)*
Maximum acceleration: 3000 mm/s²

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



Non-standard Motor
Vertical Mount
Series LJ1H30

Motor Output 200 W | High Rigidity Direct Acting Guide | Rolled Ball Screw ø20 mm/10 mm lead

How to Order

LJ1H30 R31 NA – 300 K– F W –X10

Stroke (mm)
Refer to page 630 for details.

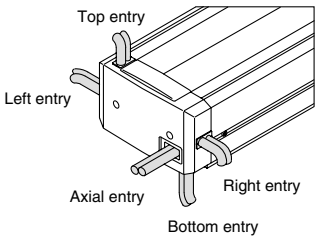
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) NPN: 2 pcs.

Cable entry direction



Motor specification

Symbol	Motor manufacturer	Motor model	Motor output	Compatible driver model	Power supply voltage
R31	Mitsubishi Electric Corporation	HC-PQ23	200 W	MR-C20A1	100/115 VAC
R32				MR-C20A	200/230 VAC
R30		—	—	—	—

∗ Motor/driver is included for R31 and R32.
Refer to page 669 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to Order

Made to order specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Specifications

Standard stroke (mm)			200	300	400	500	600
Performance	Body mass (without motor) (kg)		15.2	17.2	19.2	21.2	23.2
	Operating temperature range (°C)		5 to 40 (No condensation)				
	Work load (kg)		20				
	Maximum speed (mm/s)		500				
	Positioning repeatability (mm)		±0.05				
Main parts	Motor		AC servomotor (200 W)				
	Encoder		Incremental system				
	Lead screw		Rolled ball screw ø20 mm, 10 mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24 VDC ±10%, 0.5 A				
		Holding torque	1.0 N·m				
		Connection method	Ball screw mounting				
Switch	Model		D-Y7GL (Refer to page 1079 for details.)				
Regenerative absorption unit			Refer to the selection guide below.				

Intermediate strokes

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

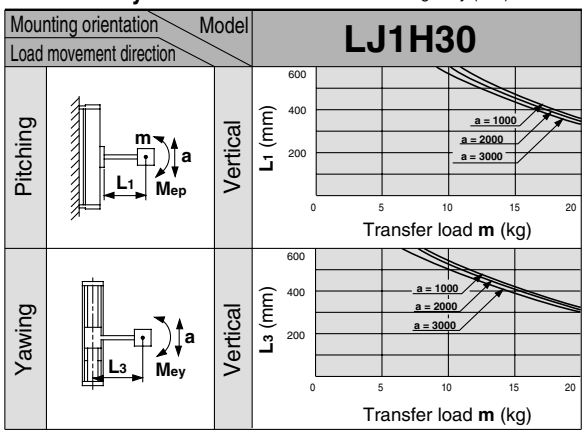
Allowable Moment (N·m)

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 670 for deflection data.

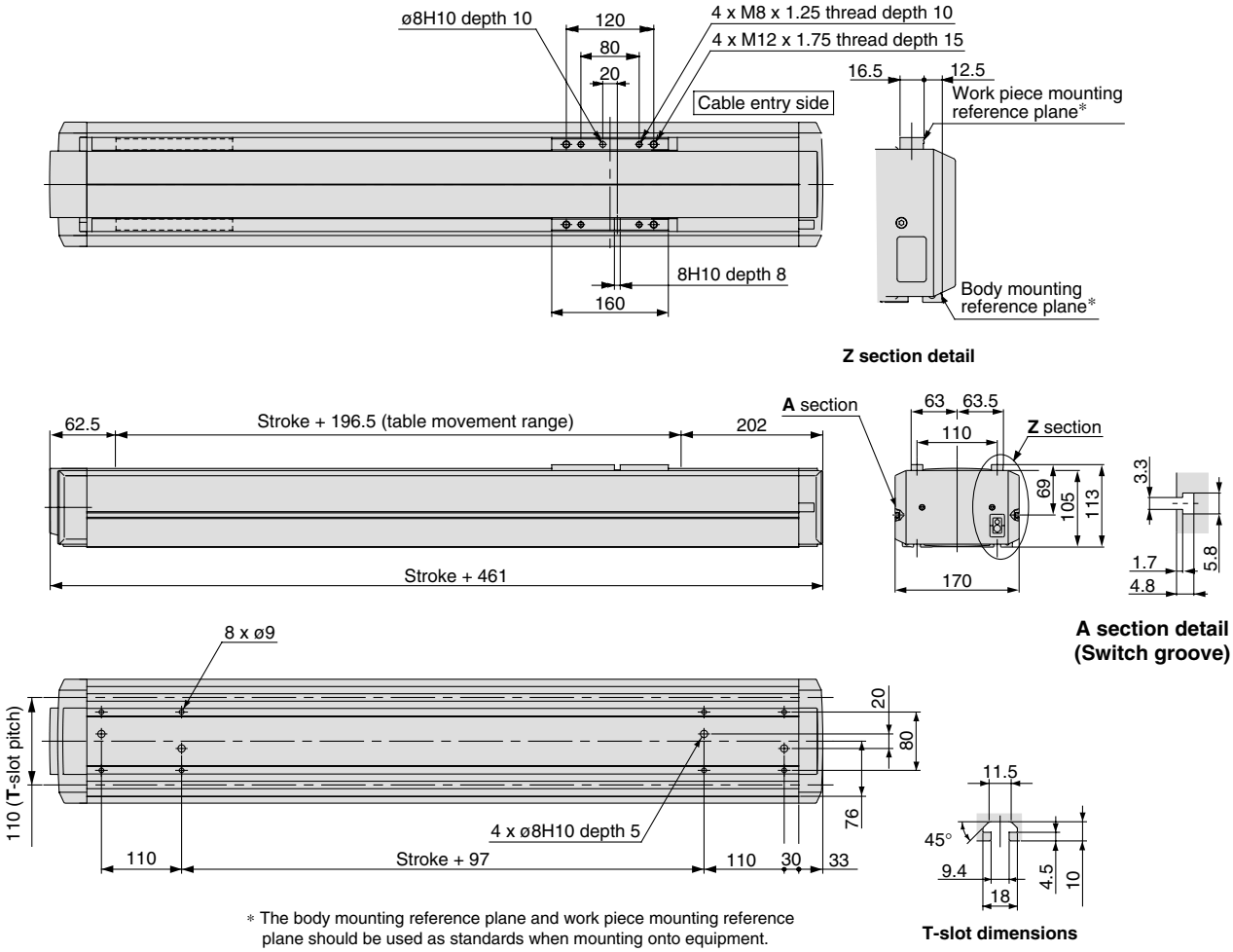
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

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 846.

Dimensions/LJ1H30□3□NA (X10)

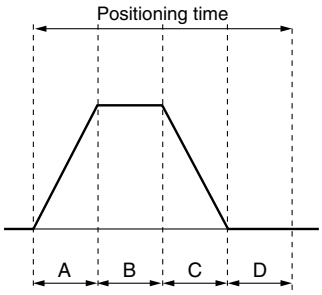


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	1.1	2.0	11.0	31.0	61.0
	100	1.1	1.2	2.1	4.1	7.1
	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.

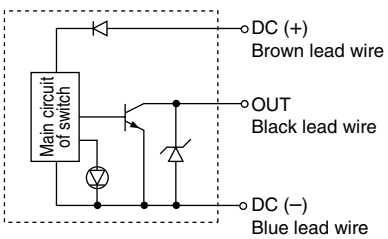


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (1.0 sec.)*
Maximum acceleration: 3000 mm/s²

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL

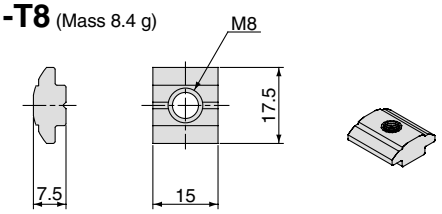


Series LJ1
Options

T-nuts for Mounting Electric Actuators

Use T-nuts for T-slot mounting of an actuator. When mounting by means of T-nuts alone, the quantity of nuts indicated below should be used as a minimum.

Model LJ1-T8 (Mass 8.4 g)



T-nut quantity

Model	Quantity
LJ1H10	200 mm stroke or less: 6 pcs.
	300 mm stroke or more: 8 pcs.
LJ1H20	8 pcs.
LJ1H30	8 pcs.

∗ Only series LJ1H10 has the T-nuts built into the body.

Actuator Cable (LJ1, LTF, LG1 are accessories to the main body.)

(1) For LC8 [-Q]/LJ1, LTF, LX

LJ1 − 8 − B □

Cable length

02	2 m
03	3 m
04	4 m
05	5 m

(2) For LC8 [-Q]/LG1

LG1 − 8 − B □

Cable length

02	2 m
03	3 m
04	4 m
05	5 m

(3) For LC1, LC8/LJ1, LTF, LX (standard specification)

LC1 − 1 − B □ □ − □

Cable length

02	2 m
03	3 m
04	4 m
05	5 m

Specified voltage

A	For 200 VAC (with ferrite core)
Nil	For 100 VAC

Brake cable

K	With brake cable
Nil	Without brake cable

(4) For LC1, LC8/LG1 (standard specification)

LG1 − 1 − B □ □

Cable length

02	2 m
03	3 m
04	4 m
05	5 m

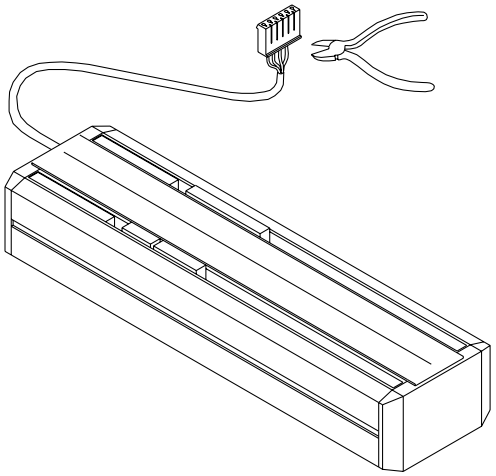
Specified voltage

A	For 200 VAC (with ferrite core)
Nil	For 100 VAC

Notes on (3), (4)

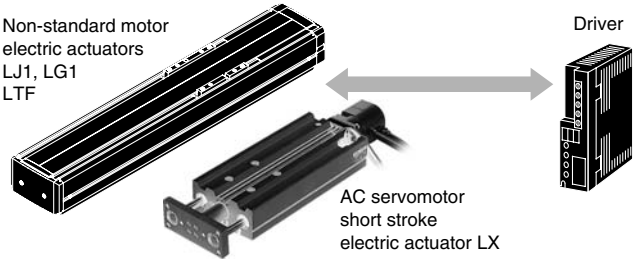
This product's part number is common for both series LC1 and series LC8. When using this product with series LC8, separate the connector part from the power cable before using.

The connector on the encoder cable side can be used as it is.



Non-standard Motor Cables

These are cables for connecting non-standard motors and drivers.
Cable lengths other than those shown below should be arranged by the customer.



How to order

LJ1 – 1 – R 05 □

Compatible model

R *1	Motor symbol for LJ1/LG1/LTF: For R type, LXP□-X18(9), LXS□-X18(9)
RM *1	Motor symbol for LJ1/LG1/LTF: For RM type
RK *1	Motor symbol for LJ1/LG1/LTF: For RK type
RP	Motor symbol for LJ1/LG1/LTF: For RP type
RJ	For LXF□-X20

*1 The motor and brake cable have not been provided. Please supply a a size 4 wire with a core size of 0.75 mm^2.

Brake

Nil	Without brake
B	With brake *2

*2 Only the RP or RJ models are available.

Cable length

05	5 m

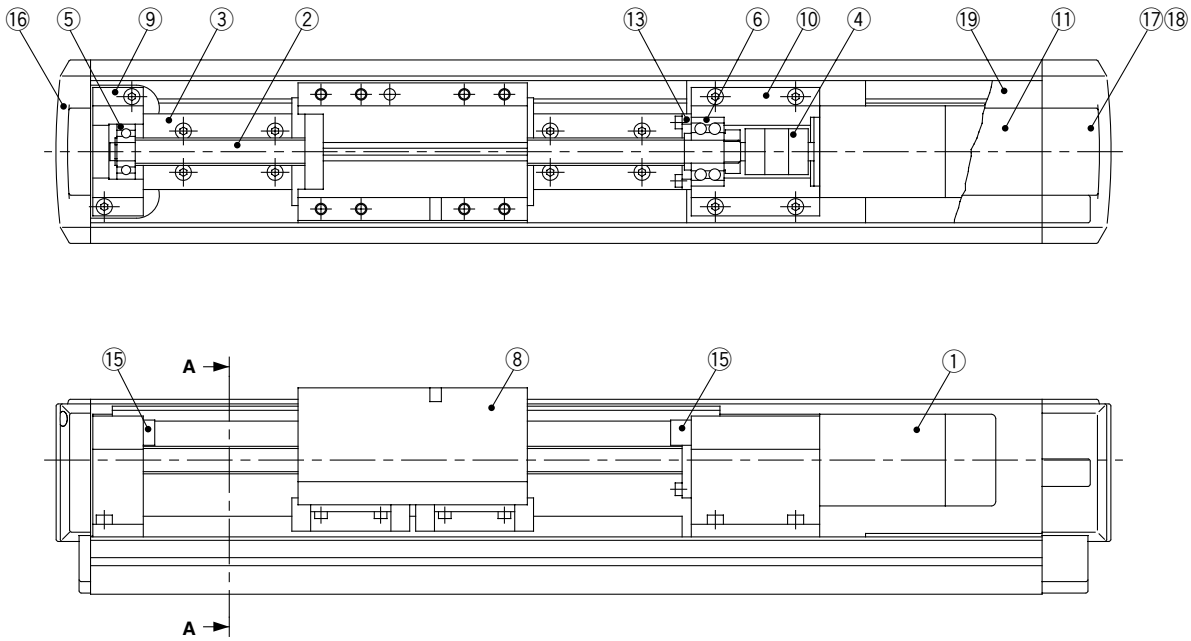
***3 Manufacturer part numbers for each model are shown below.**

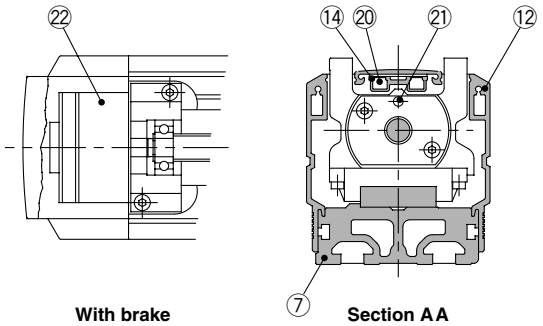
Model	Motor cable	Encoder cable	Brake cable
LJ1-1-R05	—	MR-JCCBL5M-L	—
LJ1-1-RM05			
LJ1-1-RK05			
LJ1-1-RP05	MR-PWS1CBL5M-A2-L	MR-J3ENCBL5M-A2-L	
LJ1-1-RP05B			MR-BKS1CBL5M-A2-L
LJ1-1-RJ05	MR-JRCBL5M-H		—
LJ1-1-RJ05B	MR-JRBRCBL5M-H		

Series LJ1H
Construction

Construction

LJ1H10





With brake　　Section AA

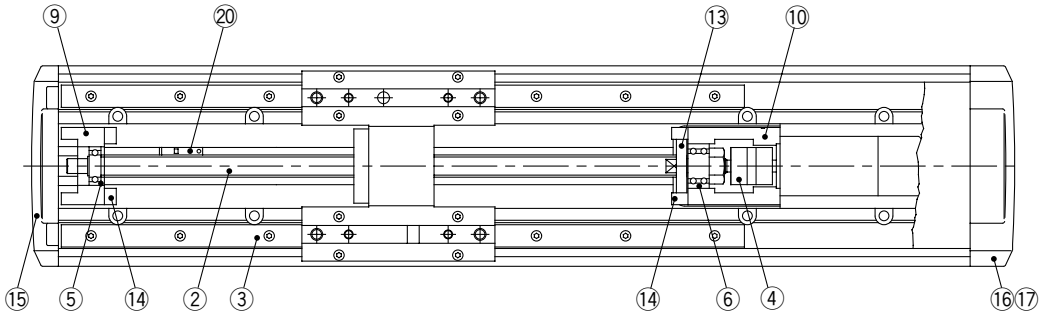
Parts list

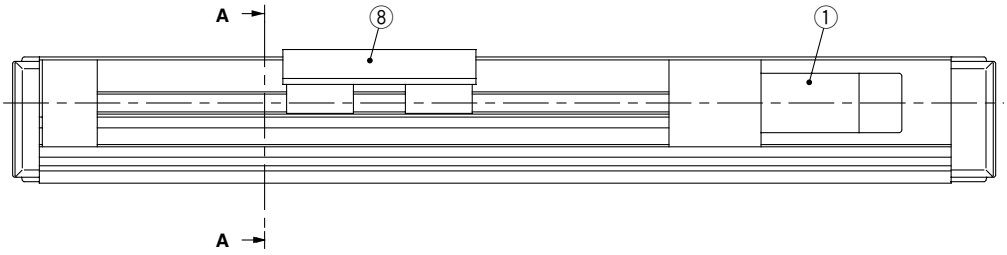
No.	Description	Material	Note
1	**AC servomotor**	—	50 W/100 W
2	**Lead screw**	—	Ball screw
3	**High rigidity direct acting guide**	—	
4	**Coupling**	—	
5	**Bearing R**	—	
6	**Bearing F**	—	
7	**Body A**	Aluminum alloy	
8	**Table**	Aluminum alloy	
9	**Housing A**	Aluminum alloy	
10	**Housing B**	Aluminum alloy	
11	**Top cover**	Aluminum alloy	

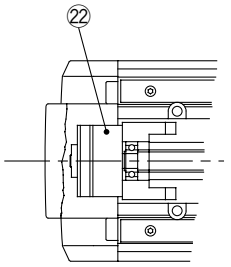
No.	Description	Material	Note
12	**Side cover**	Aluminum alloy	
13	**Bearing retainer**	Aluminum alloy	
14	**Sensor rail**	Aluminum alloy	
15	**Bumper**	IIR	
16	**End cover A**	PC	
17	**End cover B**	PC	
18	**Inner cover**	PC	
19	**Motor cover**	PC	
20	**Auto switch**	—	
21	**Magnet**	—	
22	**Brake**	—	

Construction

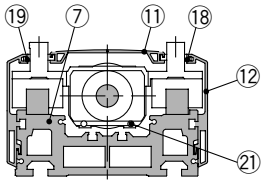
LJ1H20







With brake



Section A A

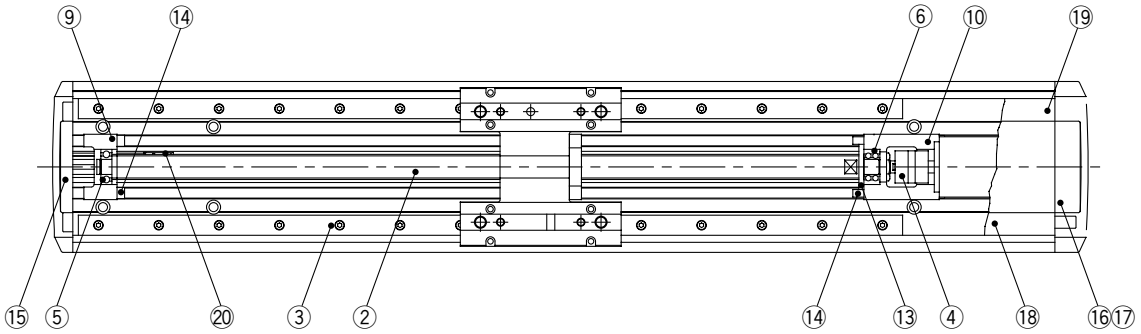
Parts list

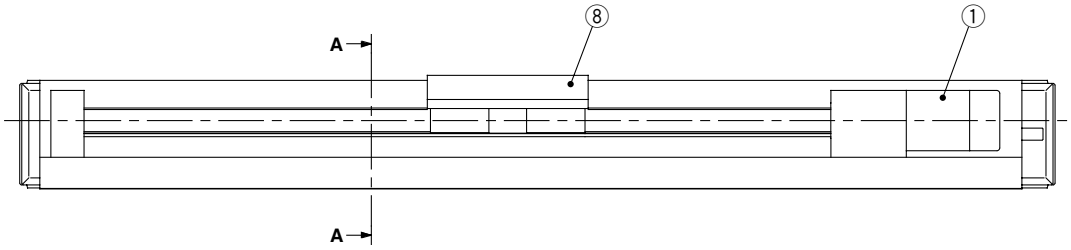
No.	Description	Material	Note
1	**AC servomotor**	—	100 W
2	**Lead screw**	—	Ball screw
3	**High rigidity direct acting guide**	—	
4	**Coupling**	—	
5	**Bearing R**	—	
6	**Bearing F**	—	
7	**Body A**	Aluminum alloy	
8	**Table**	Aluminum alloy	
9	**Housing A**	Aluminum alloy	
10	**Housing B**	Aluminum alloy	
11	**Top cover**	Aluminum alloy	

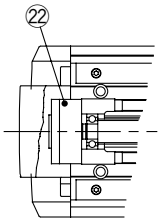
No.	Description	Material	Note
12	**Side cover**	Aluminum alloy	
13	**Bearing retainer**	Aluminum alloy	
14	**Bumper**	IIR	
15	**End cover A**	PC	
16	**End cover B**	PC	
17	**Inner cover**	PC	
18	**Motor cover R**	PC	
19	**Motor cover L**	PC	
20	**Auto switch**	—	
21	**Magnet**	—	
22	**Brake**	—	

Construction

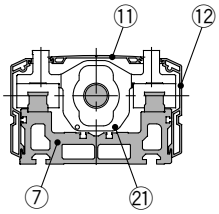
LJ1H30







With brake



Section A A

Parts list

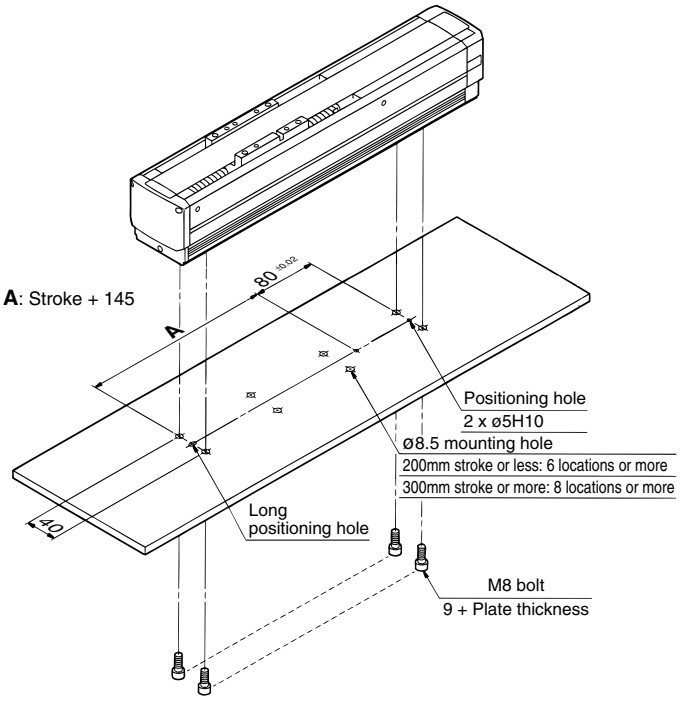
No.	Description	Material	Note
1	**AC servomotor**	—	200 W
2	**Lead screw**	—	Ball screw
3	**High rigidity direct acting guide**	—	
4	**Coupling**	—	
5	**Bearing R**	—	
6	**Bearing F**	—	
7	**Body A**	Aluminum alloy	
8	**Table**	Aluminum alloy	
9	**Housing A**	Aluminum alloy	
10	**Housing B**	Aluminum alloy	
11	**Top cover**	Aluminum alloy	

No.	Description	Material	Note
12	**Side cover**	Aluminum alloy	
13	**Bearing retainer**	Carbon steel	Electroless nickel plated
14	**Bumper**	IIR	
15	**End cover A**	PC	
16	**End cover B**	PC	
17	**Inner cover**	PC	
18	**Motor cover A**	PC	
19	**Motor cover B**	PC	
20	**Auto switch**	—	
21	**Magnet**	—	
22	**Brake**	—	

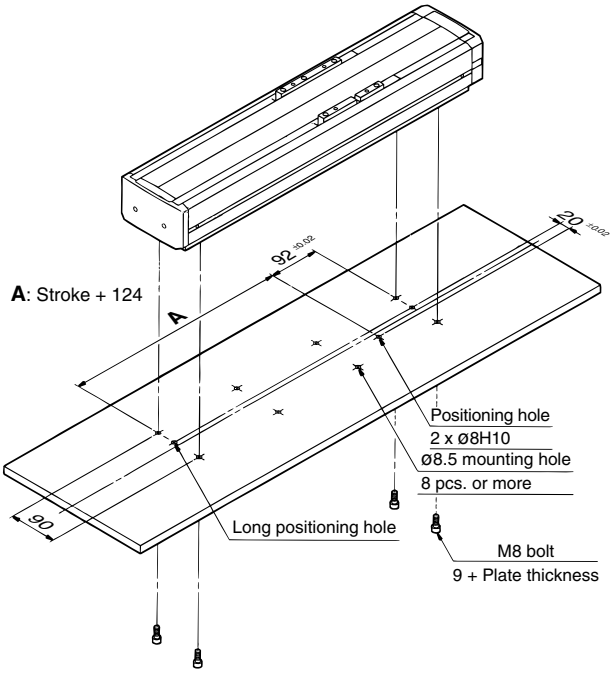
Mounting

T-slot Bottom Mount

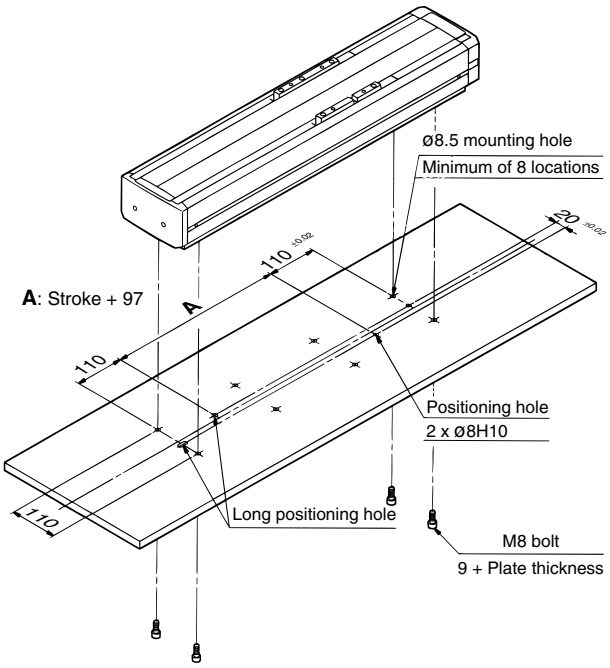
LJ1H10



LJ1H20



LJ1H30



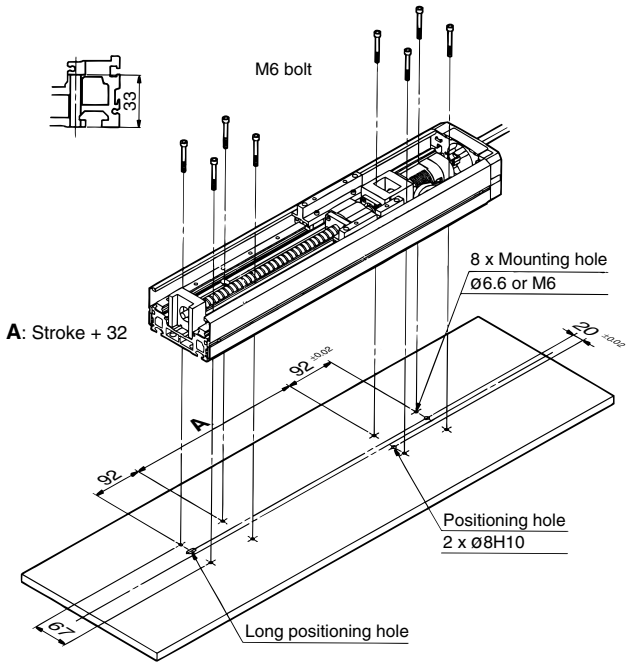
Note 1) Although T-nuts (LJ1-T8) for mounting are included with the body for LJ1H10, they are optional for other models. (See page 658.)

Note 2) To insert the T-nuts, remove the covers at both ends of the body and insert them into the T-slots.

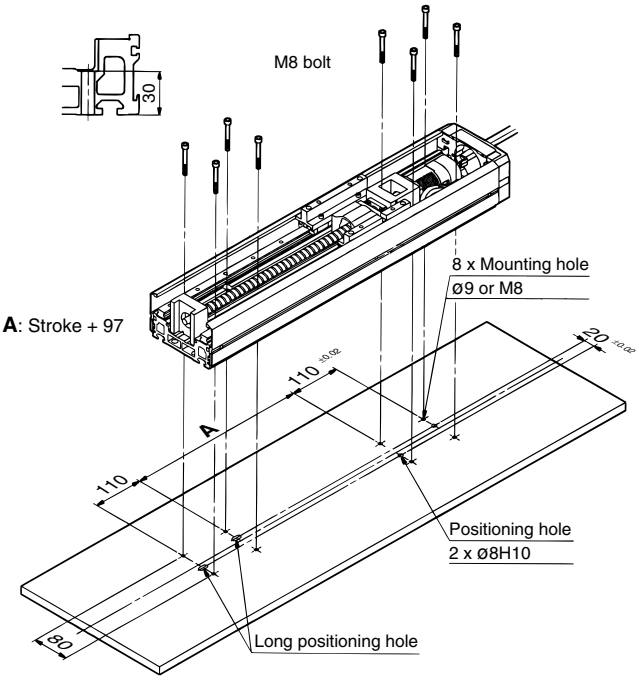
Note 3) When positioning of the body is required, also perform pin hole machining.

Top Mount

LJ1H20

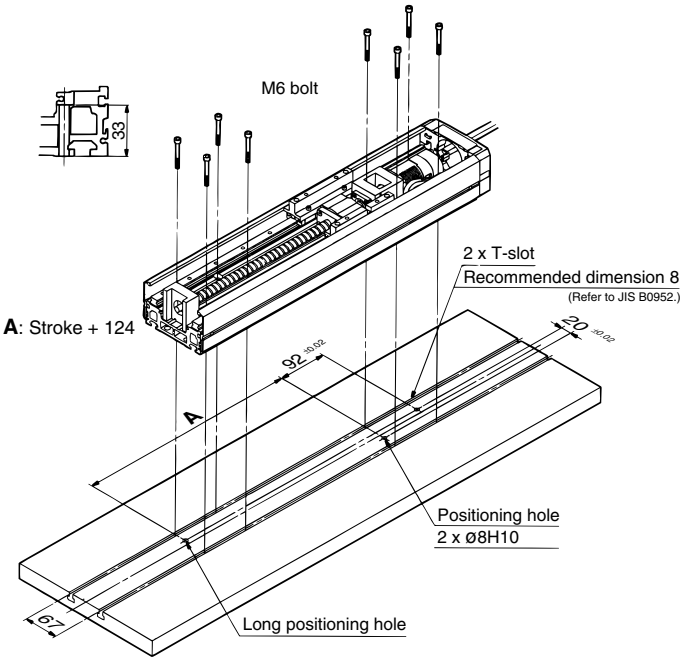


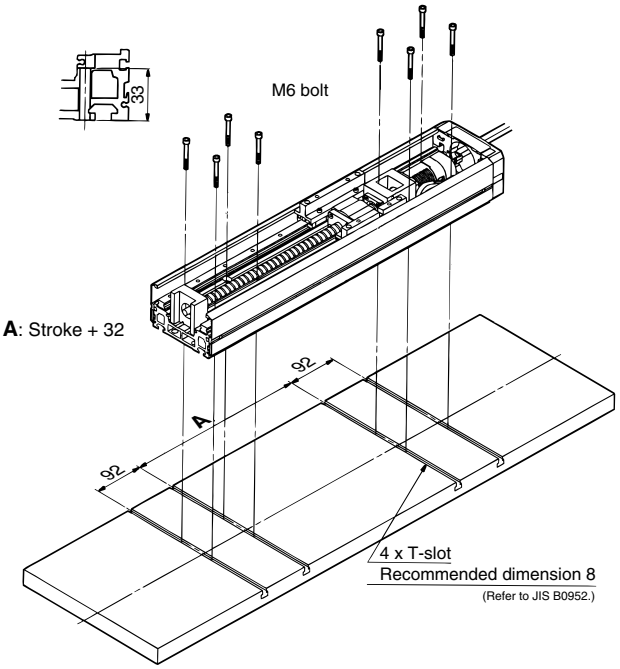
LJ1H30



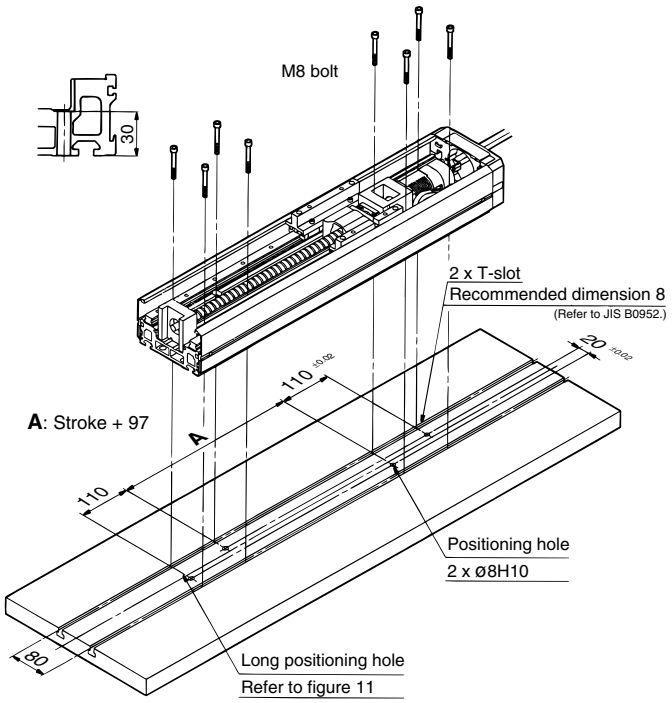
Top Mount (Using T-slots on the Mounting Frame)

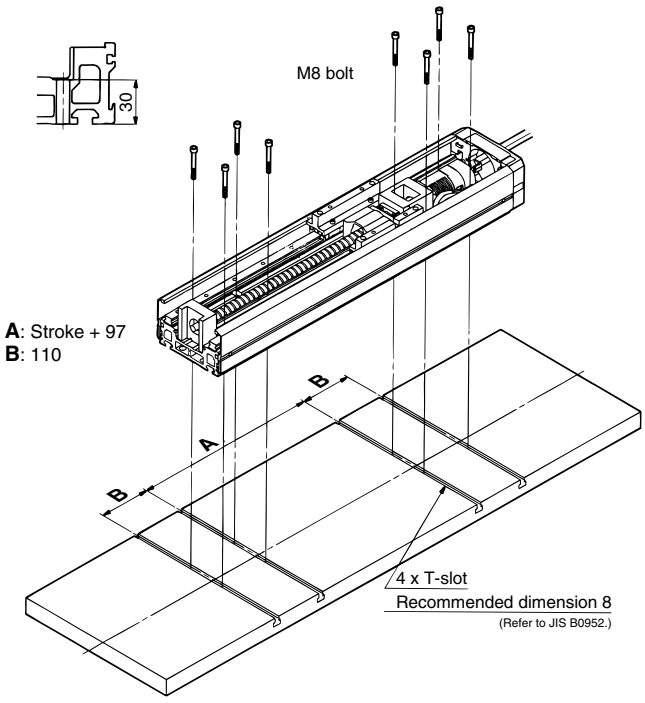
LJ1H20





LJ1H30

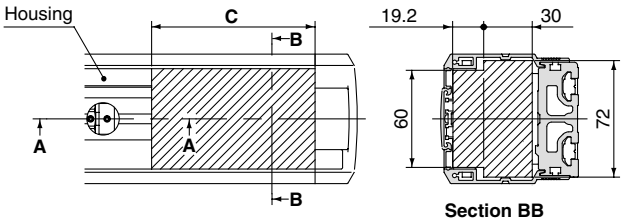




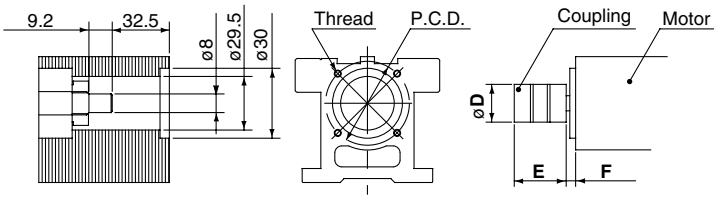
Non-standard Motor Mounting Dimensions

Standard

Series LJ1H10



Section BB



Section AA (Housing interior)

Coupling mounting dimensions*

Motor mounting area dimensions

Manufacturer	Mitsubishi Electric Corporation
Thread size	M4 x 0.7
Effective thread length (mm)	8
Quantity	2
P.C.D.	46

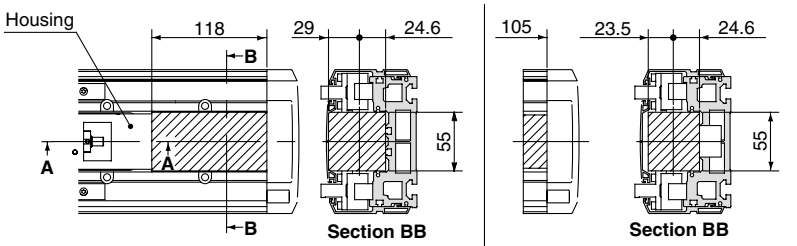
Motor mounting area

* When mounting a coupling on the motor, mount it within the dimensional range shown on the left.

Dimensions

	C	D	E	F
With brake (mm)	101	26	32.3	8.5
Without brake (mm)	85	19	26.7	14

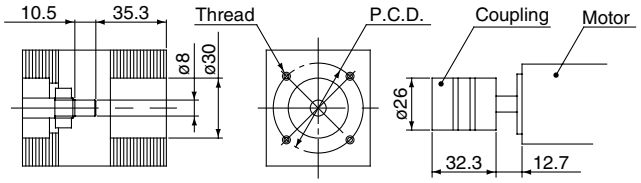
Series LJ1H20



Section BB

Section BB

Long stroke type*1



Section AA (Housing interior)

Coupling mounting dimensions*2

Motor mounting area dimensions

Manufacturer	Mitsubishi Electric Corporation
Thread size	M4 x 0.7
Effective thread length (mm)	8
Quantity	2
P.C.D.	46

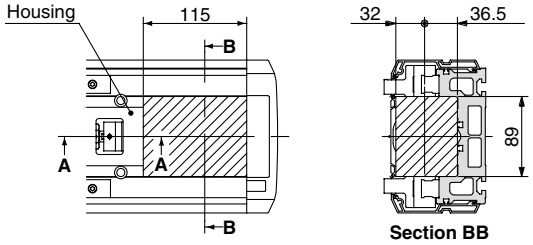
Motor mounting area

*1 For the motor mounting area dimensions of the models below, refer to the long stroke type dimensions.

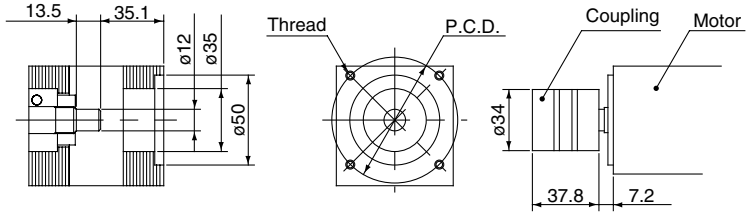
LJ1H20□□□$^{N}_{P}$C	700 to 1000 mm stroke

*2 When mounting a coupling on the motor, mount it within the dimensional range shown on the left.

Series LJ1H30



Section BB



Section AA (Housing interior)

Coupling mounting dimensions*

Motor mounting area dimensions

Manufacturer	Mitsubishi Electric Corporation
Thread size	M5 x 0.8
Effective thread length (mm)	6
Quantity	4
P.C.D.	70

Motor mounting area

* When mounting a coupling on the motor, mount it within the dimensional range shown on the left.

Series LJ1
Deflection Data

Deflection Data/LJ1H

∗ Calculated values based on the body's geometric moment of inertia.

The load and the amount of deflection at load point W are shown in the graphs below for each series.

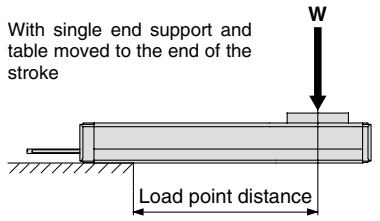


Figure 1. Horizontal

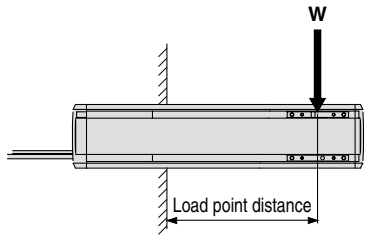
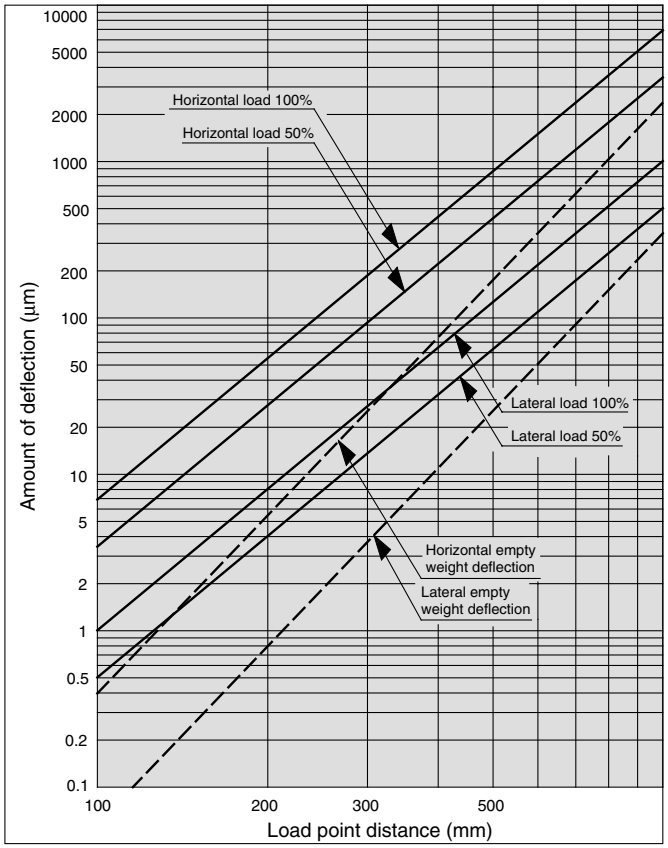
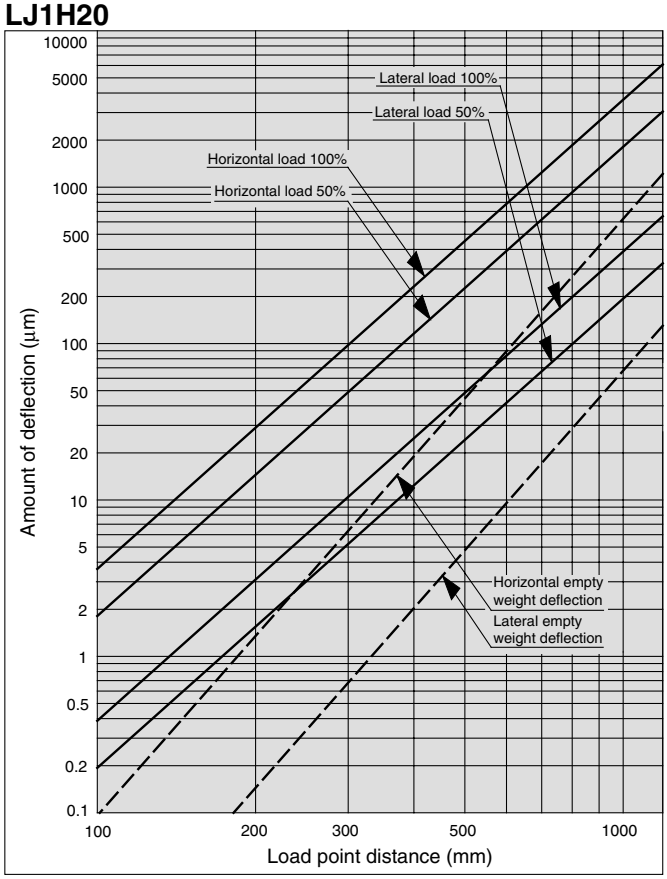


Figure 2. Lateral

LJ1H10



LJ1H20



LJ1H30