



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	Slide screw	
LJ1H	Standard motor	High rigidity direct acting guide	Horizontal	LJ1H10	12	12	20	P.494
				LJ1H20	10 20	10 20	20	P.503
				LJ1H30	25	25	40	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	High rigidity direct acting guide	Horizontal	LJ1H10	12	12	20	P.547
				LJ1H20	10 20	10 20	20	P.562
				LJ1H30	25	25	40	P.587
			Vertical	LJ1H10	8 12	8 12		P.602
				LJ1H20	5 10	5 10		P.614
				LJ1H30	10	10		P.626

- Options _____ P.658
- Construction _____ P.660
- Mounting _____ P.666
- Non-standard Motor Mounting _____ P.669
- Deflection Data _____ P.670

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
2	200/220 VAC 50/60 Hz
3	200/230 VAC 50/60 Hz
0	Without motor

Lead screw type

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

Stroke (mm)

H	8 mm
B	12 mm
C	20 mm
F	5 mm
A	10 mm
D	25 mm
E	40 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

Non-standard motor

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
Ø **12** 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.

CE marking

Nil	—
Q	CE marked products

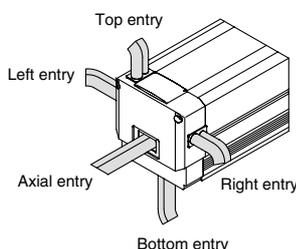
Cable length

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

Stroke (mm)

Refer to page 495 for details.

Cable entry direction



F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable entry direction



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

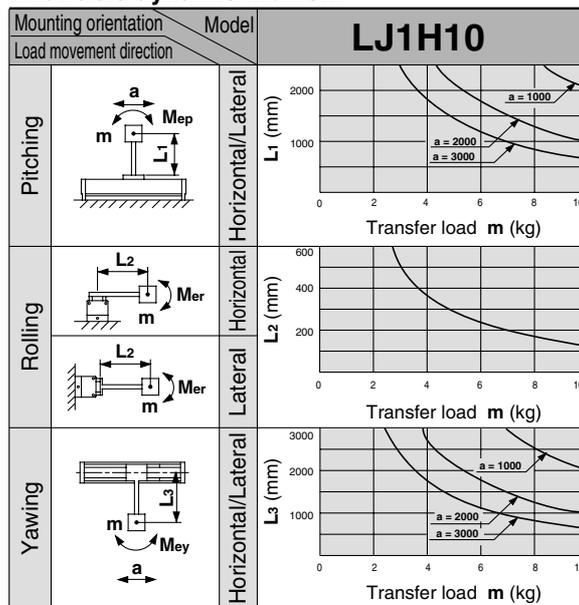
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me : Dynamic moment

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

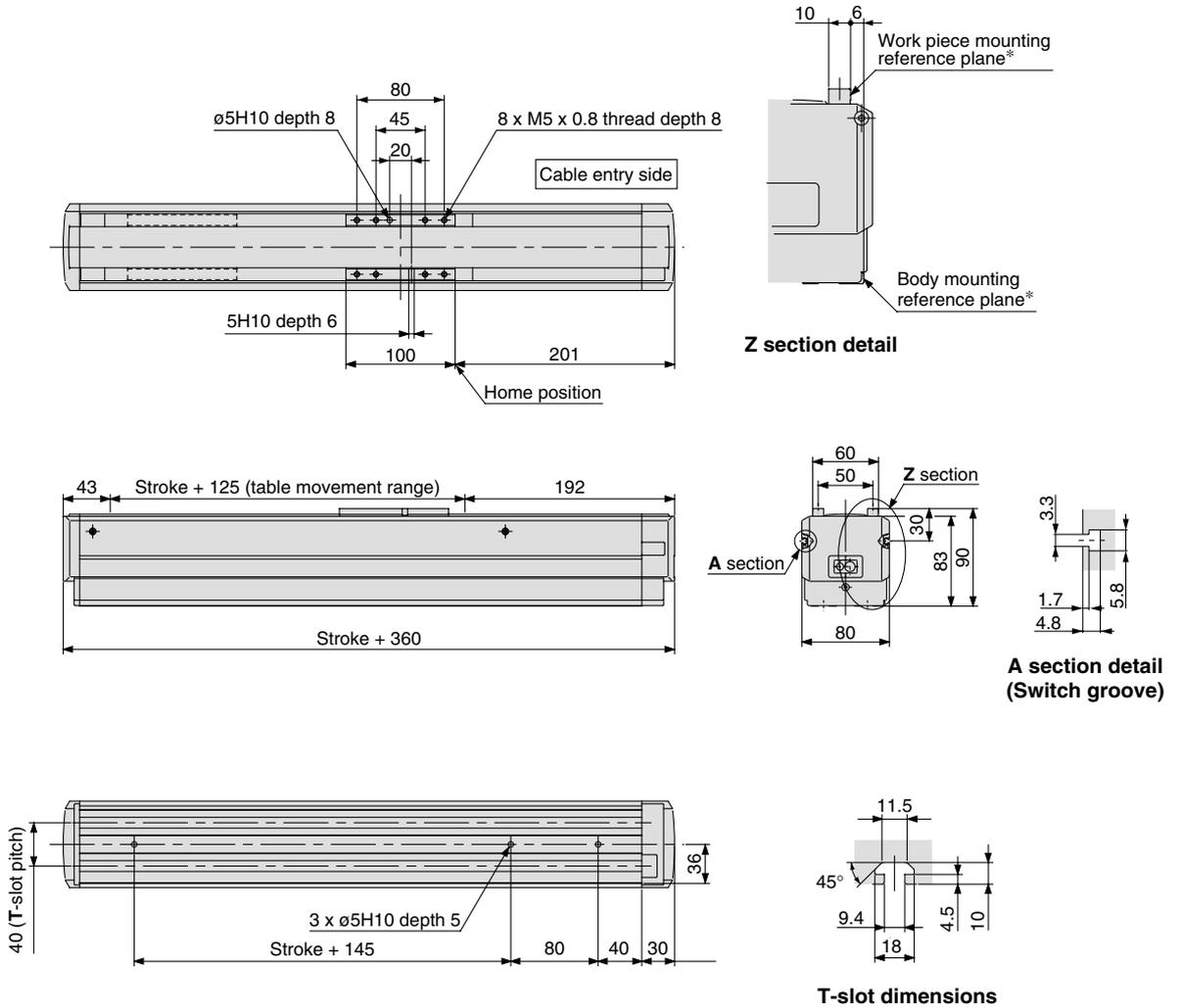
Allowable dynamic moment



Refer to page 670 for deflection data.

Series LJ1H10

Dimensions/LJ1H10□PB, LJ1H108□PB

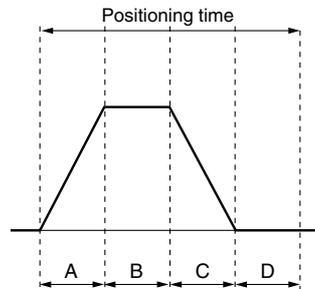


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		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 Horizontal Mount Series **LJ1H10**

Motor Output
50 W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
Ø 12 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.

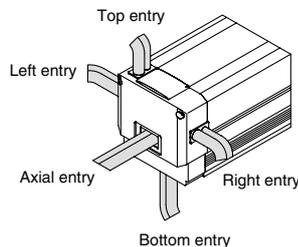
CE marking

Nil	—
Q	CE marked products

Cable length

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

Cable entry direction



F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable entry direction



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

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

Series LJ1H10

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

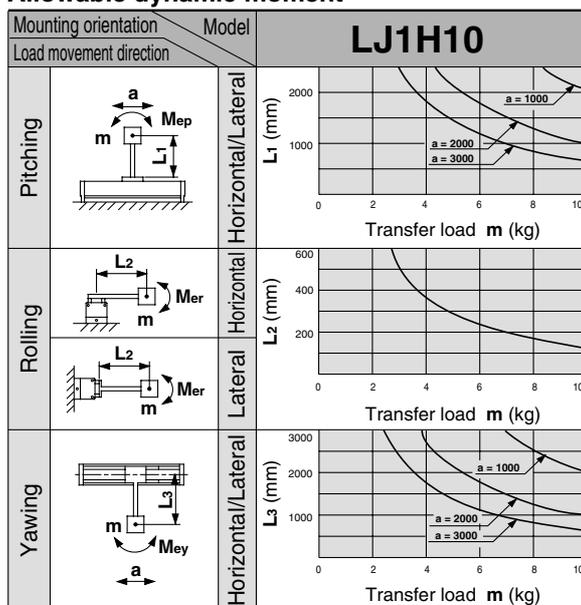
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

M_e : Dynamic moment

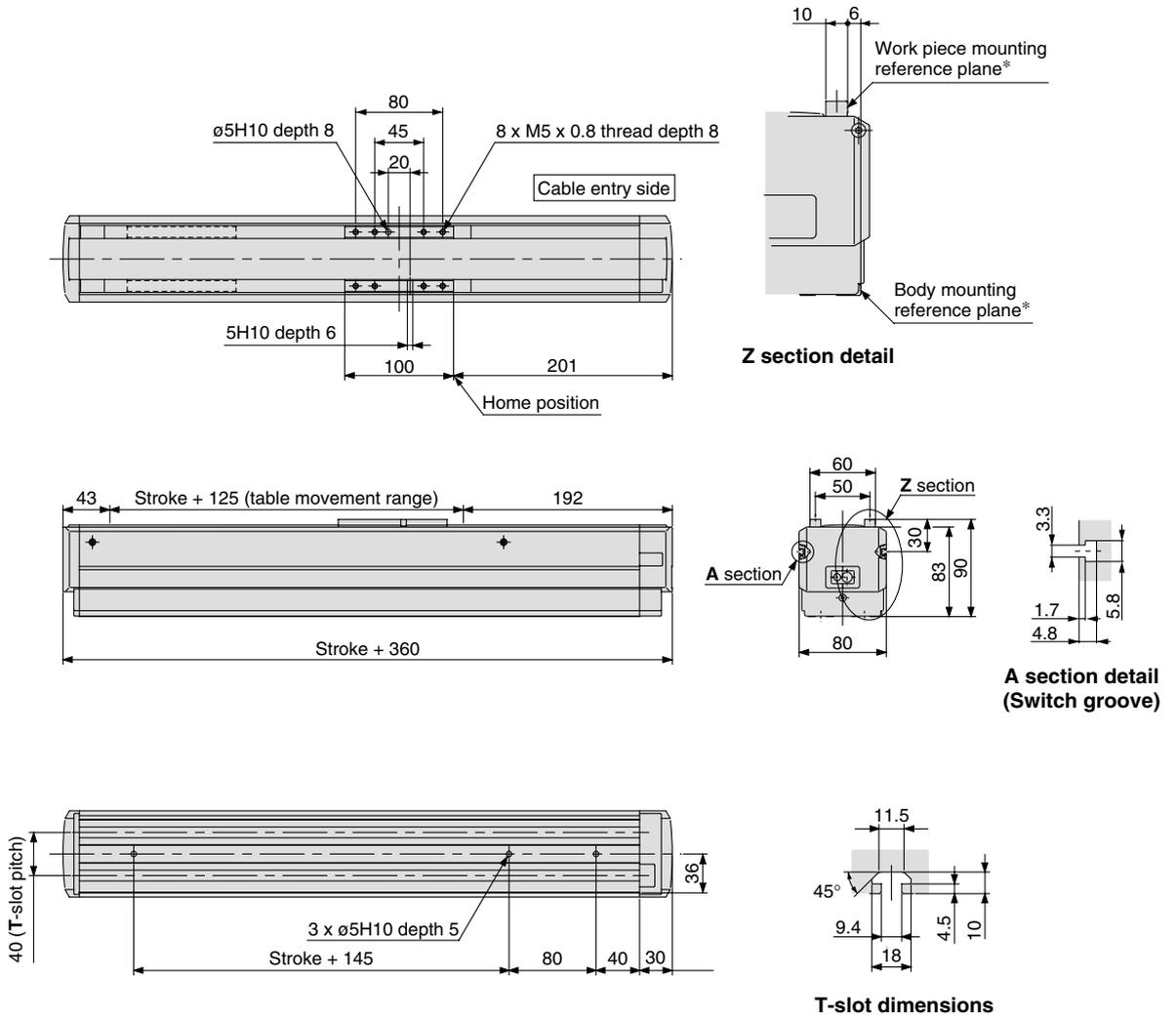
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H10□NB, LJ1H108□NB

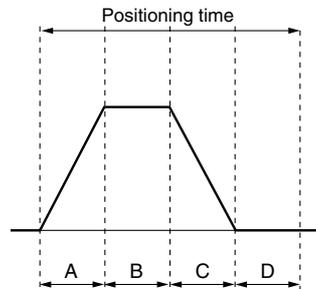


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		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 Horizontal Mount

Motor Output
50 W

High Rigidity
Direct Acting
Guide

Slide Screw
Ø20 mm/20 mm lead

Series LJ1H10

How to Order

LC1 controller compatible

LJ1H10 **11** **SC** - **300** - **F** **2**

LC8 controller compatible

LJ1H108 **11** **SC** - **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 501 for details.

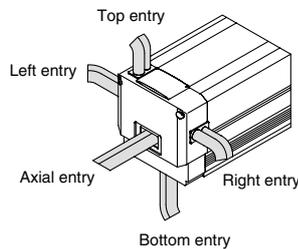
CE marking

Nil	—
Q	CE marked products

Cable length

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

Cable entry direction



F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable entry direction



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

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000
Performance	Body mass (kg)	5.3	6.2	7.2	8.0	8.8	9.7	10.5	11.3	12.2	13.0
	Operating temperature range (°C)	5 to 40 (No condensation)									
	Work load (kg)	10									
	Maximum speed (mm/s)	500									
	Positioning repeatability (mm)	±0.1									
Main parts	Motor	AC servomotor (50 W)									
	Encoder	Incremental system									
	Lead screw	Slide screw ø20 mm, 20 mm lead									
	Guide	High rigidity direct acting guide									
	Motor/Screw connection	With coupling									
Controller	Model	LC1	LC1-1B1M□-□□ (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 above, add “-X2” at the end of the part number.
 Applicable strokes: 150, 250, 350, 450, 550, 650, 750, 850, 950

Example 1) **LJ1H1011SC-150-F2-X2**

Example 2) **LJ1H10811SC-150-F2-X2-Q**

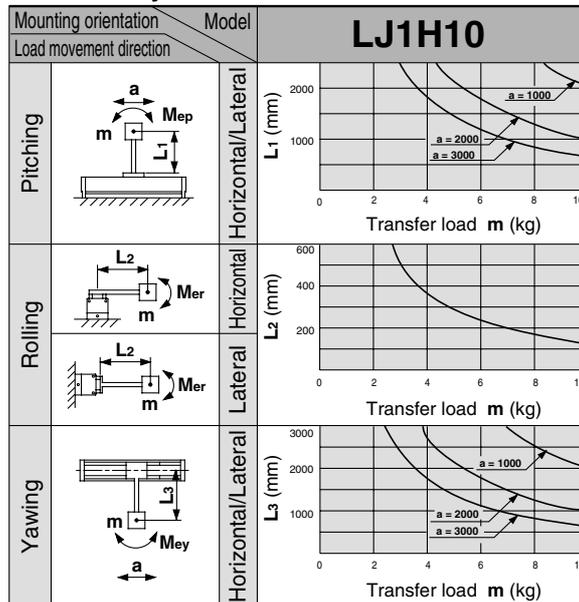
Allowable Moment (N·m)

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)

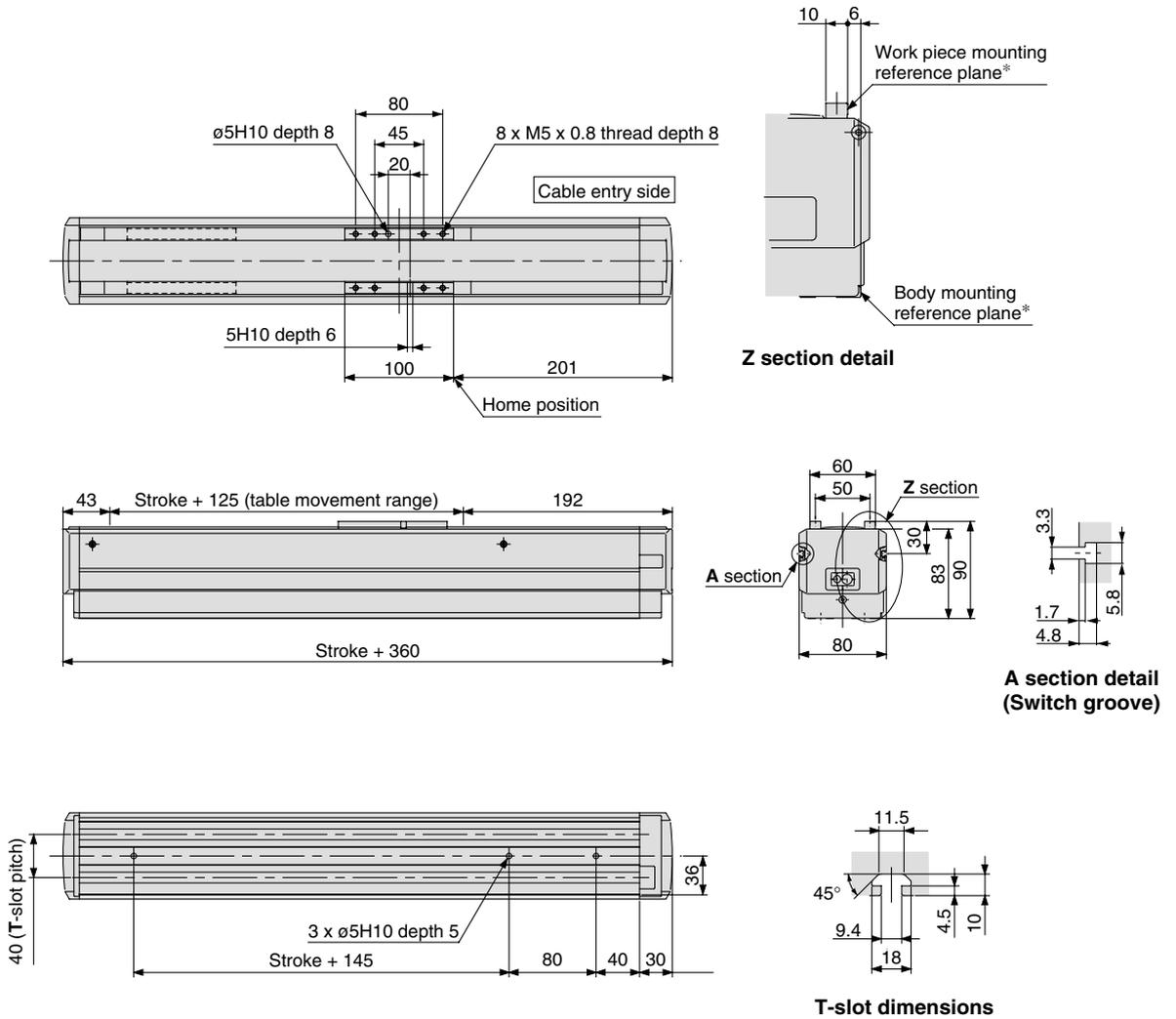
Allowable dynamic moment



Refer to page 670 for deflection data.

Series LJ1H10

Dimensions/LJ1H10□SC, LJ1H108□SC

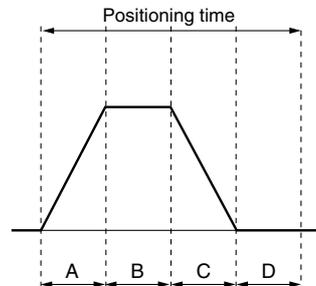


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.



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

Standard Motor Horizontal Mount Series *LJ1H20*

Motor Output
100 W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
Ø **15** 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.

CE marking

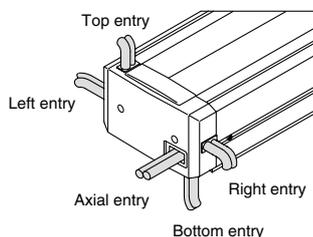
Nil	—
Q	CE marked products

Cable length

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

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction



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

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

Series LJ1H20

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

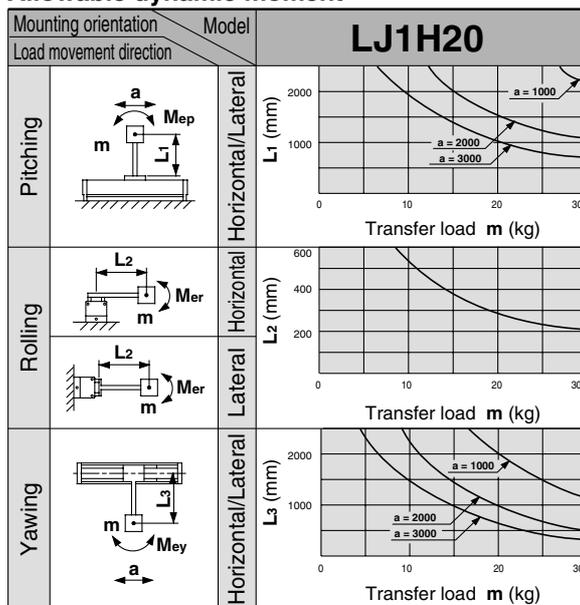
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me : Dynamic moment

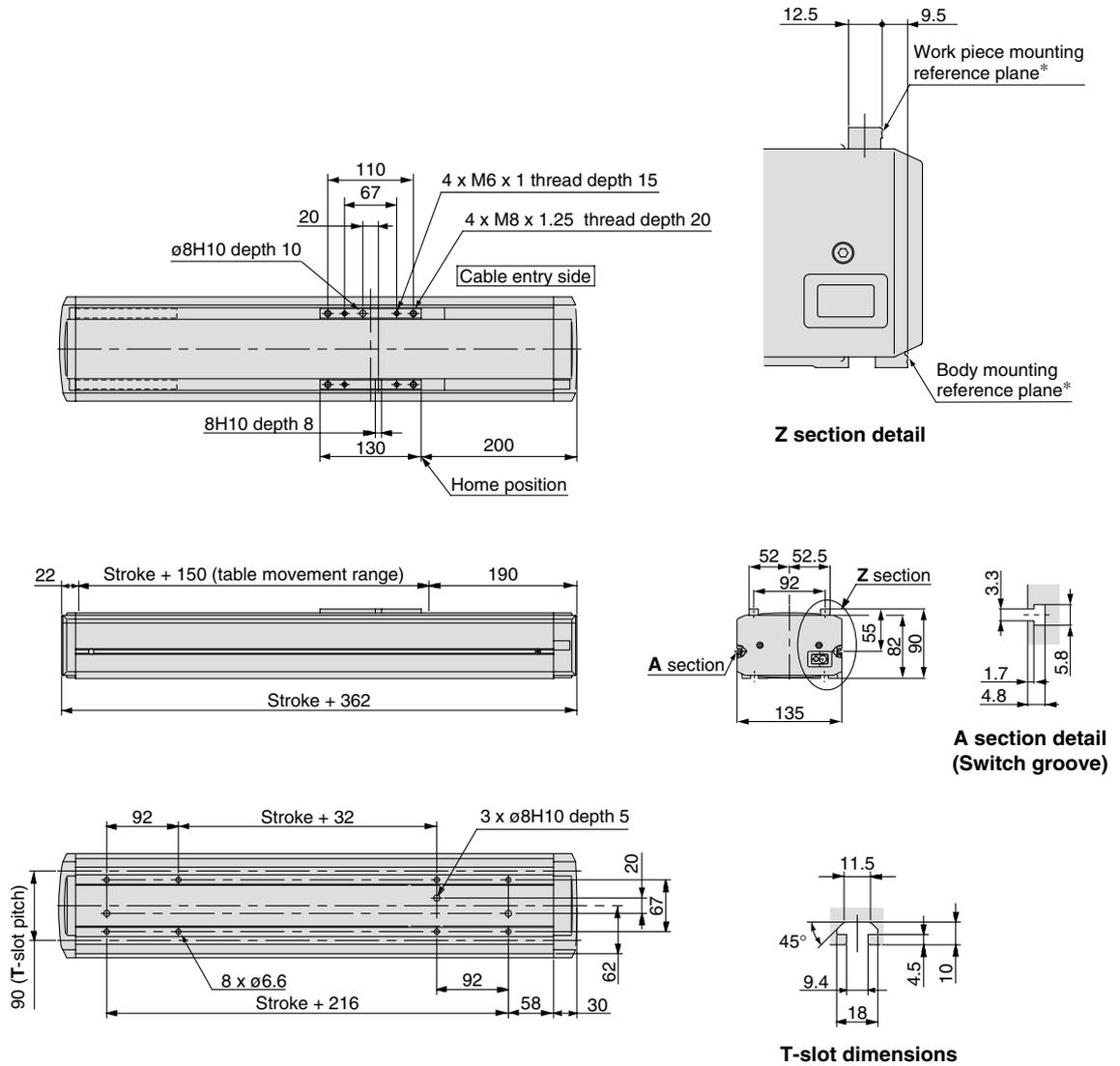
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H20□PA, LJ1H208□PA

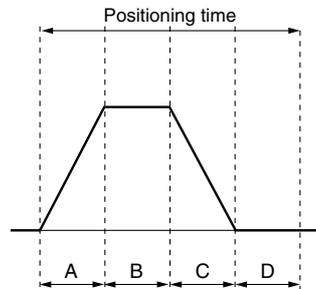


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

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/s²

Standard Motor Horizontal Mount Series *LJ1H20*

Motor Output
100 W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
Ø 15 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.

CE marking

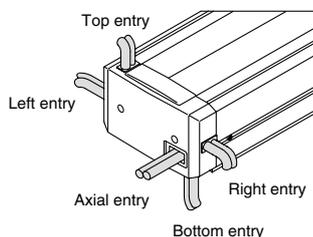
Nil	—
Q	CE marked products

Cable length

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

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction



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.)				

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

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

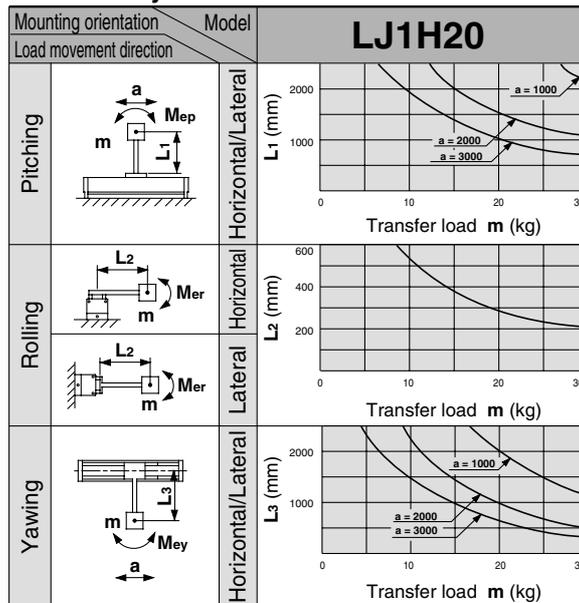
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

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

Allowable dynamic moment

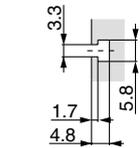
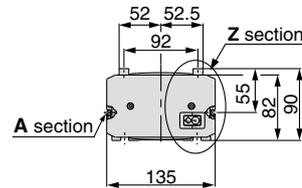
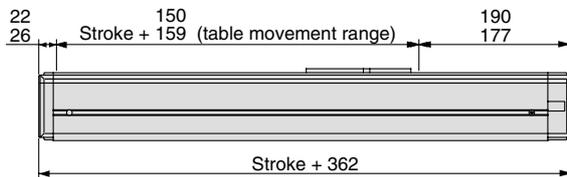
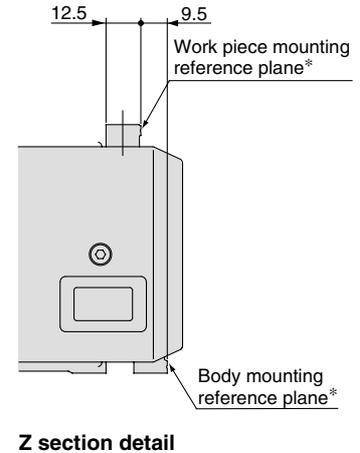
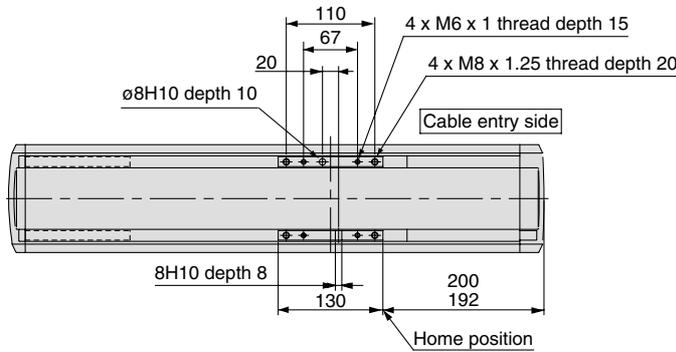


Refer to page 670 for deflection data.

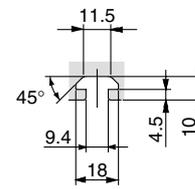
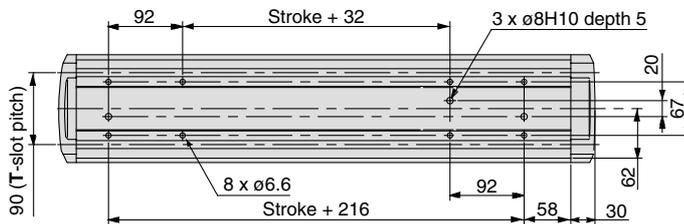
Series LJ1H20

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.



A section detail (Switch groove)



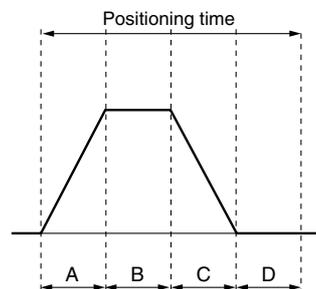
T-slot dimensions

* 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

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-□□
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	Power supply: 200/220 (V)AC ±10% Compatible controller: LC1-1B2H2-□□
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
Ø **15** 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.

CE marking

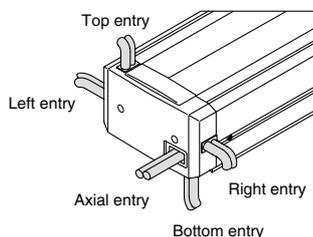
Nil	—
Q	CE marked products

Cable length

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

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction



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

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

Series LJ1H20

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

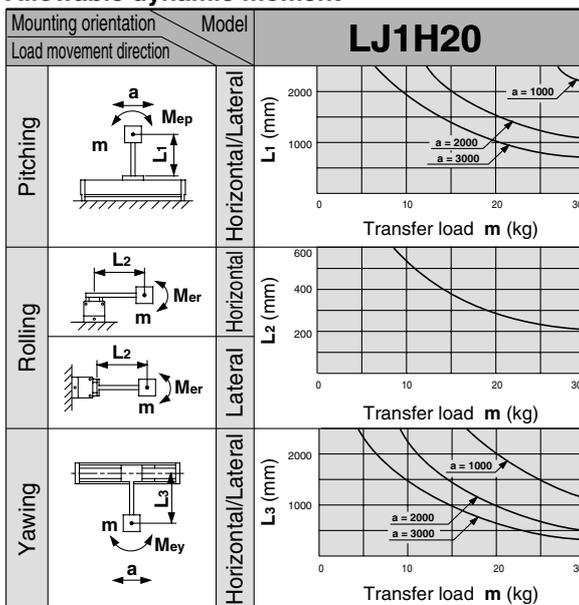
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

M_e : Dynamic moment

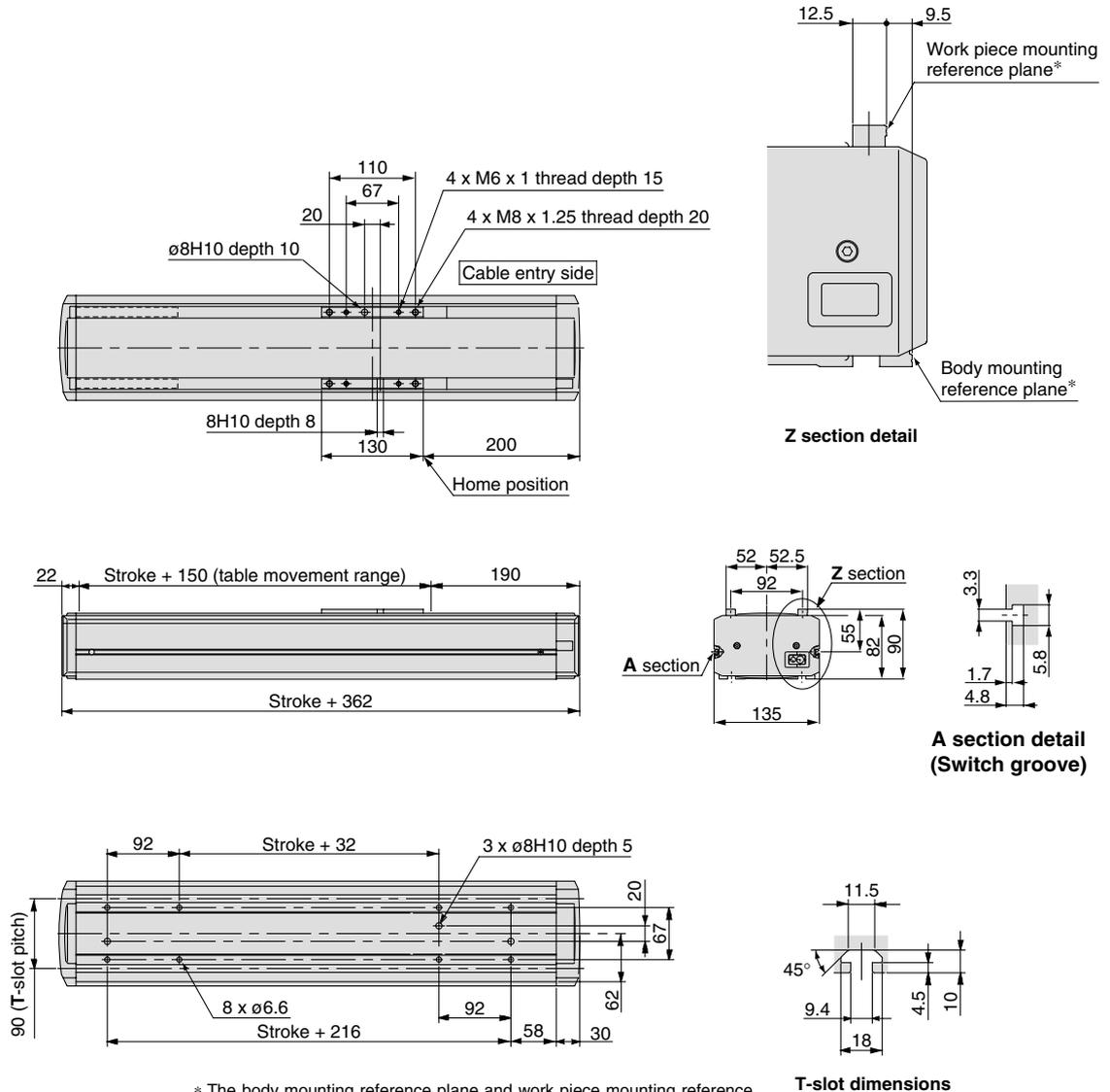
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H20□NA, LJ1H208□NA

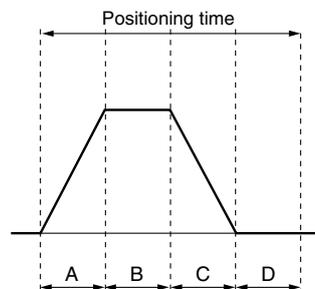


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

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/s²

Standard Motor Horizontal Mount Series *LJ1H20*

Motor Output
100 W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
Ø 15 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.

CE marking

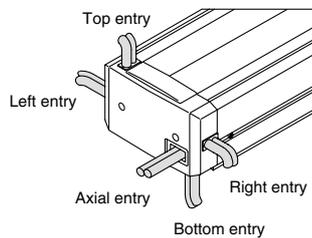
Nil	—
Q	CE marked products

Cable length

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

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction



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.)				

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

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

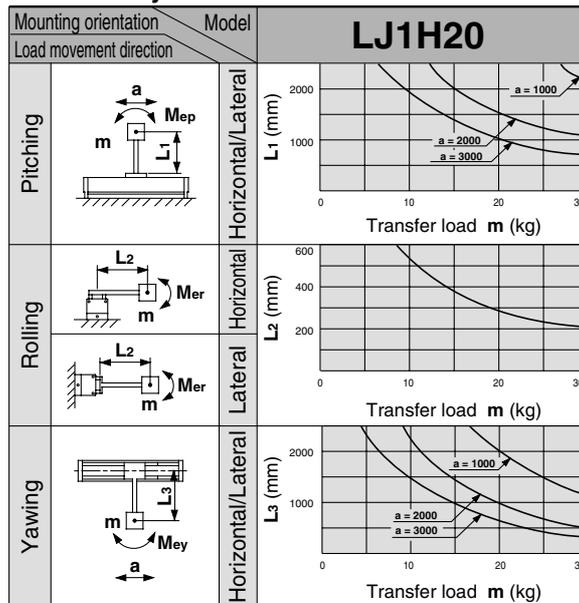
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

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

Allowable dynamic moment

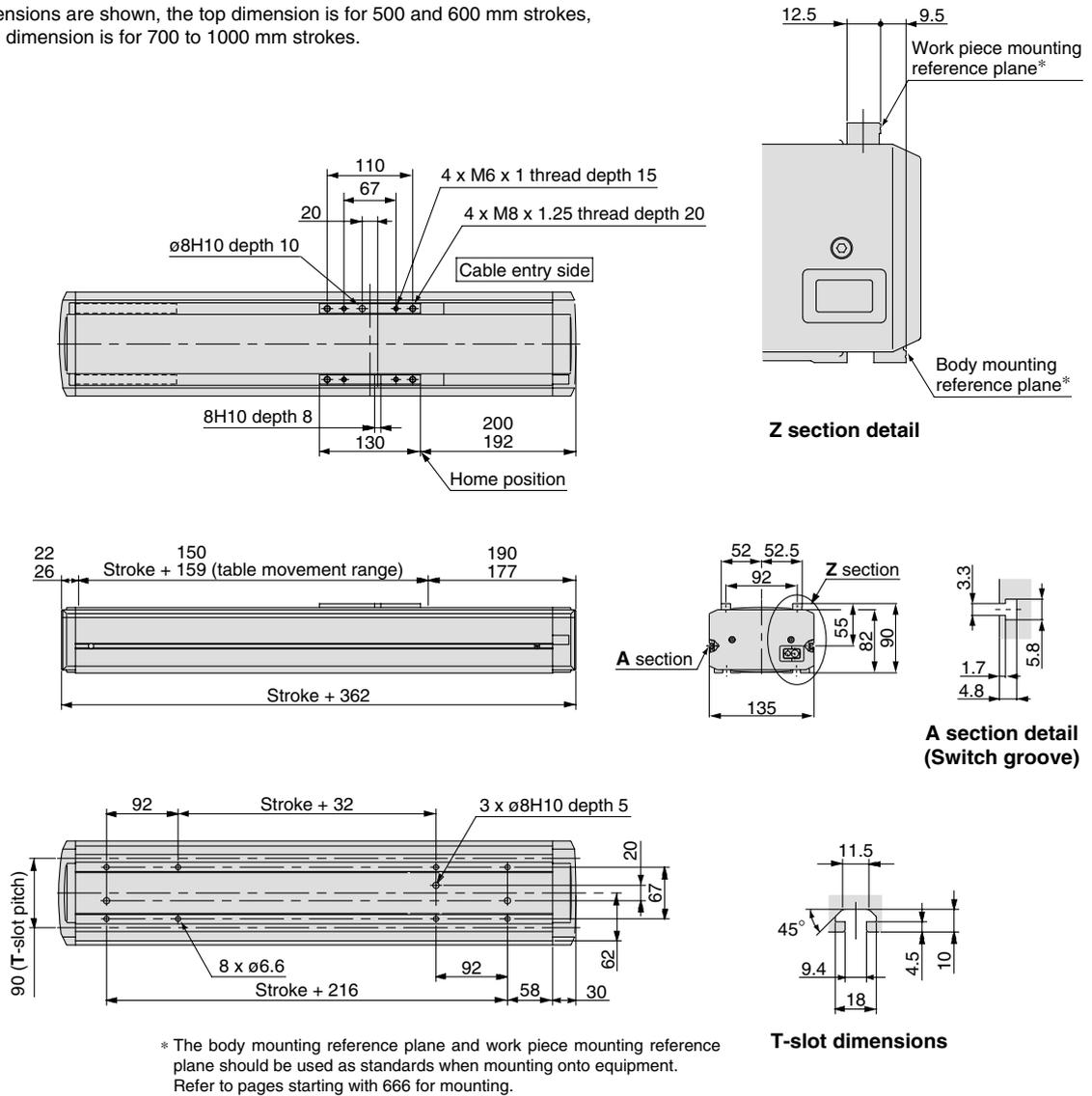


Refer to page 670 for deflection data.

Series LJ1H20

Dimensions/LJ1H20□NC, LJ1H208□NC

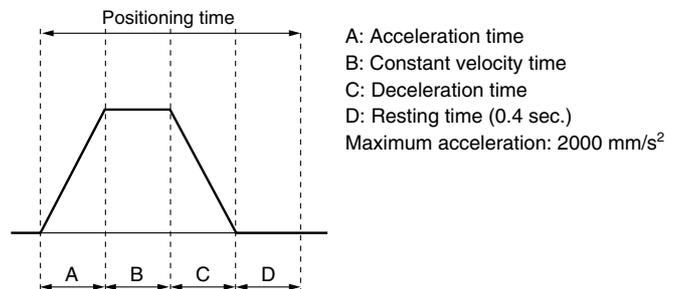
When two dimensions are shown, the top dimension is for 500 and 600 mm strokes, and the bottom dimension is for 700 to 1000 mm strokes.



Positioning Time Guide

		Positioning time (sec.)				
		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.



Maximum Speeds for Each Transfer Load

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-□□
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	Power supply: 200/220 (V)AC ±10% Compatible controller: LC1-1B2H2-□□
LJ1H20□□NC-1000-□□	500	500	500	500	

Unit (mm/s)

Standard Motor Horizontal Mount Series *LJ1H20*

Motor Output
100 W

High Rigidity
Direct Acting
Guide

Slide Screw
Ø20 mm/20 mm lead

How to Order

LC1 controller compatible

LJ1H20 **21** **SC** - **300** - **F** **2**

LC8 controller compatible

LJ1H208 **21** **SC** - **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.

CE marking

Nil	—
Q	CE marked products

Cable length

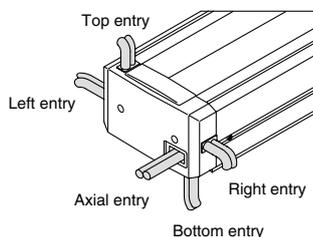
2	2 m
3	3 m
4	4 m
5	5 m

Stroke (mm)

Refer to page 516 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction



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

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Series LJ1H20

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000	1200
Performance	Body mass (kg)	9.0	10.0	11.1	12.2	13.3	14.3	15.3	17.2	19.1	20.6	24.7
	Operating temperature range (°C)	5 to 40 (No condensation)										
	Work load (kg)	15										
	Maximum speed (mm/s)	500										
	Positioning repeatability (mm)	±0.1										
Main parts	Motor	AC servomotor (100 W)										
	Encoder	Incremental system										
	Lead screw	Slide screw ø20 mm, 20 mm lead										
	Guide	High rigidity direct acting guide										
	Motor/Screw connection	With coupling										
Controller	Model	LC1	LC1-1B2M□-□□ (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 above, add “-X2” at the end of the part number.
 Applicable strokes: 150, 250, 350, 450, 550, 650, 750, 850, 950

Example 1) LJ1H2021SC-150-F2-X2

Example 2) LJ1H20821SC-150-F2-X2-Q

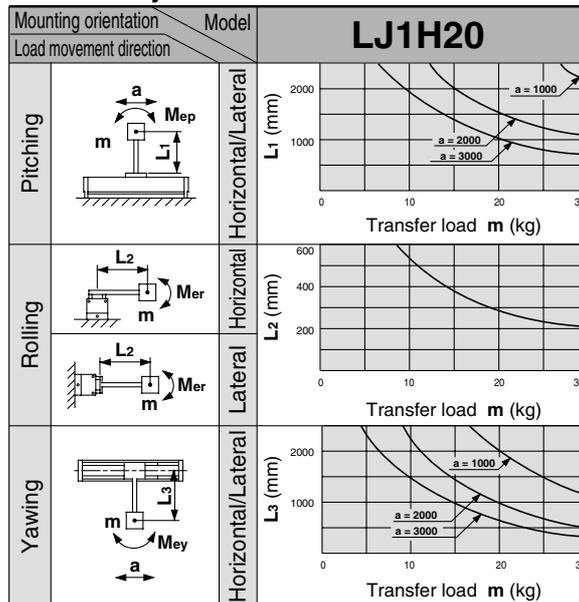
Allowable Moment (N·m)

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)

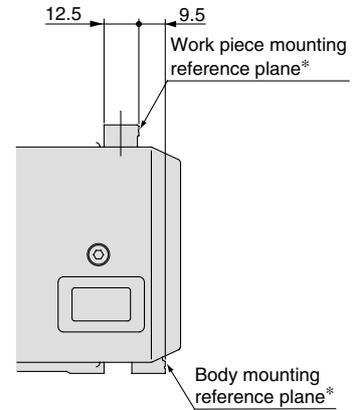
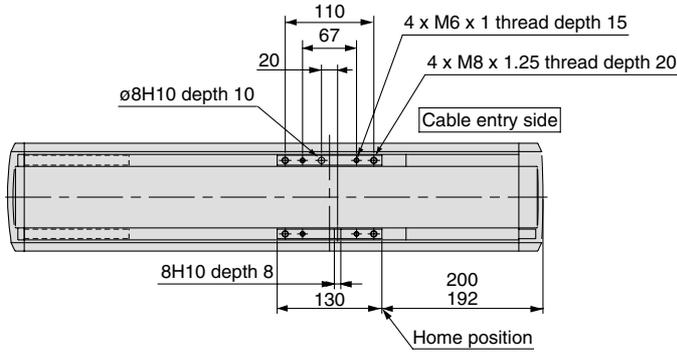
Allowable dynamic moment



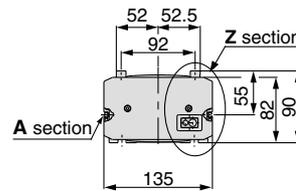
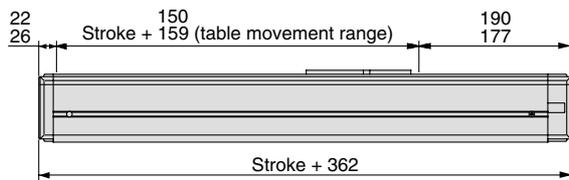
Refer to page 670 for deflection data.

Dimensions/LJ1H20□SC, LJ1H208□SC

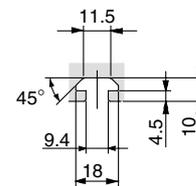
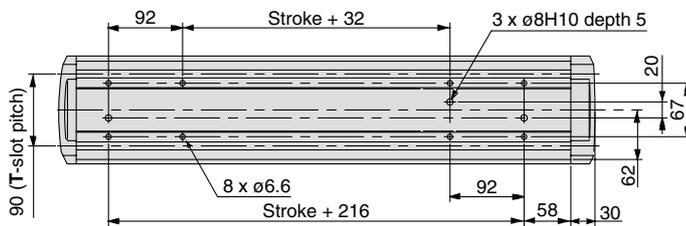
When two dimensions are shown, the top dimension is for 100 to 600 mm strokes, and the bottom dimension is for 700 to 1200 mm strokes.



Z section detail



A section detail (Switch groove)



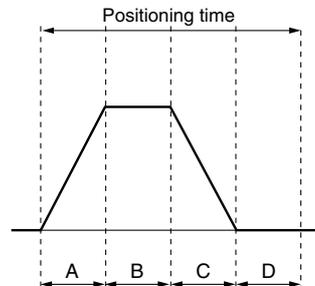
T-slot dimensions

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

* Values will vary slightly depending on the operating conditions.



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

Standard Motor Horizontal Mount Series *LJ1H30*

Motor Output
200 W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
Ø **25** 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
	200 VAC (50/60 Hz)	LC1
32*	200/230 VAC (50/60 Hz)	LC8

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

CE marking

Nil	—
Q	CE marked products

Cable length

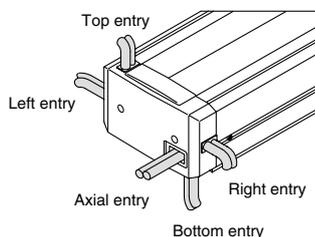
2	2 m
3	3 m
4	4 m
5	5 m

Stroke (mm)

Refer to page 519 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction



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**

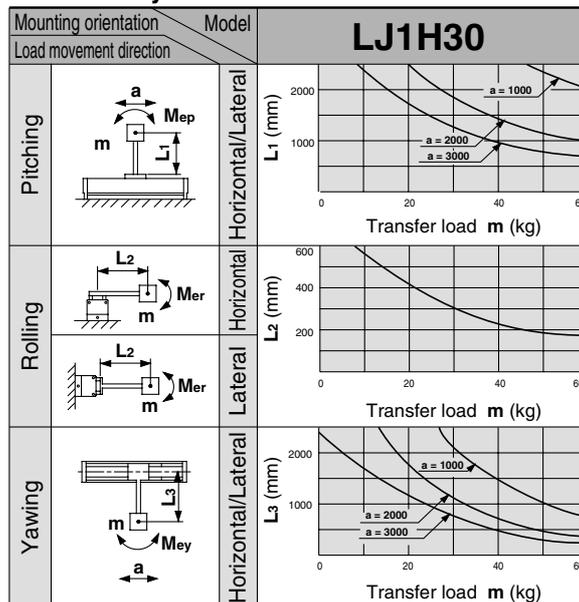
Allowable Moment (N·m)

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)

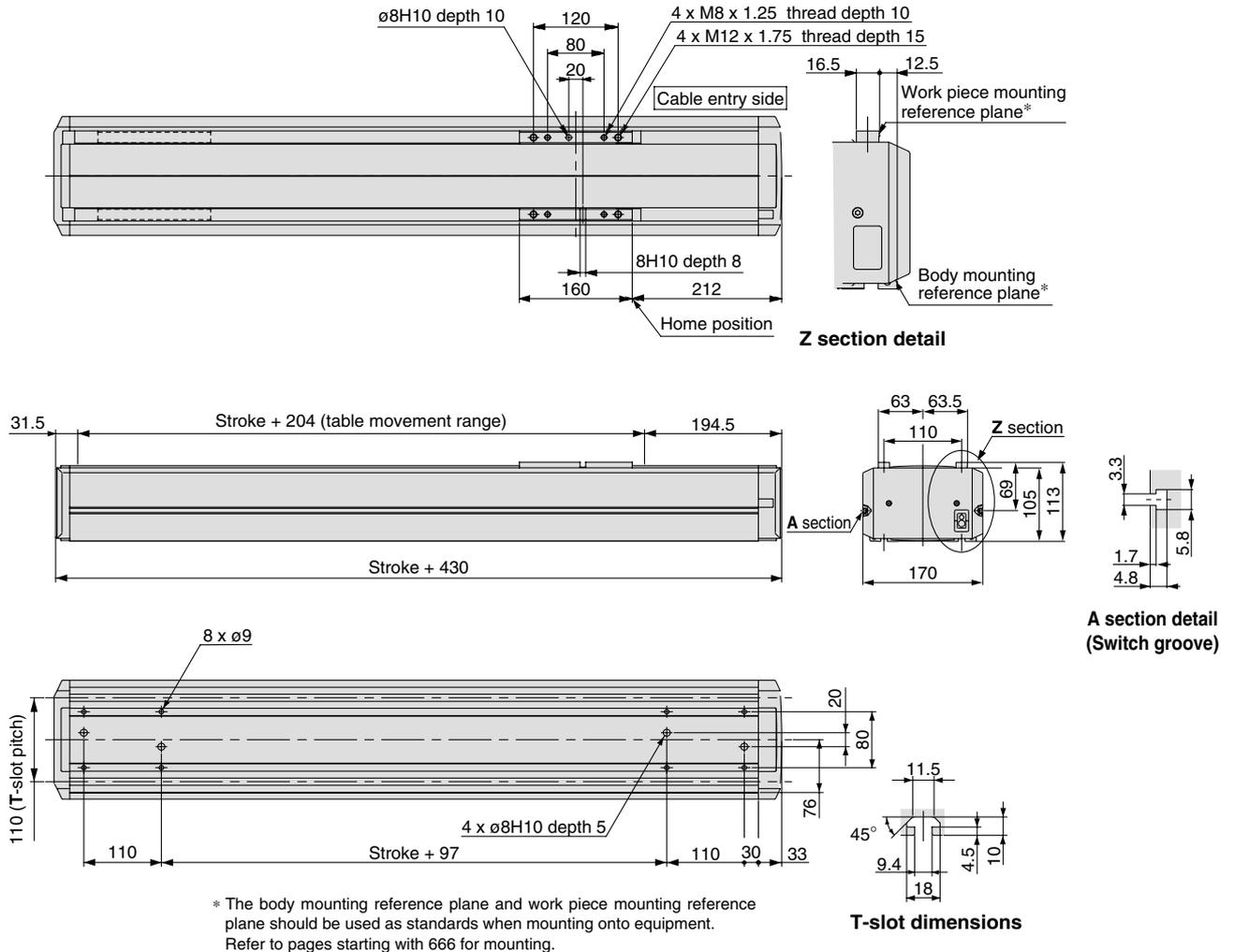
Allowable dynamic moment



Refer to page 670 for deflection data.

Series LJ1H30

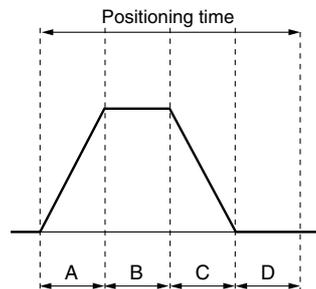
Dimensions/LJ1H30□PD, LJ1H308□PD



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

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
	200 VAC (50/60 Hz)	LC1
32*	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.

CE marking

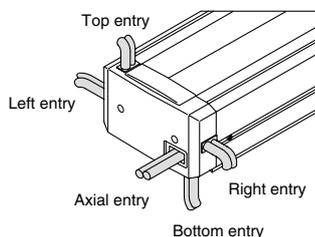
Nil	—
Q	CE marked products

Cable length

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

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction



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

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

Series LJ1H30

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) <small>Note)</small>	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

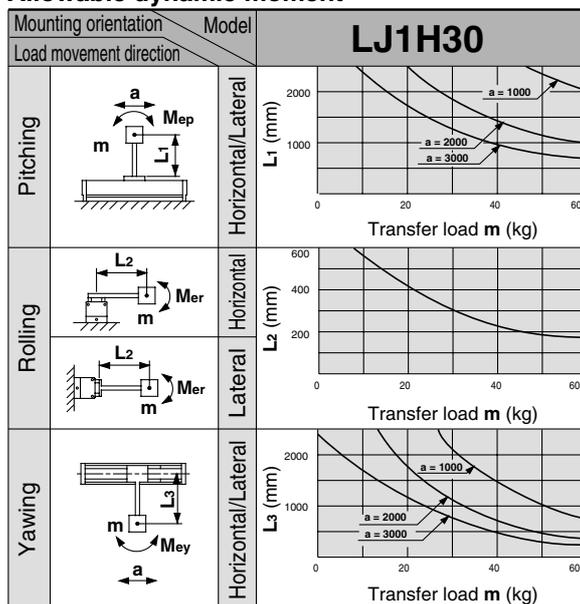
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

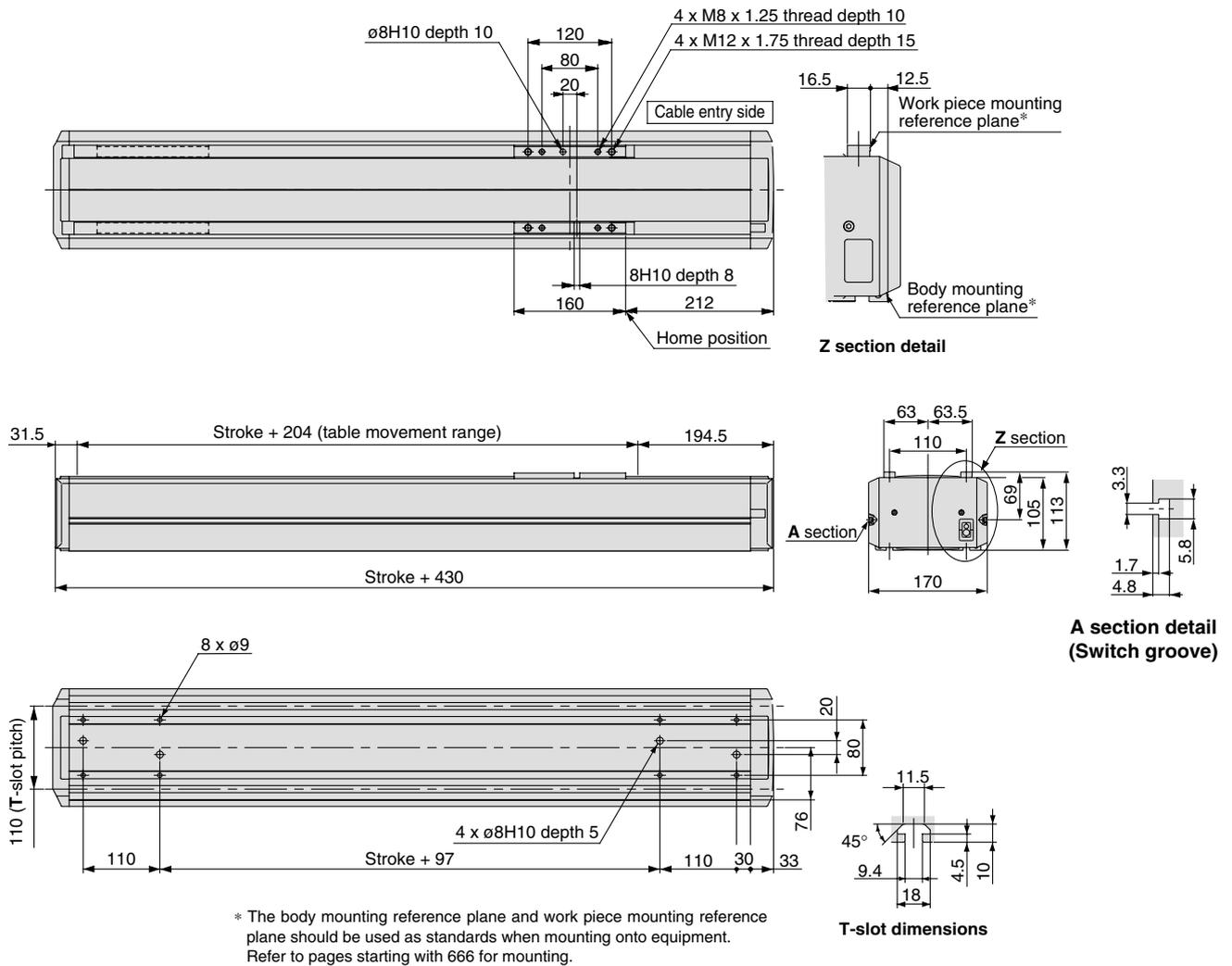
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

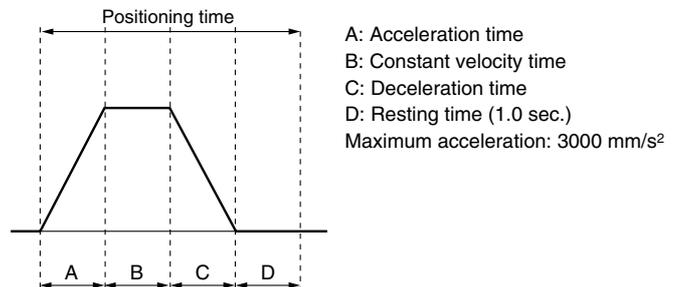
Dimensions/LJ1H30□ND, LJ1H308□ND



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.



Maximum Speeds for Each Transfer Load

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 Horizontal Mount

Motor Output
200 W

High Rigidity
Direct Acting
Guide

Slide Screw
Ø 30 mm/40 mm lead

Series LJ1H30

How to Order

LC1 controller compatible

LJ1H30 **31** **SE** - **300** - **F** **2**

LC8 controller compatible

LJ1H308 **31** **SE** - **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.

CE marking

Nil	—
Q	CE marked products

Cable length

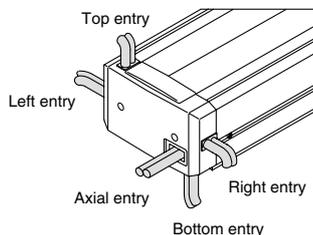
2	2 m
3	3 m
4	4 m
5	5 m

Stroke (mm)

Refer to page 525 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction



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

Symbol	Specifications
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)	14.9	17.0	19.0	21.1	23.2	27.3	31.5	35.6	41.9
	Operating temperature range (°C)	5 to 40 (No condensation)								
	Work load (kg)	30								
	Maximum speed (mm/s)	500								
	Positioning repeatability (mm)	±0.1								
Main parts	Motor	AC servomotor (200 W)								
	Encoder	Incremental system								
	Lead screw	Slide screw ø30 mm, 40 mm lead								
	Guide	High rigidity direct acting guide								
	Motor/Screw connection	With coupling								
Controller	Model	LC1	LC1-1B3M□-□□ (Refer to page 829 for details.)							
		LC8	LC8-B3H□□-□□-□ (Refer to page 853 for details.)							

Intermediate strokes

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

Example 1) **LJ1H3031SE-250-F2-X2**
 Example 2) **LJ1H30831SE-250-F2-X2-Q**

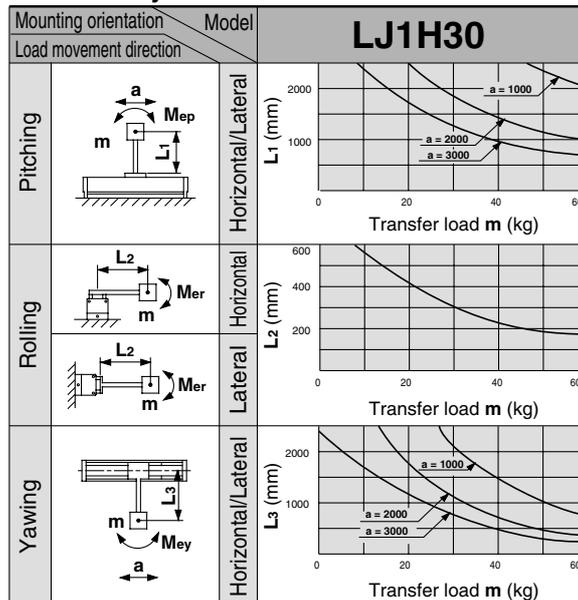
Allowable Moment (N·m)

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)

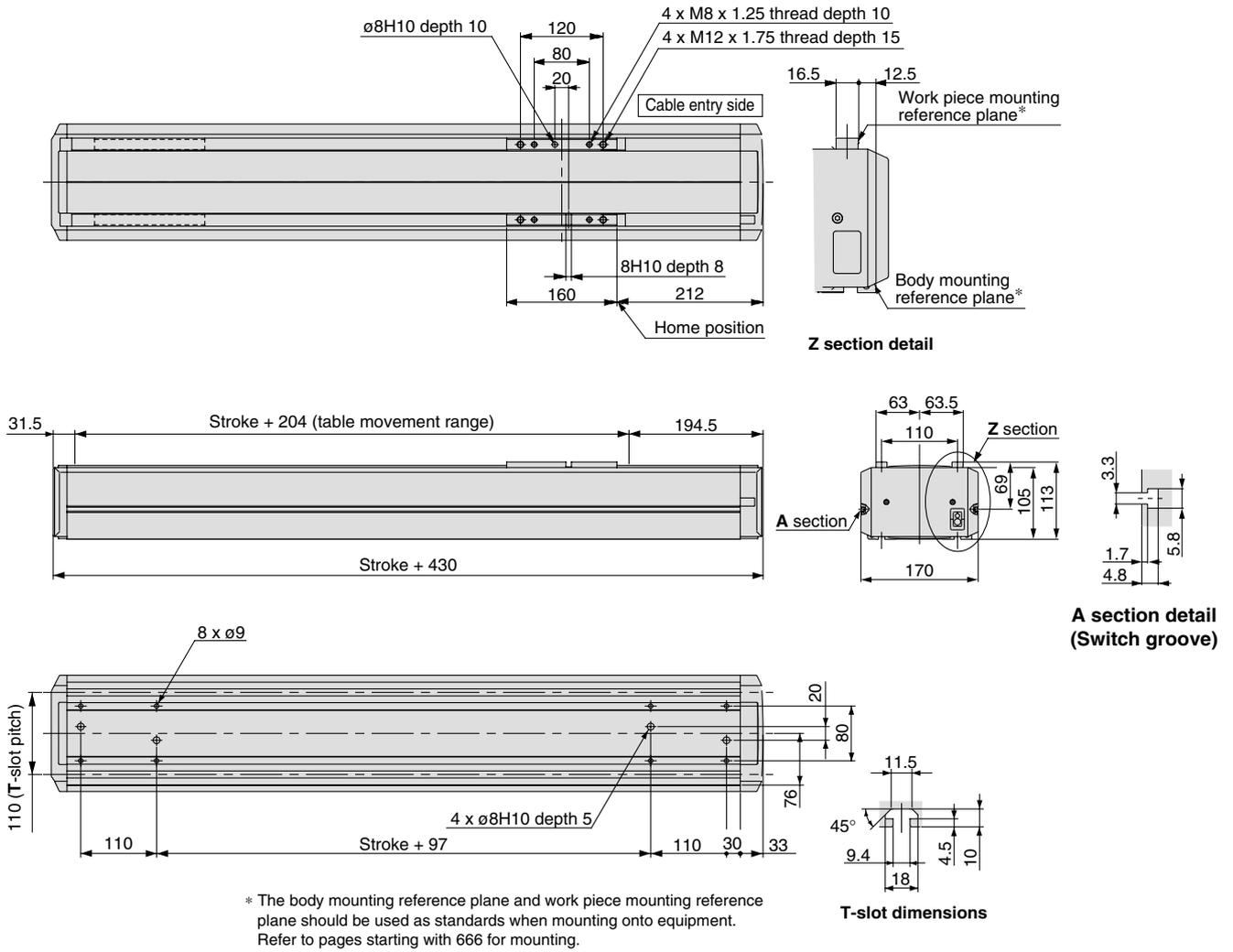
Allowable dynamic moment



Refer to page 670 for deflection data.

Series LJ1H30

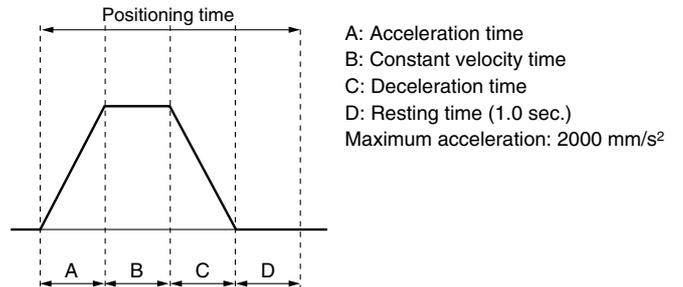
Dimensions/LJ1H30□SE, LJ1H308□SE



Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.



Standard Motor Vertical Mount Series **LJ1H10**

Motor Output
100 W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
∅12 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.

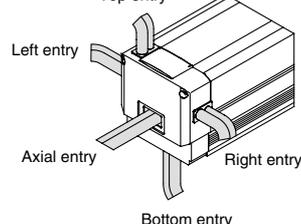
Cable entry direction

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
Top entry



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 ∅12 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 specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

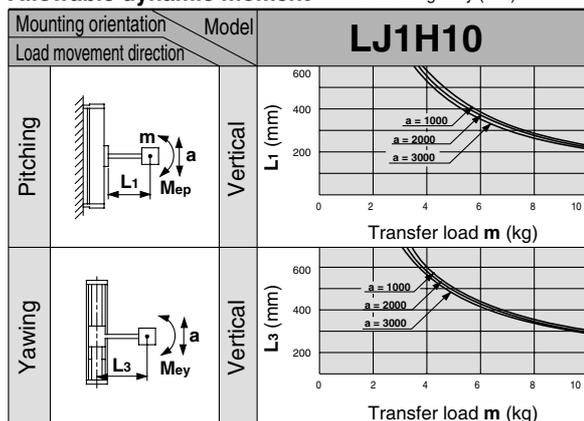
Allowable Moment (N·m)

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

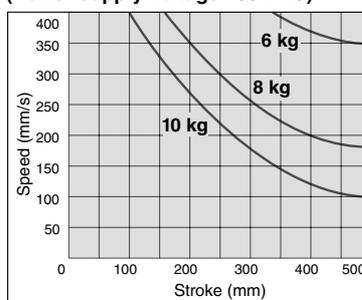


Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

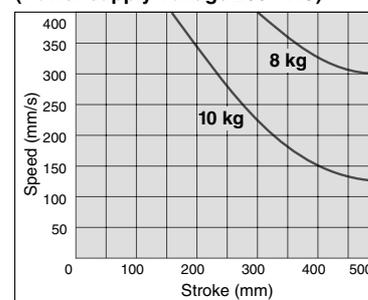
LJ1H1021PH-□□□K

(Power supply voltage 100 VAC)



LJ1H1022PH-□□□K

(Power supply voltage 200 VAC)



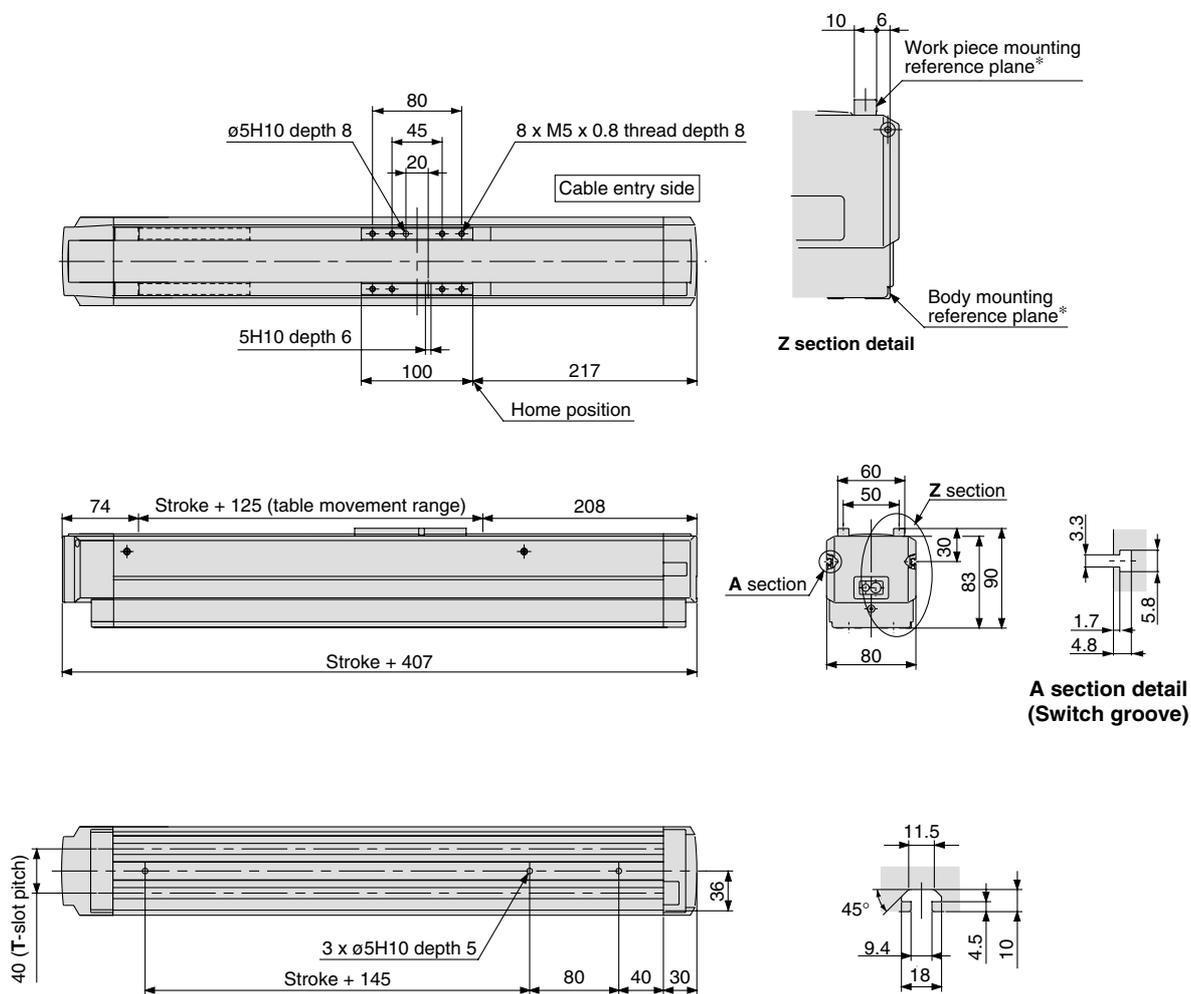
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

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

Refer to page 850 regarding brake wiring.

Series LJ1H10

Dimensions/LJ1H102□PH

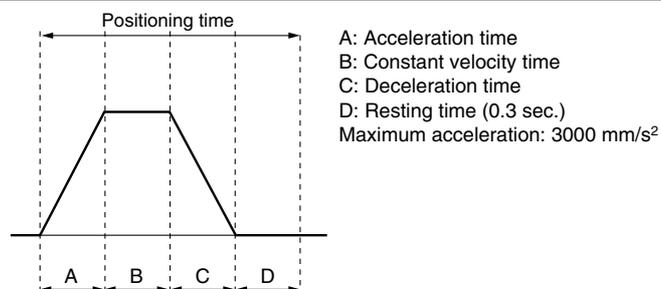


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		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.



Standard Motor Vertical Mount Series LJ1H10

Motor Output
100 W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
∅ 12 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.

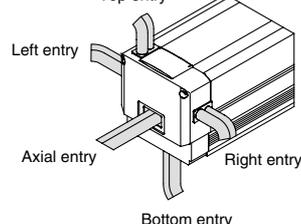
Cable entry direction

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
Top entry



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 ∅12 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 specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

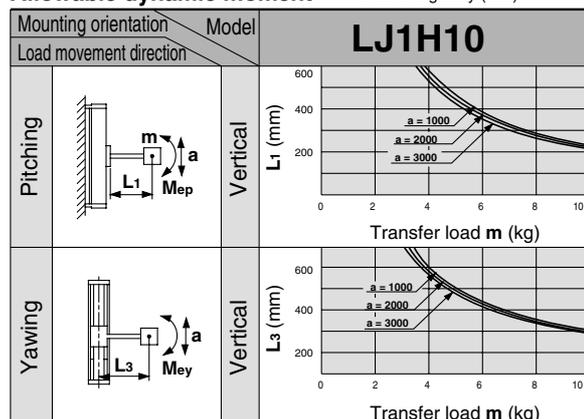
Allowable Moment (N·m)

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.

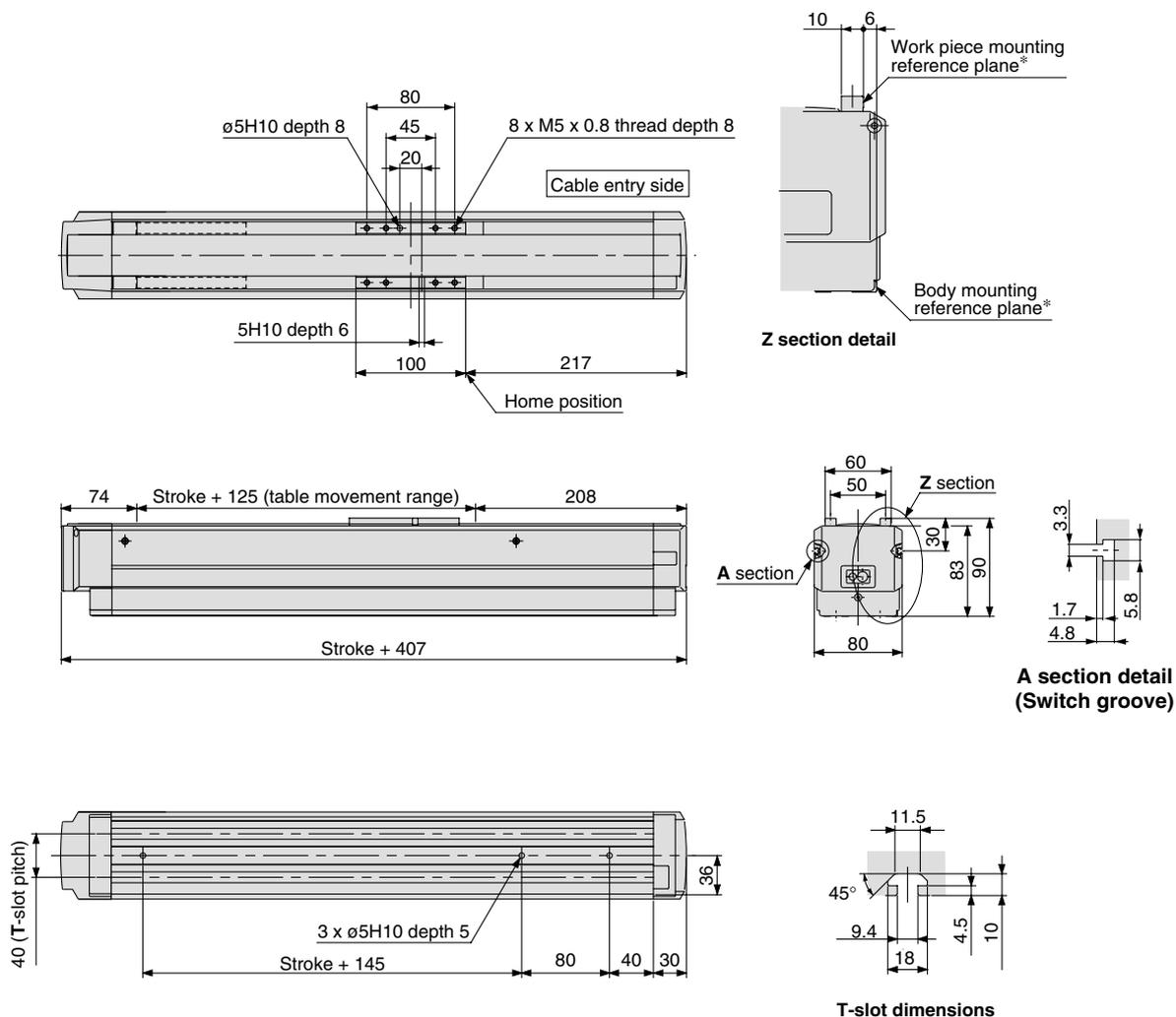
Actuator rating

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

Refer to page 850 regarding brake wiring.

Series LJ1H10

Dimensions/LJ1H102□PB

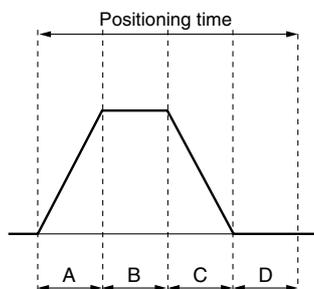


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		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
∅12 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.

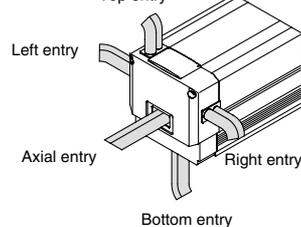
Cable entry direction

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
Top entry



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 ∅12 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 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

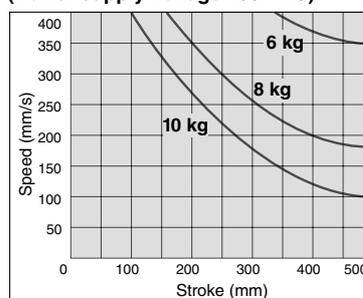
Mounting orientation	Model	Graph
Pitching	LJ1H10	Graph showing L ₁ (mm) vs Transfer load m (kg) for a = 1000, 2000, 3000 mm/s ² .
Yawing	LJ1H10	Graph showing L ₃ (mm) vs Transfer load m (kg) for a = 1000, 2000, 3000 mm/s ² .

Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

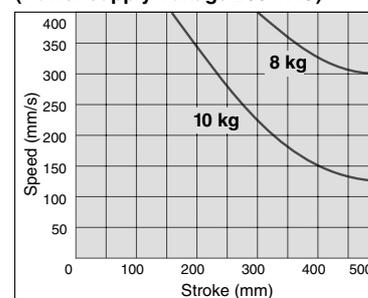
LJ1H1021NH-□□□K

(Power supply voltage 100 VAC)



LJ1H1022NH-□□□K

(Power supply voltage 200 VAC)

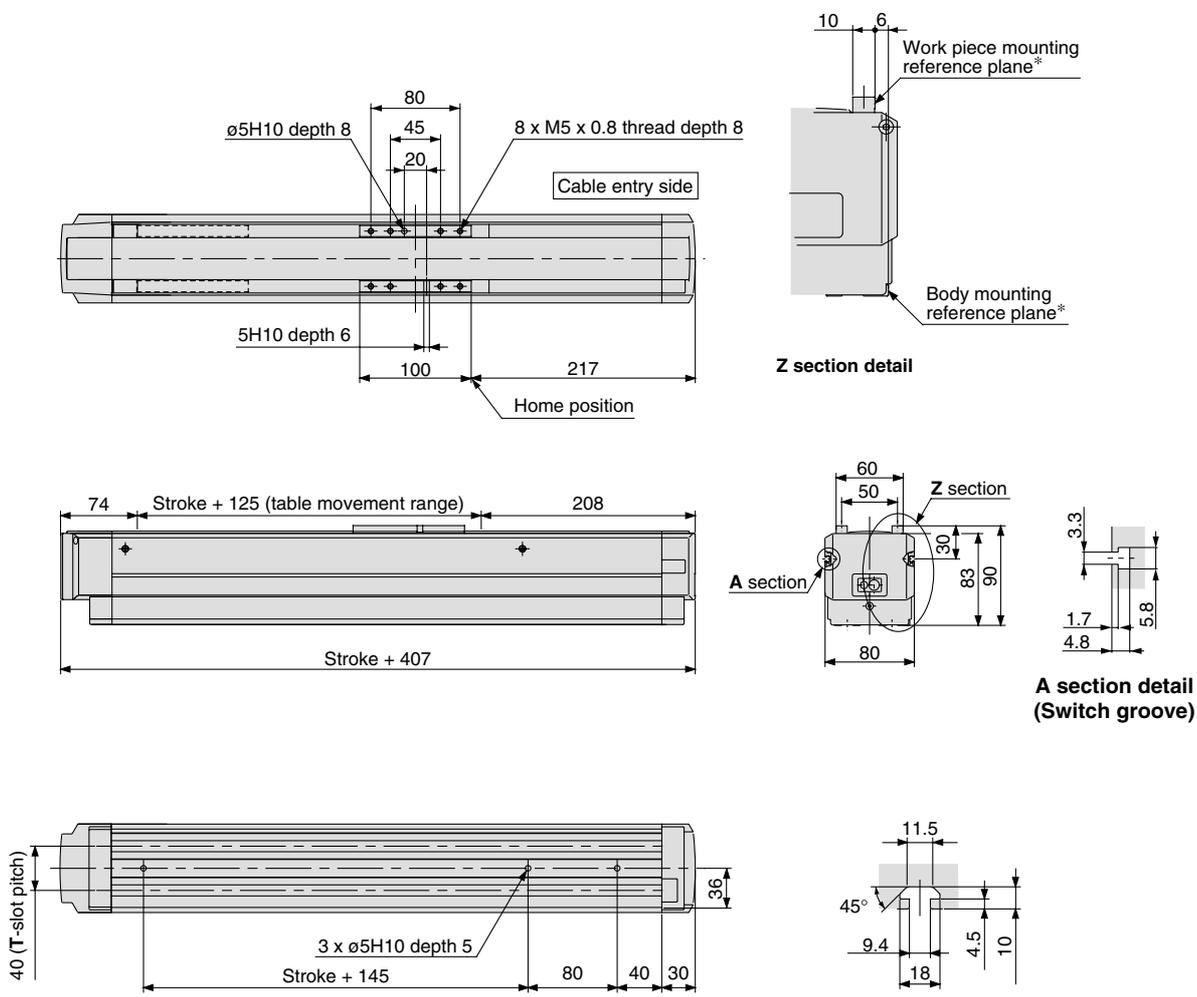


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 846 regarding regenerative absorption units.
Refer to page 850 regarding brake wiring.

Series LJ1H10

Dimensions/LJ1H102□NH

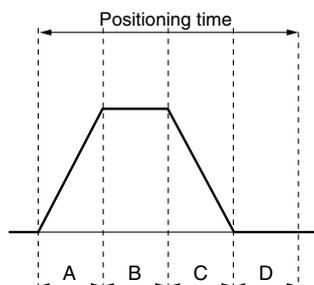


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		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
∅12 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.

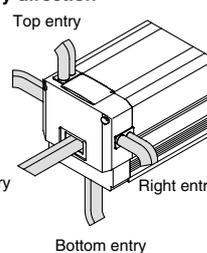
Cable entry direction

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 ∅12 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

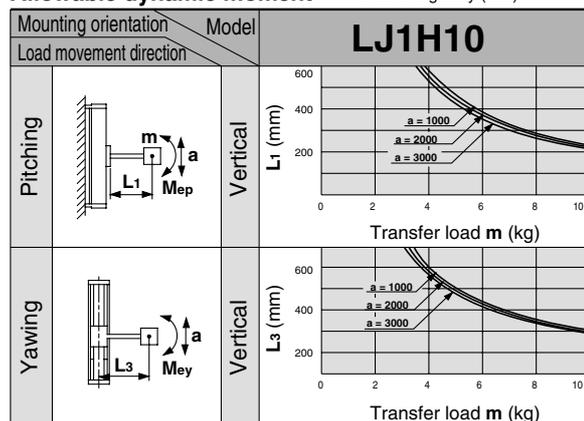
Allowable Moment (N·m)

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.

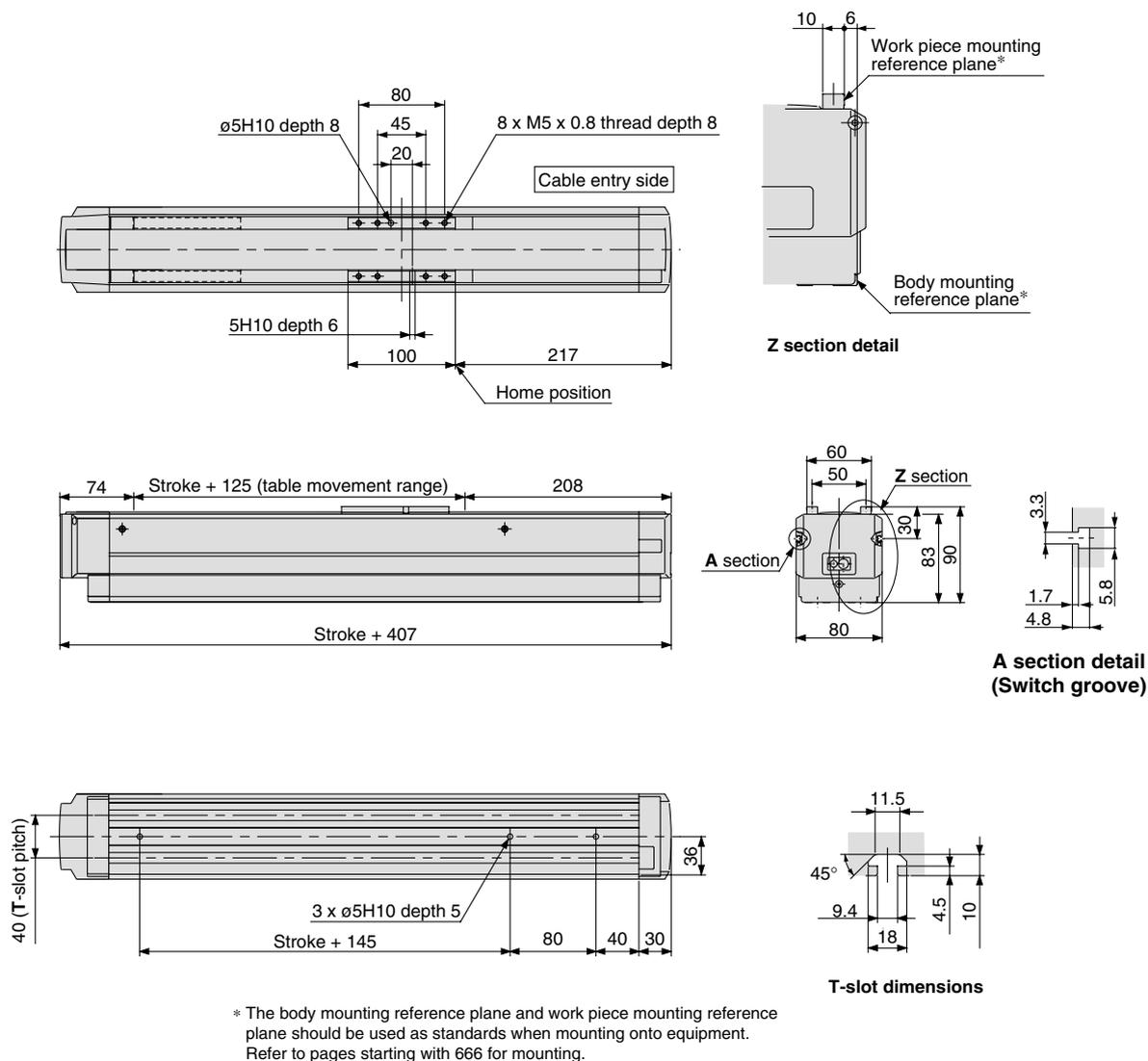
Actuator rating

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

Refer to page 850 regarding brake wiring.

Series LJ1H10

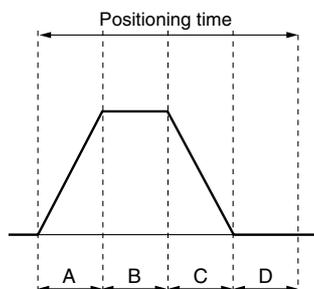
Dimensions/LJ1H102□NB



Positioning Time Guide

		Positioning time (sec.)				
		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
∅15 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.

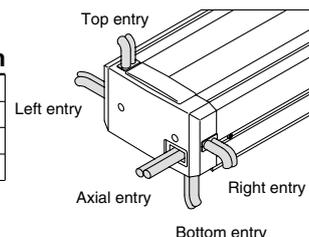
Cable entry direction

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 ∅15 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 specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

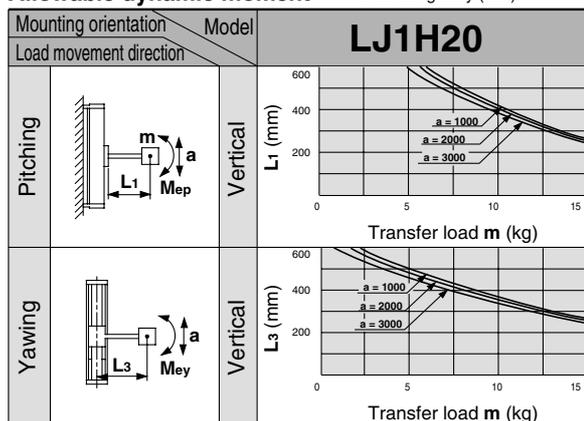
Allowable Moment (N·m)

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)

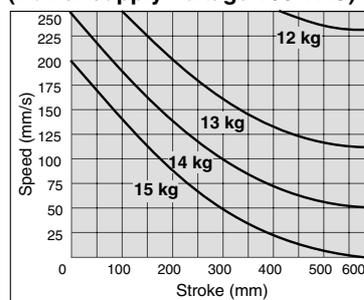
Allowable dynamic moment



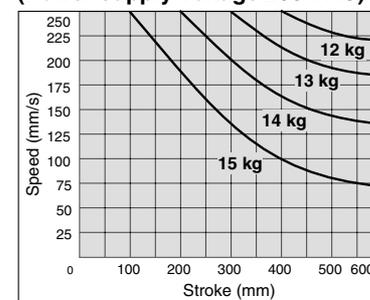
Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

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



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

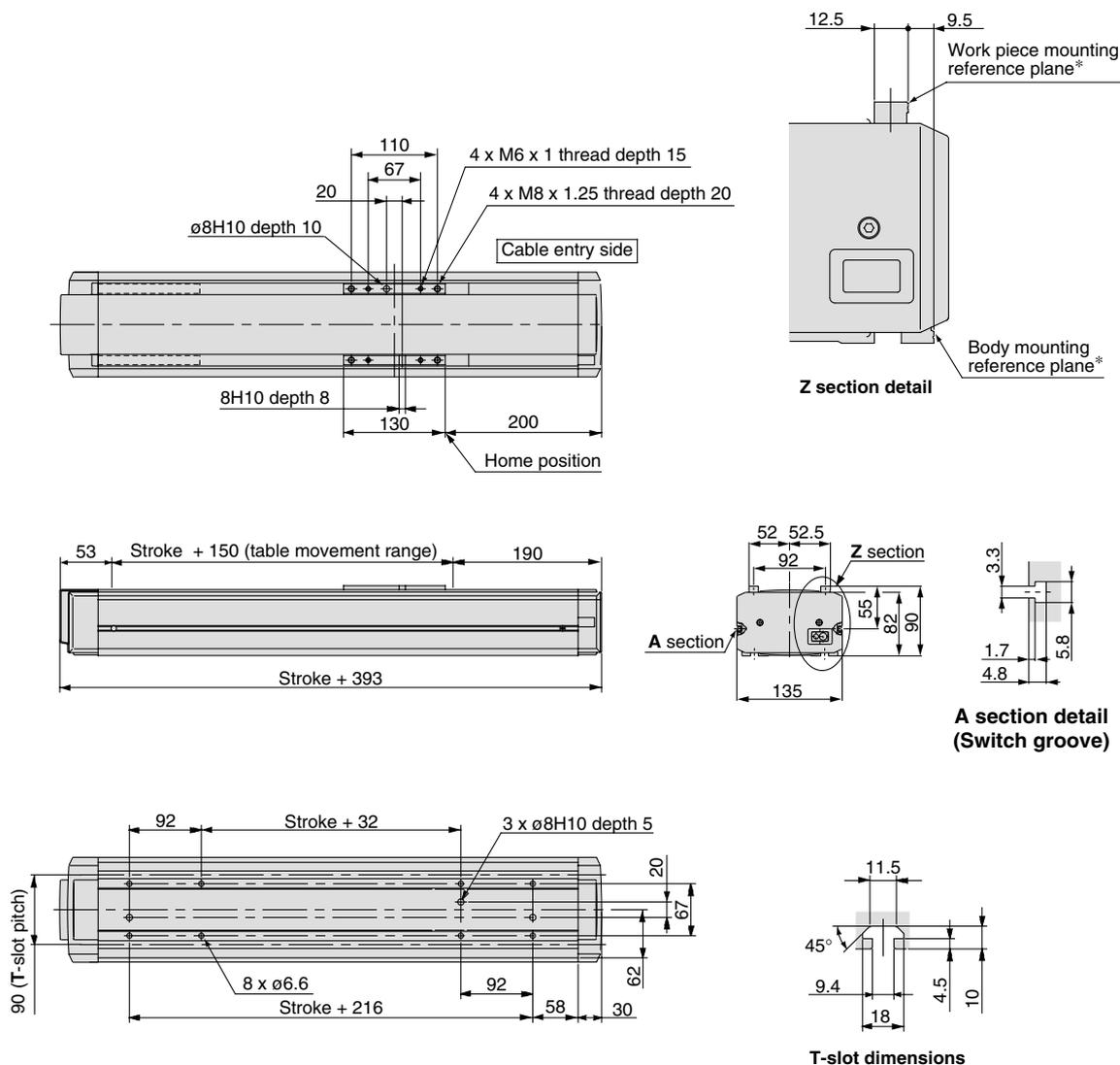


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 846 regarding regenerative absorption units.
Refer to page 850 regarding brake wiring.

Series LJ1H20

Dimensions/LJ1H20□PF

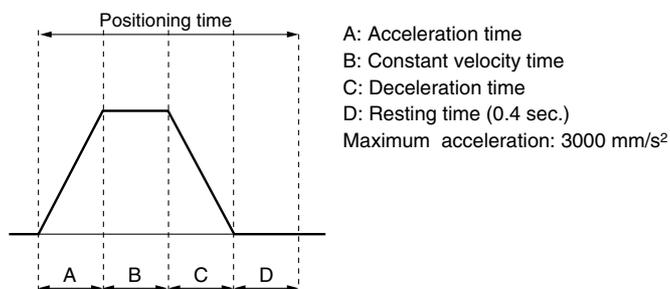


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

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.



Standard Motor Vertical Mount Series LJ1H20

Motor Output
100 W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
∅15 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.

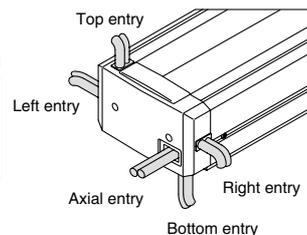
Cable entry direction

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 ∅15 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 specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

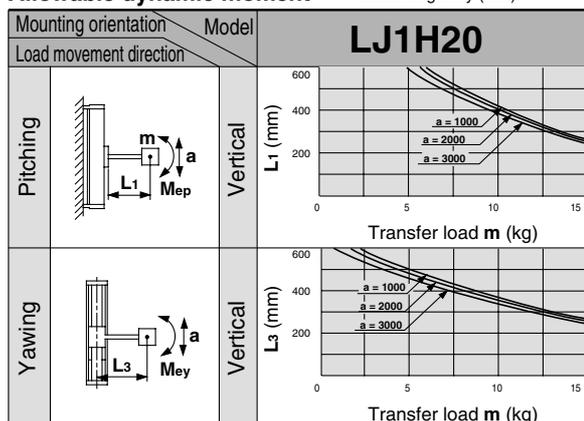
Allowable Moment (N·m)

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

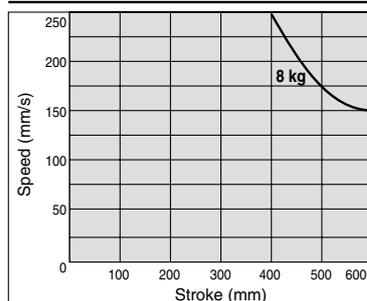
LJ1H2021PA-□□□K (Power supply voltage 100 VAC)

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)



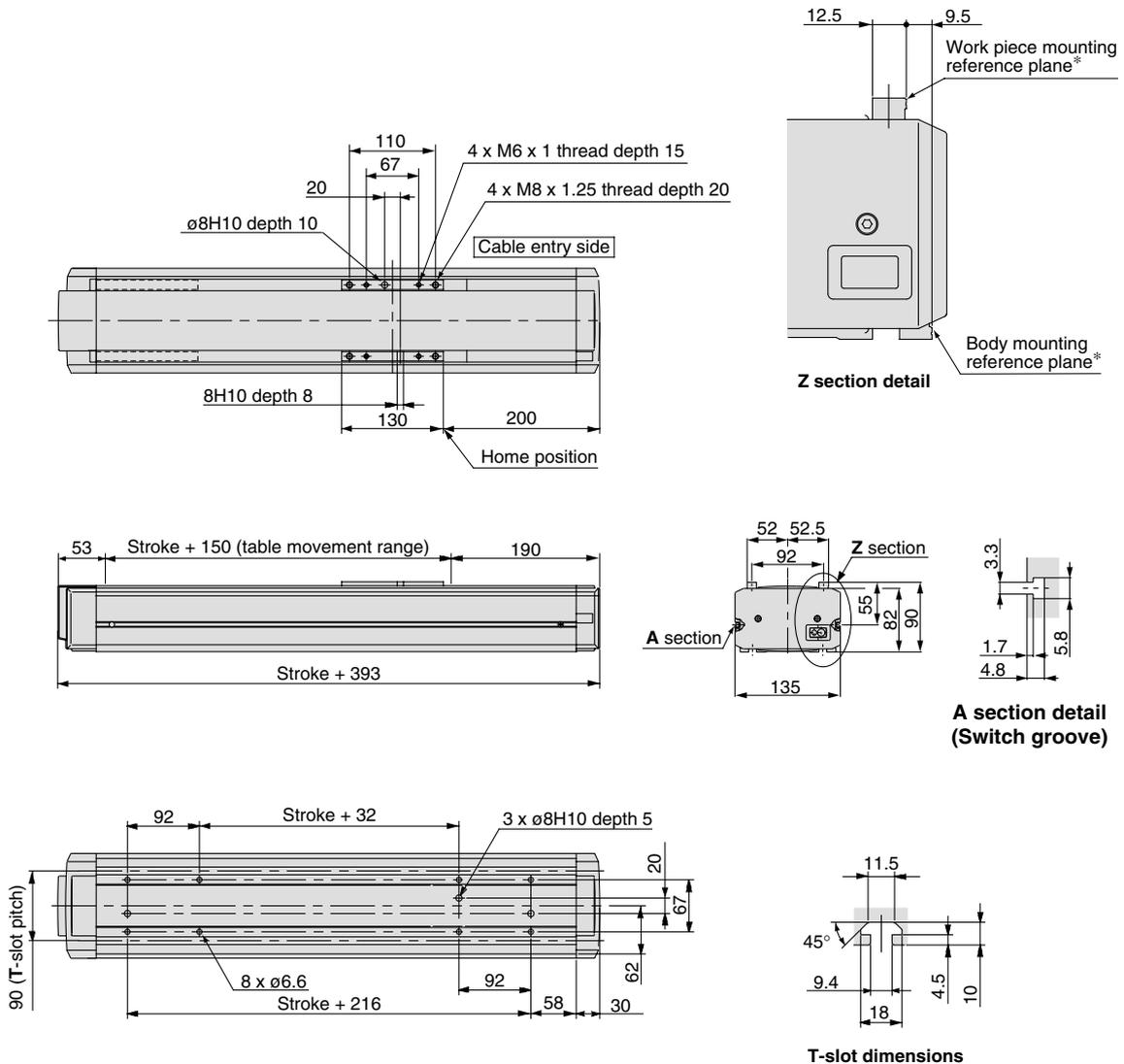
When an actuator is operated under conditions that exceed the lines in the graphs above, be sure to use a regenerative absorption unit.

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

Refer to page 850 regarding brake wiring.

Series LJ1H20

Dimensions/LJ1H20□PA



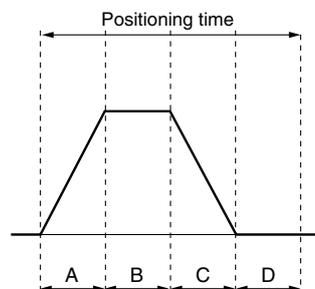
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

T-slot dimensions

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
∅15 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.

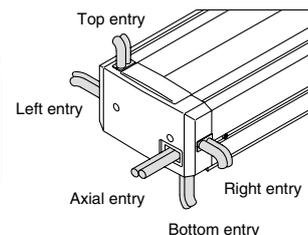
Cable entry direction

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 ∅15 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)

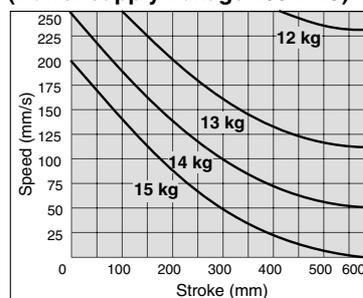
Allowable dynamic moment

Mounting orientation	Model	
		LJ1H20
Pitching	Vertical	
Yawing	Vertical	

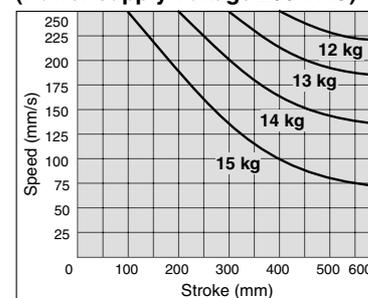
Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

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



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



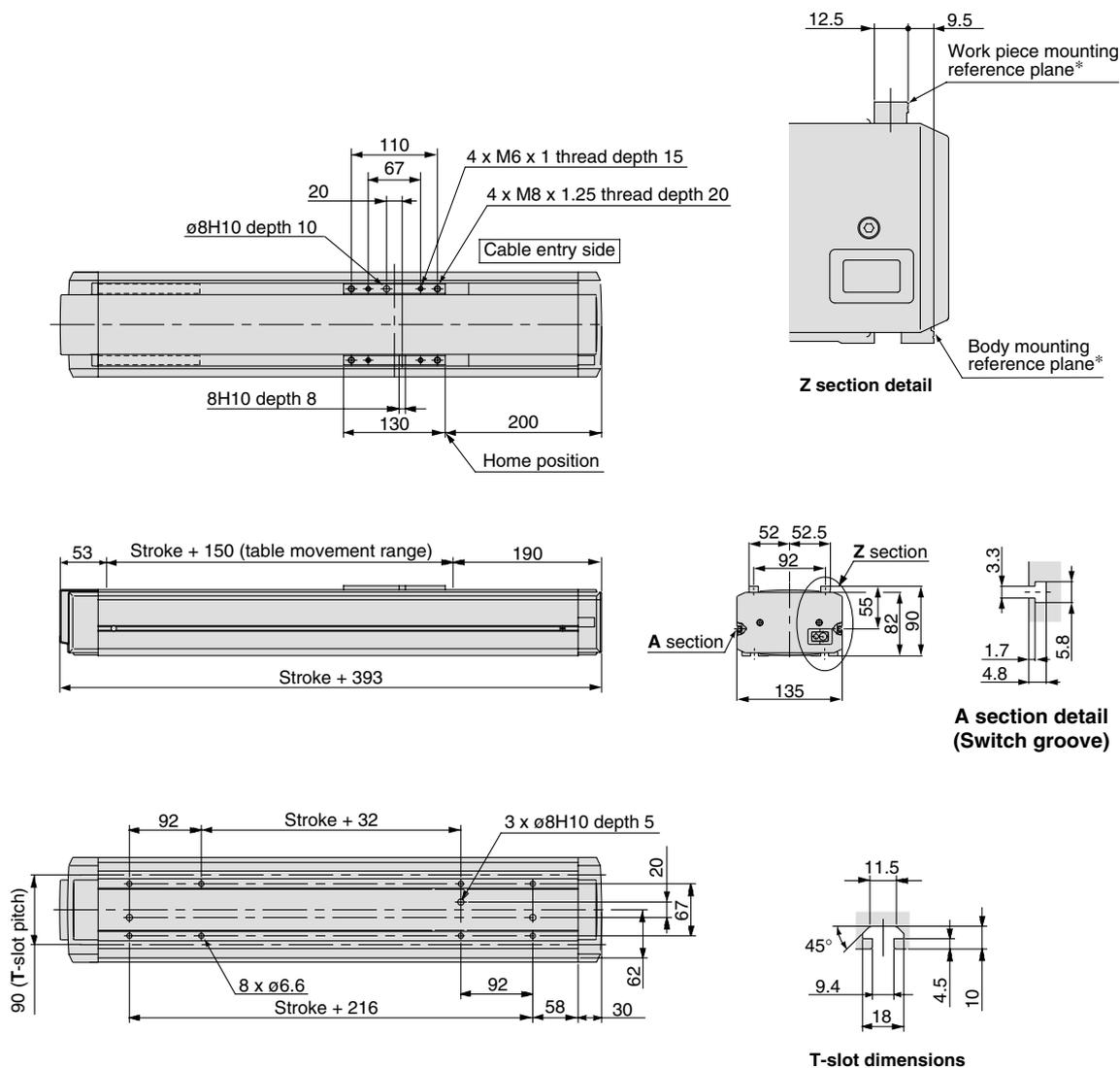
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

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

Refer to page 850 regarding brake wiring.

Series LJ1H20

Dimensions/LJ1H202□NF

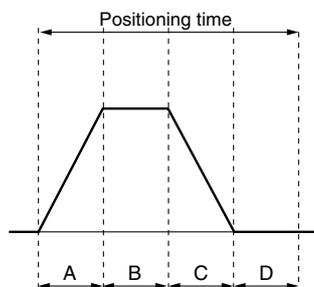


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

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 Series LJ1H20

Motor Output
100 W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
∅15 mm/10 mm lead

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.

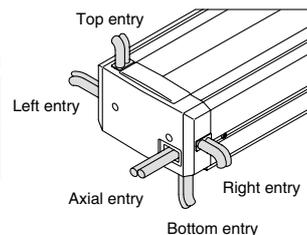
Cable entry direction

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 ∅15 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 specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

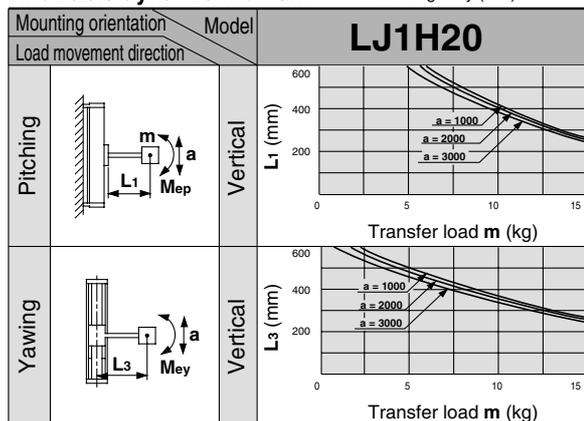
Allowable Moment (N·m)

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

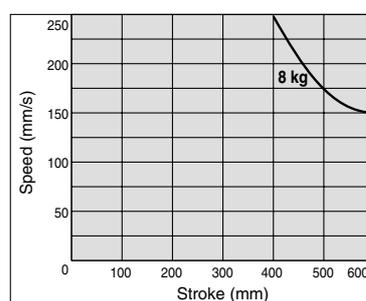
LJ1H2021NA-□□□K (Power supply voltage 100 VAC)

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

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



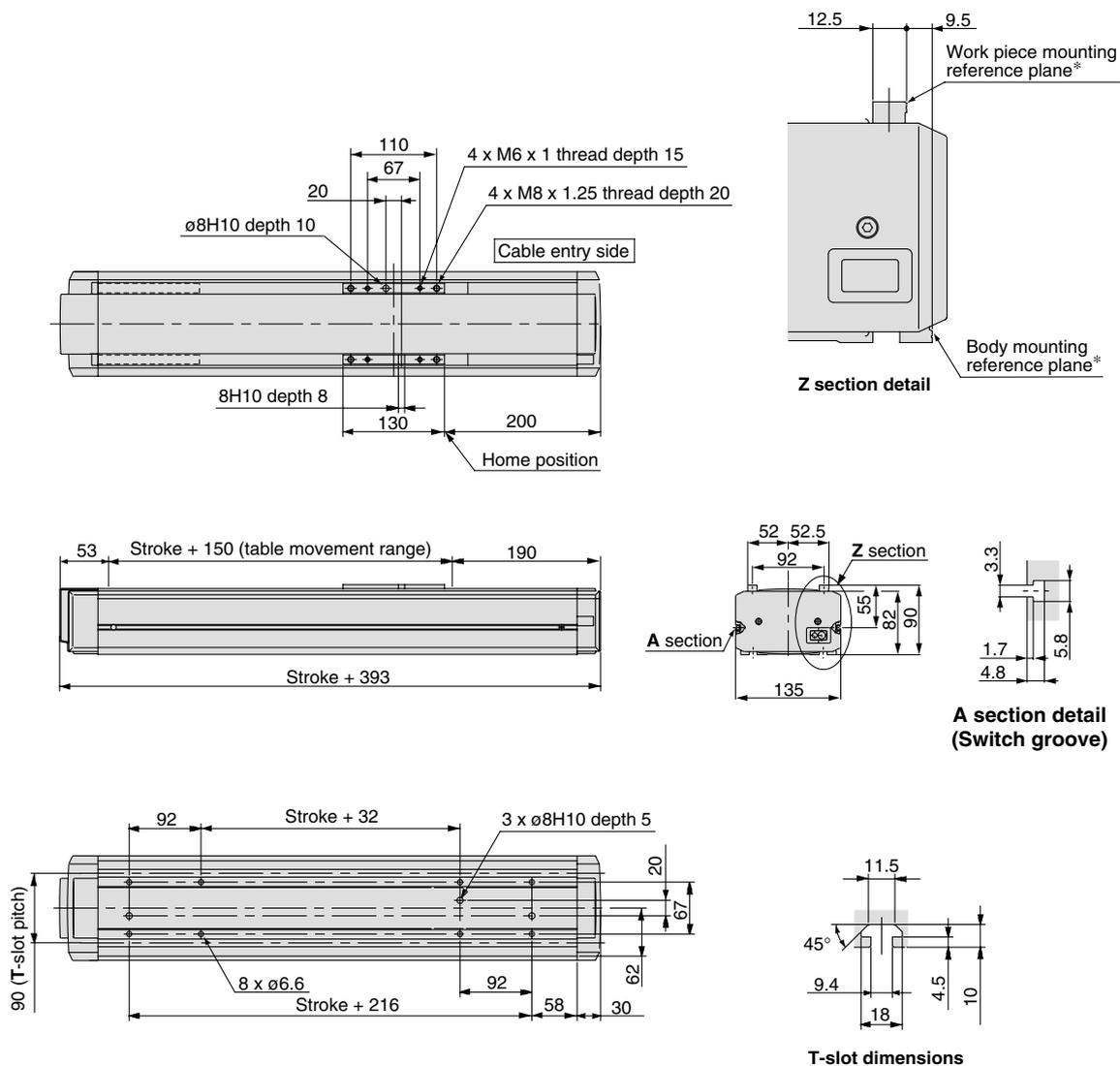
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

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

Refer to page 850 regarding brake wiring.

Series LJ1H20

Dimensions/LJ1H202□NA

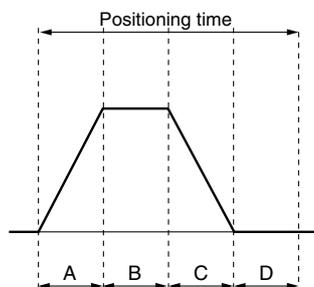


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		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
∅20 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.

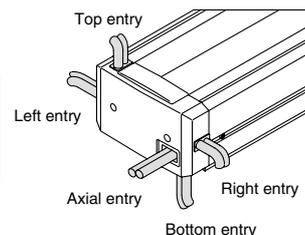
Cable entry direction

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 ∅20 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)

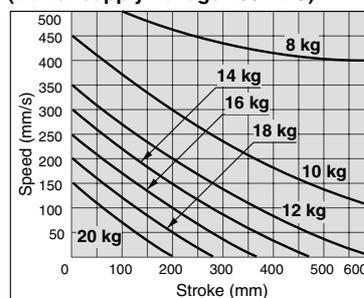
Allowable dynamic moment

Mounting orientation	Model	Graph
Pitching	LJ1H30	
Yawing	LJ1H30	

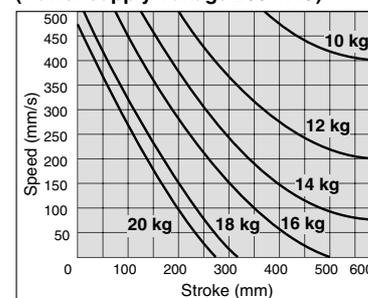
Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

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



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

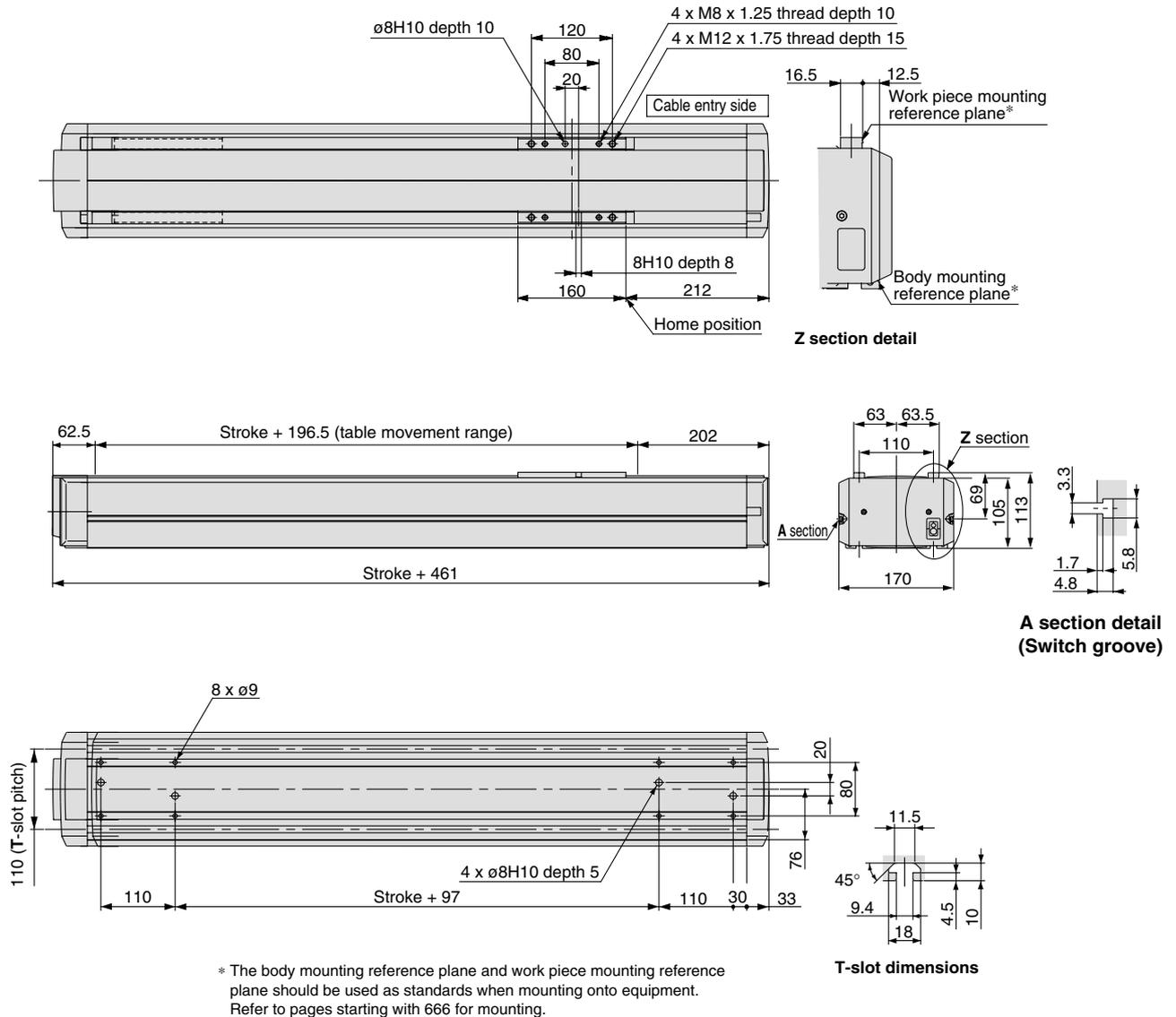


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 846 regarding regenerative absorption units.
Refer to page 850 regarding brake wiring.

Series LJ1H30

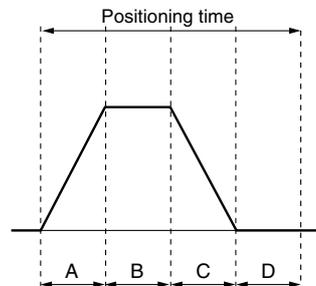
Dimensions/LJ1H303□PA



Positioning Time Guide

		Positioning time (sec.)				
		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
∅20 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.

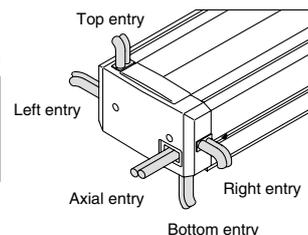
Cable entry direction

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 ∅20 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)

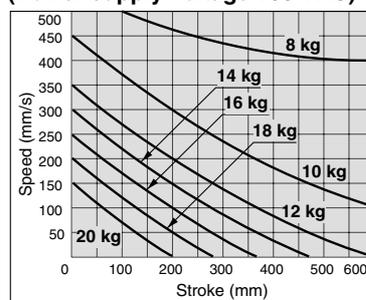
Allowable dynamic moment

Mounting orientation	Model	
Pitching	LJ1H30	
Yawing	LJ1H30	

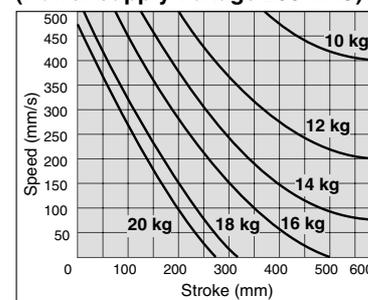
Refer to page 670 for deflection data.

Regenerative Absorption Unit Selection Guide

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



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

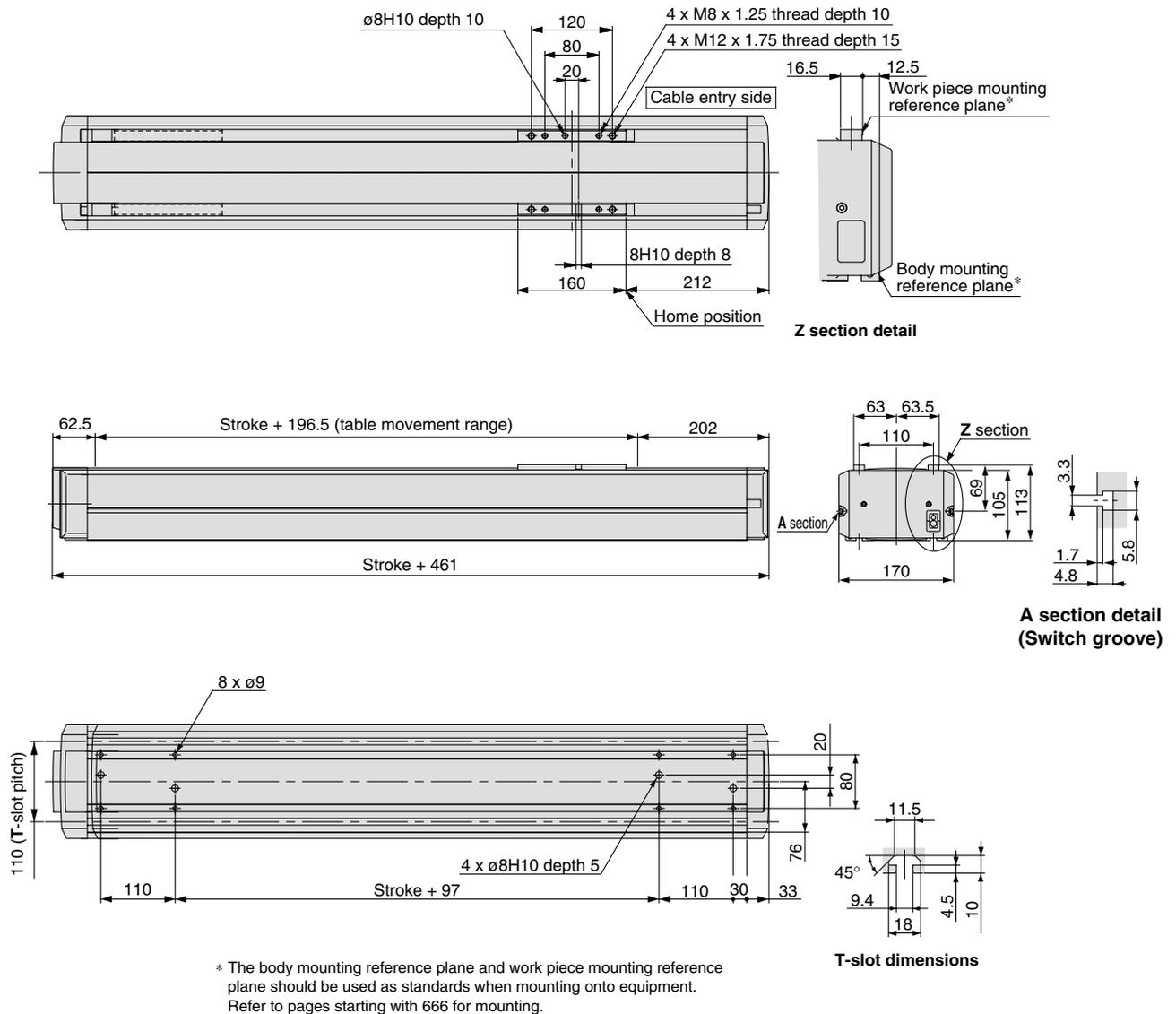


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 846 regarding regenerative absorption units.
Refer to page 850 regarding brake wiring.

Series LJ1H30

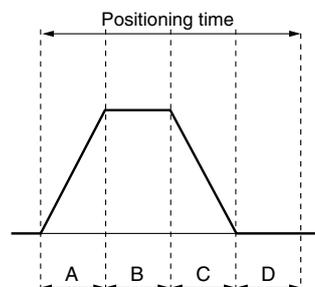
Dimensions/LJ1H30□NA



Positioning Time Guide

		Positioning time (sec.)				
		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
∅ 12 mm/12 mm lead

How to Order

LJ1H10 R11 PB - 300 - F W - X10

Stroke (mm) •

Refer to page 548 for details.

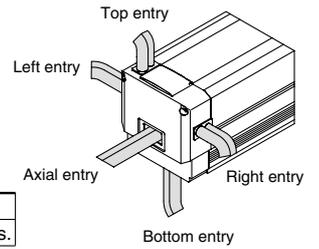
Cable entry direction •

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 specifications
(For details, refer to page 999)

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

Series LJ1H10

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.

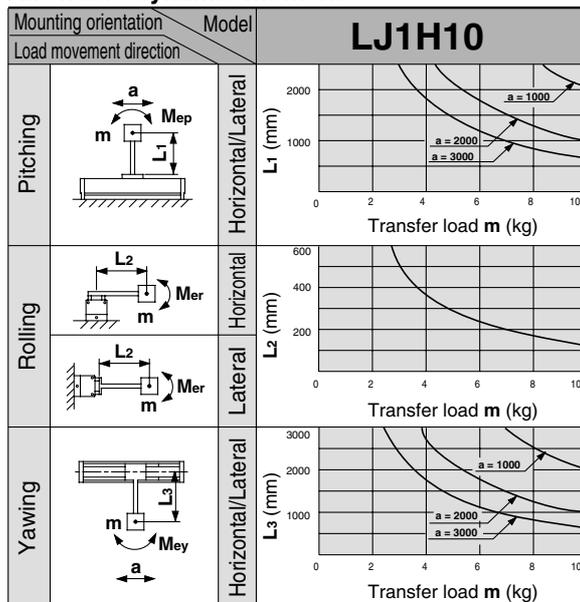
Allowable Moment (N·m)

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
∅ 12 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

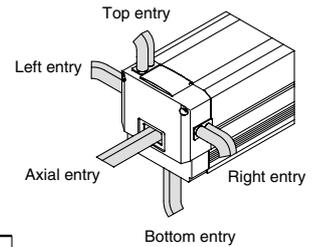
Cable entry direction

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		—	—	—	—
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 specifications
(For details, refer to page 999)

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

Series LJ1H10

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.

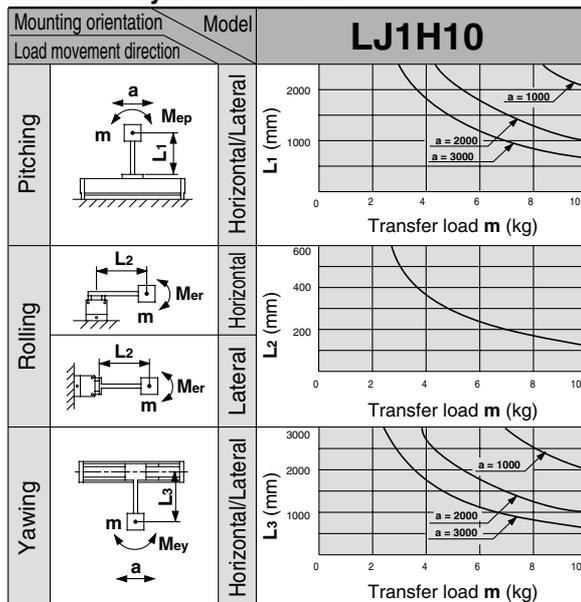
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

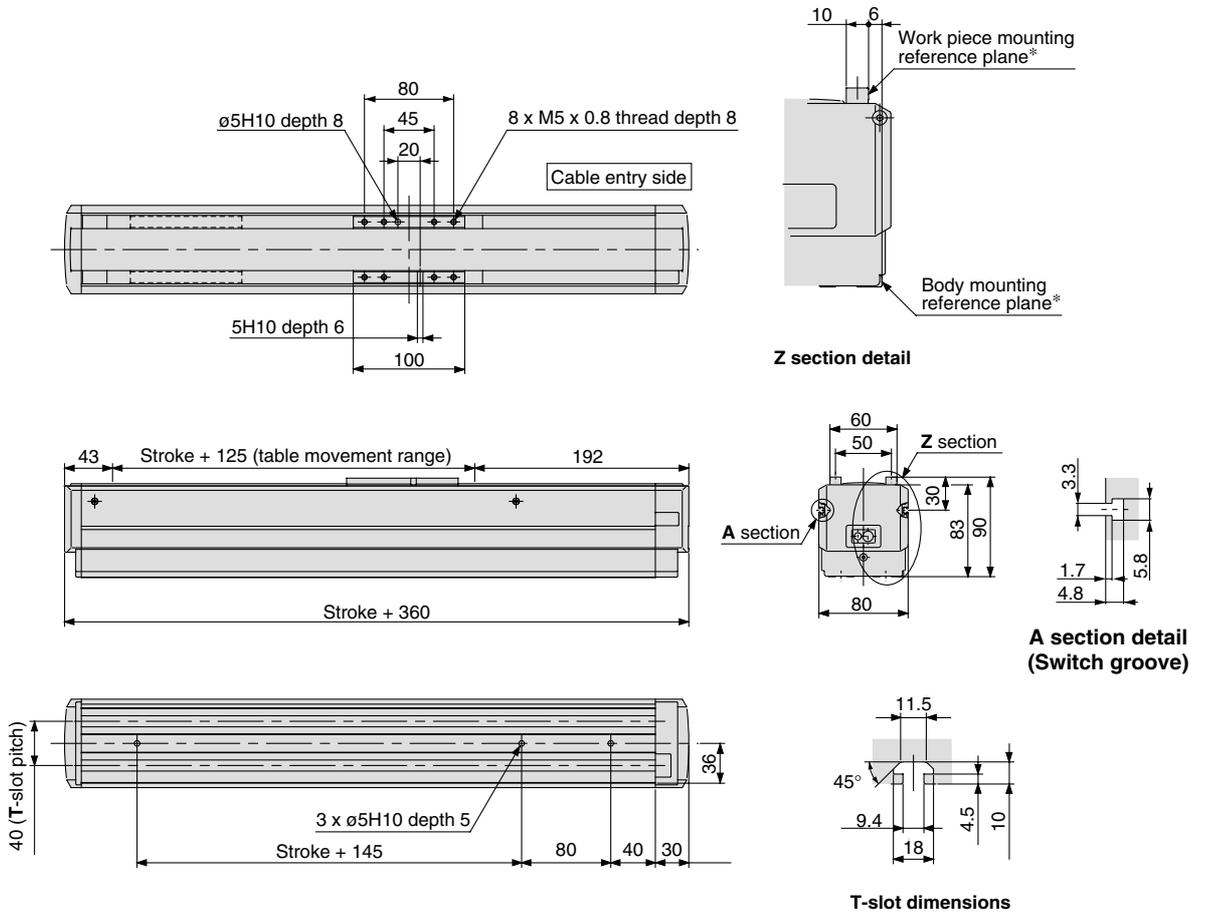
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H10□1□PB (X10)

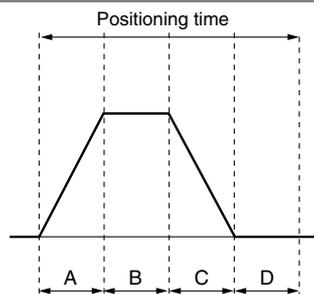


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting equipment. Refer to pages starting with 666 for mounting.

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

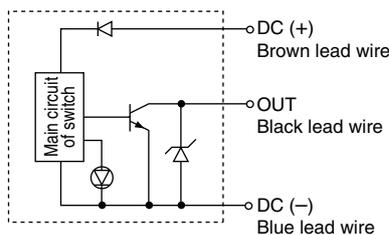
* Values will vary slightly depending on the operating conditions.



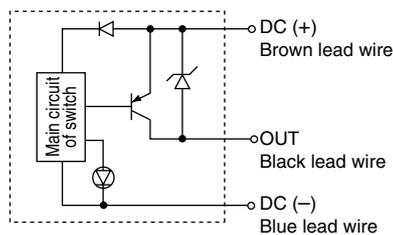
Maximum acceleration: 3000 mm/s²
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

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
∅ 12 mm/12 mm lead

How to Order

LJ1H10 R11 NB - 300 - F W - X10

Stroke (mm)

Refer to page 553 for details.

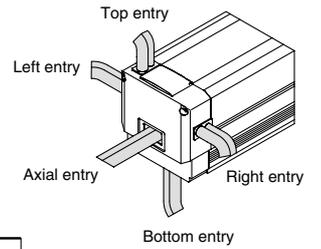
Cable entry direction

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 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.

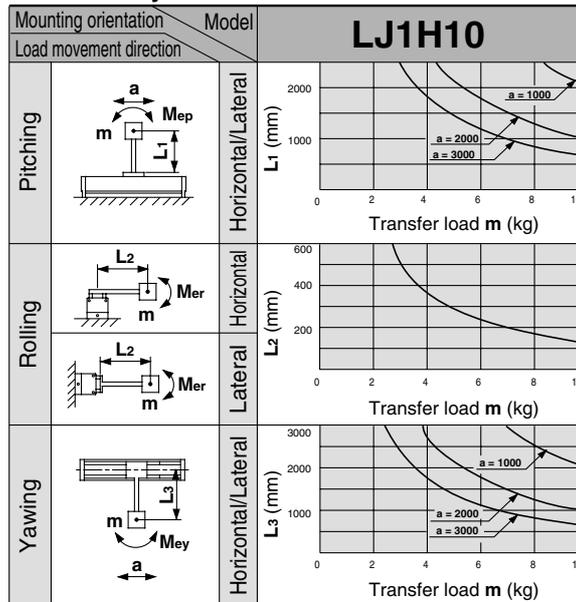
Allowable Moment (N·m)

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
∅ 12 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

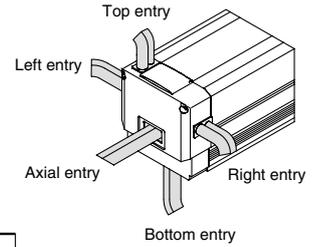
Cable entry direction

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		—	—	—	—
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 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.

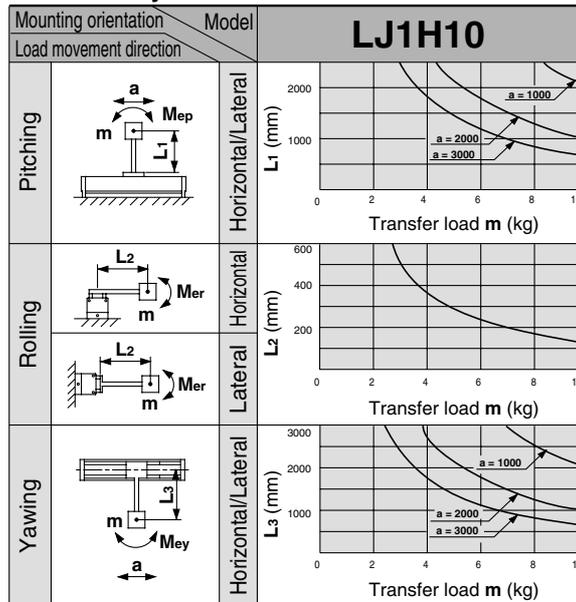
Allowable Moment (N·m)

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)

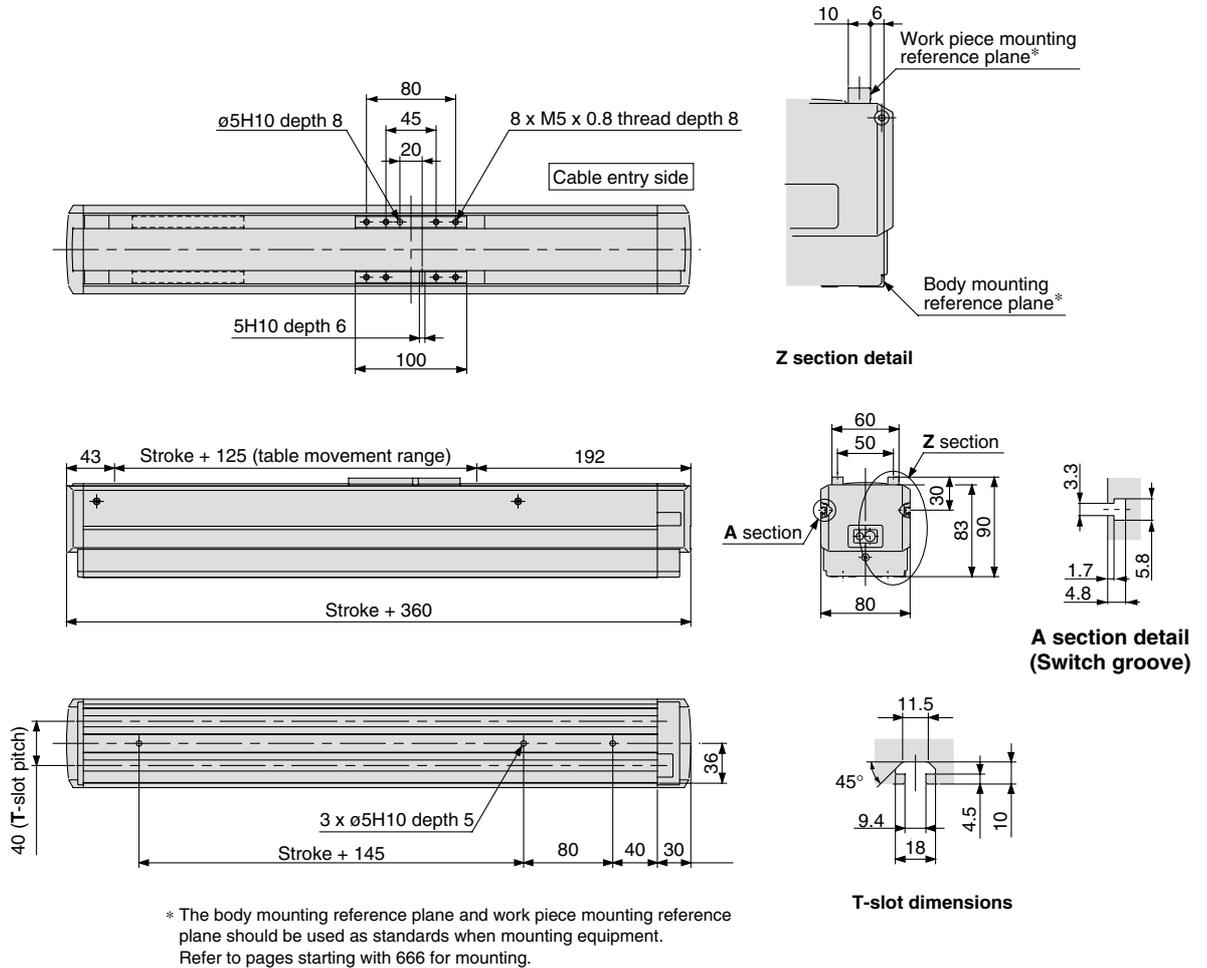
Allowable dynamic moment



Refer to page 670 for deflection data.

Series LJ1H10

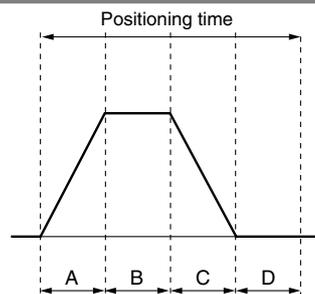
Dimensions/LJ1H10□1□NB (X10)



Positioning Time Guide

		Positioning time (sec.)				
		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

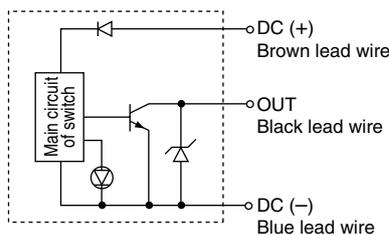
* Values will vary slightly depending on the operating conditions.



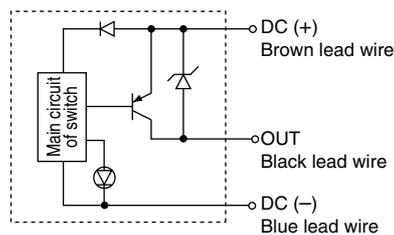
A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.3 sec.)*
 Maximum acceleration: 3000 mm/s²
 * The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor Horizontal Mount Series **LJ1H10**

Motor Output
50 W

High Rigidity
Direct Acting
Guide

Slide Screw
∅20 mm/20 mm lead

How to Order

LJ1H10 R11 SC - 300 - F W - X10

Stroke (mm)
Refer to page 558 for details.

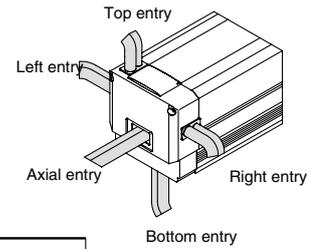
Cable entry direction

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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Series LJ1H10

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000
Performance	Body mass (without motor) (kg)	4.9	5.8	6.8	7.6	8.4	9.3	10.1	10.9	11.8	12.6
	Operating temperature range (°C)	5 to 40 (No condensation)									
	Work load (kg)	10									
	Maximum speed (mm/s)	500									
	Positioning repeatability (mm)	±0.1									
Main parts	Motor	AC servomotor (50 W)									
	Encoder	Incremental system									
	Lead screw	Slide screw ø20 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 above are available by special order. Consult SMC.

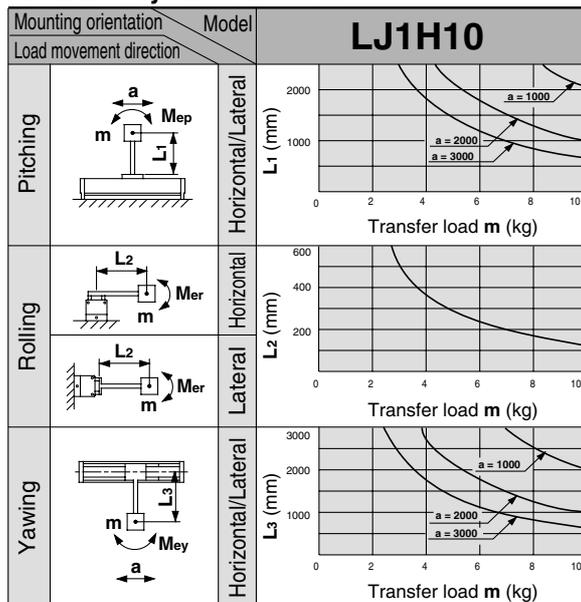
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

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

Slide Screw
∅20 mm/20 mm lead

How to Order

LJ1H10 R11 SC - 300 - F H - X10 - Q

Stroke (mm)
Refer to page 560 for details.

CE marking

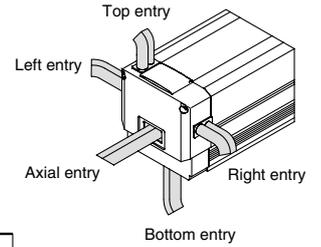
Cable entry direction

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		—	—	—	—
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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Series LJ1H10

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000
Performance	Body mass (without motor) (kg)	4.9	5.8	6.8	7.6	8.4	9.3	10.1	10.9	11.8	12.6
	Operating temperature range (°C)	5 to 40 (No condensation)									
	Work load (kg)	10									
	Maximum speed (mm/s)	500									
	Positioning repeatability (mm)	±0.1									
Main parts	Motor	AC servomotor (50 W)									
	Encoder	Incremental system									
	Lead screw	Slide screw ø20 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 above are available by special order. Consult SMC.

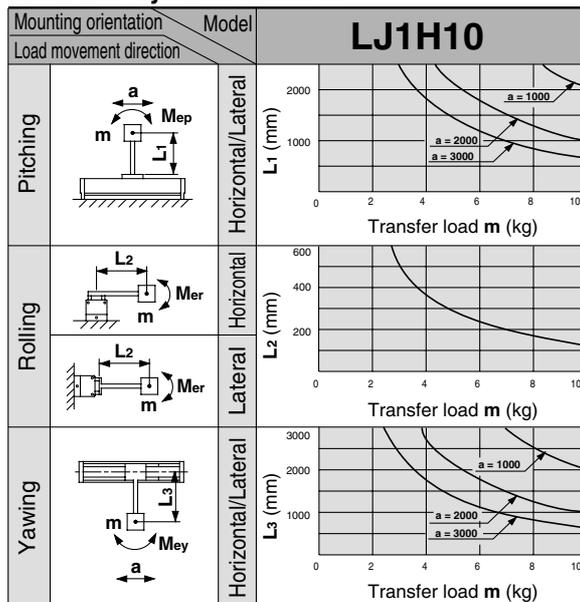
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

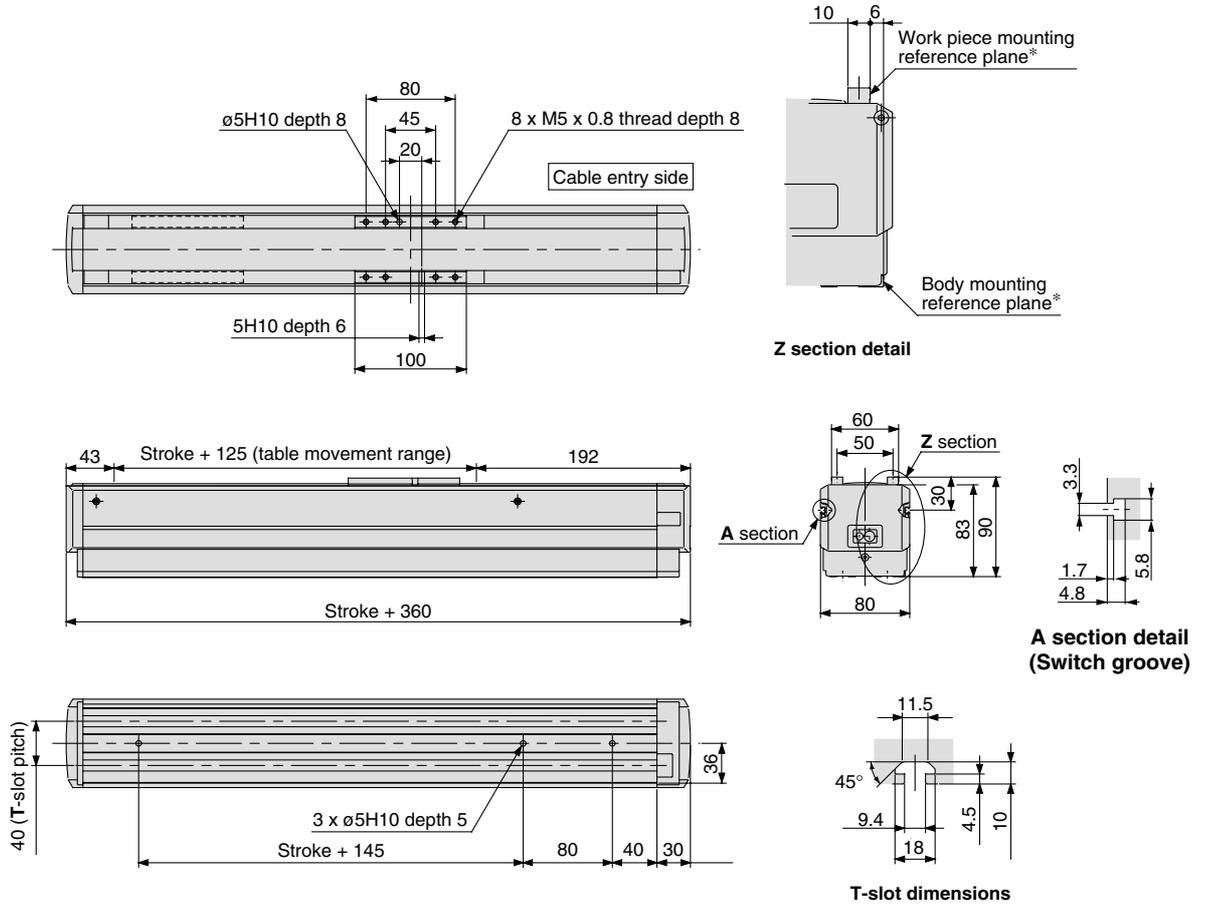
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

Dimensions/LJ1H10□1□SC (X10)

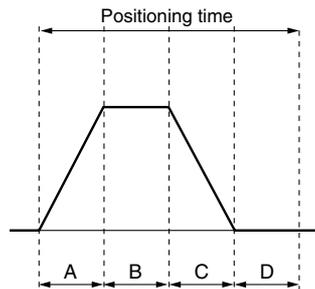


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.

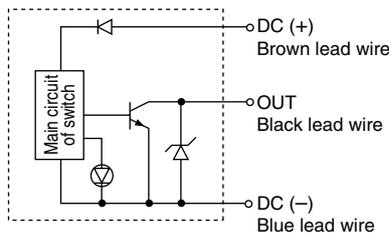


A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.3 sec.)*
 Maximum acceleration: 2000 mm/s²

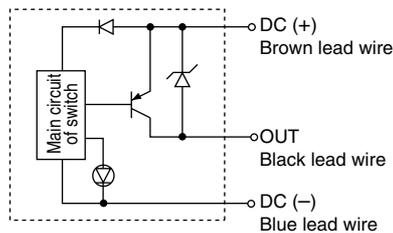
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor Horizontal Mount Series **LJ1H20**

Motor Output
100_w

High Rigidity
Direct Acting
Guide

Ground Ball Screw
ø15 mm / 10 mm lead

How to Order

LJ1H20 R21 PA - 300 - F W - X10

Stroke (mm) ●

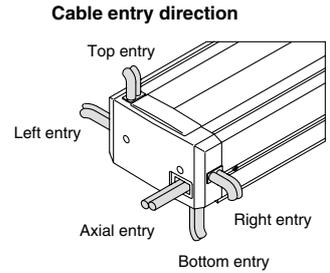
Refer to page 563 for details.

Cable entry direction ●

F	Axial
R	Right
L	Left
T	Top
B	Bottom

● Switch

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



● 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 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.

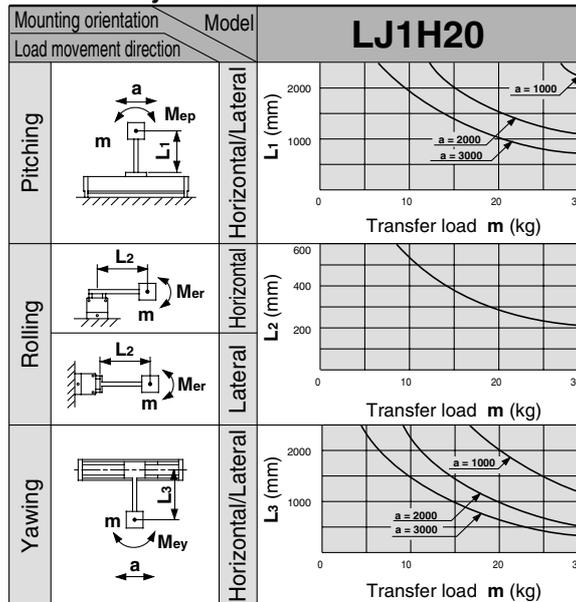
Allowable Moment (N·m)

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

Motor Output
100 W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
ø15 mm / 10 mm lead

Series LJ1H20

How to Order

LJ1H20 **R21** **PA** - **300** - **F** **H** - X10 - **Q**

Stroke (mm)
Refer to page 565 for details.

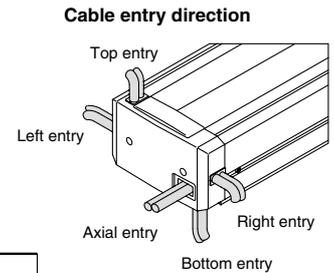
CE marking

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.



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		—	—	—	—	—
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 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.

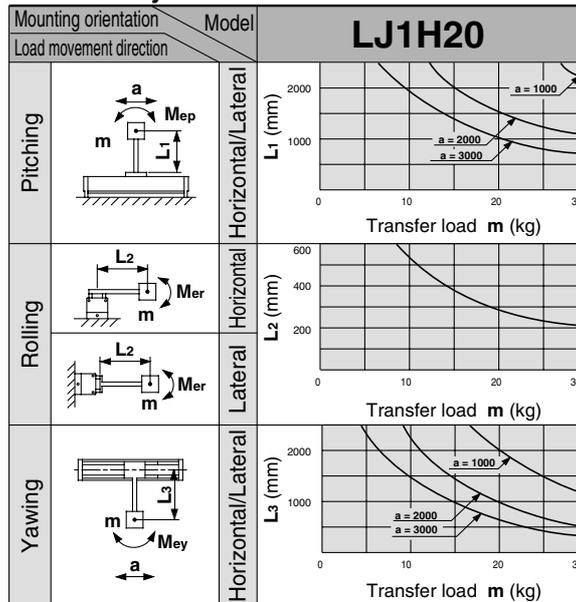
Allowable Moment (N·m)

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)

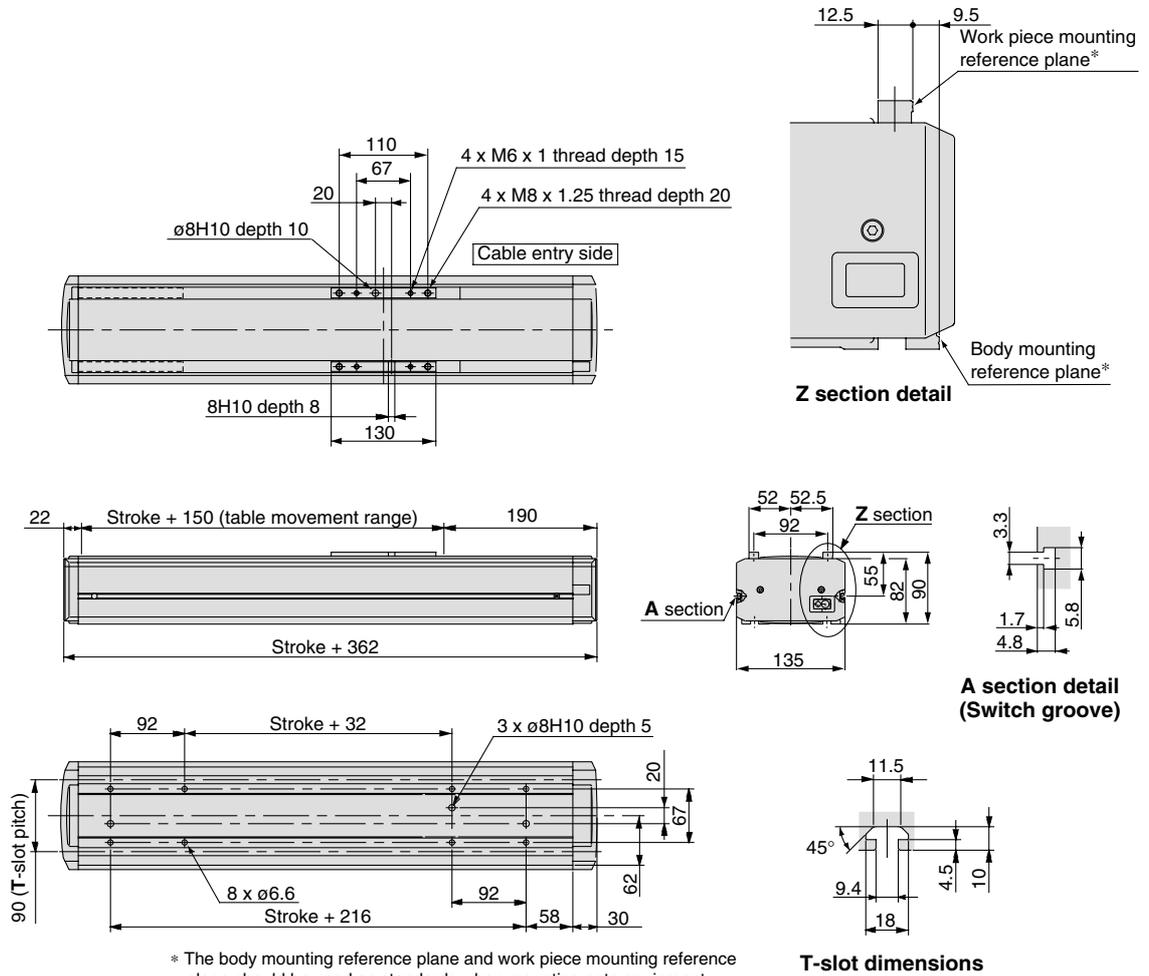
Allowable dynamic moment



Refer to page 670 for deflection data.

Series LJ1H20

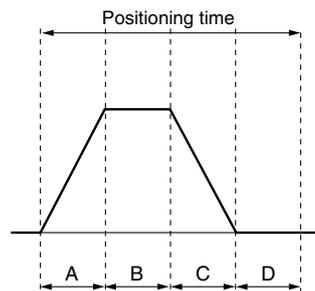
Dimensions/LJ1H20□2□PA (X10)



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

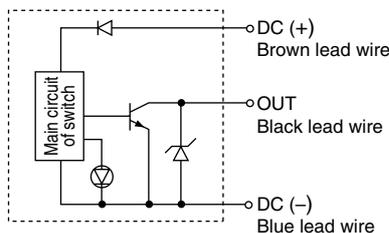
* Values will vary slightly depending on the operating conditions.



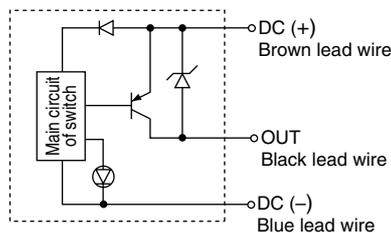
A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.4 sec.)*
 Maximum acceleration: 3000 mm/s²
 * The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

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

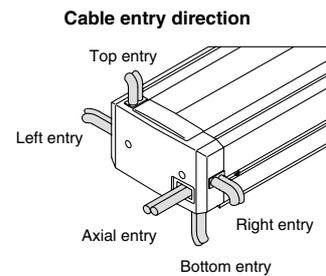
Stroke (mm)
Refer to page 568 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

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



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 specifications
(For details, refer to page 999)

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

Series LJ1H20

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.

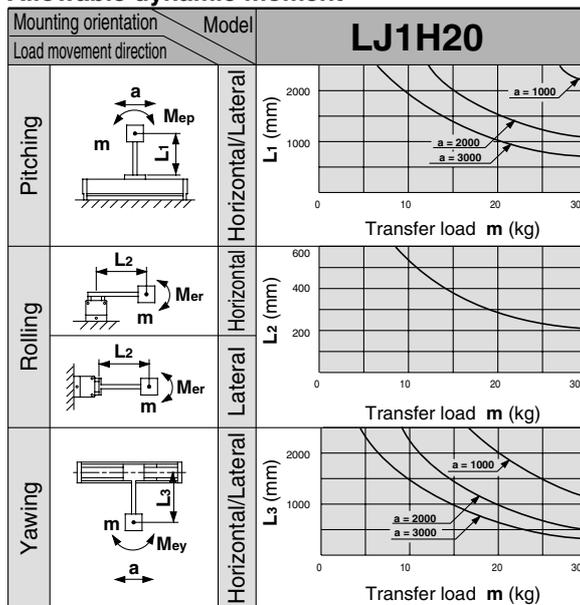
Allowable Moment (N·m)

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

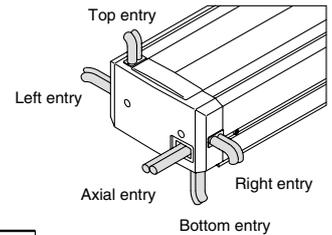
Cable entry direction

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		—	—	—	—	—
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 specifications
(For details, refer to page 999)

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

Series LJ1H20

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) <small>Note)</small>	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.

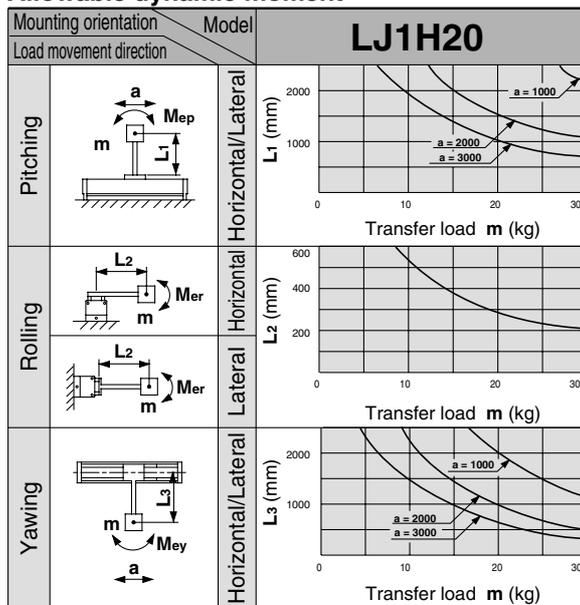
Allowable Moment (N·m)

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)

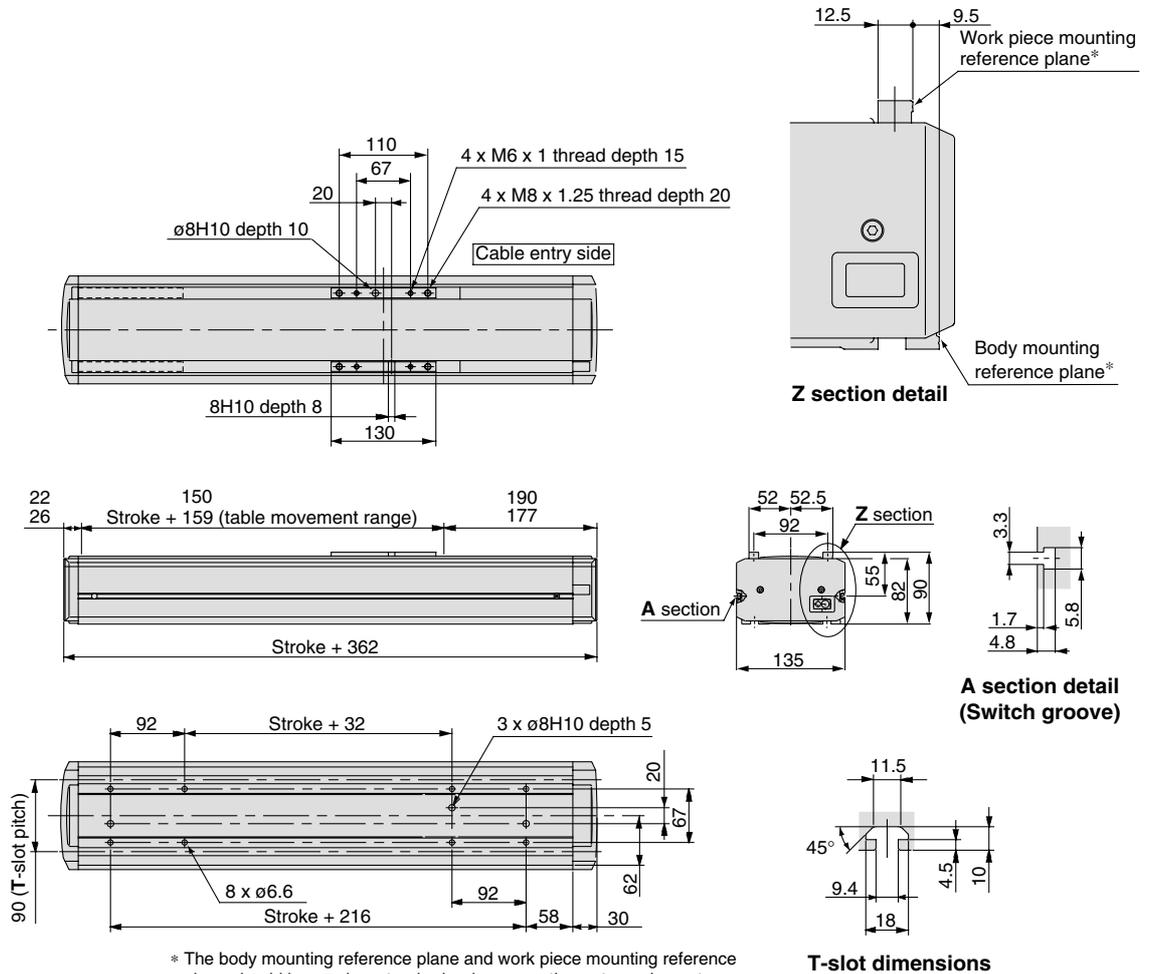
Allowable dynamic moment



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.

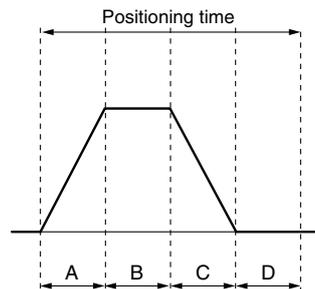


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

Positioning distance (mm)		Positioning time (sec.)				
		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.

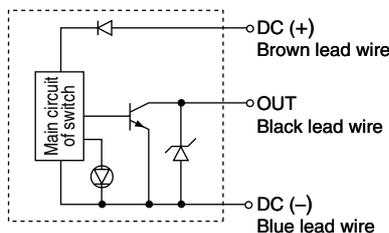


- A: Acceleration time
 - B: Constant velocity time
 - C: Deceleration time
 - D: Resting time (0.4 sec.)*
- Maximum acceleration: 2000 mm/s²

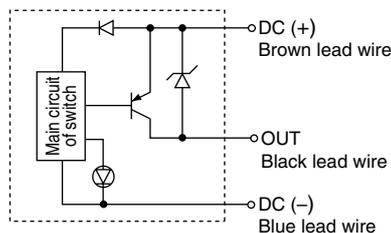
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

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

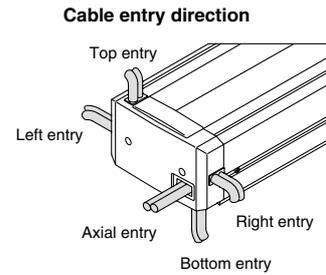
Stroke (mm)
Refer to page 573 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

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



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 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.

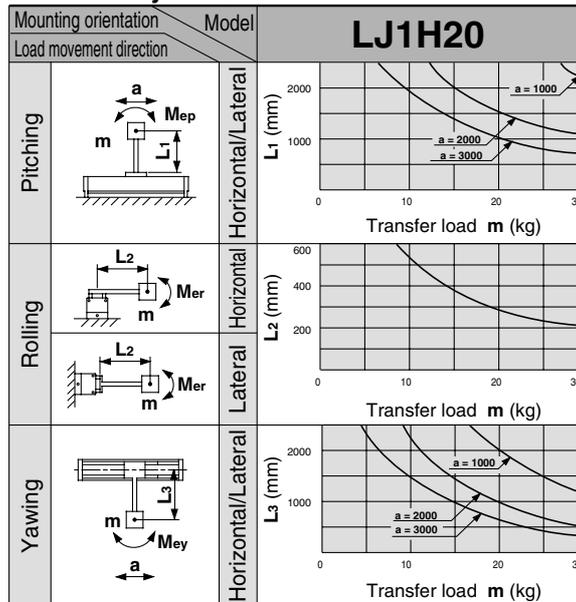
Allowable Moment (N·m)

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

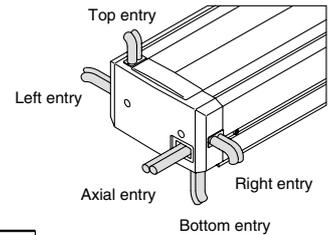
Cable entry direction

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		—	—	—	—	—
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 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.

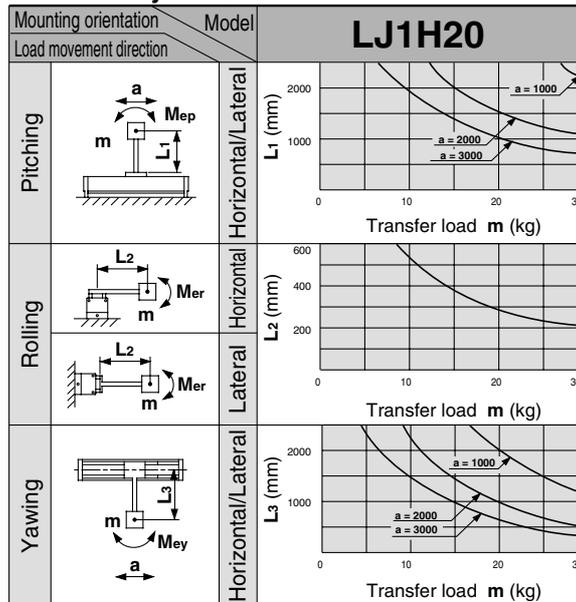
Allowable Moment (N·m)

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)

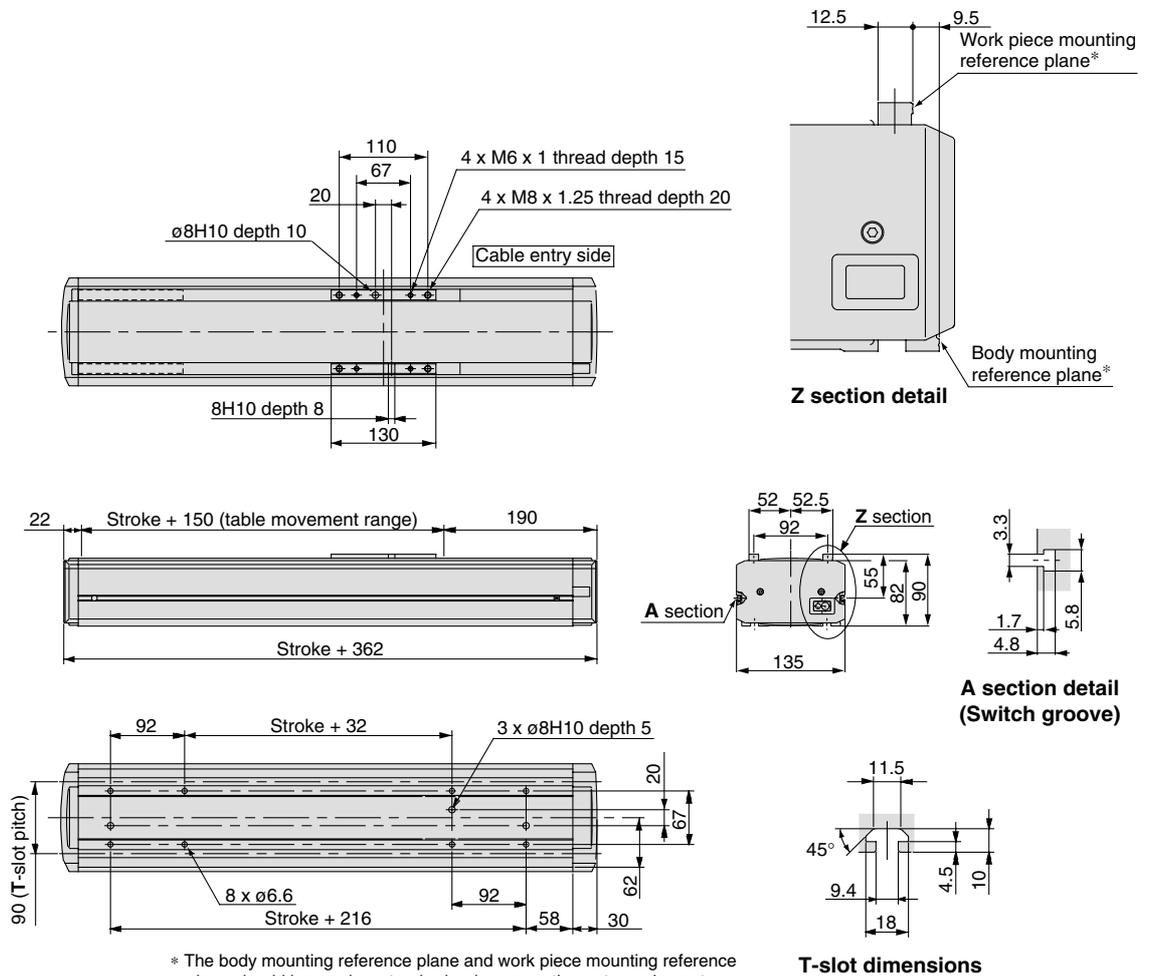
Allowable dynamic moment



Refer to page 670 for deflection data.

Series LJ1H20

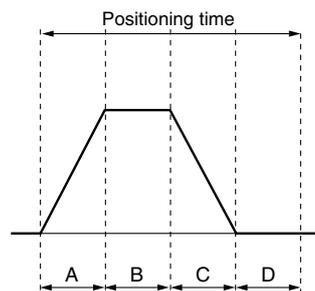
Dimensions/LJ1H20□2□NA (X10)



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

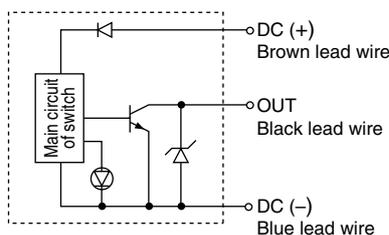
* Values will vary slightly depending on the operating conditions.



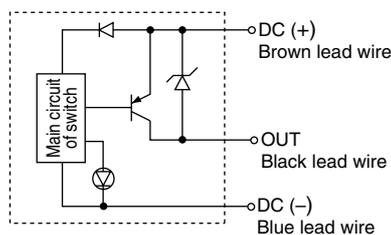
A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.4 sec.)*
 Maximum acceleration: 3000 mm/s²
 * The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

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

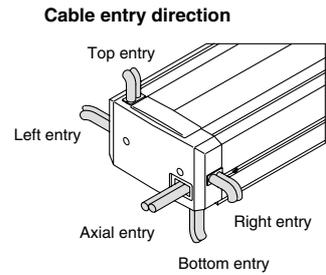
Stroke (mm)
Refer to page 578 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

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



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 specifications
(For details, refer to page 999)

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

Series LJ1H20

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.

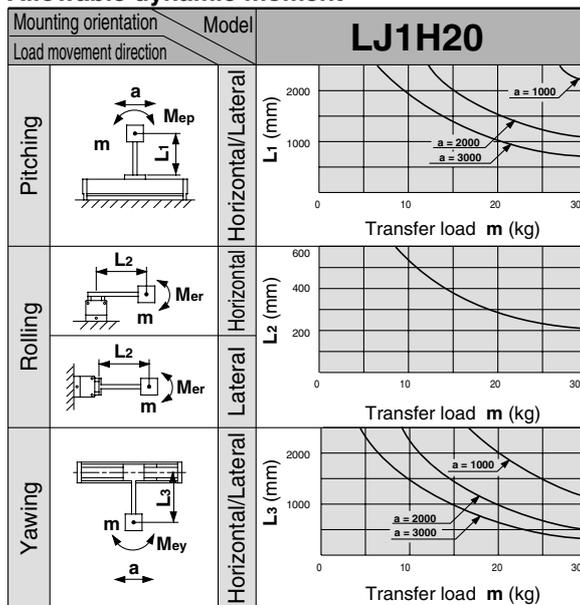
Allowable Moment (N·m)

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.

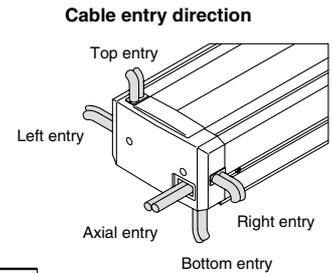
CE marking

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.



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		—	—	—	—	—
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 specifications
(For details, refer to page 999)

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

Series LJ1H20

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.

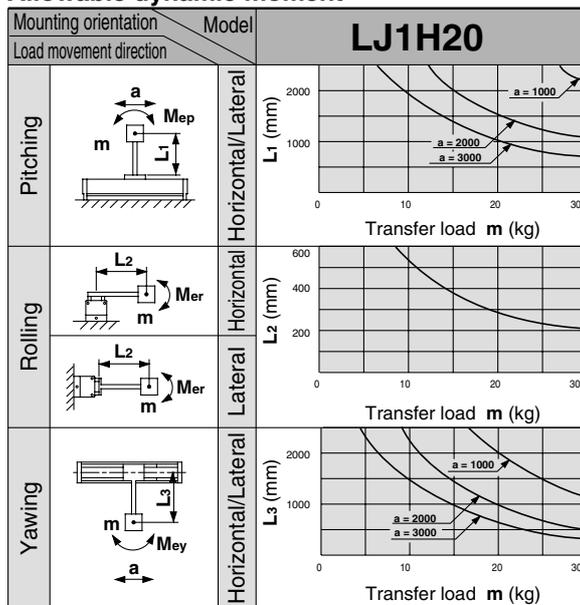
Allowable Moment (N·m)

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)

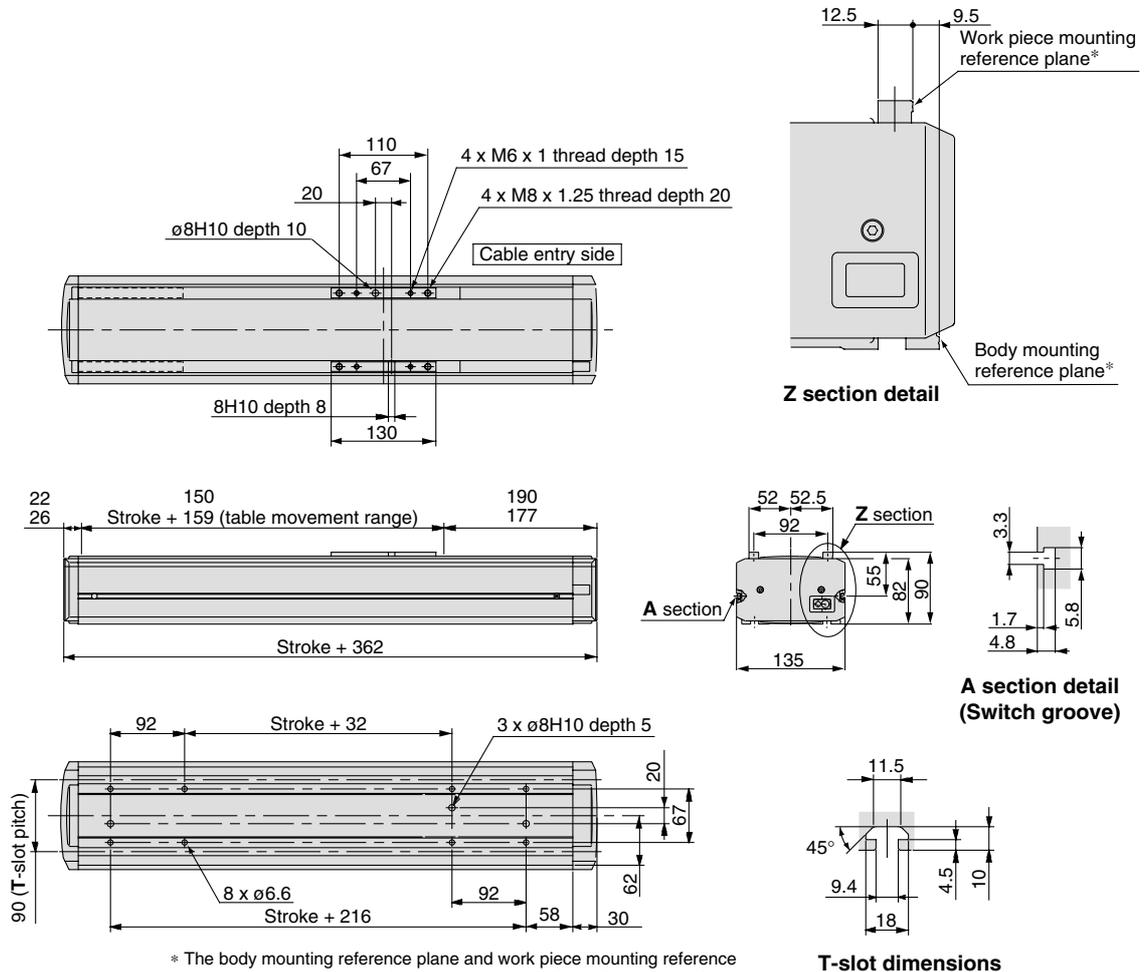
Allowable dynamic moment



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.

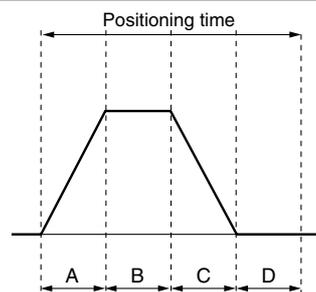


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

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

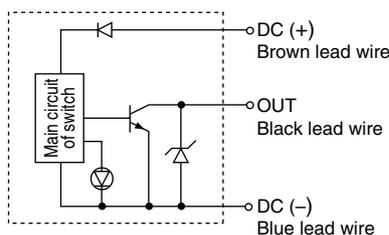
* Values will vary slightly depending on the operating conditions.



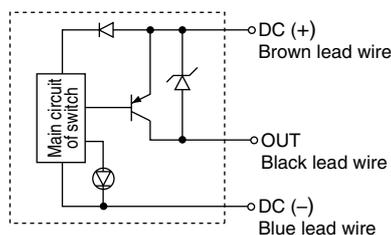
A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.4 sec.)*
 Maximum acceleration: 2000 mm/s²
 * The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor Horizontal Mount Series **LJ1H20**

Motor Output
100_w

High Rigidity
Direct Acting
Guide

Slide Screw
ø20 mm / 20 mm lead

How to Order

LJ1H20 R21 SC - 300 - F W - X10

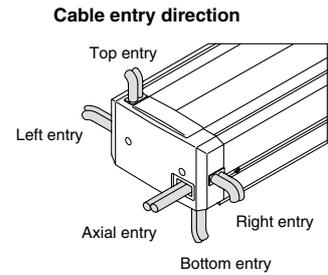
Stroke (mm)
Refer to page 583 for details.

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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000	1200
Performance	Body mass (without motor) (kg)	7.5	8.5	9.6	10.8	12.3	13.8	16.3	16.8	18.6	20.4	24.2
	Operating temperature range (°C)	5 to 40 (No condensation)										
	Work load (kg)	15										
	Maximum speed (mm/s)	500										
	Positioning repeatability (mm)	±0.1										
Main parts	Motor	AC servomotor (100 W)										
	Encoder	Incremental system										
	Lead screw	Slide screw ø20 mm, 20 mm lead										
	Guide	High rigidity direct acting guide										
	Motor/Screw connection	With coupling										
Limit 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.

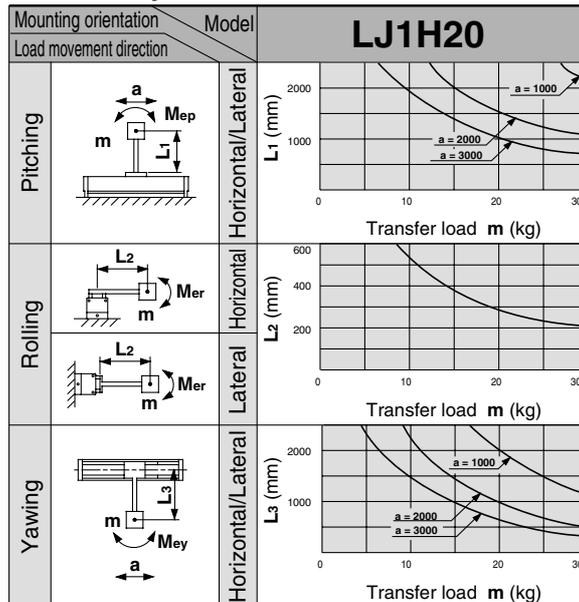
Allowable Moment (N·m)

Allowable static moment

Pitching	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

Slide Screw
ø20 mm / 20 mm lead

How to Order

LJ1H20 R21 SC - 300 - F H - X10 - Q

Stroke (mm)
Refer to page 585 for details.

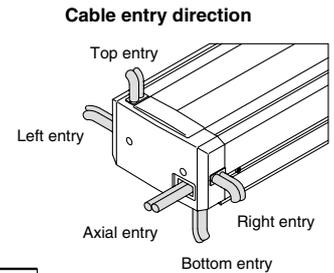
CE marking

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.



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		—	—	—	—
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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000	1200
Performance	Body mass (without motor) (kg)	7.5	8.5	9.6	10.8	12.3	13.8	16.3	16.8	18.6	20.4	24.2
	Operating temperature range (°C)	5 to 40 (No condensation)										
	Work load (kg)	15										
	Maximum speed (mm/s)	500										
	Positioning repeatability (mm)	±0.1										
Main parts	Motor	AC servomotor (100 W)										
	Encoder	Incremental system										
	Lead screw	Slide screw ø20 mm, 20 mm lead										
	Guide	High rigidity direct acting guide										
	Motor/Screw connection	With coupling										
Limit 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.

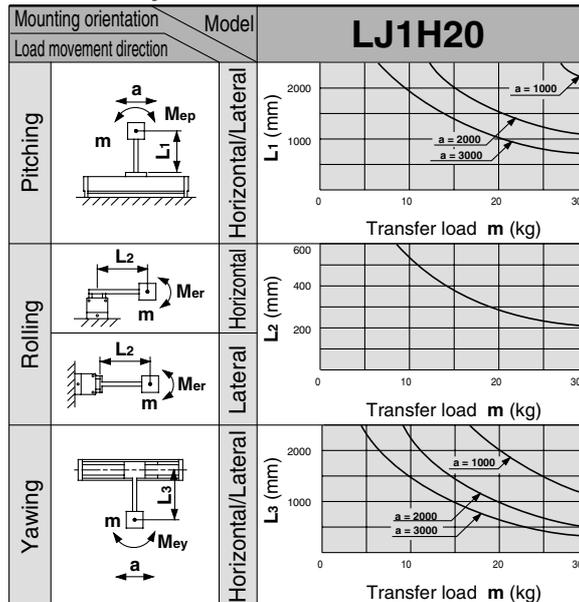
Allowable Moment (N·m)

Allowable static moment

Pitching	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

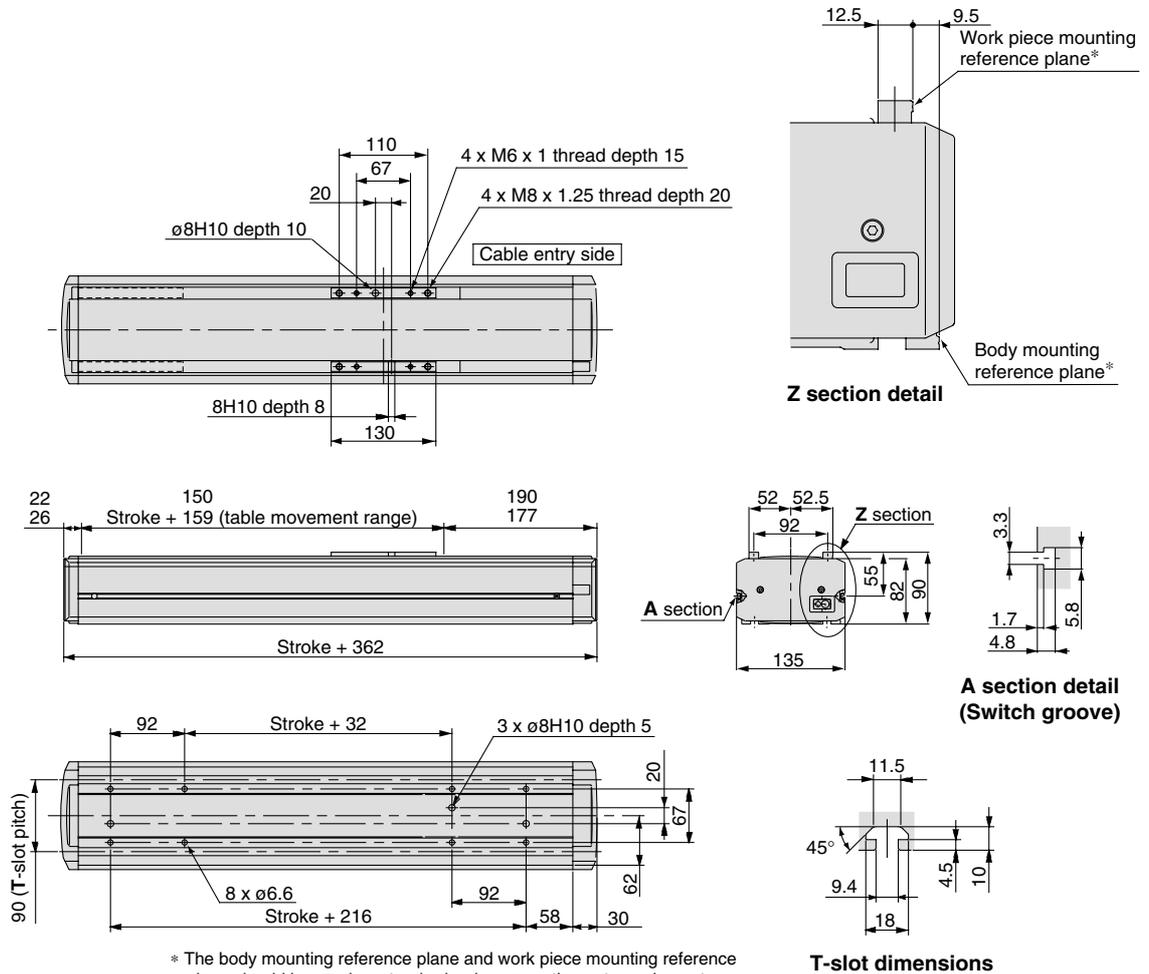


Refer to page 670 for deflection data.

Series LJ1H20

Dimensions/LJ1H20□2□SC (X10)

When two dimensions are shown, the top dimension is for 100 to 600 mm strokes, and the bottom dimension is for 700 to 1200 mm strokes.

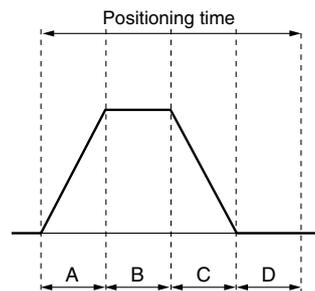


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

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

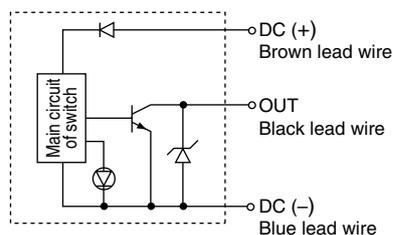
* Values will vary slightly depending on the operating conditions.



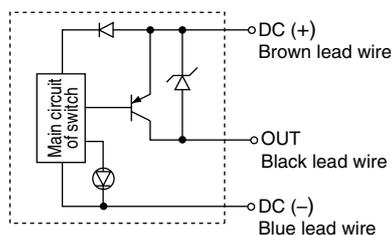
A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.4 sec.)*
 Maximum acceleration: 2000 mm/s²
 * The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

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) ●

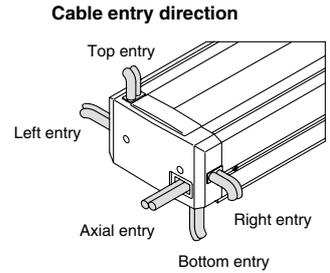
Refer to page 588 for details.

Cable entry direction ●

F	Axial
R	Right
L	Left
T	Top
B	Bottom

● Switch

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



● 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 specifications
(For details, refer to page 999)

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

Series LJ1H30

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.

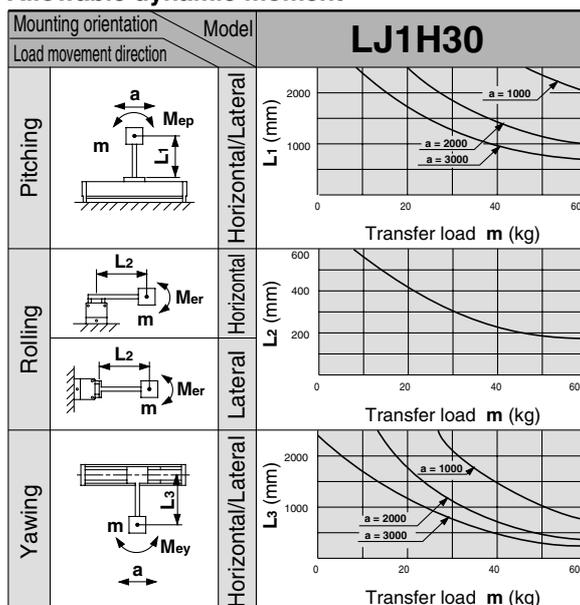
Allowable Moment (N·m)

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.

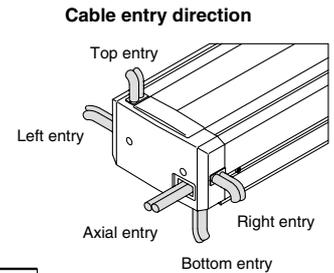
CE marking

Cable entry direction

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		—	—	—	—
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 specifications
(For details, refer to page 999)

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

Series LJ1H30

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.

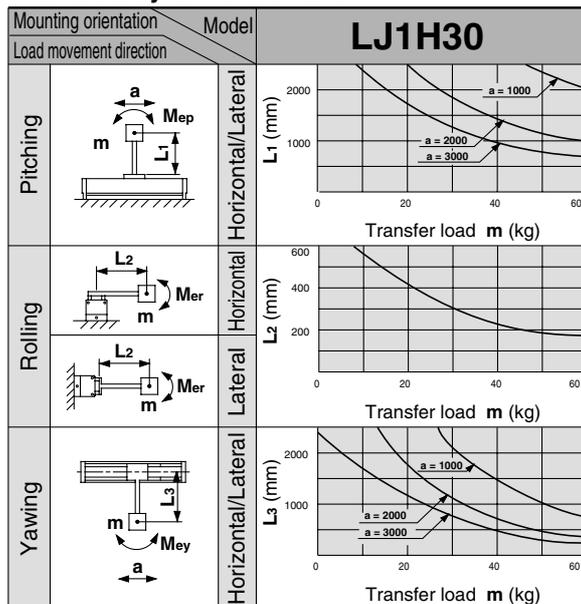
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

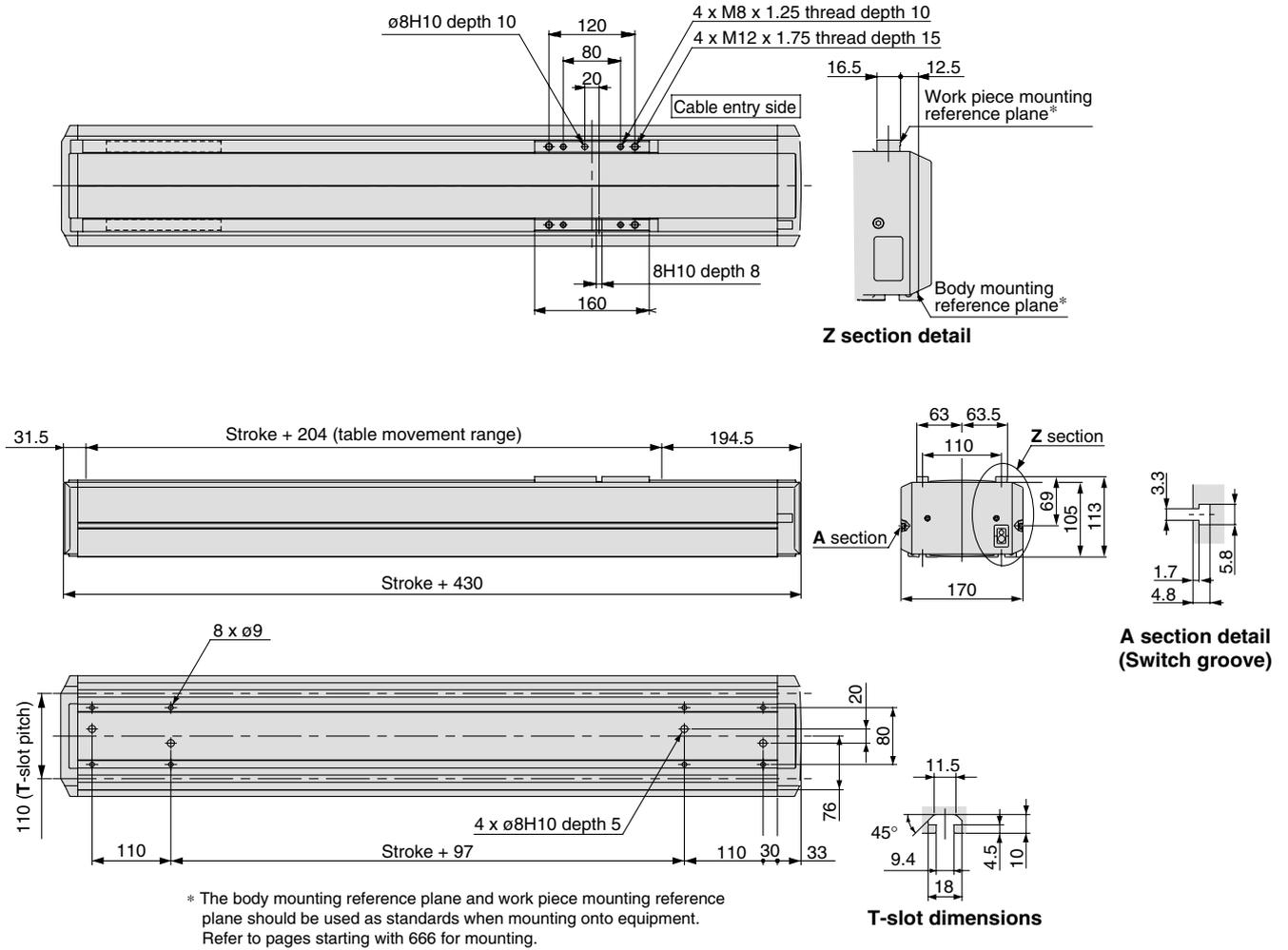
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

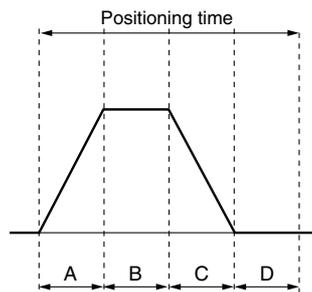
Dimensions/LJ1H30□3□PD (X10)



Positioning Time Guide

		Positioning time (sec.)				
		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

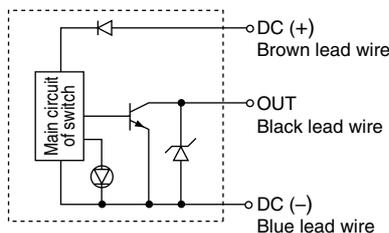
* Values will vary slightly depending on the operating conditions.



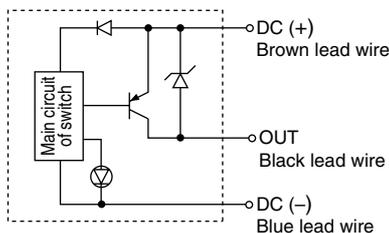
A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (1.0 sec.)*
 Maximum acceleration: 3000 mm/s²
 * The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

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

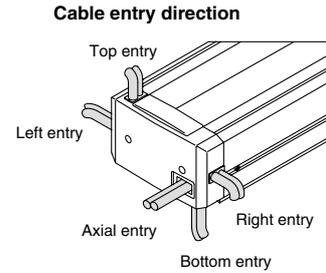
Stroke (mm)
Refer to page 593 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

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



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 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.

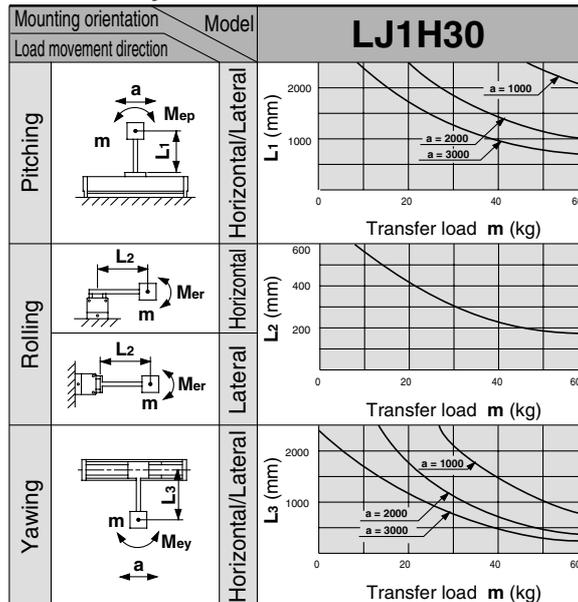
Allowable Moment (N·m)

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.

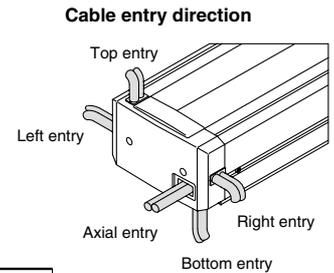
CE marking

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.



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				—	—
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 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.

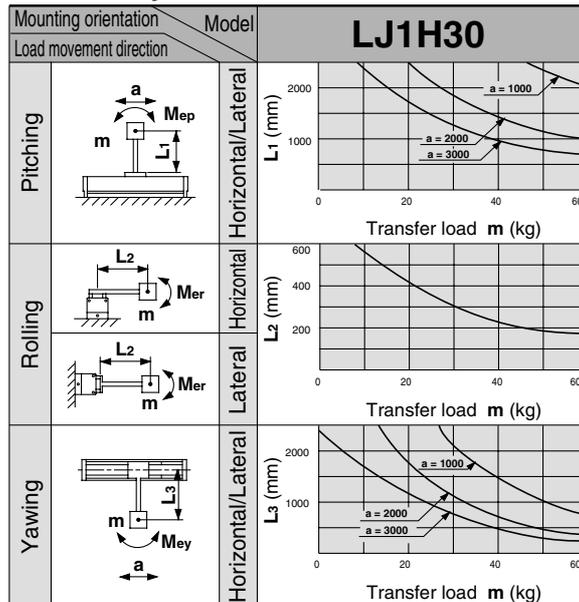
Allowable Moment (N·m)

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)

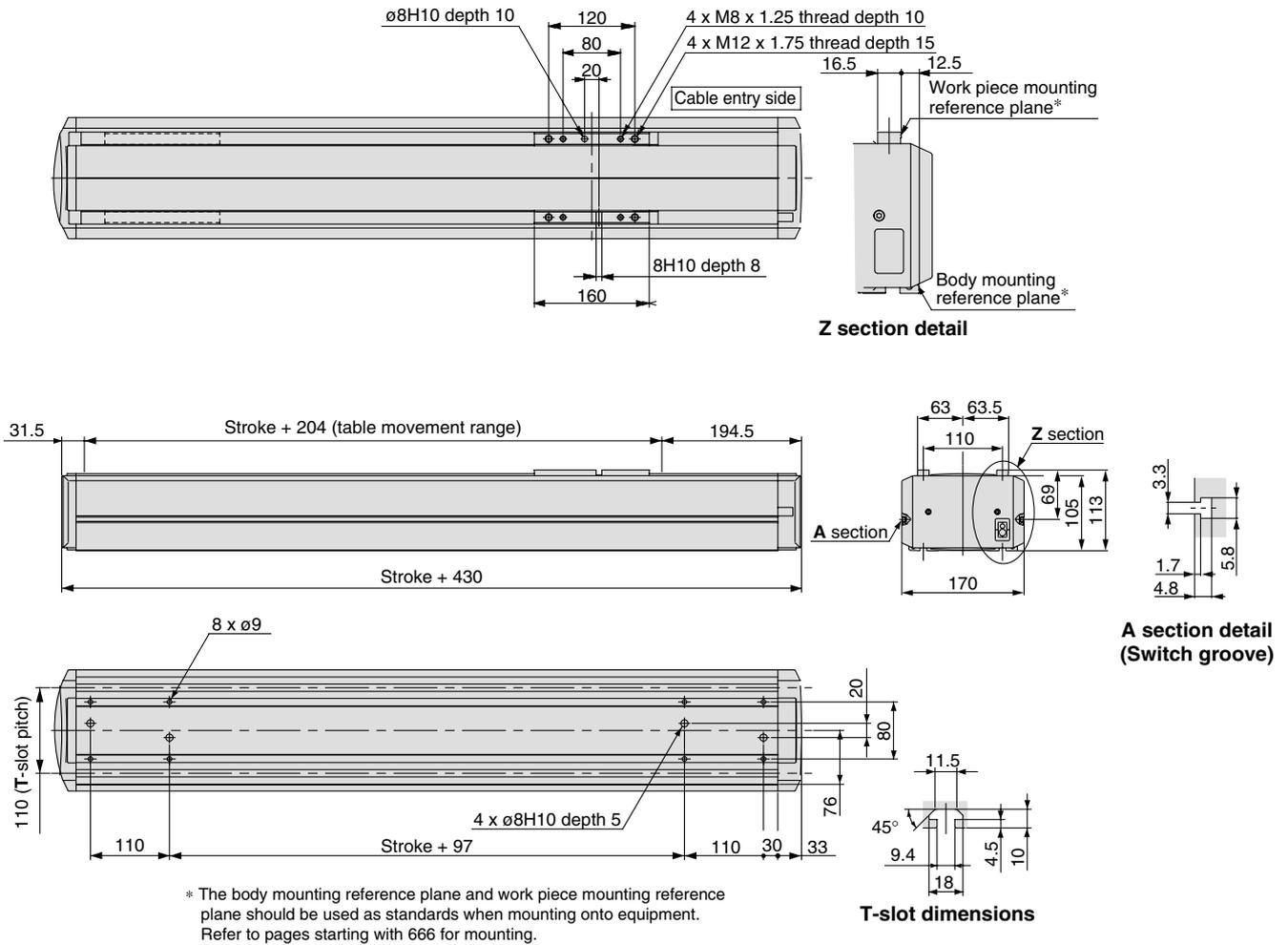
Allowable dynamic moment



Refer to page 670 for deflection data.

Series LJ1H30

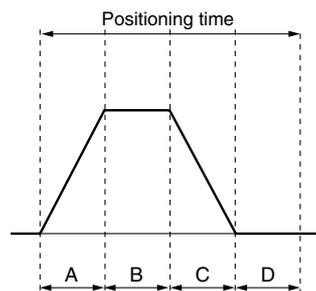
Dimensions/LJ1H30□3□ND (X10)



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

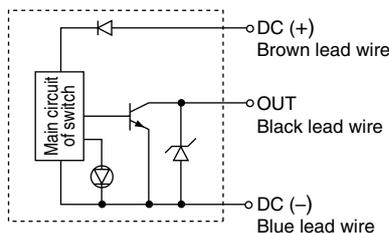
* Values will vary slightly depending on the operating conditions.



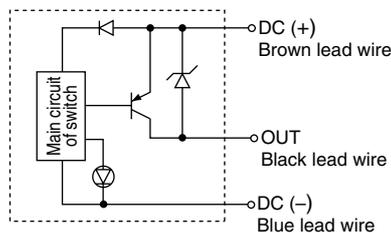
Maximum acceleration: 3000 mm/s²
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor Horizontal Mount Series **LJ1H30**

Motor Output
200_w

High Rigidity
Direct Acting
Guide

Slide Screw
ø30 mm/40 mm lead

How to Order

LJ1H30 R31 SE - 300 - F W - X10

Stroke (mm) ●

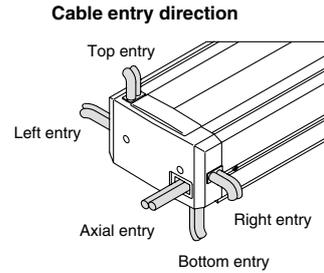
Refer to page 598 for details.

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
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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Series LJ1H30

Specifications

Standard stroke (mm)		200	300	400	500	600	800	1000	1200	1500
Performance	Body mass (without motor) (kg)	13.8	15.9	17.9	20.0	22.1	26.2	30.4	34.5	40.8
	Operating temperature range (°C)	5 to 40 (No condensation)								
	Work load (kg)	30								
	Maximum speed (mm/s)	500								
	Positioning repeatability (mm)	±0.1								
Main parts	Motor	AC servomotor (200 W)								
	Encoder	Incremental system								
	Lead screw	Slide screw ø30 mm, 40 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.

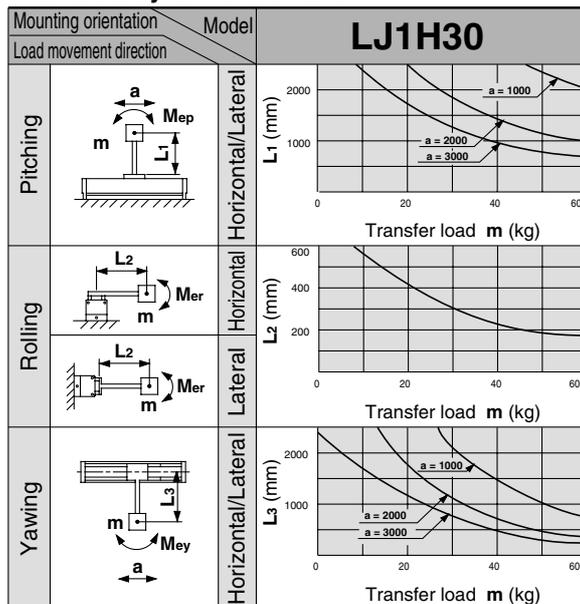
Allowable Moment (N·m)

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

Motor Output
200_w

High Rigidity
Direct Acting
Guide

Slide Screw
ø30 mm/40 mm lead

Series LJ1H30

How to Order

LJ1H30 **R31** **SE** - **300** - **F** **H** - X10 - **Q**

Stroke (mm)
Refer to page 600 for details.

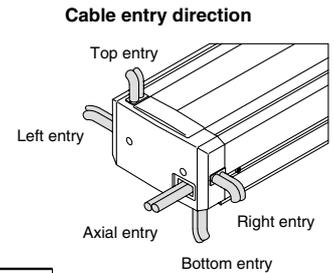
CE marking

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.



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		—	—	—	—	—
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				—	—	
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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Series LJ1H30

Specifications

Standard stroke (mm)		200	300	400	500	600	800	1000	1200	1500
Performance	Body mass (without motor) (kg)	13.8	15.9	17.9	20.0	22.1	26.2	30.4	34.5	40.8
	Operating temperature range (°C)	5 to 40 (No condensation)								
	Work load (kg)	30								
	Maximum speed (mm/s)	500								
	Positioning repeatability (mm)	±0.1								
Main parts	Motor	AC servomotor (200 W)								
	Encoder	Incremental system								
	Lead screw	Slide screw ø30 mm, 40 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.

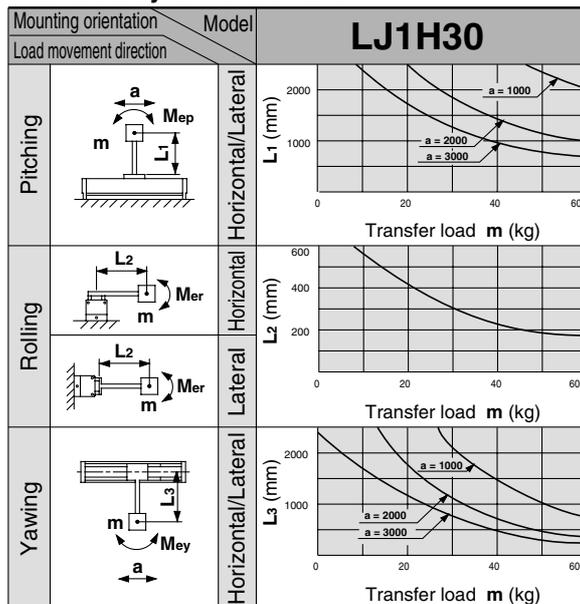
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

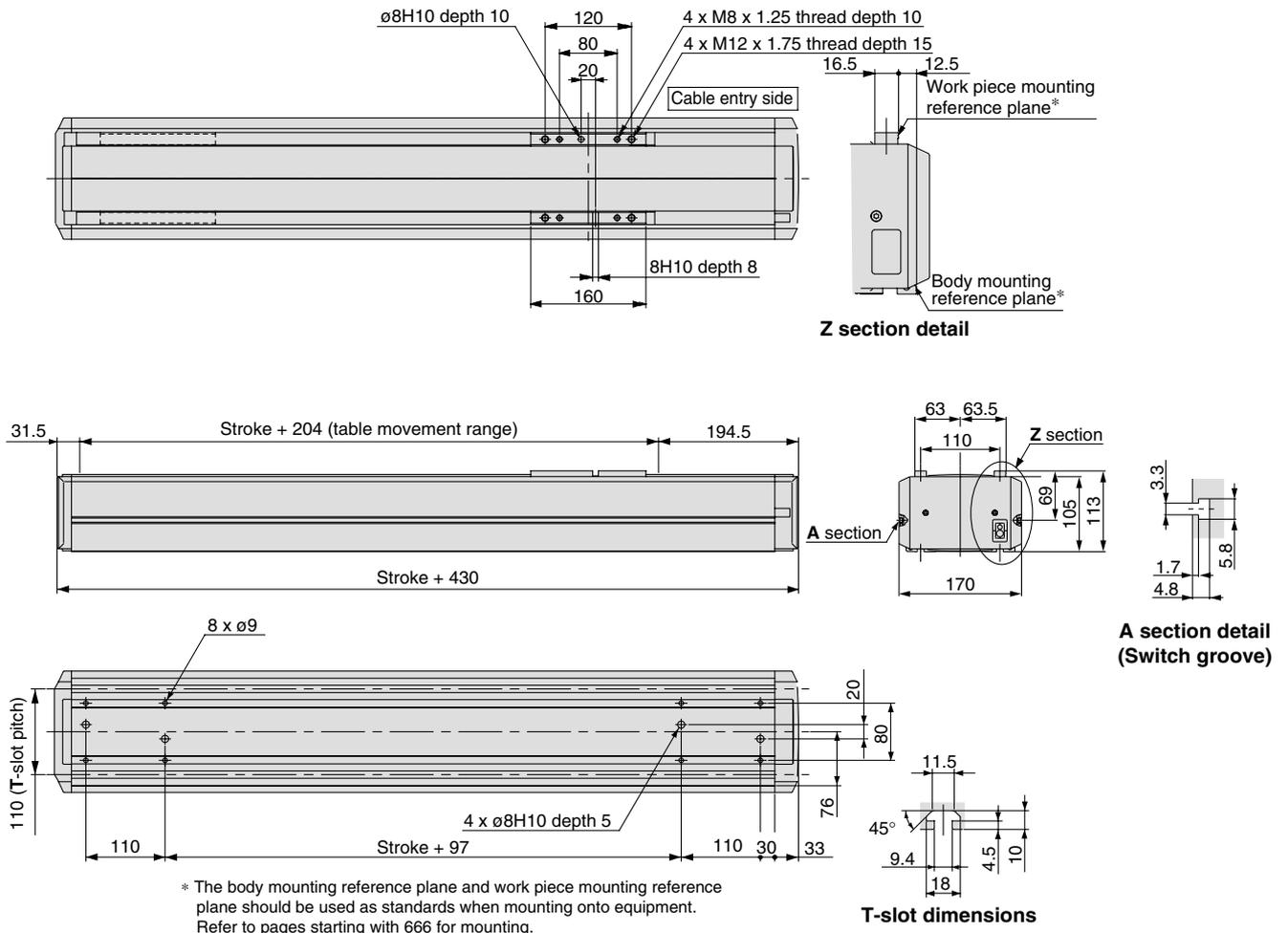
m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 670 for deflection data.

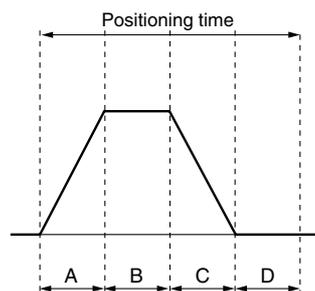
Dimensions/LJ1H30□3□SE (X10)



Positioning Time Guide

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

* Values will vary slightly depending on the operating conditions.

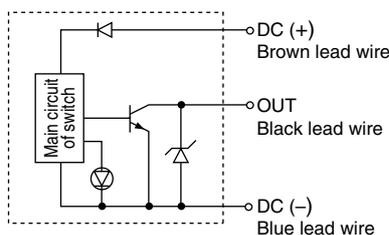


- A: Acceleration time
 - B: Constant velocity time
 - C: Deceleration time
 - D: Resting time (1.0 sec.)*
- Maximum acceleration: 2000 mm/s²

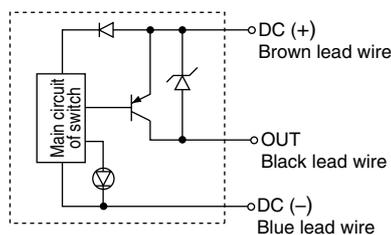
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor 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 R11 PH - 300 K - F W - X10

Stroke (mm)
Refer to page 603 for details.

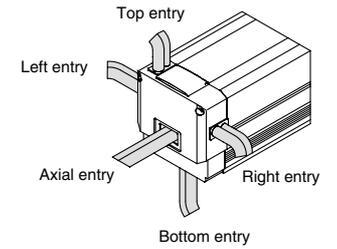
Cable entry direction

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
R11	Mitsubishi Electric Corporation	HC-PQ13	100 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 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.

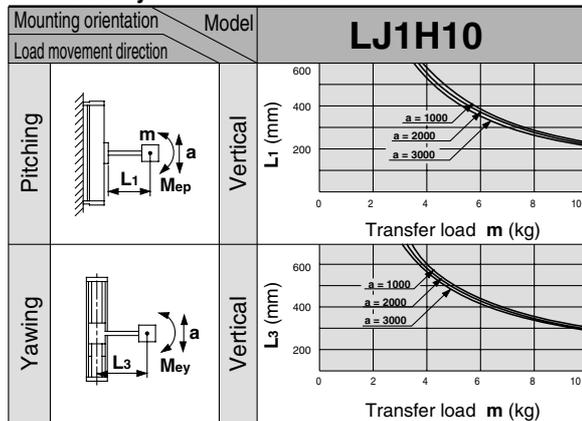
Allowable Moment (N·m)

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

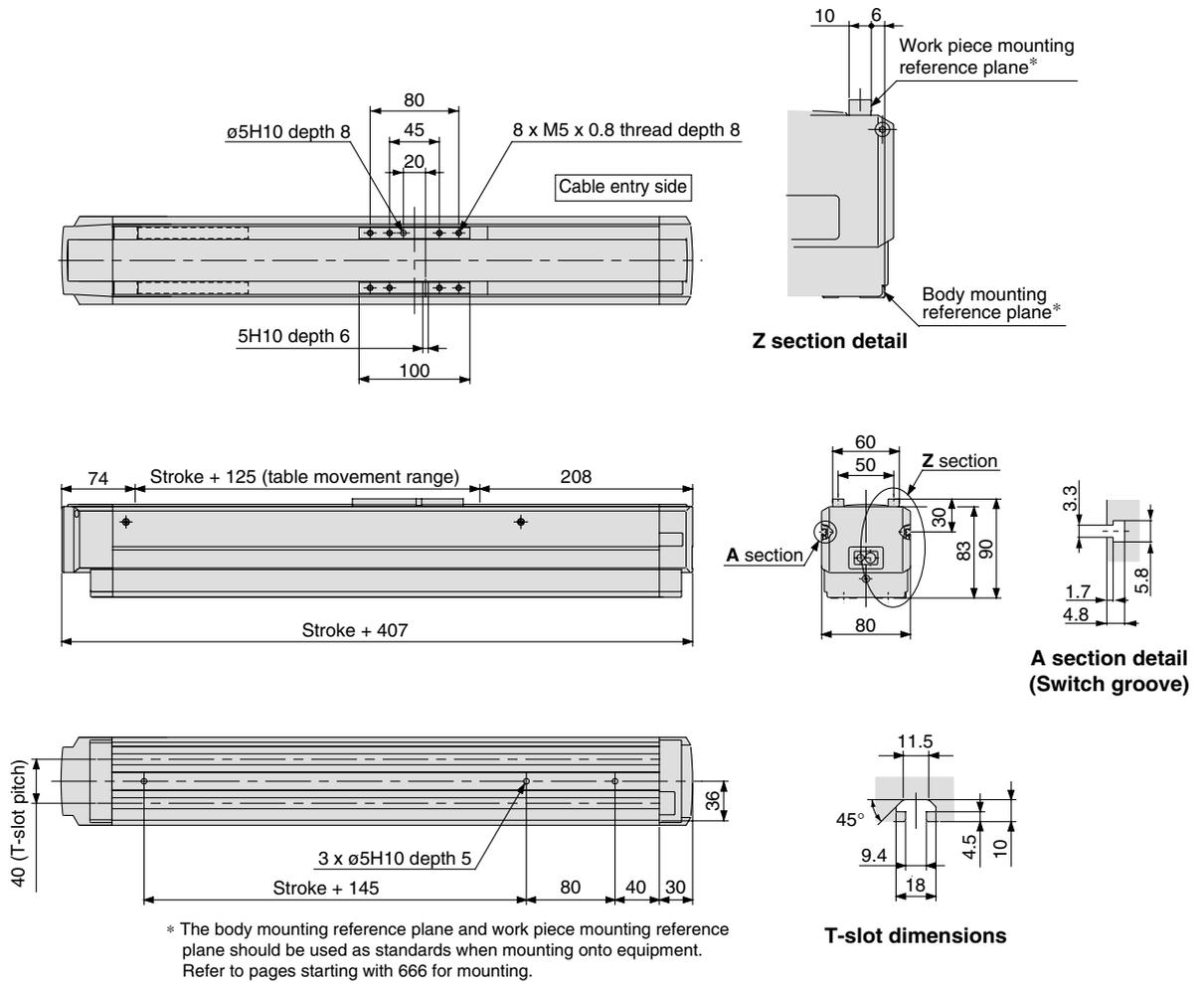
Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

$$\begin{aligned} \text{Regenerative energy} = & \text{Motor coil energy consumption} \\ & + \text{Driver capacitor energy consumption (A)} \\ & + \text{Regenerative resistor energy consumption (B)} \end{aligned}$$

(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.

Series LJ1H10

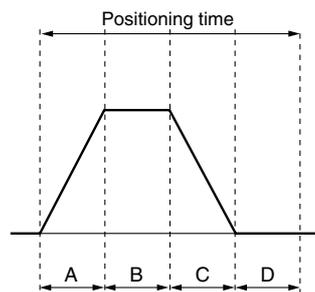
Dimensions/LJ1H10□2□PH (X10)



Positioning Time Guide

Positioning distance (mm)		Positioning time (sec.)				
		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

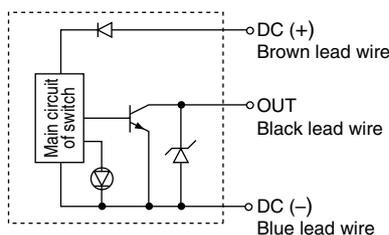
* Values will vary slightly depending on the operating conditions.



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

Motor Output
100_w

High Rigidity
Direct Acting
Guide

Ground Ball Screw
ø12 mm/12 mm lead

Series **LJ1H10**

How to Order

LJ1H10 R11 PB - 300 K - F W - X10

Stroke (mm)
Refer to page 606 for details.

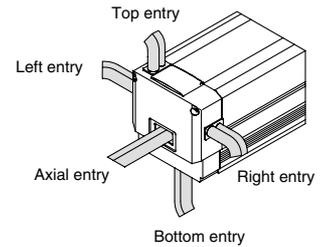
Cable entry direction

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
R11	Mitsubishi Electric Corporation	HC-PQ13	100 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 specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Series LJ1H10

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.

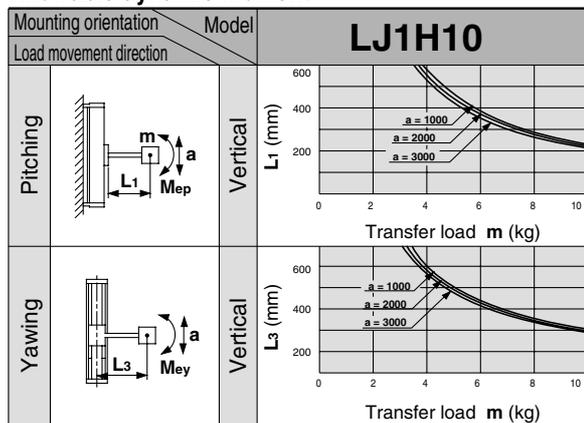
Allowable Moment (N·m)

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.

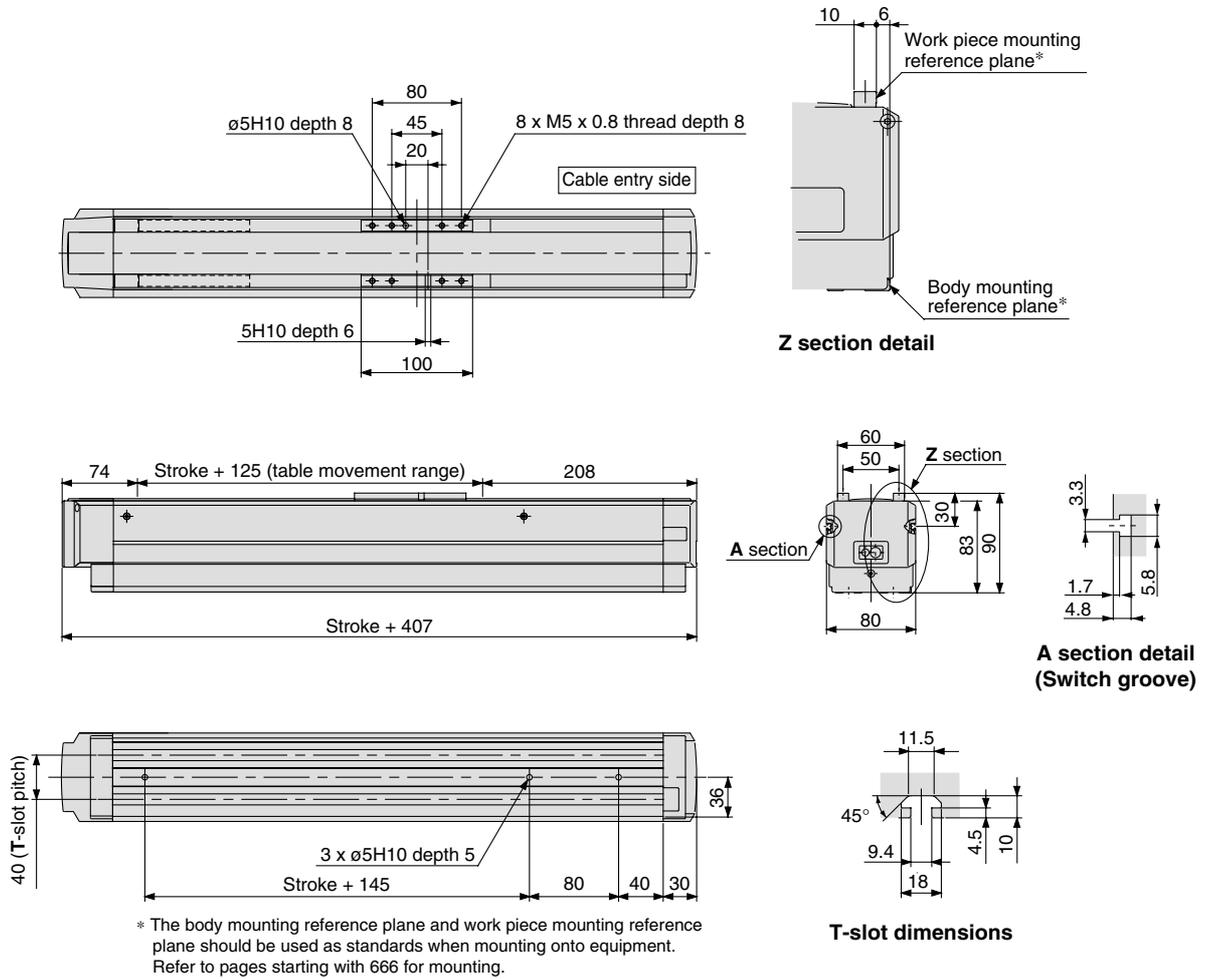
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

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.

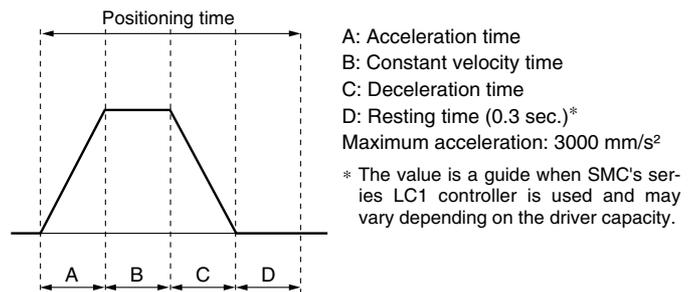
Dimensions/LJ1H10□2□PB (X10)



Positioning Time Guide

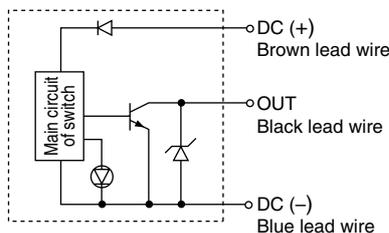
Positioning distance (mm)		Positioning time (sec.)				
		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	300	0.4	0.5	0.8	1.3	2.1
	600	0.4	0.5	0.7	1.0	1.4

* Values will vary slightly depending on the operating conditions.



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 R11 NH - 300 K - F W - X10

Stroke (mm)
Refer to page 609 for details.

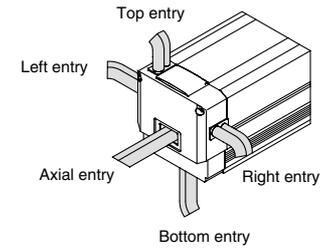
Cable entry direction

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
R11	Mitsubishi Electric Corporation	HC-PQ13	100 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 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.

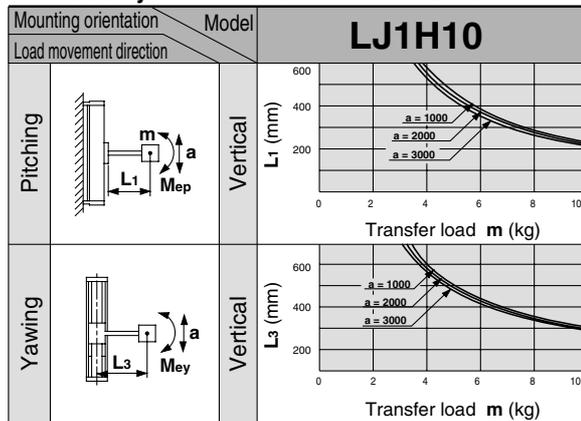
Allowable Moment (N·m)

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

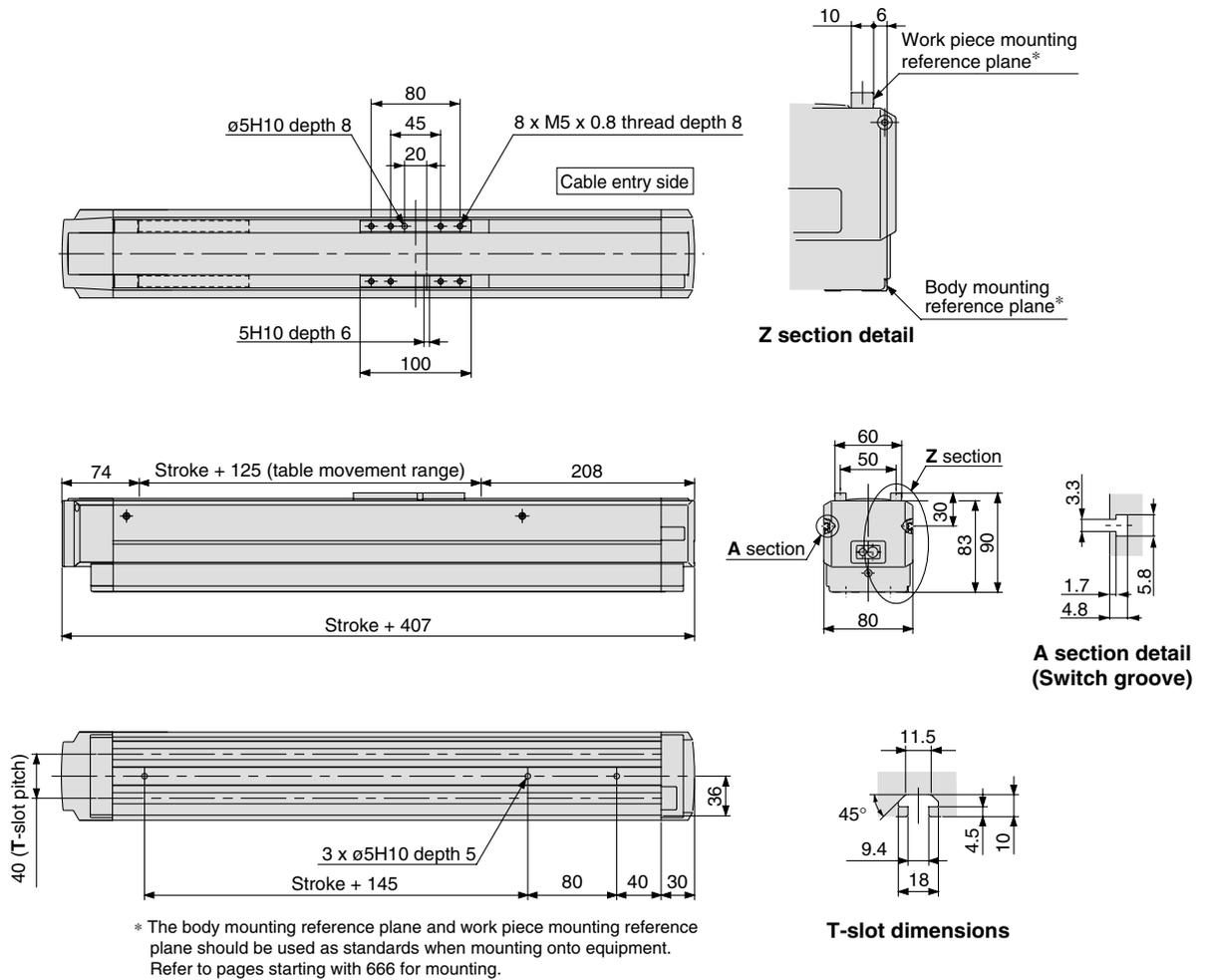
Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

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.

Series LJ1H10

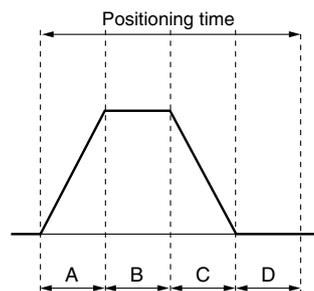
Dimensions/LJ1H10□2□NH (X10)



Positioning Time Guide

		Positioning time (sec.)				
		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.

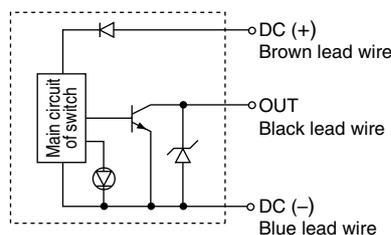


- A: Acceleration time
- B: Constant velocity time
- C: Deceleration time
- D: Resting time (0.3 sec.)*
- Maximum acceleration: 3000 mm/s²

* 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

Motor Output
100_w

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
ø12 mm/12 mm lead

Series *LJ1H10*

How to Order

LJ1H10 R11 NB - 300 K - F W - X10

Stroke (mm)

Refer to page 612 for details.

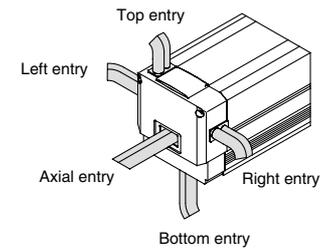
Cable entry direction

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
R11	Mitsubishi Electric Corporation	HC-PQ13	100 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 specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Series LJ1H10

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.

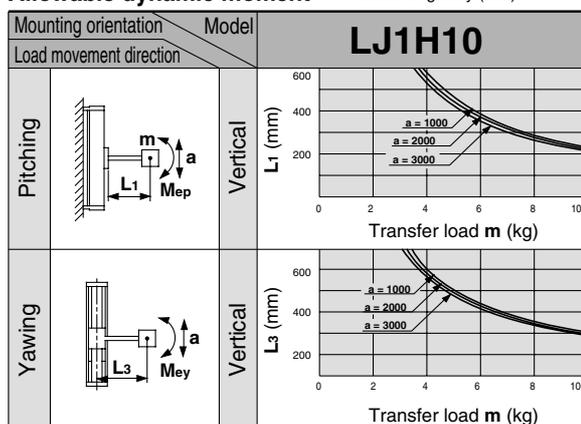
Allowable Moment (N·m)

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.

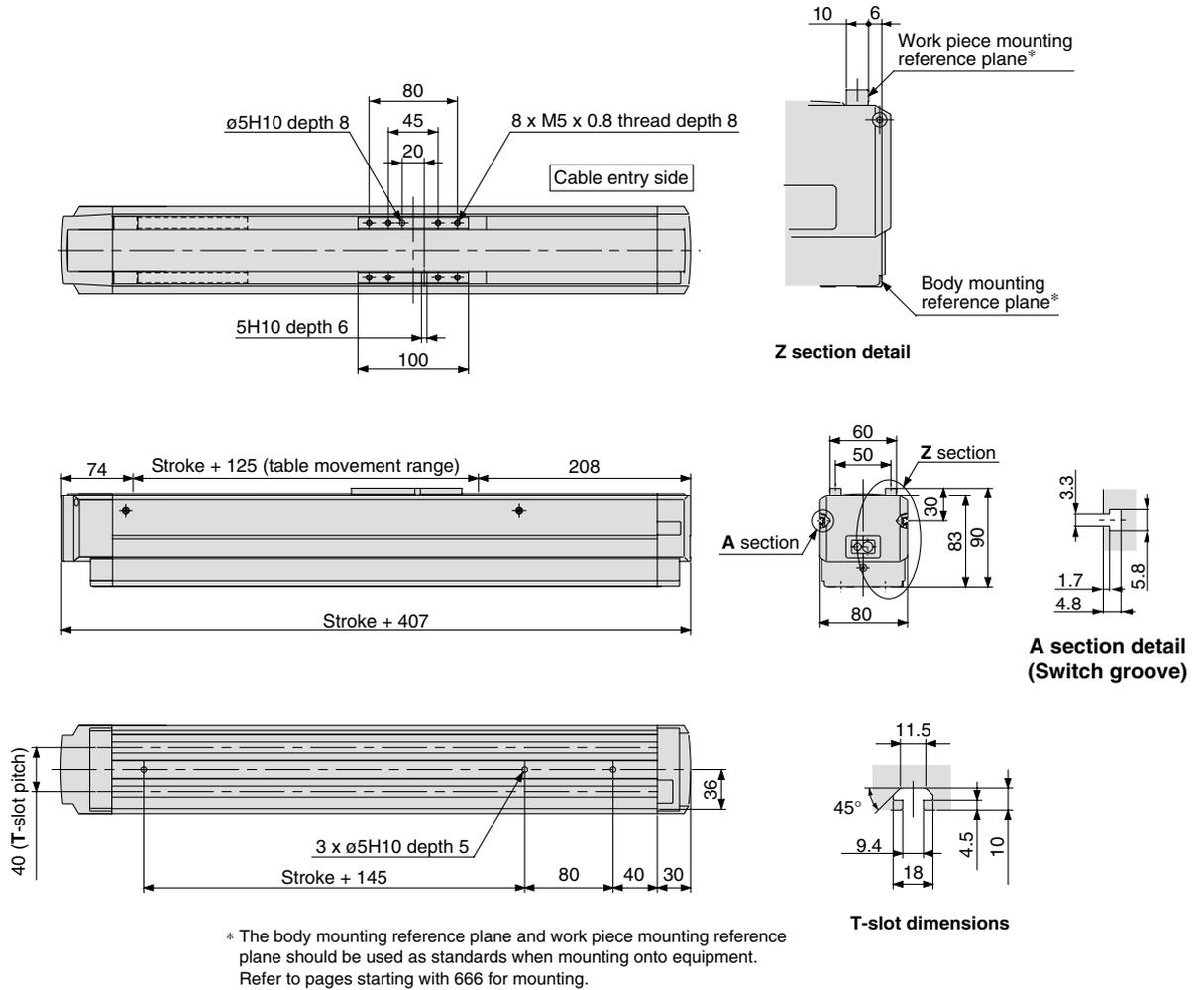
Regenerative Absorption Unit/Regenerative Resistor Selection Guide

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.

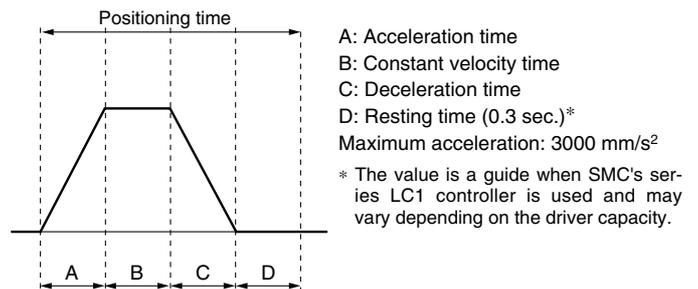
Dimensions/LJ1H10□2□NB (X10)



Positioning Time Guide

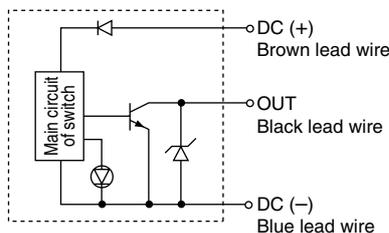
Positioning distance (mm)		Positioning time (sec.)				
		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	300	0.4	0.5	0.8	1.3	2.1
	600	0.4	0.5	0.7	2.0	1.4

* Values will vary slightly depending on the operating conditions.



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

Stroke (mm)
Refer to page 615 for details.

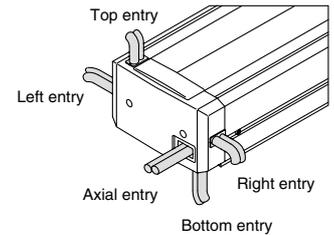
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

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

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 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.

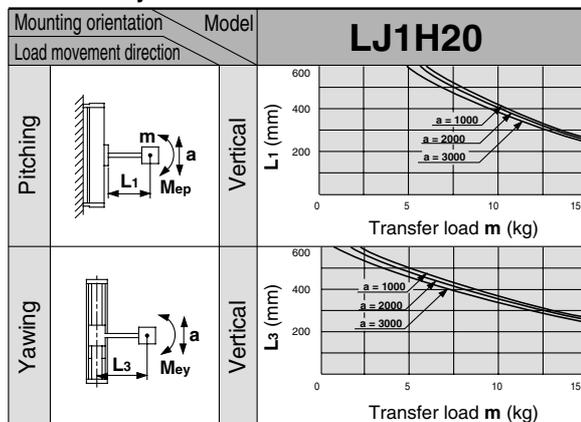
Allowable Moment (N·m)

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

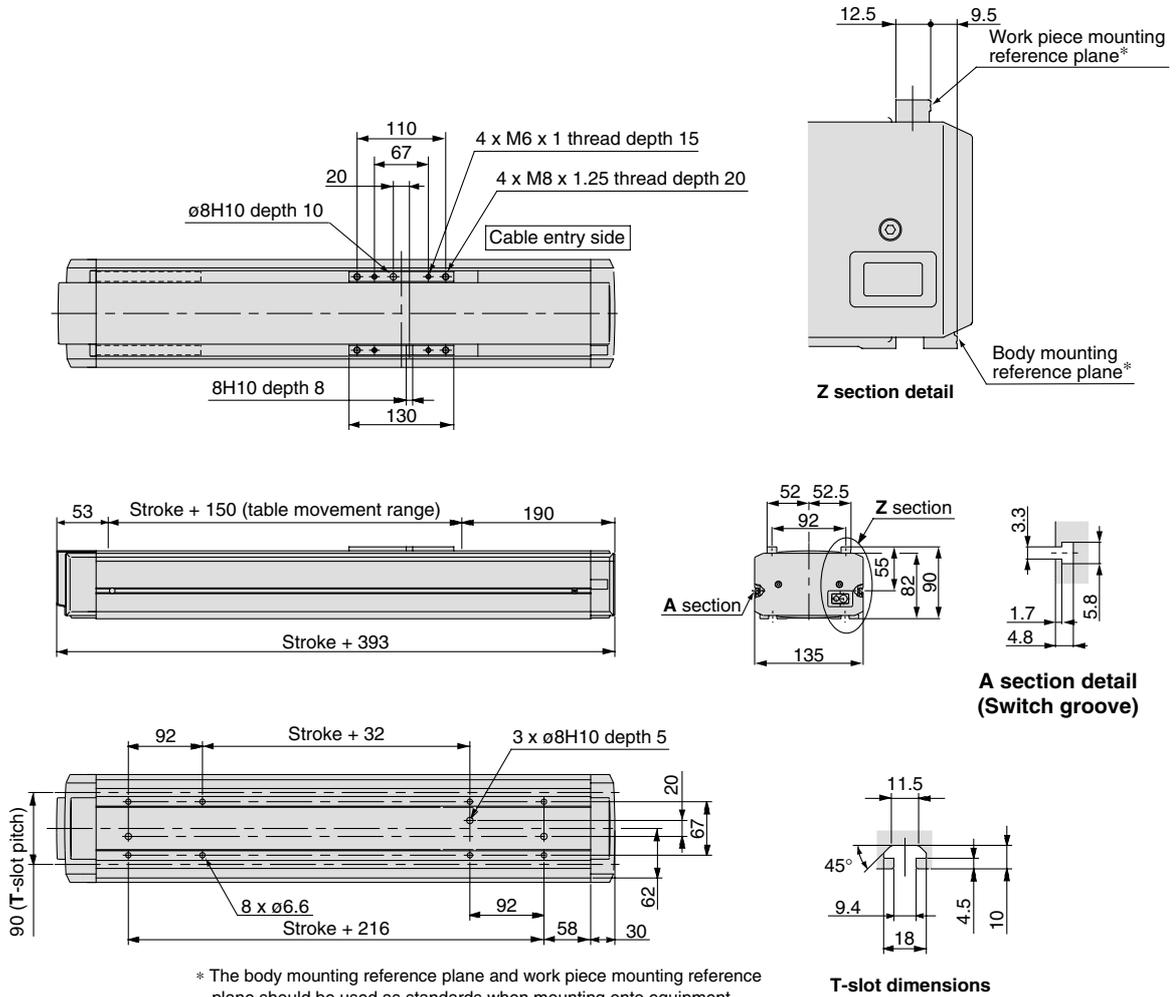
Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mounting specification. How to determine regenerative energy is shown below.

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.

Series LJ1H20

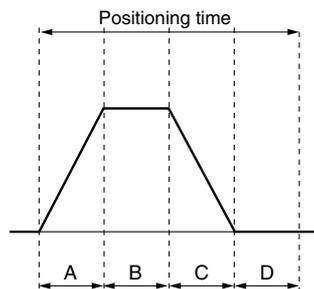
Dimensions/LJ1H20□2□PF (X10)



Positioning Time Guide

Positioning distance (mm)		Positioning time (sec.)				
		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

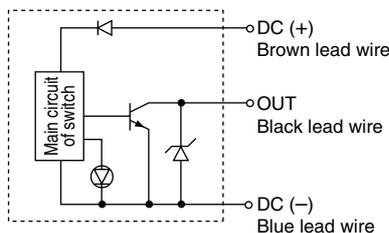
* Values will vary slightly depending on the operating conditions.



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.

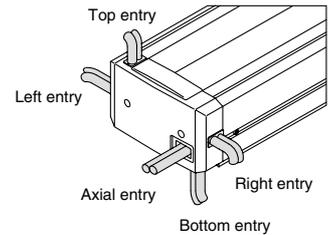
Cable entry direction

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 specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Series LJ1H20

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.

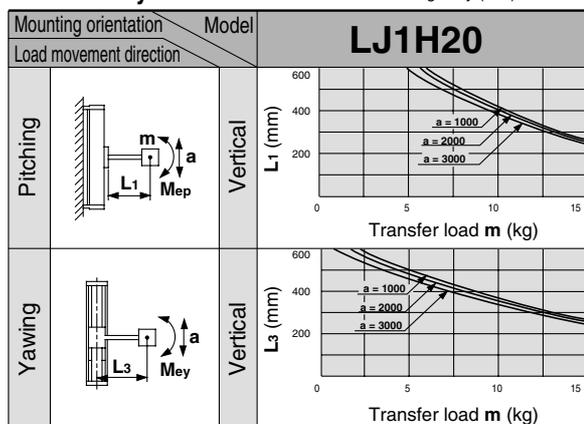
Allowable Moment (N·m)

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.

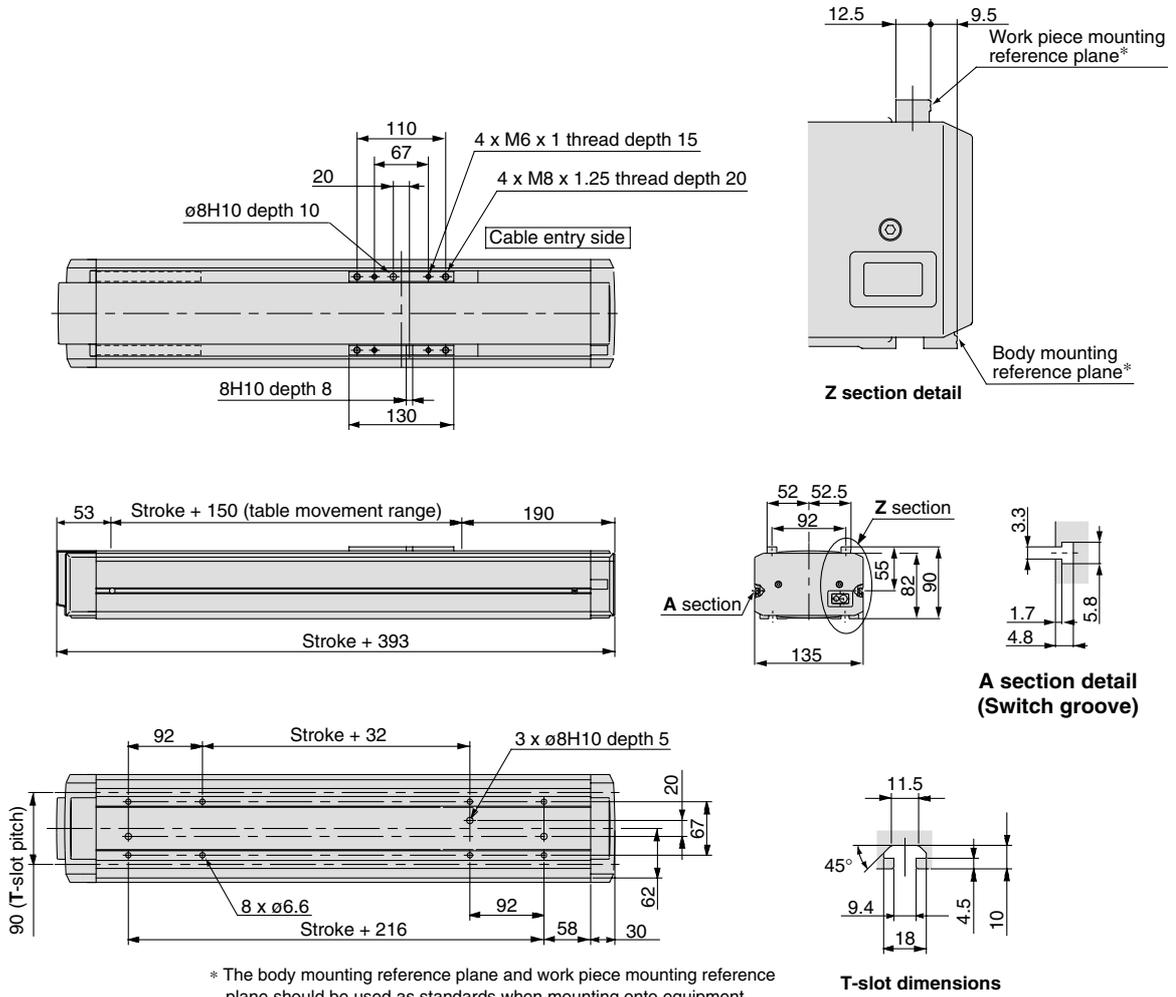
Regenerative Absorption Unit/ Regenerative Resistor Selection Guide

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)

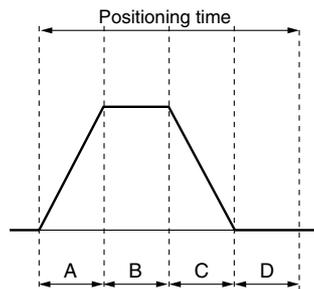


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		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

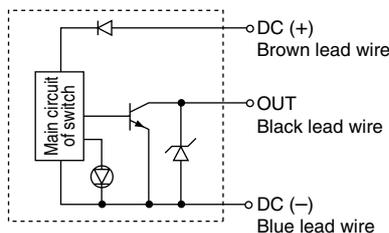
* Values will vary slightly depending on the operating conditions.



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.

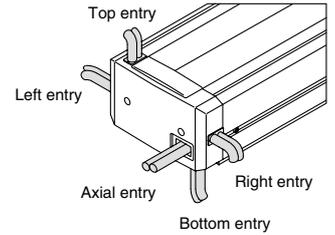
Cable entry direction

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 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.

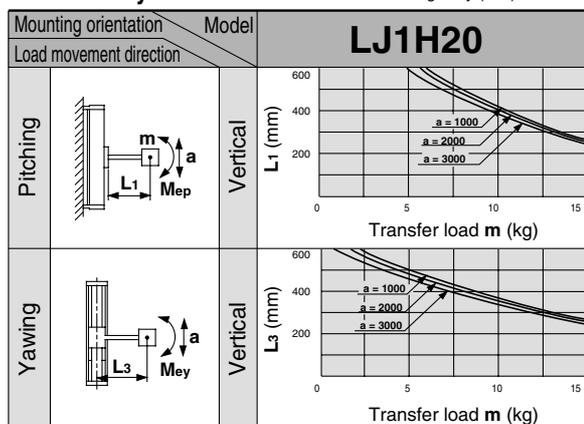
Allowable Moment (N·m)

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

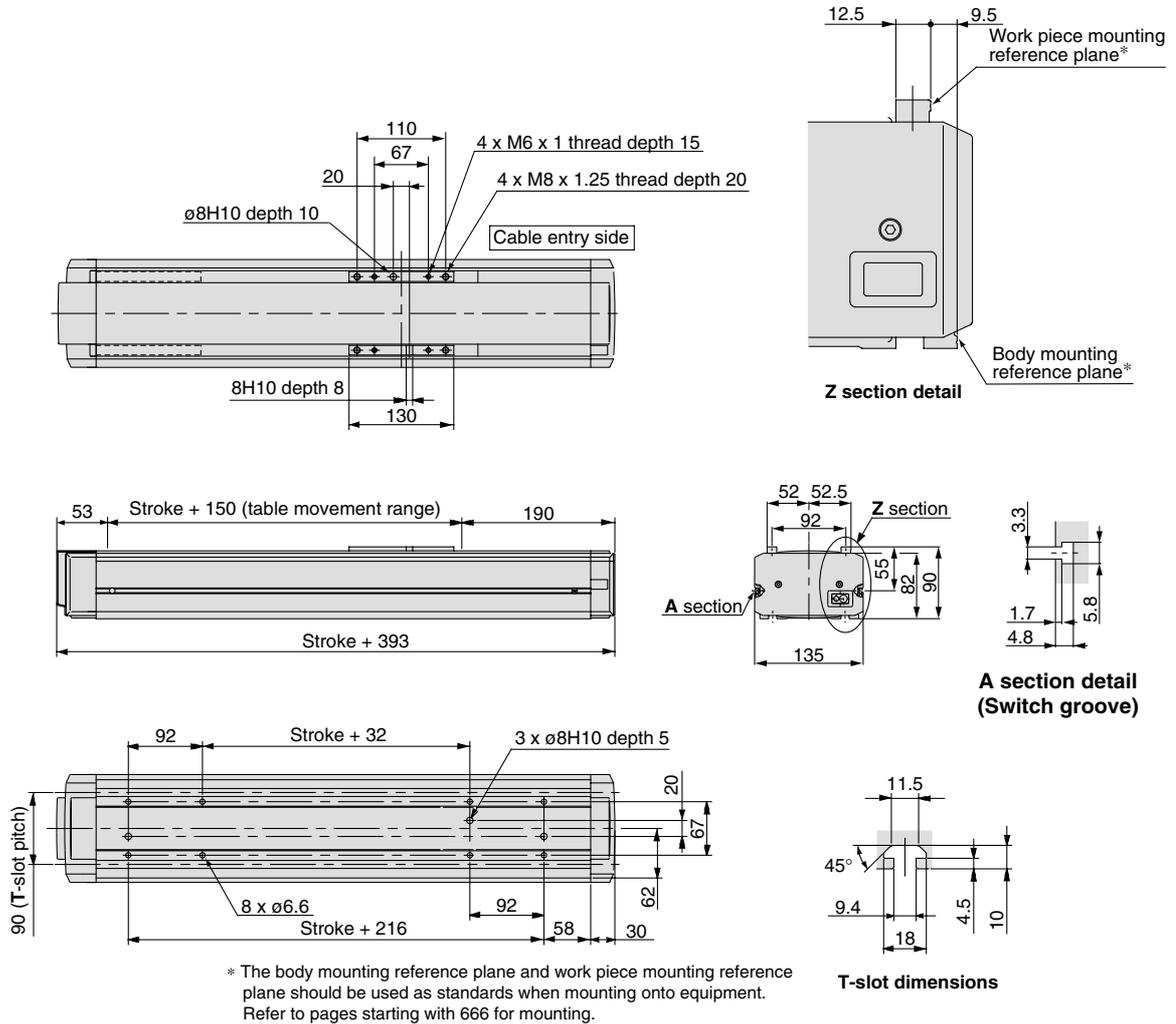
Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mounting specification. How to determine regenerative energy is shown below.

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.

Series LJ1H20

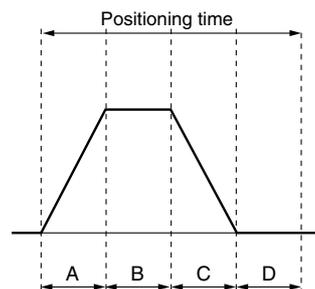
Dimensions/LJ1H20□2□NF (X10)



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

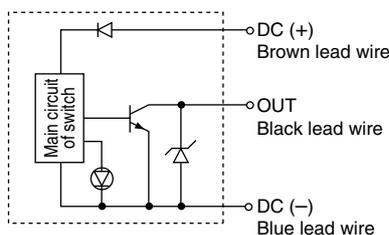
* Values will vary slightly depending on the operating conditions.



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.

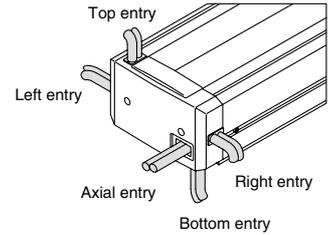
Cable entry direction

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 specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Series LJ1H20

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.

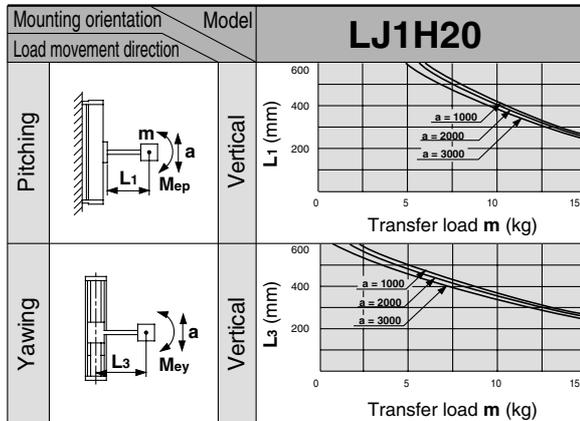
Allowable Moment (N·m)

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.

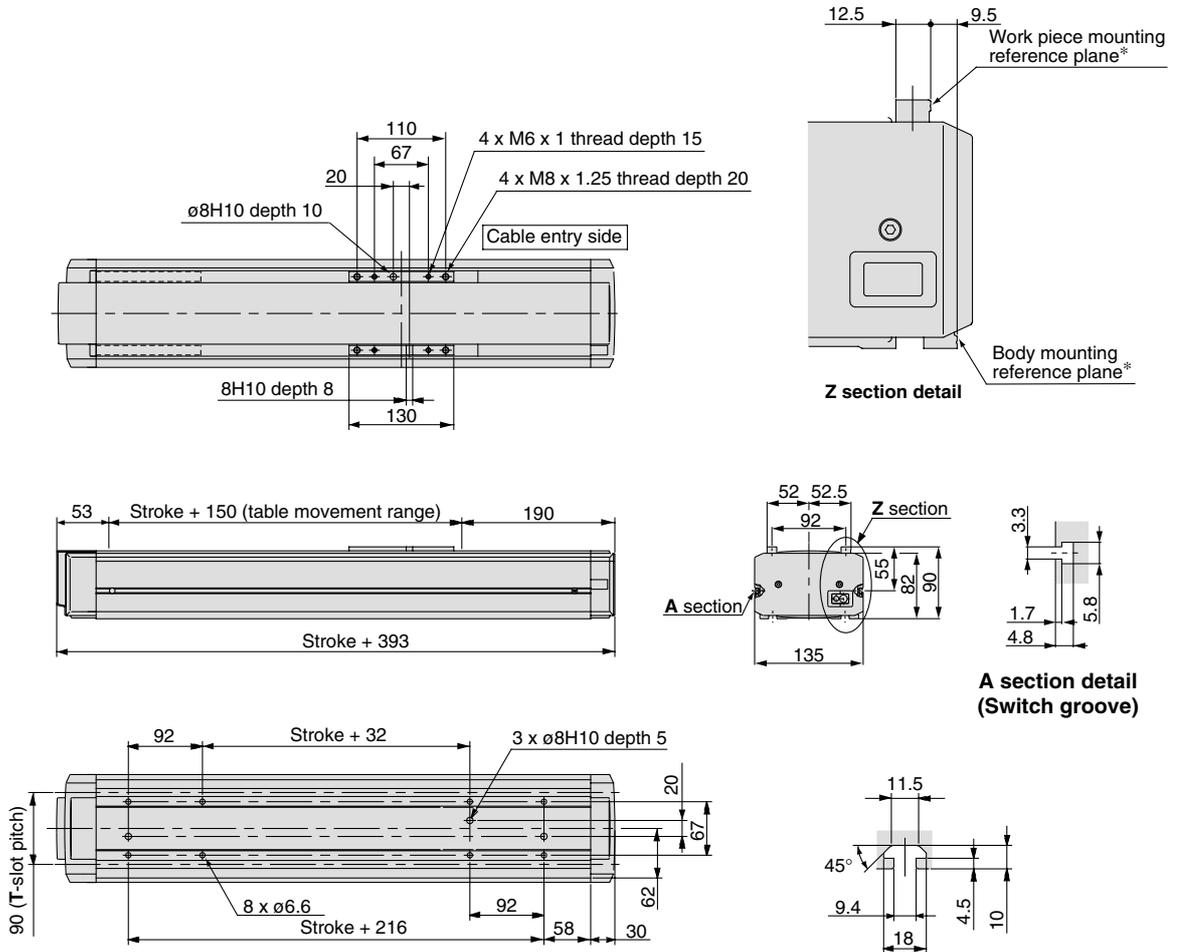
Regenerative Absorption Unit/Regenerative Resistor Selection Guide

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)

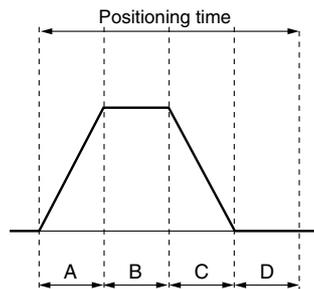


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		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

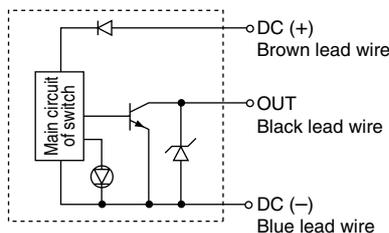
* Values will vary slightly depending on the operating conditions.



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.

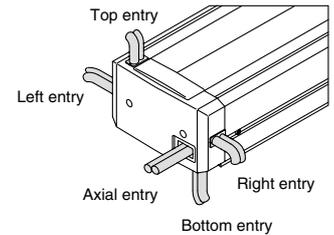
Cable entry direction

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 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.

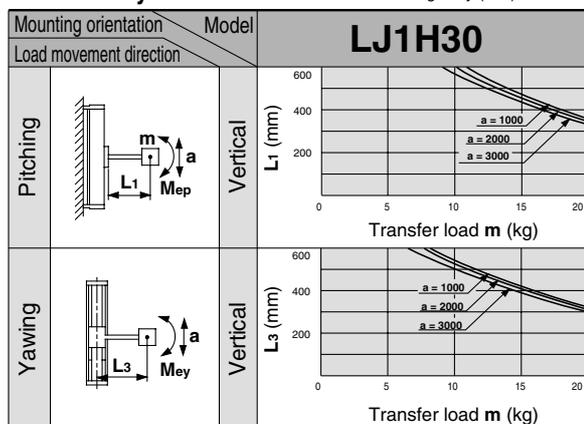
Allowable Moment (N·m)

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

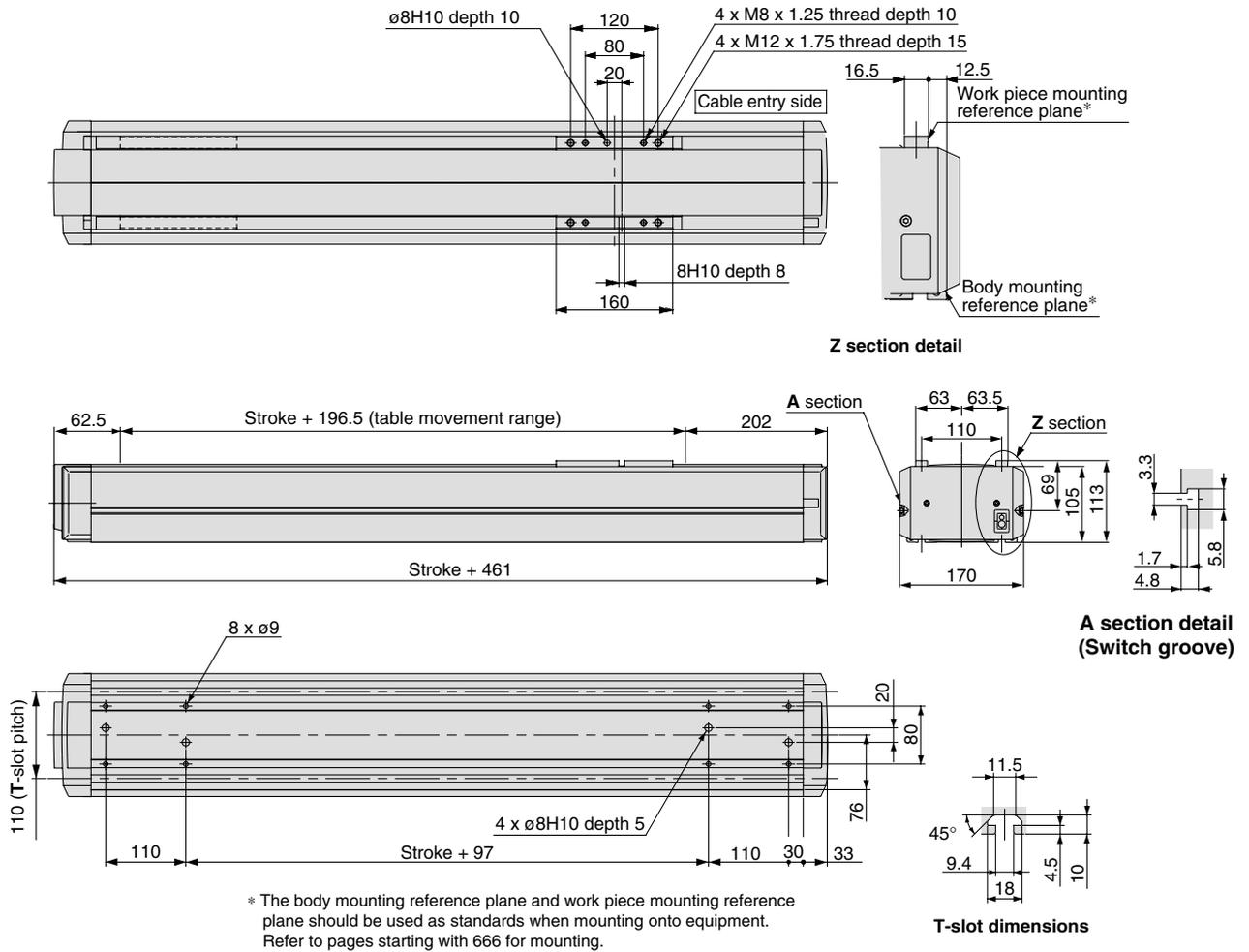
Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mounting specification. How to determine regenerative energy is shown below.

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.

Series LJ1H30

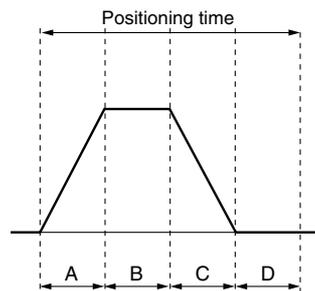
Dimensions/LJ1H30□3□PA (X10)



Positioning Time Guide

		Positioning time (sec.)				
		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.

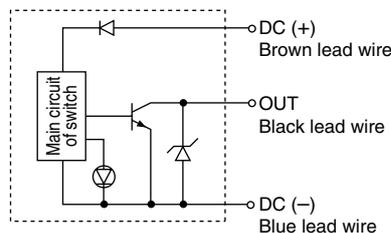


A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (1.0 sec.)*
 Maximum acceleration: 3000 mm/s²

* 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.

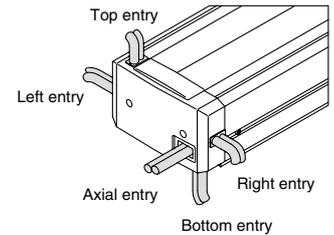
Cable entry direction

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 specifications
(For details, refer to page 999)

Symbol	Specifications
X60	Clean room specification
X70	Dust seal specification

Series LJ1H30

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.

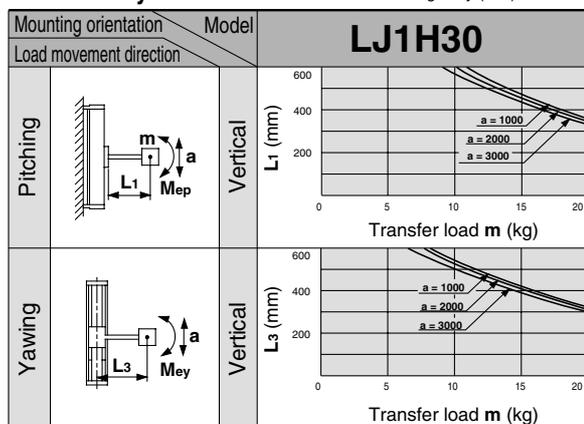
Allowable Moment (N·m)

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.

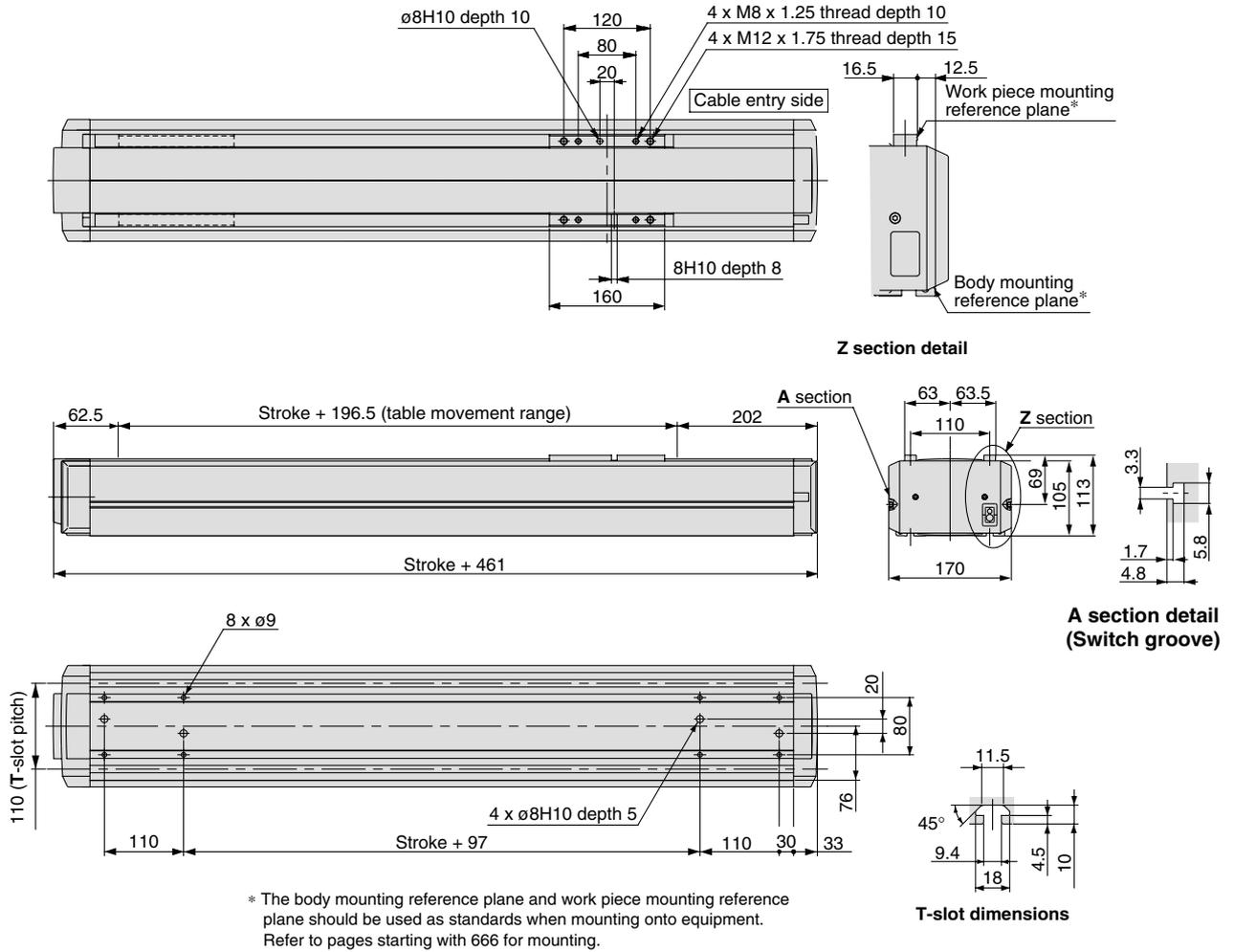
Regenerative Absorption Unit/Regenerative Resistor Selection Guide

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.

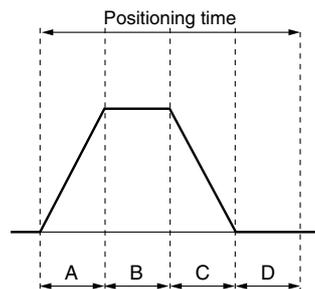
Dimensions/LJ1H30□3□NA (X10)



Positioning Time Guide

		Positioning time (sec.)				
		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.

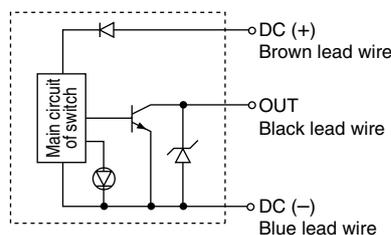


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (1.0 sec.)*
Maximum acceleration: 3000 mm/s²

* 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





Single Axis Electric Actuator

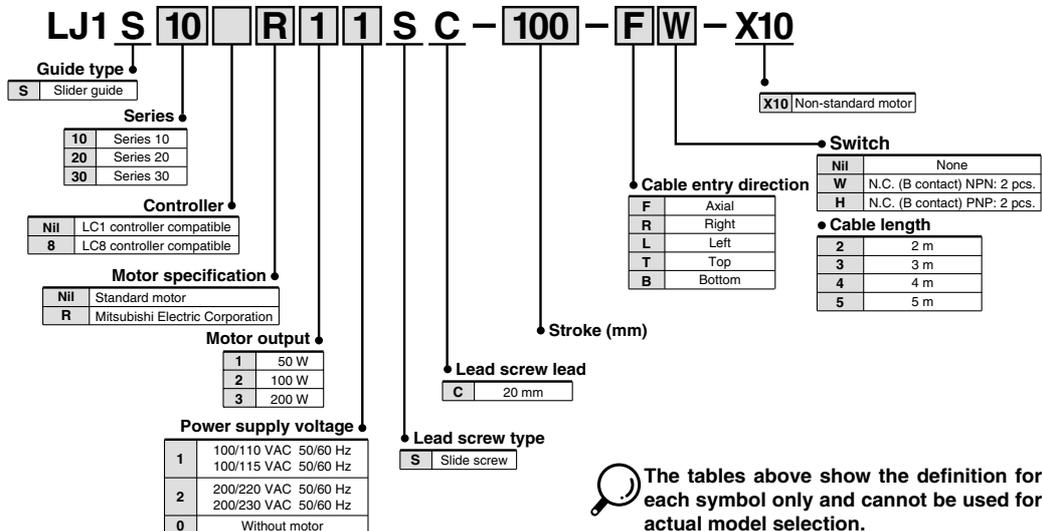
Series **LJ1S**

Slider Guide

Series	Motor type	Guide type	Mounting orientation	Model	Lead screw lead mm	Page
					Slide screw	
LJ1S	Standard motor	Slider guide	Horizontal	LJ1S10	20	P.634
				LJ1S20	20	P.637
				LJ1S30	20	P.640
	Non-standard motor			LJ1S10	20	P.643
				LJ1S20	20	P.648
				LJ1S30	20	P.653

- Option specifications _____ P.658
- Construction _____ P.663
- Mounting _____ P.666
- Non-standard Motor Mounting _____ P.669
- Deflection Data _____ P.671

Part Number Designations



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

Standard Motor Horizontal Mount Series *LJ1S10*

Motor Output
50_w

Slider
Guide

Slide Screw
∅20 mm/20 mm lead

How to Order

LC1 controller compatible

LJ1S10 **11** **SC** - **300** - **F** **2**

LC8 controller compatible

LJ1S108 **11** **SC** - **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 635 for details.

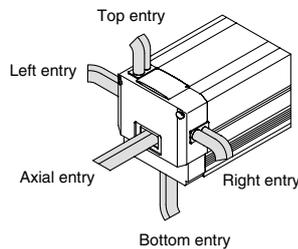
CE marking

Nil	—
Q	CE marked products

Cable length

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

Cable entry direction



F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable entry direction



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

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000
Performance	Body mass (kg)	5.4	6.1	6.9	7.7	8.5	9.3	10.0	10.8	11.6	12.4
	Operating temperature range (°C)	5 to 40 (No condensation)									
	Work load (kg)	5									
	Maximum speed (mm/s)	300									
	Positioning repeatability (mm)	±0.1									
Main parts	Motor	AC servomotor (50 W)									
	Encoder	Incremental system									
	Lead screw	Slide screw ø20 mm, 20 mm lead									
	Guide	Slider guide									
	Motor/Screw connection	With coupling									
Controller	Model	LC1	LC1-1B1S□-□□ (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 above, add "-X2" at the end of the part number.

Applicable strokes: 150, 250, 350, 450, 550, 650, 750, 850, 950

Example 1) **LJ1S1011SC-150-F2-X2**

Example 2) **LJ1S10811SC-150-F2-X2-Q**

Allowable Moment (N·m)

Allowable static moment

Pitching	1.3
Rolling	1.5
Yawing	0.7

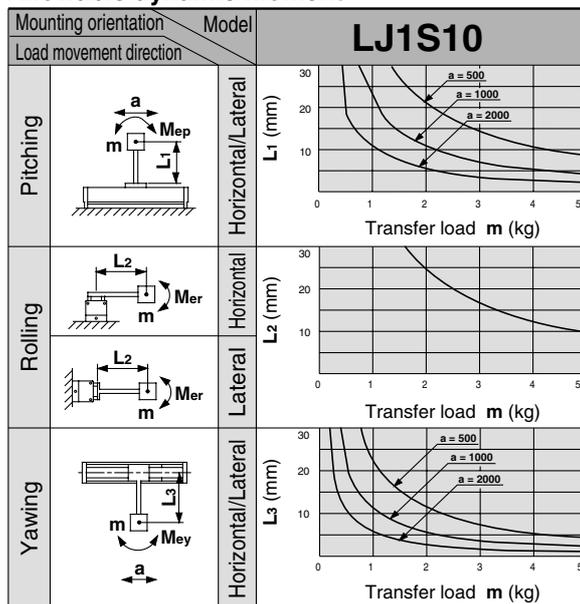
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me : Dynamic moment

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

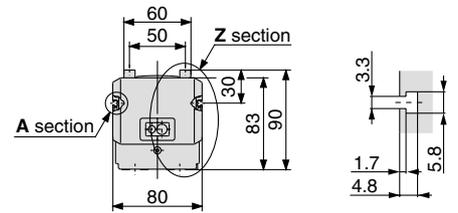
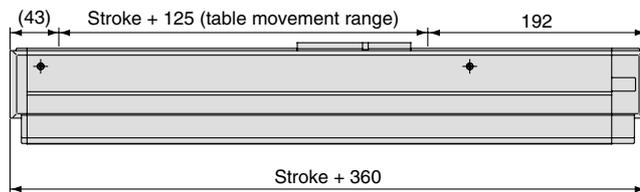
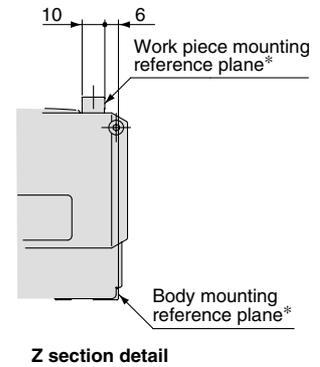
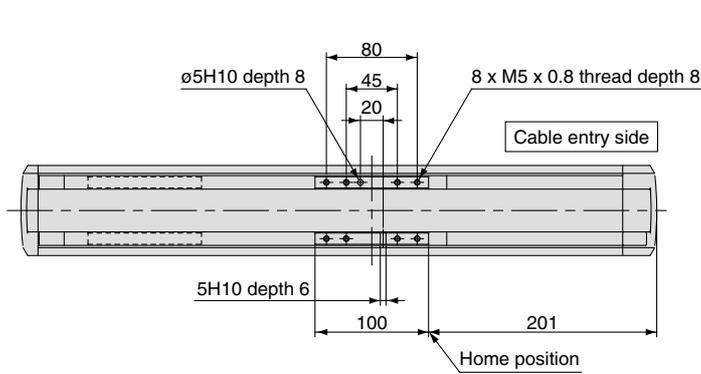
Allowable dynamic moment



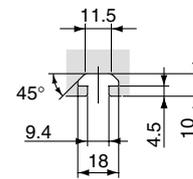
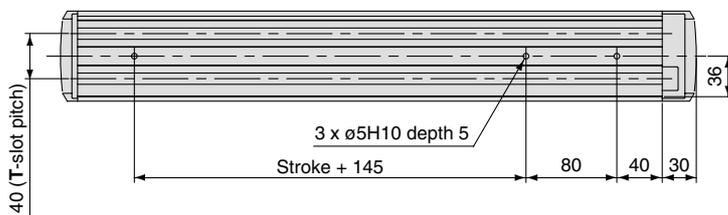
Refer to page 671 for deflection data.

Series LJ1S10

Dimensions/LJ1S10□SC, LJ1S108□SC



A section detail (Switch groove)



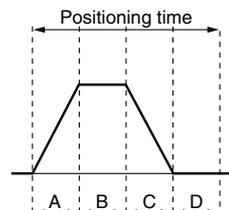
T-slot dimensions

* 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.)				
		1	10	100	500	1000
Speed (mm/s)	10	0.5	1.4	10.4	50.4	100.4
	100	0.4	0.5	1.4	5.4	10.4
	150	0.4	0.5	1.1	3.8	7.1
	300	0.4	0.5	0.8	2.2	3.8

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.1 sec.)
 Maximum acceleration: 2000 mm/s²

Standard Motor Horizontal Mount Series *LJ1S20*

Motor Output

100_w

Slider
Guide

Slide Screw

∅20 mm/20 mm lead

How to Order

LC1 controller compatible

LJ1S20 **21** **SC** - **300** - **F** **2**

LC8 controller compatible

LJ1S208 **21** **SC** - **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.

CE marking

Nil	—
Q	CE marked products

Cable length

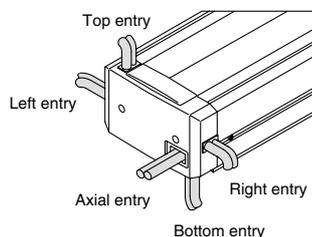
2	2 m
3	3 m
4	4 m
5	5 m

Stroke (mm)

Refer to page 638 for details.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction



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

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Series LJ1S20

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000	1200
Performance	Body mass (kg)	6.8	7.9	9.0	10.1	11.1	12.2	13.3	14.3	15.4	16.4	18.6
	Operating temperature range (°C)	5 to 40 (No condensation)										
	Work load (kg)	10										
	Maximum speed (mm/s)	300										
	Positioning repeatability (mm)	±0.1										
Main parts	Motor	AC servomotor (100 W)										
	Encoder	Incremental system										
	Lead screw	Slide screw ø20 mm, 20 mm lead										
	Guide	Slider guide										
	Motor/Screw connection	With coupling										
Controller	Model	LC1	LC1-1B2S□-□□ (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 above, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550, 650, 750, 850, 950, 1050

Example 1) LJ1S2021SC-150-F2-X2

Example 2) LJ1S20821SC-150-F2-X2-Q

Allowable Moment (N·m)

Allowable static moment

Pitching	5.5
Rolling	6.0
Yawing	8.5

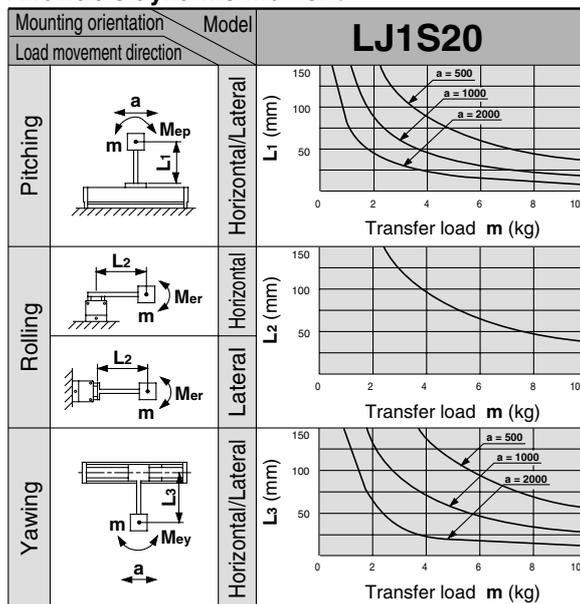
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me: Dynamic moment

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

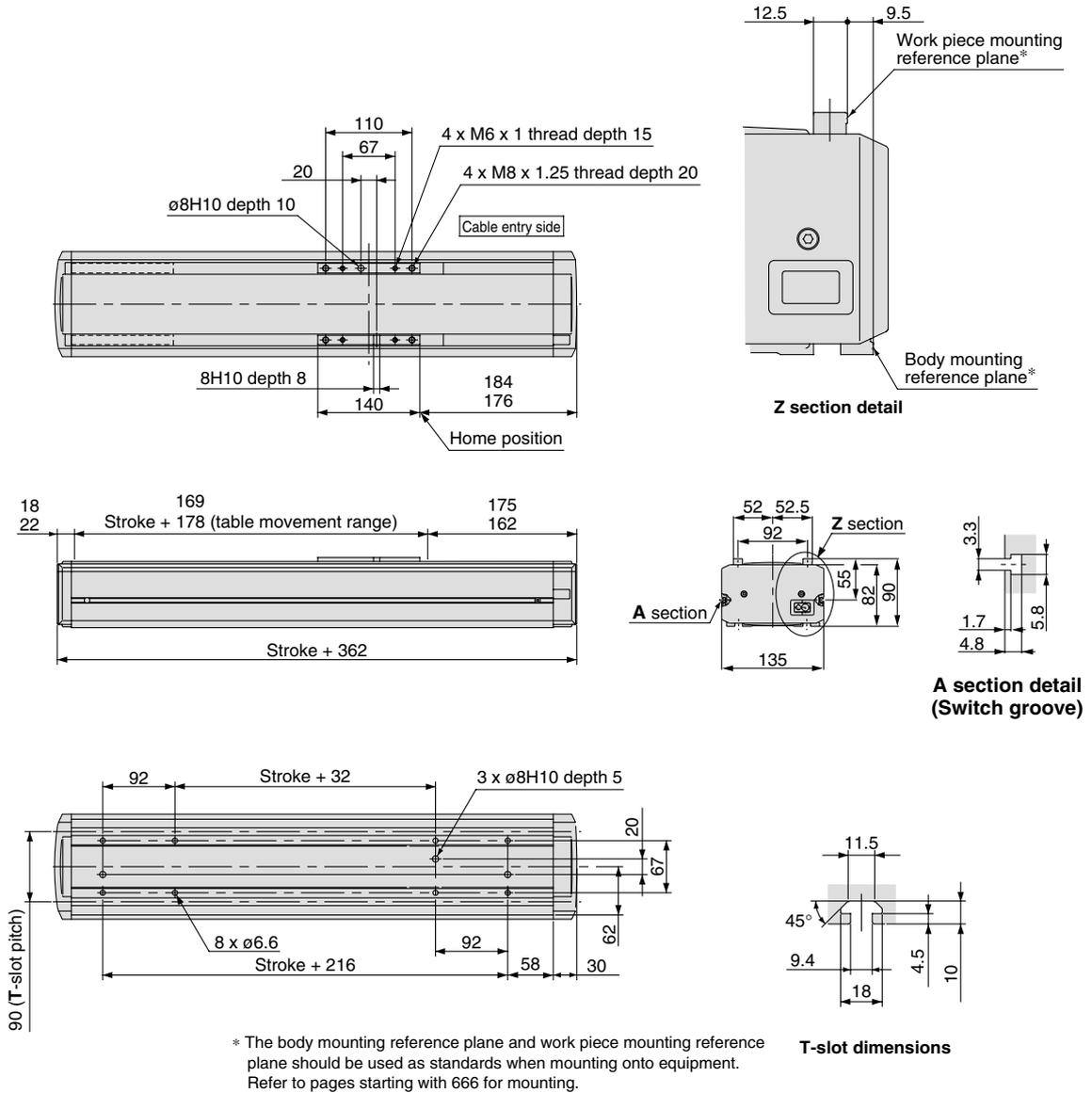
Allowable dynamic moment



Refer to page 671 for deflection data.

Dimensions/LJ1S20□SC, LJ1S208□SC

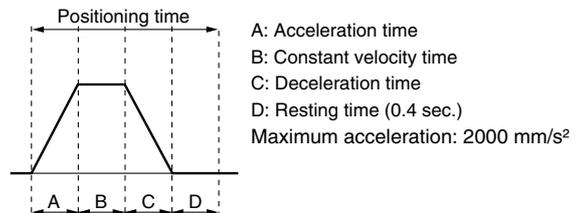
 When two dimensions are shown, the top dimension is for 100 to 600 mm strokes, and the bottom dimension is for 700 to 1200 mm strokes.



Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	600	1200
Speed (mm/s)	10	0.6	1.5	10.5	60.5	120.5
	100	0.5	0.6	1.5	6.5	12.5
	150	0.5	0.6	1.2	4.5	8.5
	300	0.5	0.6	0.9	2.6	4.6

* Values will vary slightly depending on the operating conditions.



Standard Motor Horizontal Mount Series *LJ1S30*

Motor Output
200 W

Slider
Guide

Slide Screw
Ø25 mm/20 mm lead

How to Order

LC1 controller compatible

LJ1S30 **31** **SC** - **300** - **F** **2**

LC8 controller compatible

LJ1S308 **31** **SC** - **300** - **F** **2** -

Power supply voltage

Symbol	Power supply voltage	Compatible controller
31	100/110 VAC (50/60 Hz)	LC1
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 641 for details.

CE marking

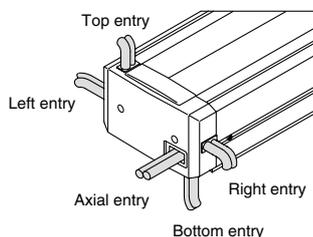
Nil	—
Q	CE marked products

Cable length

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

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom



Cable entry direction



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

Symbol	Specifications
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)	14.4	16.2	18.0	19.8	21.5	25.7	29.7	33.3	38.7
	Operating temperature range (°C)	5 to 40 (No condensation)								
	Work load (kg)	20								
	Maximum speed (mm/s)	300								
	Positioning repeatability (mm)	±0.1								
Main parts	Motor	AC servomotor (200 W)								
	Encoder	Incremental system								
	Lead screw	Slide screw ø25 mm, 20 mm lead								
	Guide	Slider guide								
	Motor/Screw connection	With coupling								
Controller	Model	LC1	LC1-1B3S□-□□ (Refer to page 829 for details.)							
		LC8	LC8-B3H□□-□□-□ (Refer to page 853 for details.)							

Intermediate strokes

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

Applicable strokes: 250, 350, 450, 550, 650, 700, 750, 850, 900, 950, 1050, 1100, 1150, 1250, 1300, 1350, 1400, 1450

Example 1) **LJ1S3031SC-250-F2-X2**

Example 2) **LJ1S30831SC-250-F2-X2-Q**

Allowable Moment (N·m)

Allowable static moment

Pitching	26.6
Rolling	40.2
Yawing	25.8

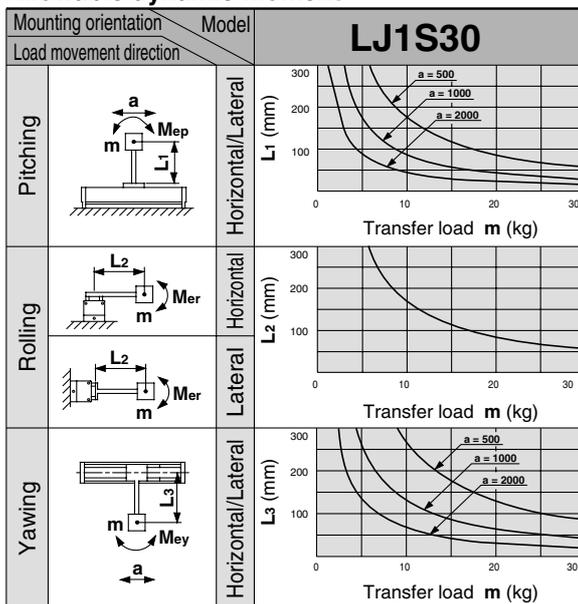
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me : Dynamic moment

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

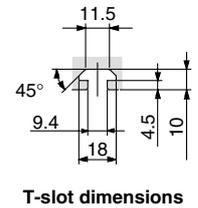
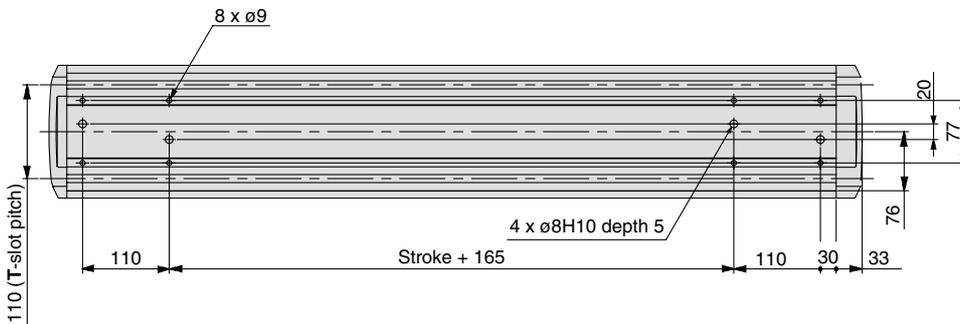
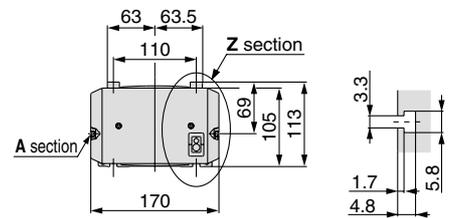
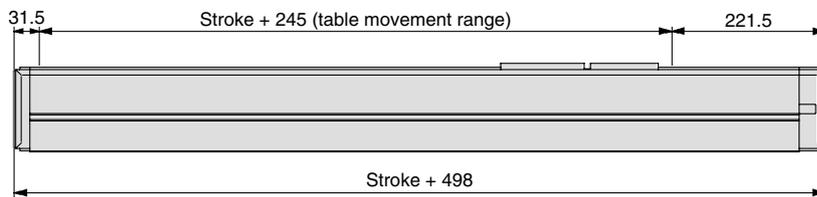
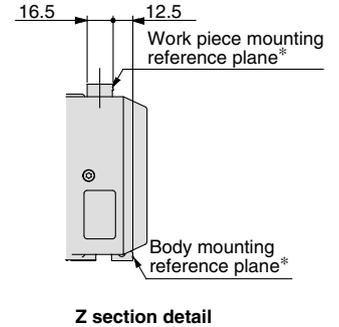
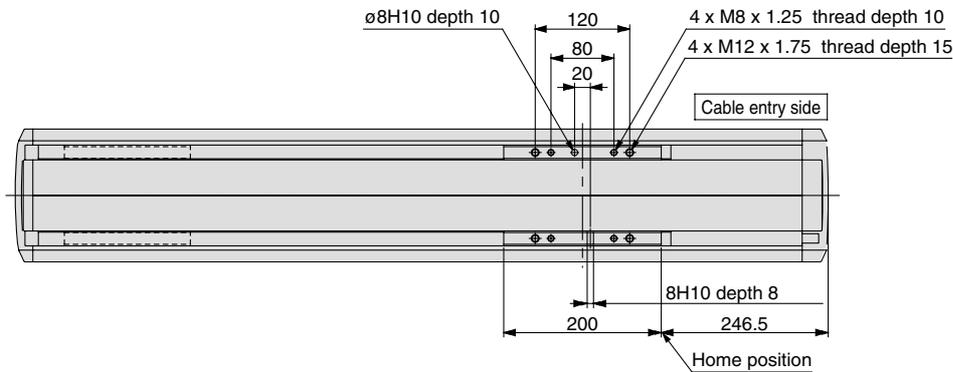
Allowable dynamic moment



Refer to page 671 for deflection data.

Series LJ1S30

Dimensions/LJ1S30□SC, LJ1S308□SC

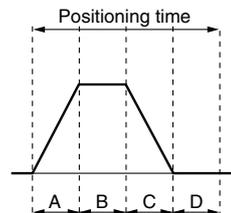


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	750	1500
Speed (mm/s)	10	0.5	2.1	11.1	76.1	151.1
	100	1.1	1.2	2.1	8.6	16.1
	250	1.1	1.2	1.6	4.2	7.2
	500	1.1	1.2	1.5	2.8	4.3

* Values will vary slightly depending on the operating conditions.



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

Non-standard Motor Horizontal Mount Series **LJ1S10**

Motor Output
50_w

Slider
Guide

Slide Screw
∅20 mm/20 mm lead

How to Order

LJ1S10 R11 SC - 300 - F W - X10

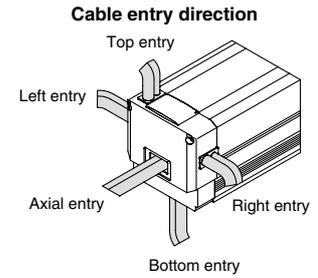
Stroke (mm)
Refer to page 644 for details.

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
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 R□1 and R□2.

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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Series LJ1S10

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000
Performance	Body mass (without motor) (kg)	5.0	5.7	6.5	7.3	8.1	8.9	9.6	10.4	11.2	12.0
	Operating temperature range (°C)	5 to 40 (No condensation)									
	Work load (kg)	5									
	Maximum speed (mm/s)	300									
	Positioning repeatability (mm)	±0.1									
Main parts	Motor	AC servomotor (50 W)									
	Encoder	Incremental system									
	Lead screw	Slide screw ø20 mm, 20 mm lead									
	Guide	Slider guide									
	Motor/Screw connection	With coupling									
Switch	Model	D-Y7GL (Refer to page 1079 for details.)									

Intermediate strokes

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

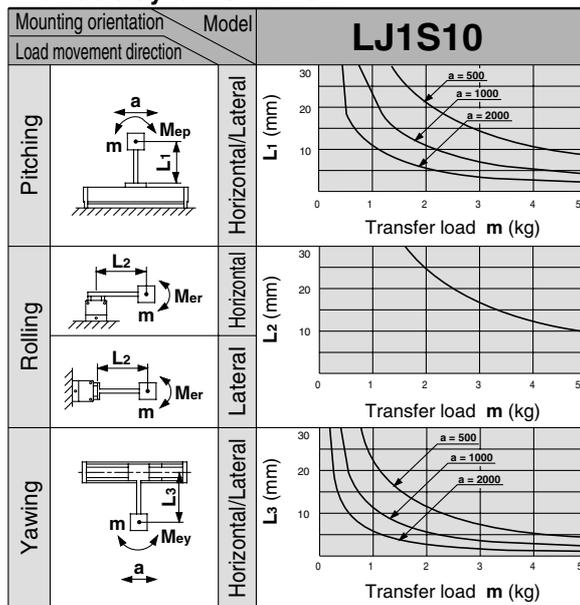
Allowable Moment (N·m)

Allowable static moment

Pitching	1.3
Rolling	1.5
Yawing	0.7

- 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 671 for deflection data.

Non-standard Motor Horizontal Mount

Motor Output
50_w

Slider
Guide

Slide Screw
∅20 mm/20 mm lead

Series *LJ1S10*

How to Order

LJ1S10 R11 SC - 300 - F H - X10 - Q

Stroke (mm)
Refer to page 646 for details.

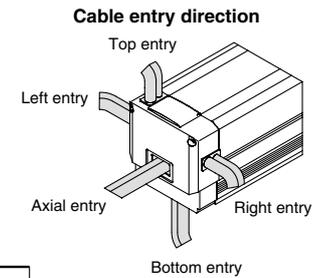
CE marking

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.



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		—	—	—	—	—
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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Series LJ1S10

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000
Performance	Body mass (without motor) (kg)	5.0	5.7	6.5	7.3	8.1	8.9	9.6	10.4	11.2	12.0
	Operating temperature range (°C)	5 to 40 (No condensation)									
	Work load (kg)	5									
	Maximum speed (mm/s)	300									
	Positioning repeatability (mm)	±0.1									
Main parts	Motor	AC servomotor (50 W)									
	Encoder	Incremental system									
	Lead screw	Slide screw ø20 mm, 20 mm lead									
	Guide	Slider 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 above are available by special order. Consult SMC.

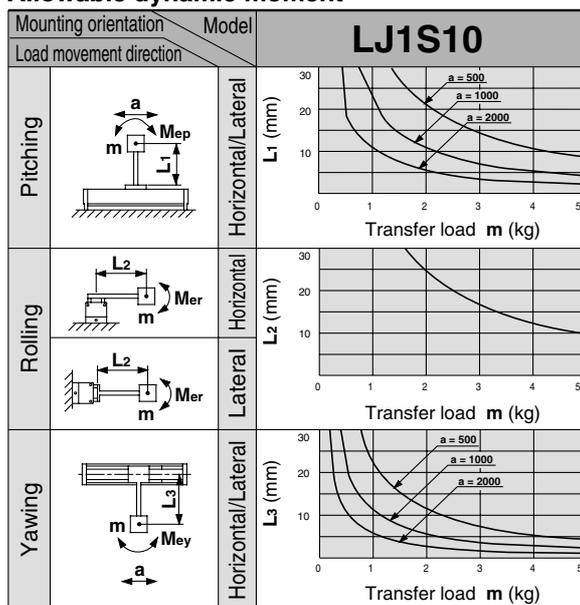
Allowable Moment (N·m)

Allowable static moment

Pitching	1.3
Rolling	1.5
Yawing	0.7

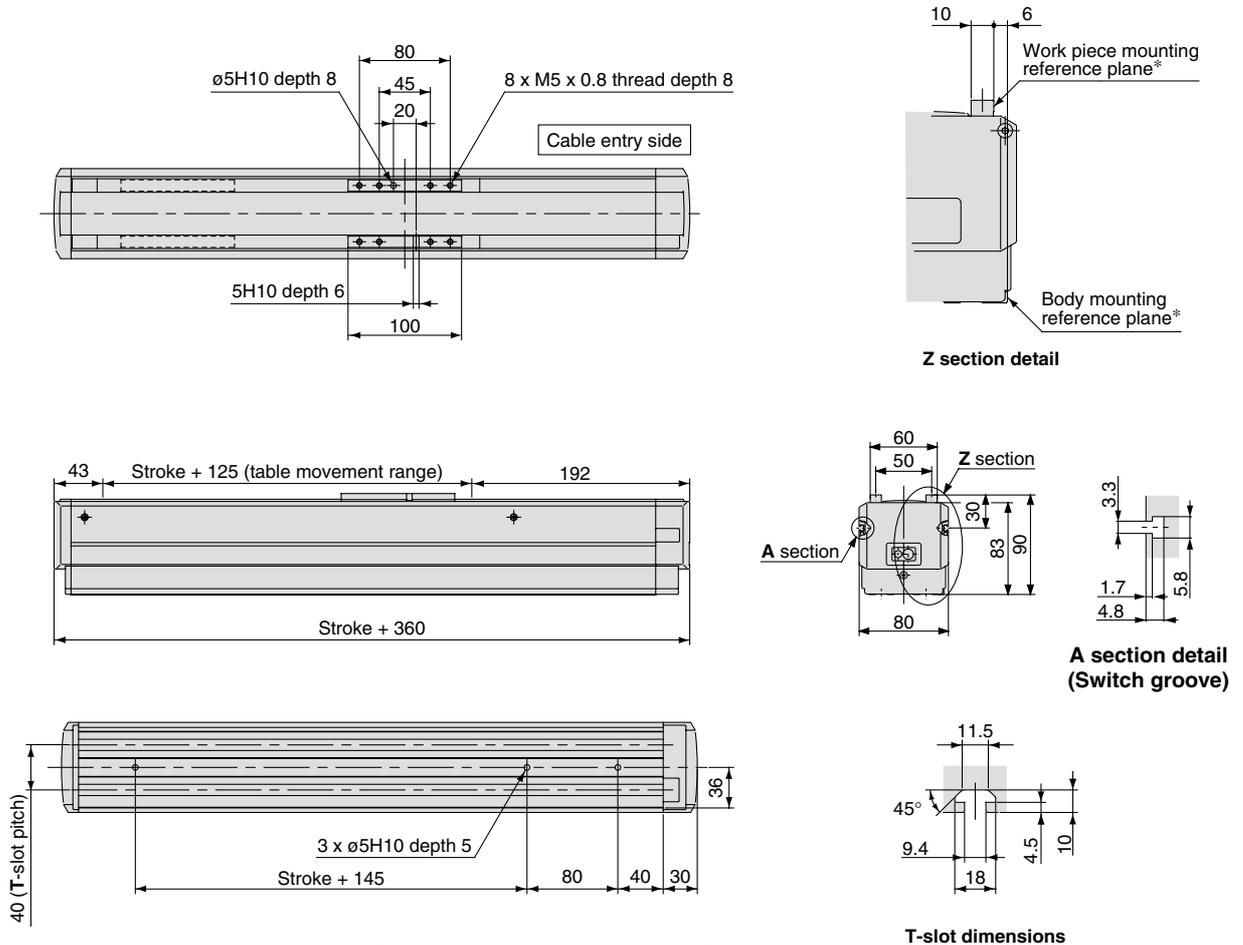
- m** : Transfer load (kg)
- a** : Work piece acceleration (mm/s²)
- Me** : Dynamic moment
- L** : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 671 for deflection data.

Dimensions/LJ1S10□1□SC (X10)

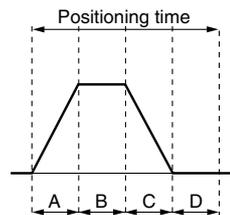


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting equipment. Refer to pages starting with 666 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	500	1000
Speed (mm/s)	10	0.5	1.4	10.4	50.4	100.4
	100	0.4	0.5	1.4	5.4	10.4
	150	0.4	0.5	1.1	3.8	7.1
	300	0.4	0.5	0.8	2.2	3.8

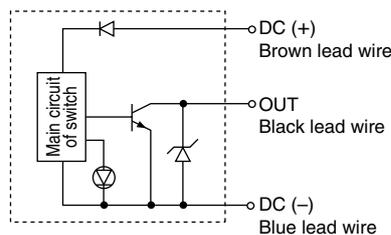
* Values will vary slightly depending on the operating conditions.



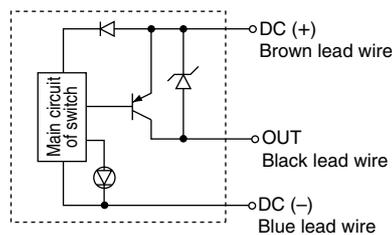
A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.1 sec.)
 Maximum acceleration: 2000 mm/s²
 * The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor Horizontal Mount Series *LJ1S20*

Motor Output
100_w

Slider
Guide

Slide Screw
∅20 mm/20 mm lead

How to Order

LJ1S20 R21 SC - 300 - F W - X10

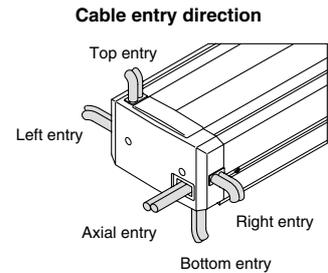
Stroke (mm)
Refer to page 649 for details.

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 R□1 and R□2.

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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000	1200
Performance	Body mass (without motor) (kg)	6.3	7.4	8.5	9.6	10.6	11.7	12.8	13.8	14.9	15.9	18.1
	Operating temperature range (°C)	5 to 40 (No condensation)										
	Work load (kg)	10										
	Maximum speed (mm/s)	300										
	Positioning repeatability (mm)	±0.1										
Main parts	Motor	AC servomotor (100 W)										
	Encoder	Incremental system										
	Lead screw	Slide screw ø20 mm, 20 mm lead										
	Guide	Slider guide										
	Motor/Screw connection	With coupling										
Switch	Model	D-Y7GL (Refer to page 1079 for details.)										

Intermediate strokes

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

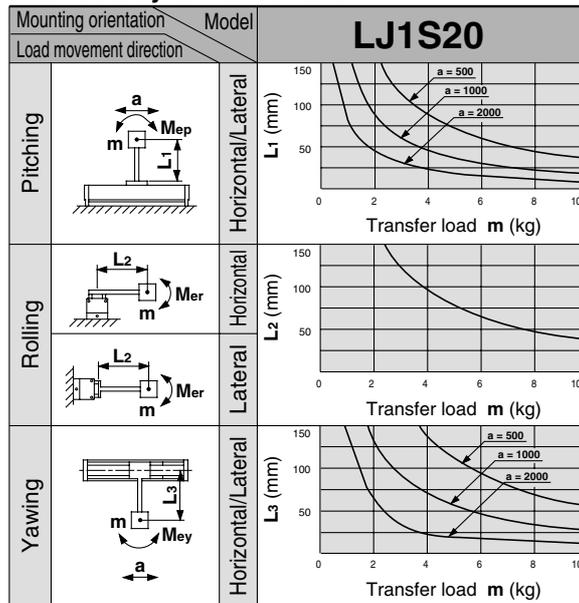
Allowable Moment (N·m)

Allowable static moment

Pitching	5.5
Rolling	6.0
Yawing	8.5

- 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 671 for deflection data.

Non-standard Motor Horizontal Mount

Motor Output

100_W

Slider
Guide

Slide Screw

∅20 mm/20 mm lead

Series LJ1S20

How to Order

LJ1S20 **R21** **SC** - **300** - **F** **H** - X10 - **Q**

Stroke (mm)

Refer to page 651 for details.

CE marking

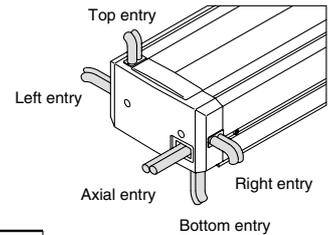
Cable entry direction

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		—	—	—	—
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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Specifications

Standard stroke (mm)		100	200	300	400	500	600	700	800	900	1000	1200
Performance	Body mass (without motor) (kg)	6.3	7.4	8.5	9.6	10.6	11.7	12.8	13.8	14.9	15.9	18.1
	Operating temperature range (°C)	5 to 40 (No condensation)										
	Work load (kg)	10										
	Maximum speed (mm/s)	300										
	Positioning repeatability (mm)	±0.1										
Main parts	Motor	AC servomotor (100 W)										
	Encoder	Incremental system										
	Lead screw	Slide screw ø20 mm, 20 mm lead										
	Guide	Slider 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 above are available by special order. Consult SMC.

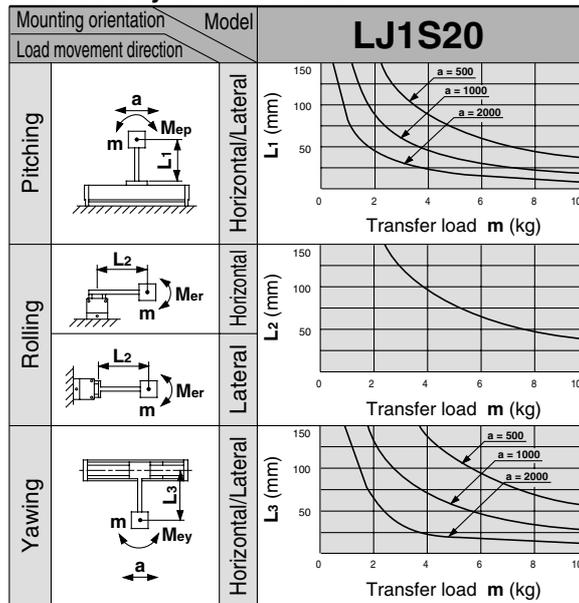
Allowable Moment (N·m)

Allowable static moment

Pitching	5.5
Rolling	6.0
Yawing	8.5

- 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

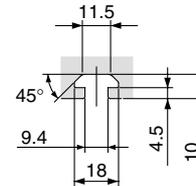
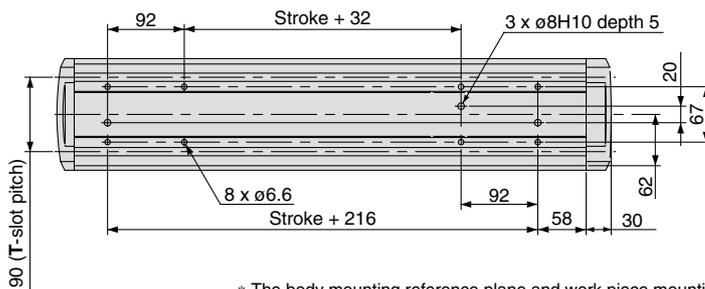
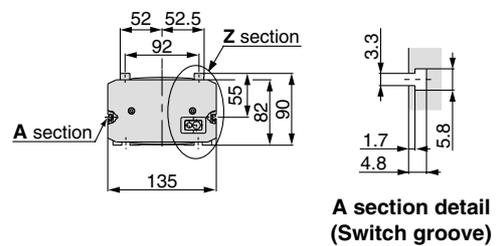
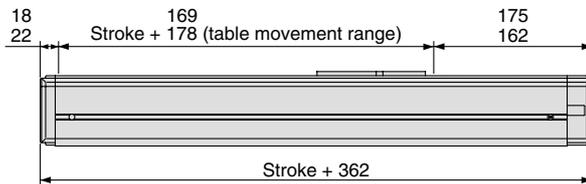
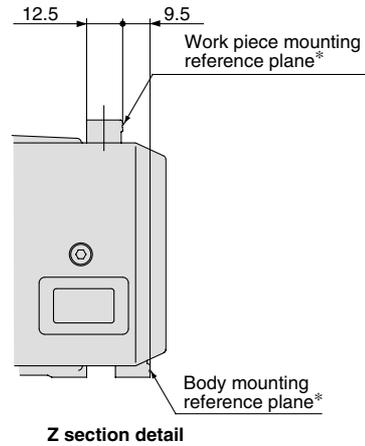
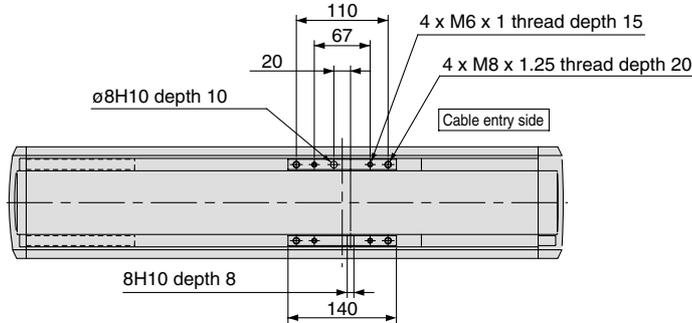


Refer to page 671 for deflection data.

Series LJ1S20

Dimensions/LJ1S20□2□SC (X10)

When two dimensions are shown, the top dimension is for 100 to 600 mm strokes, and the bottom dimension is for 700 to 1200 mm strokes.



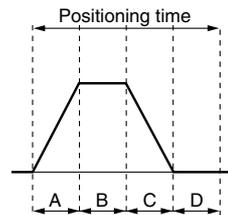
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 666 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	600	1000
Speed (mm/s)	10	0.6	1.5	10.5	60.5	120.5
	100	0.5	0.6	1.5	6.5	12.5
	150	0.5	0.6	1.2	4.5	8.5
	300	0.5	0.6	0.9	2.6	4.6

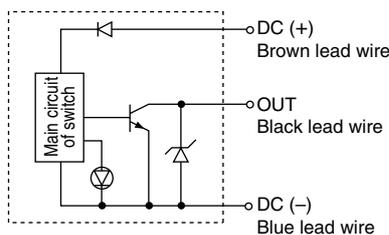
* Values will vary slightly depending on the operating conditions.



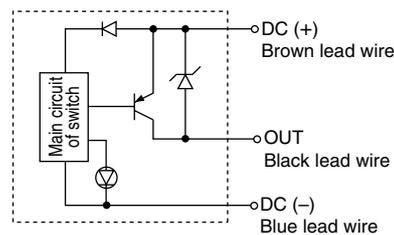
A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.4 sec.)*
 Maximum acceleration: 2000 mm/s²
 * The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL



Non-standard Motor Horizontal Mount Series **LJ1S30**

Motor Output
200_W

Slider
Guide

Slide Screw
∅25 mm/20 mm lead

How to Order

LJ1S30 R31 SC - 300 - F W - X10

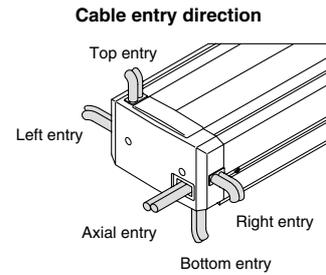
Stroke (mm)
Refer to page 654 for details.

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
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 R□1 and R□2.
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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Series LJ1S30

Specifications

Standard stroke (mm)		200	300	400	500	600	800	1000	1200	1500
Performance	Body mass (without motor) (kg)	13.3	15.1	16.9	18.7	20.4	24.6	28.6	32.2	37.6
	Operating temperature range (°C)	5 to 40 (No condensation)								
	Work load (kg)	20								
	Maximum speed (mm/s)	300								
	Positioning repeatability (mm)	±0.1								
Main parts	Motor	AC servomotor (200 W)								
	Encoder	Incremental system								
	Lead screw	Slide screw ø25 mm, 20 mm lead								
	Guide	Slider guide								
	Motor/Screw connection	With coupling								
Switch	Model	D-Y7GL (Refer to page 1079 for details.)								

Intermediate strokes

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

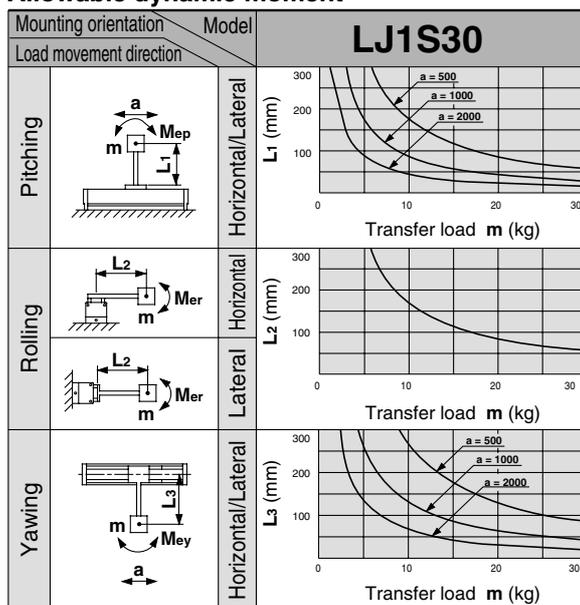
Allowable Moment (N·m)

Allowable static moment

Pitching	26.6
Rolling	40.2
Yawing	25.8

- 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 671 for deflection data.

Non-standard Motor Horizontal Mount Series **LJ1S30**

Motor Output
200_W

Slider
Guide

Slide Screw
∅25 mm/20 mm lead

How to Order

LJ1S30 R31 SC - 300 - F H - X10 - Q

Stroke (mm)
Refer to page 656 for details.

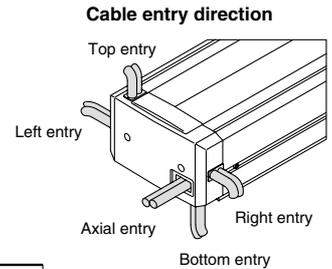
CE marking

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.



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		—	—	—	—	—
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 specifications
(For details, refer to page 999)

Symbol	Specifications
X70	Dust seal specification
X40	TSUBAKI CABLEVEYOR® specification

Series LJ1S30

Specifications

Standard stroke (mm)		200	300	400	500	600	800	1000	1200	1500
Performance	Body mass (without motor) (kg)	13.3	15.1	16.9	18.7	20.4	24.6	28.6	32.2	37.6
	Operating temperature range (°C)	5 to 40 (No condensation)								
	Work load (kg)	20								
	Maximum speed (mm/s)	300								
	Positioning repeatability (mm)	±0.1								
Main parts	Motor	AC servomotor (200 W)								
	Encoder	Incremental system								
	Lead screw	Slide screw ø25 mm, 20 mm lead								
	Guide	Slider 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 above are available by special order. Consult SMC.

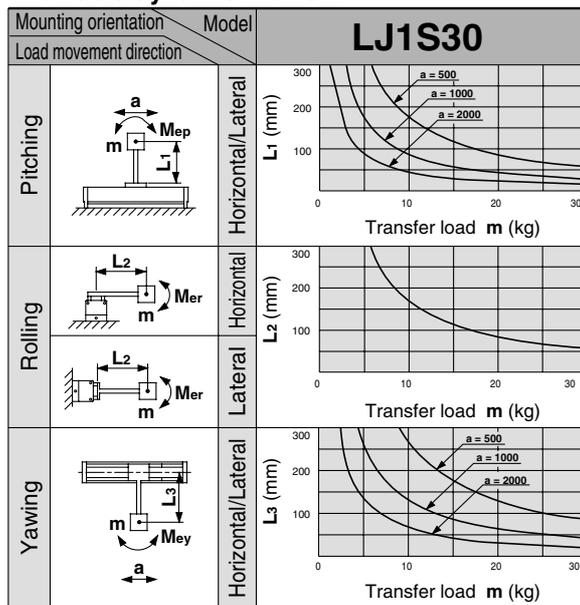
Allowable Moment (N·m)

Allowable static moment

Pitching	26.6
Rolling	40.2
Yawing	25.8

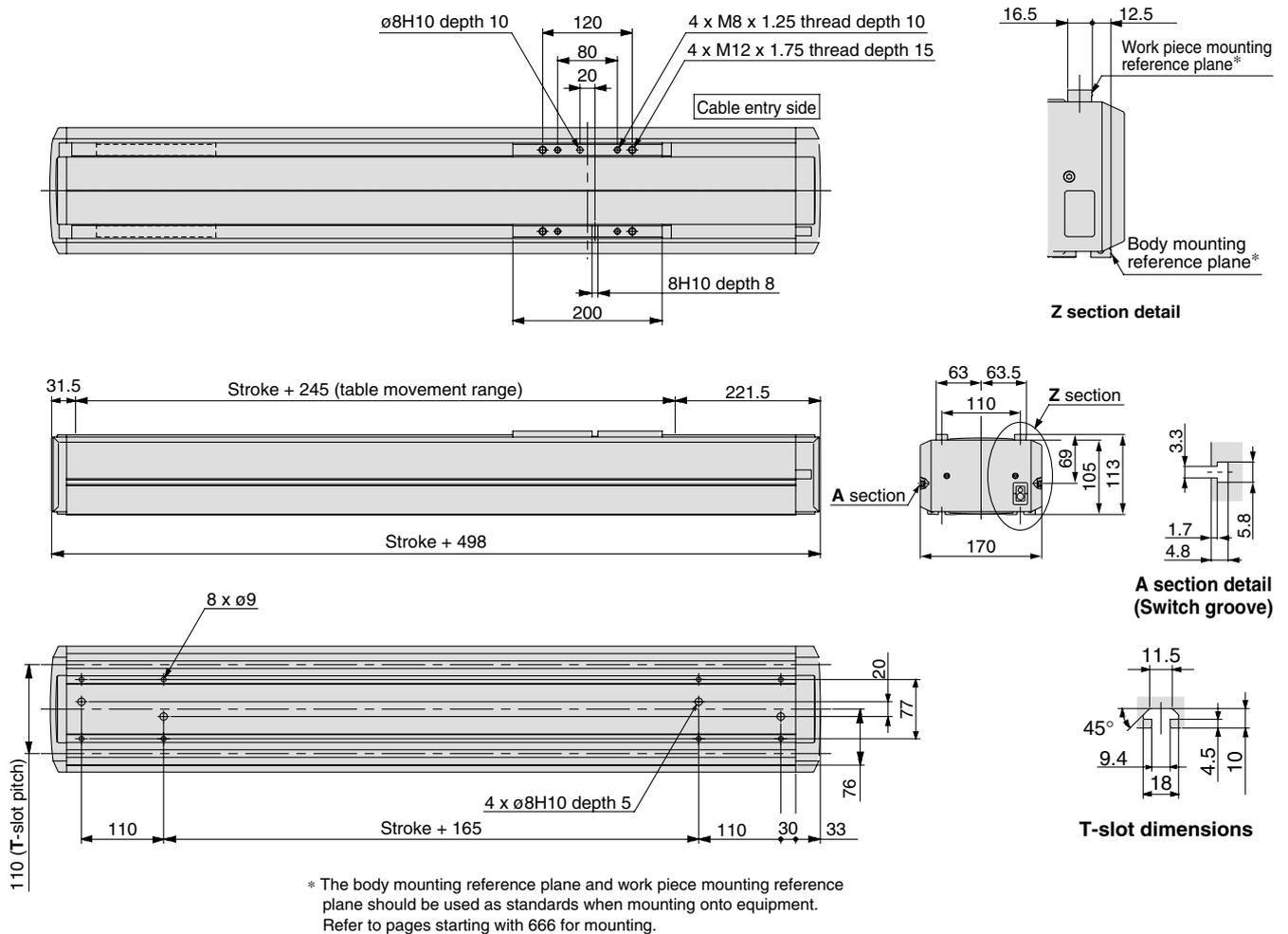
- m** : Transfer load (kg)
- a** : Work piece acceleration (mm/s²)
- Me** : Dynamic moment
- L** : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 671 for deflection data.

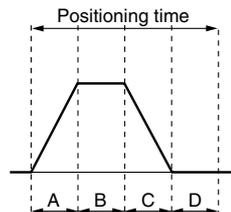
Dimensions/LJ1S30□3□SC (X10)



Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	750	1500
Speed (mm/s)	10	0.5	2.1	11.1	76.1	151.1
	100	1.1	1.2	2.1	8.6	16.1
	250	1.1	1.2	1.6	4.2	7.2
	500	1.1	1.2	1.5	2.8	4.3

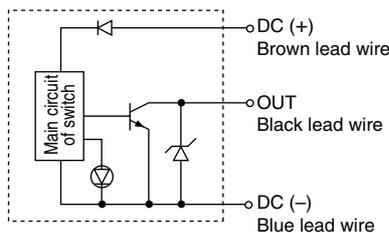
* Values will vary slightly depending on the operating conditions.



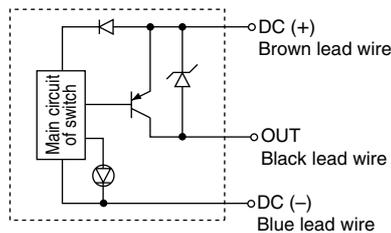
A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.4 sec.)
 Maximum acceleration: 2000 mm/s²
 * The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Switch Internal Circuit

D-Y7GL



D-Y7HL

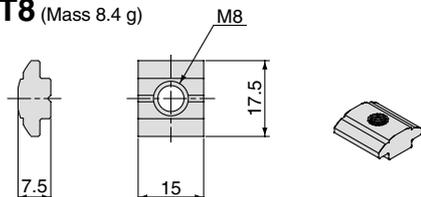


Series LJ1 Options

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
LJ1 ^H 10	200 mm stroke or less: 6 pcs.
	300 mm stroke or more: 8 pcs.
LJ1 ^H 20	8 pcs.
LJ1 ^H 30	8 pcs.

* Only series LJ1^H10 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

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

LJ1-1-B □ □ - □

● Cable length

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

● Brake cable

K	With brake cable
Nil	Without brake cable

● Specified voltage

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

(2) For LC8 [-Q]/LG1

LG1-8-B □

● Cable length

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

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

LG1-1-B □ □

● Cable length

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

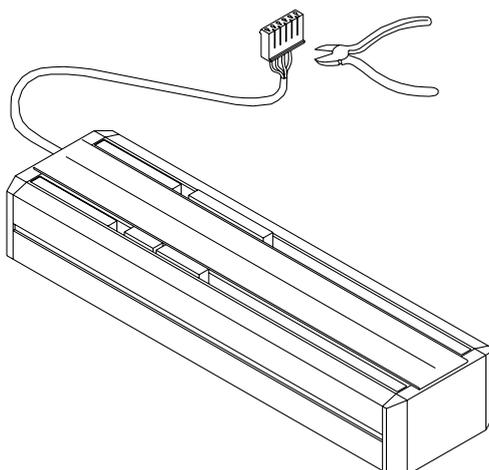
● Specified voltage

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

Notes on (3), (4)

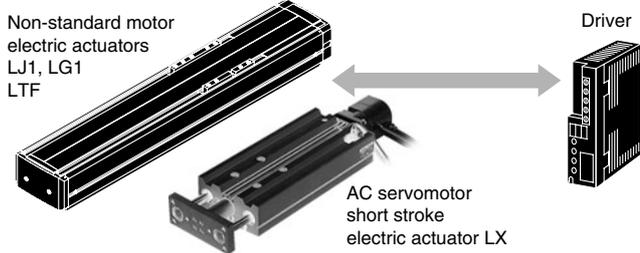
This product's part number is common for both series LC1 and series LC8. When using this product with series LC8, separate the connector part from the power cable before using.

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*	Motor symbol: For R type
RK*	Motor symbol: For RK type
RP	Motor symbol: For RP type
RJ	LXF (For AC servomotor)

* The motor and brake cable have not been provided. Please supply a size 4 wire with a core size of 0.75 mm².

Brake

Nil	Without brake
B	With brake

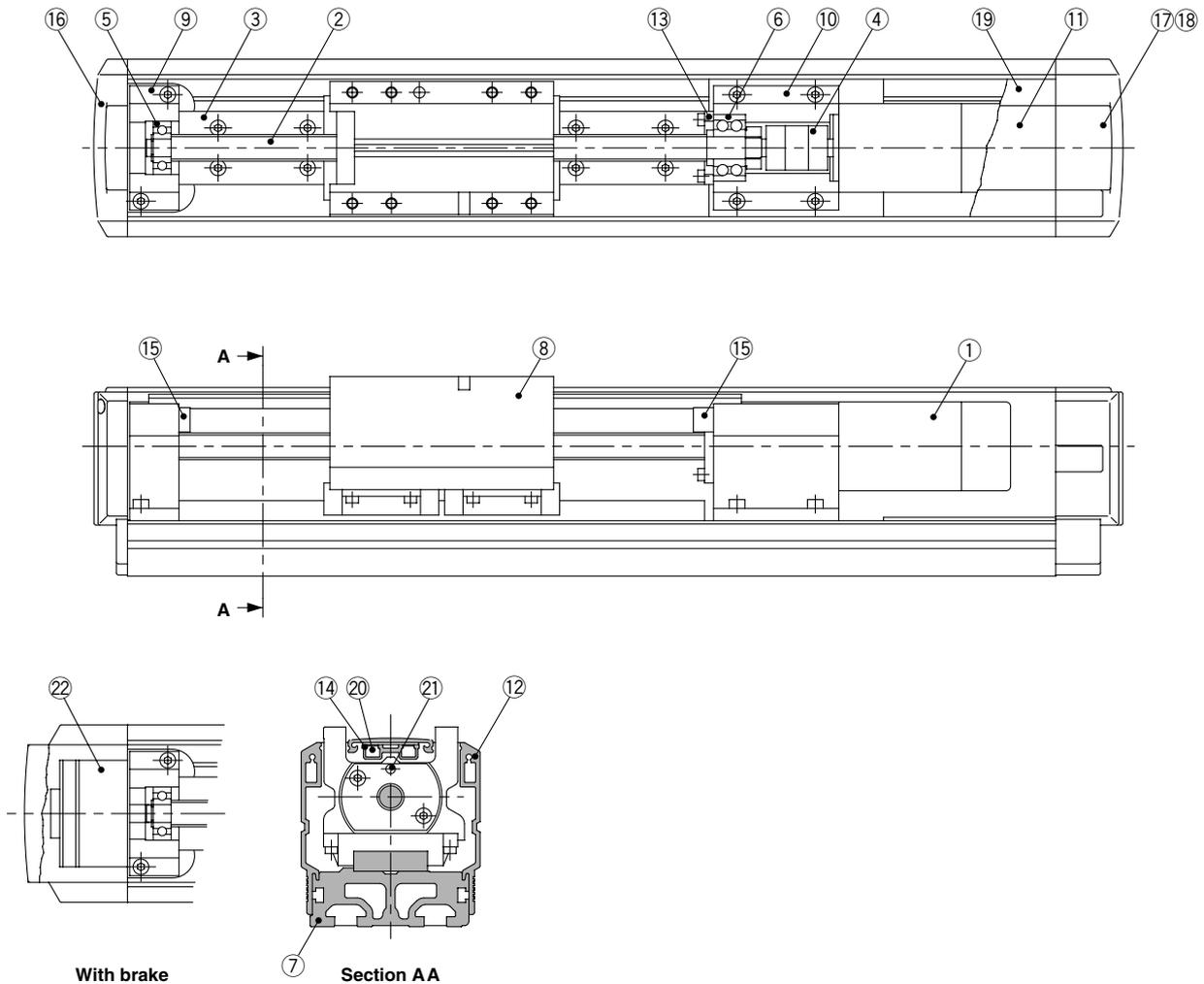
Cable length

05	5 m
10	10 m

Series LJ1H Construction

Construction

LJ1H10



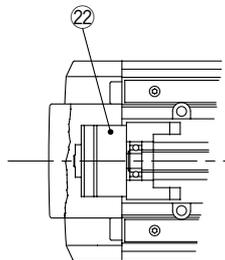
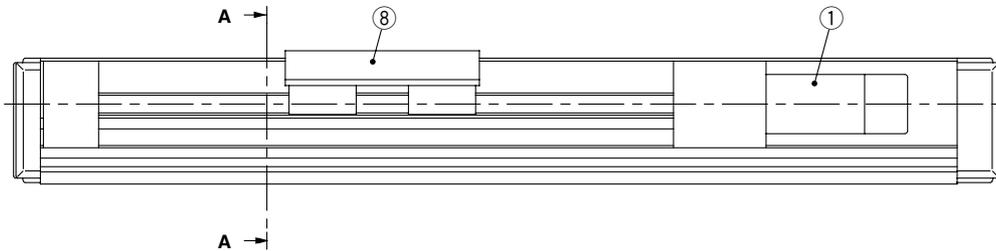
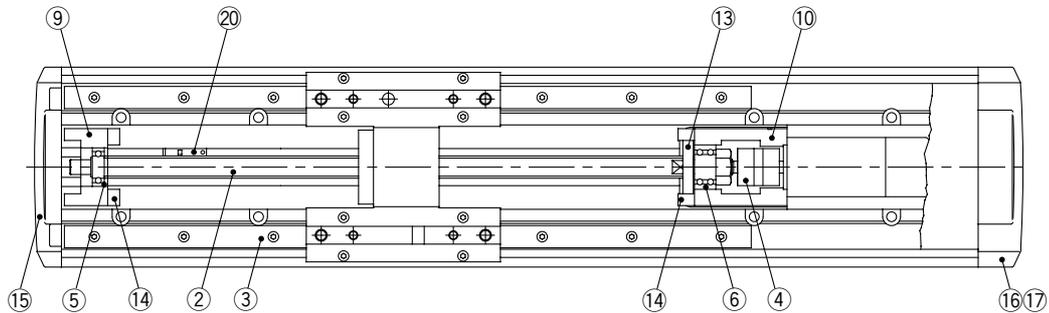
Parts list

No.	Description	Material	Note
1	AC servomotor	—	50 W/100 W
2	Lead screw	—	Ball screw/Slide 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	

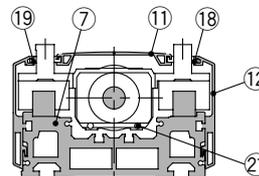
No.	Description	Material	Note
12	Side cover	Aluminum alloy	
13	Bearing retainer	Aluminum alloy	
14	Sensor rail	Aluminum alloy	
15	Bumper	IIR	
16	End cover A	PC	
17	End cover B	PC	
18	Inner cover	PC	
19	Motor cover	PC	
20	Auto switch	—	
21	Magnet	—	
22	Brake	—	

Construction

LJ1H20



With brake



Section AA

Parts list

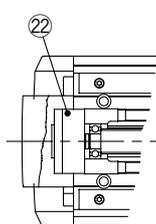
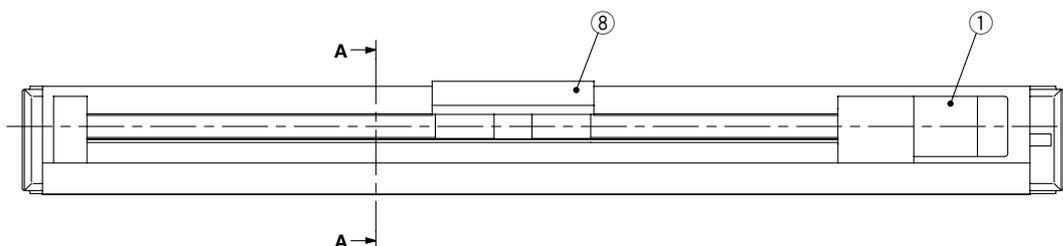
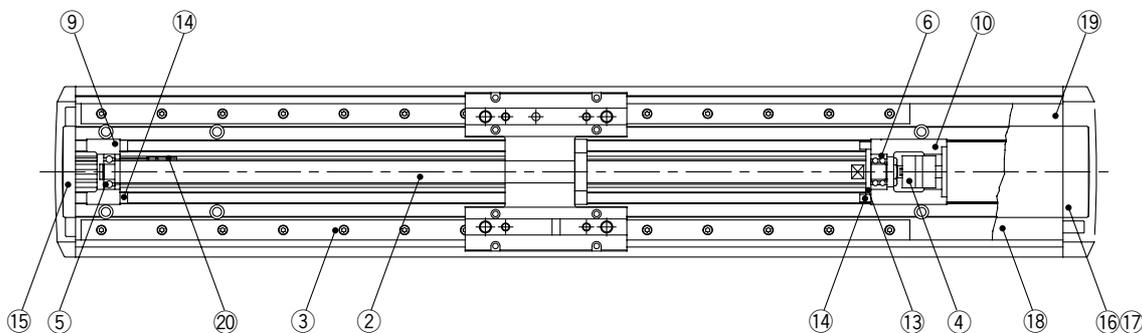
No.	Description	Material	Note
1	AC servomotor	—	100 W
2	Lead screw	—	Ball screw/Slide screw
3	High rigidity direct acting guide	—	
4	Coupling	—	
5	Bearing R	—	
6	Bearing F	—	
7	Body A	Aluminum alloy	
8	Table	Aluminum alloy	
9	Housing A	Aluminum alloy	
10	Housing B	Aluminum alloy	
11	Top cover	Aluminum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

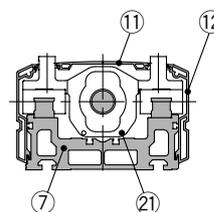
Series LJ1H

Construction

LJ1H30



With brake



Section AA

Parts list

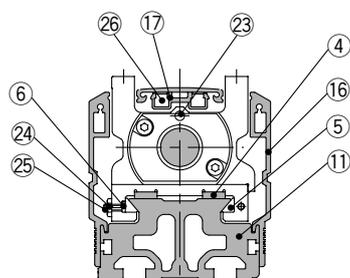
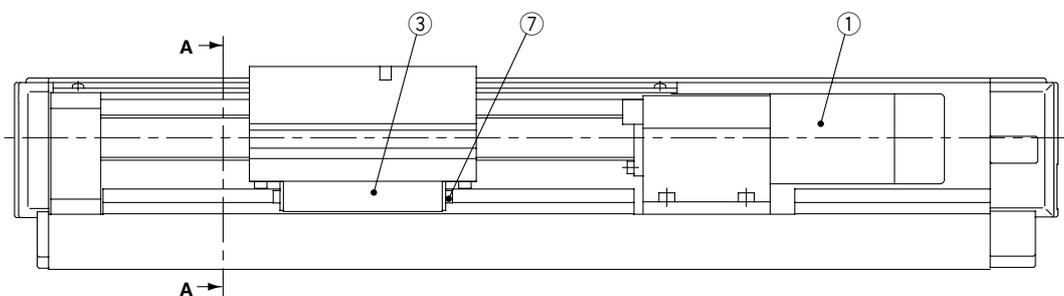
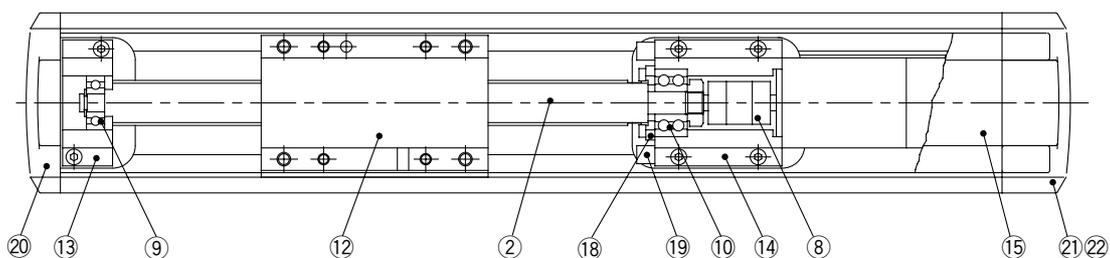
No.	Description	Material	Note
1	AC servomotor	—	200 W
2	Lead screw	—	Ball screw/Slide screw
3	High rigidity direct acting guide	—	
4	Coupling	—	
5	Bearing R	—	
6	Bearing F	—	
7	Body A	Aluminum alloy	
8	Table	Aluminum alloy	
9	Housing A	Aluminum alloy	
10	Housing B	Aluminum alloy	
11	Top cover	Aluminum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

Series LJ1S Construction

Construction

LJ1S10



Section AA

Parts list

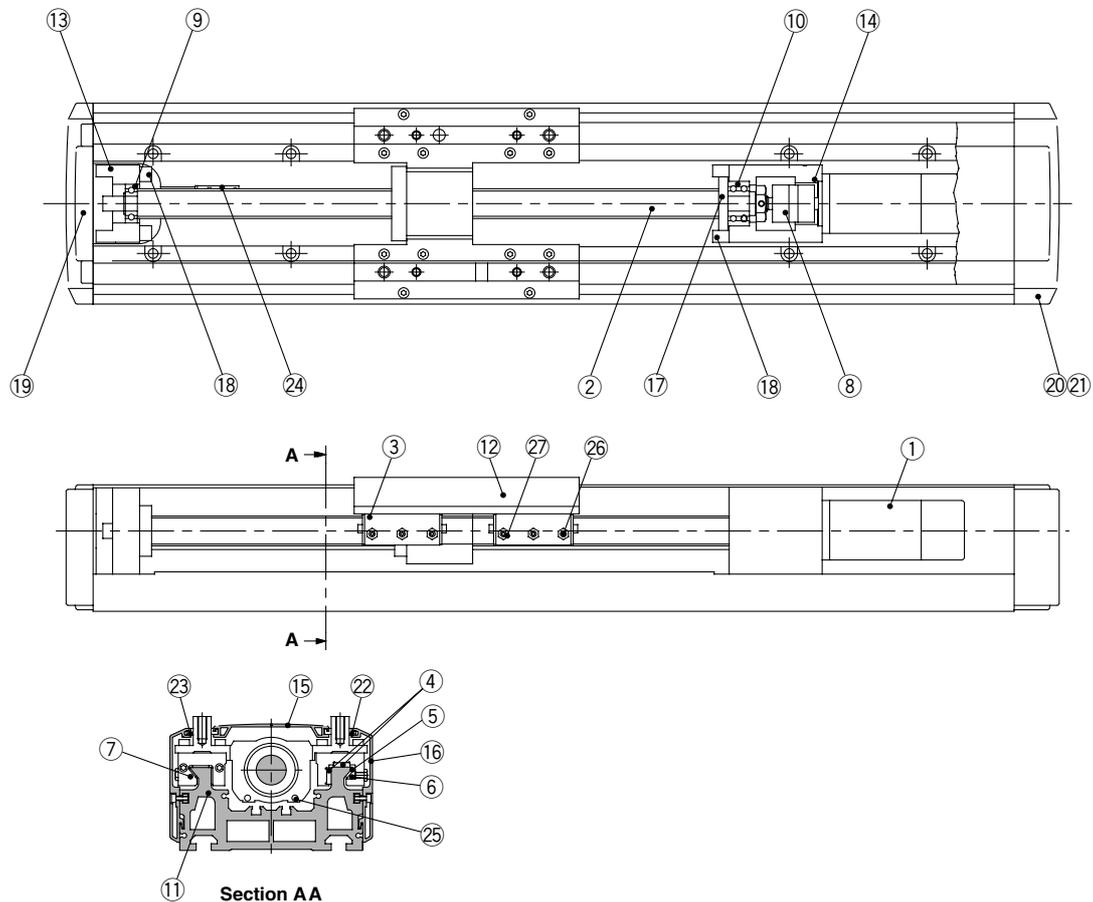
No.	Description	Material	Note
1	AC servomotor	—	50 W
2	Lead screw	—	Slide screw
3	Guide frame	Aluminum alloy	
4	Guide plate A	Special resin	
5	Guide plate B	Special resin	
6	Push bar	Carbon steel	Zinc plated
7	Frame cover	Stainless steel	
8	Coupling	—	
9	Bearing R	—	
10	Bearing F	—	
11	Body A	Aluminum alloy	
12	Table	Aluminum alloy	
13	Housing B	Aluminum alloy	

No.	Description	Material	Note
14	Housing A	Aluminum alloy	
15	Top cover	Aluminum alloy	
16	Side cover	Aluminum alloy	
17	Sensor rail	Aluminum alloy	
18	Bearing retainer	Aluminum alloy	
19	Bumper	IIR	
20	End cover A	PC	
21	End cover B	PC	
22	Inner cover	PC	
23	Magnet	—	
24	Hexagon socket head set screw	Chrome molybdenum steel	M3 x 8
25	Nut	Mild steel	M3
26	Auto switch	—	

Series LJ1S

Construction

LJ1S20



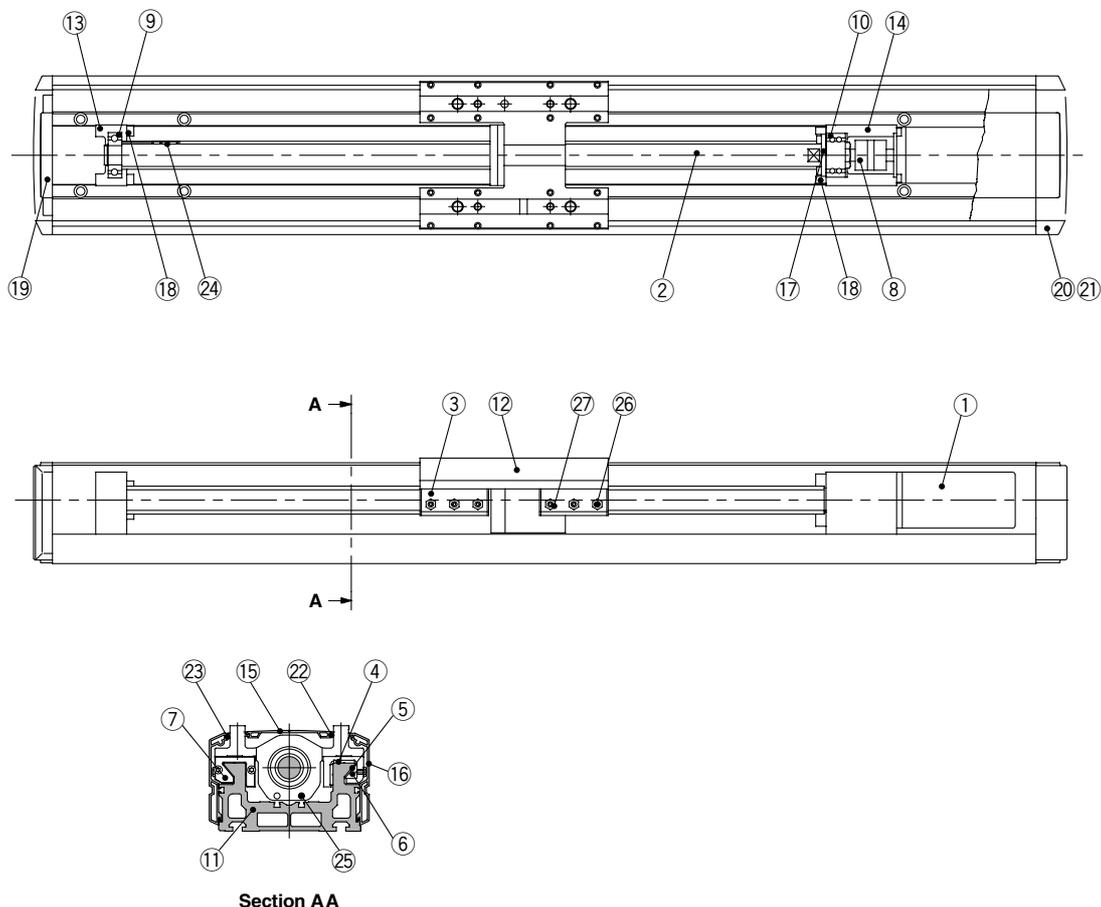
Parts list

No.	Description	Material	Note
1	AC servomotor	—	100 W
2	Lead screw	—	Slide screw
3	Guide frame	Aluminum alloy	
4	Guide plate A	Special resin	
5	Guide plate B	Special resin	
6	Push bar	Carbon steel	Zinc plated
7	Frame cover	Stainless steel	
8	Coupling	—	
9	Bearing R	—	
10	Bearing F	—	
11	Body A	Aluminum alloy	
12	Table	Aluminum alloy	
13	Housing A	Aluminum alloy	

No.	Description	Material	Note
14	Housing B	Aluminum alloy	
15	Top cover	Aluminum alloy	
16	Side cover	Aluminum alloy	
17	Bearing retainer	Aluminum alloy	
18	Bumper	IIR	
19	End cover A	PC	
20	End cover B	PC	
21	Inner cover	PC	
22	Motor cover R	PC	
23	Motor cover L	PC	
24	Auto switch	—	
25	Magnet	—	
26	Hexagon socket head set screw	Chrome molybdenum steel	M4 x 8
27	Nut	Mild steel	M4

Construction

LJ1S30



Parts list

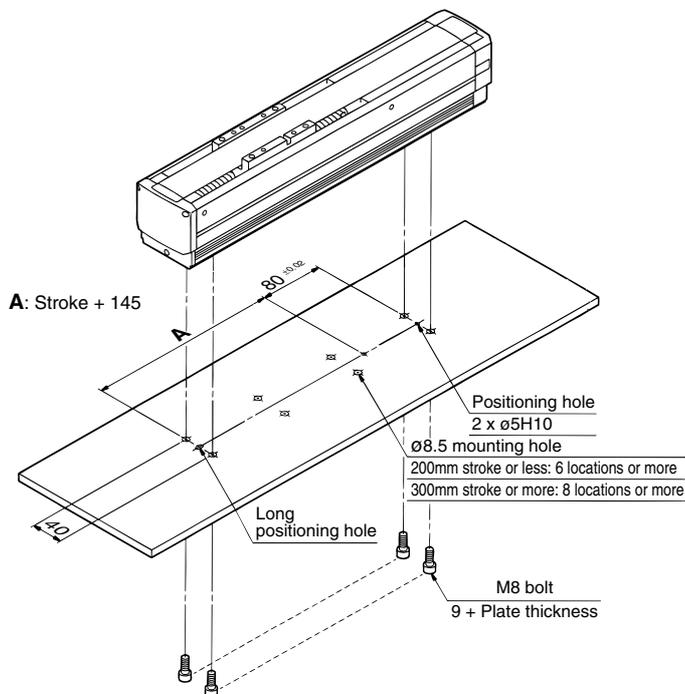
No.	Description	Material	Note
1	AC servomotor	—	200 W
2	Lead screw	—	Slide screw
3	Guide frame	Aluminum alloy	
4	Guide plate A	Special resin	
5	Guide plate B	Special resin	
6	Push bar	Carbon steel	Zinc plated
7	Frame cover	Stainless steel	
8	Coupling	—	
9	Bearing R	—	
10	Bearing F	—	
11	Body A	Aluminum alloy	
12	Table	Aluminum alloy	
13	Housing A	Aluminum alloy	

No.	Description	Material	Note
14	Housing B	Aluminum alloy	
15	Top cover	Aluminum alloy	
16	Side cover	Aluminum alloy	
17	Bearing retainer	Carbon steel	Electroless nickel plated
18	Bumper	IIR	
19	End cover A	PC	
20	End cover B	PC	
21	Inner cover	PC	
22	Motor cover R	PC	
23	Motor cover L	PC	
24	Auto switch	—	
25	Magnet	—	
26	Hexagon socket head set screw	Chrome molybdenum steel	M5 x 8
27	Nut	Mild steel	M5

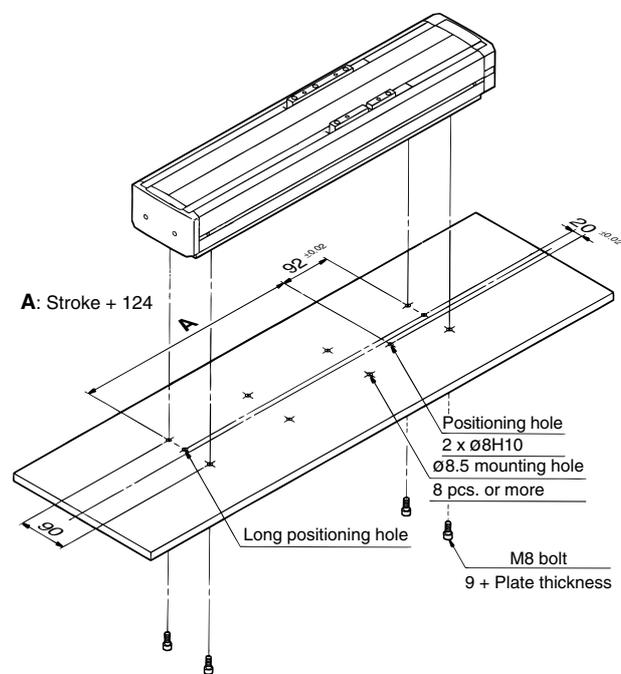
Series LJ1 Mounting

T-slot Bottom Mount

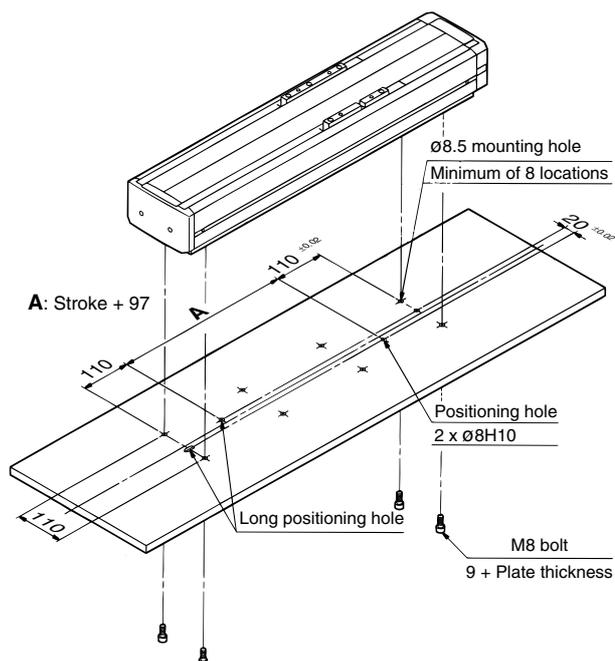
LJ1H10/LJ1S10



LJ1H20/LJ1S20



LJ1H30/LJ1S30



Note 1) Although T-nuts (LJ1-T8) for mounting are included with the body for LJ1H10/LJ1S10, they are optional for other models. (See page 658.)

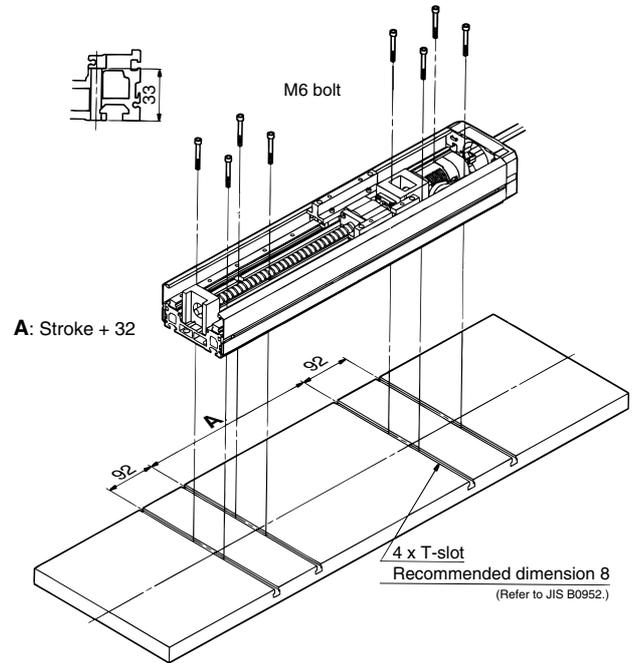
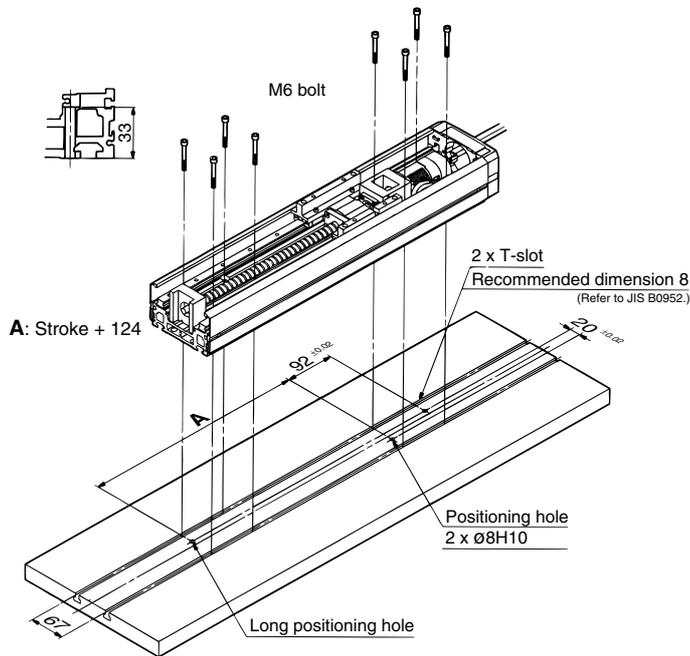
Note 2) To insert the T-nuts, remove the covers at both ends of the body and insert them into the T-slots.

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

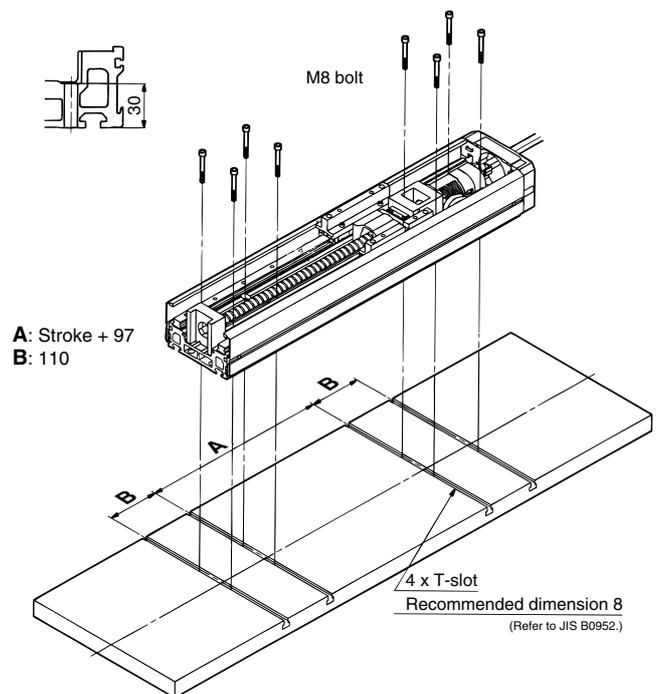
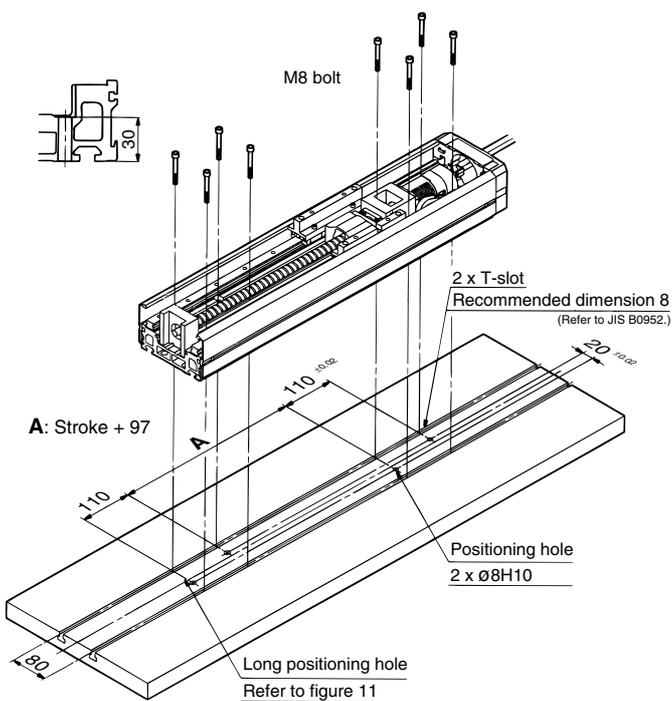
Series LJ1

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

LJ1H20/LJ1S20



LJ1H30/LJ1S30

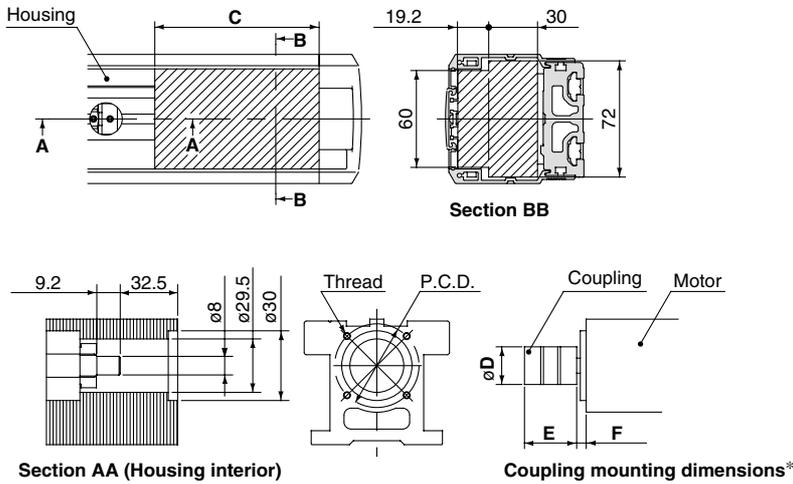


Series LJ1

Non-standard Motor Mounting Dimensions

Standard

Series LJ1^H_S10



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

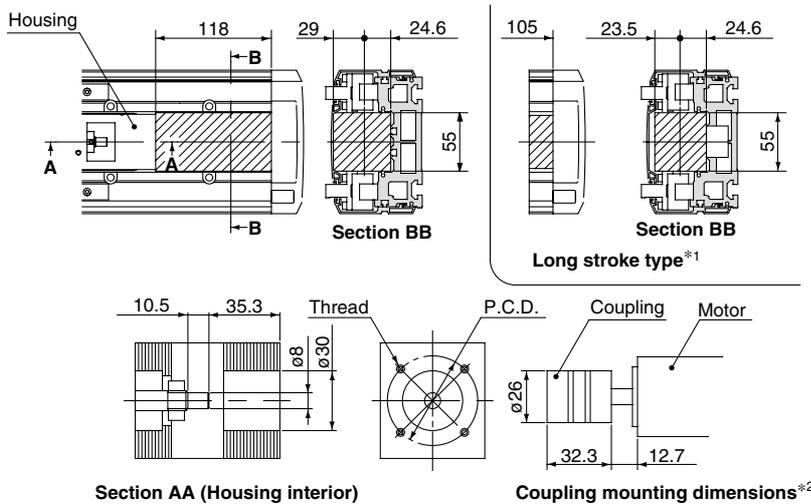
Motor mounting area

* 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	8.2
Without brake (mm)	93	19	25.9	15.4

Series LJ1^H_S20



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

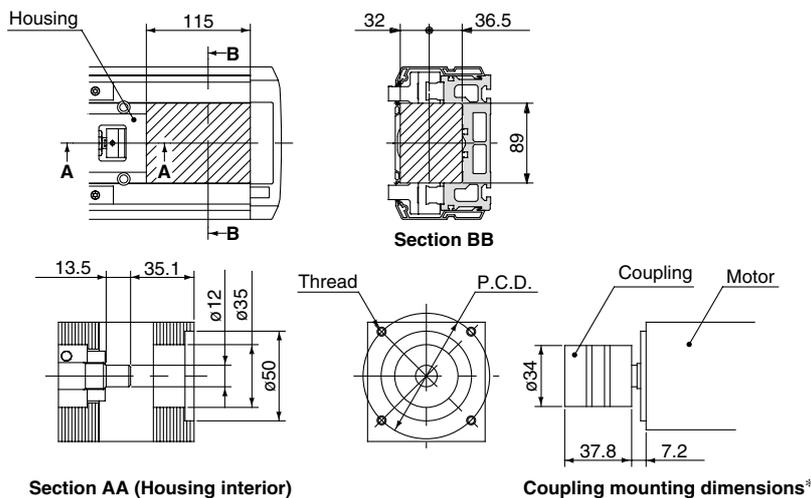
Motor mounting area

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

LJ1H20□□NC	700 to 1000 mm stroke
LJ1H20□□SC	700 to 1200 mm stroke
LJ1S20□□SC	700 to 1200 mm stroke

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

Series LJ1^H_S30



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

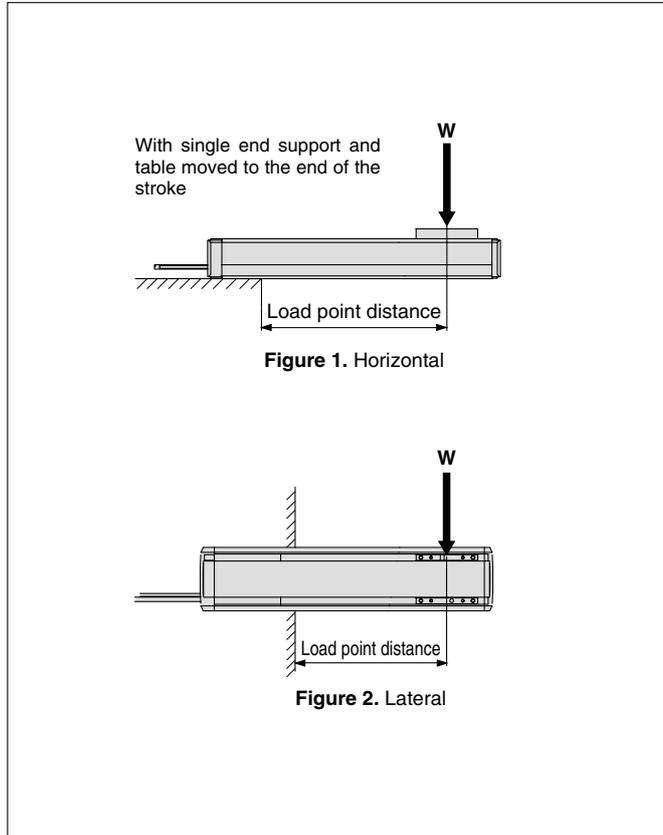
* When mounting a coupling on the motor, mount it within the dimensional range shown on the left.

Series LJ1 Deflection Data

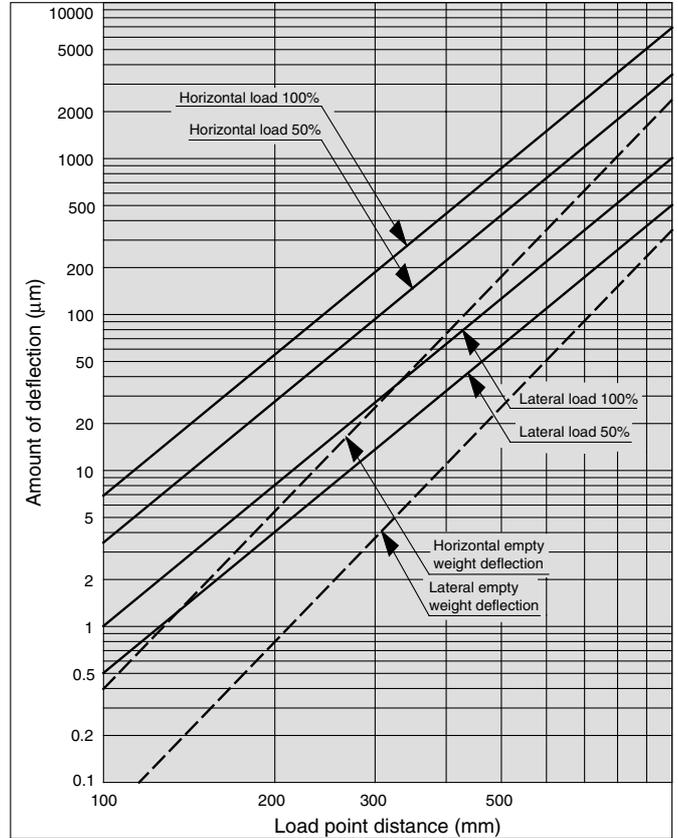
Deflection Data/LJ1H

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

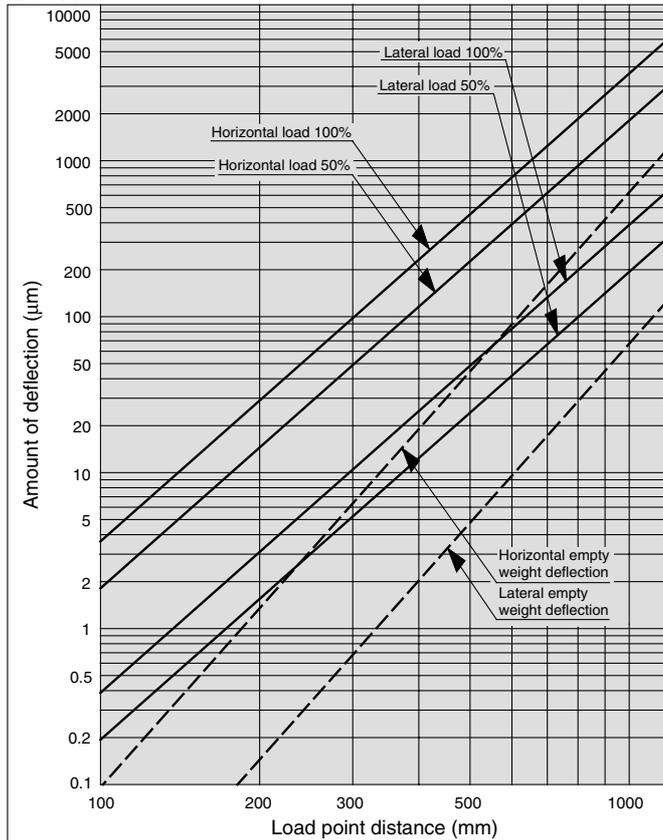
The load and the amount of deflection at load point W are shown in the graphs below for each series.



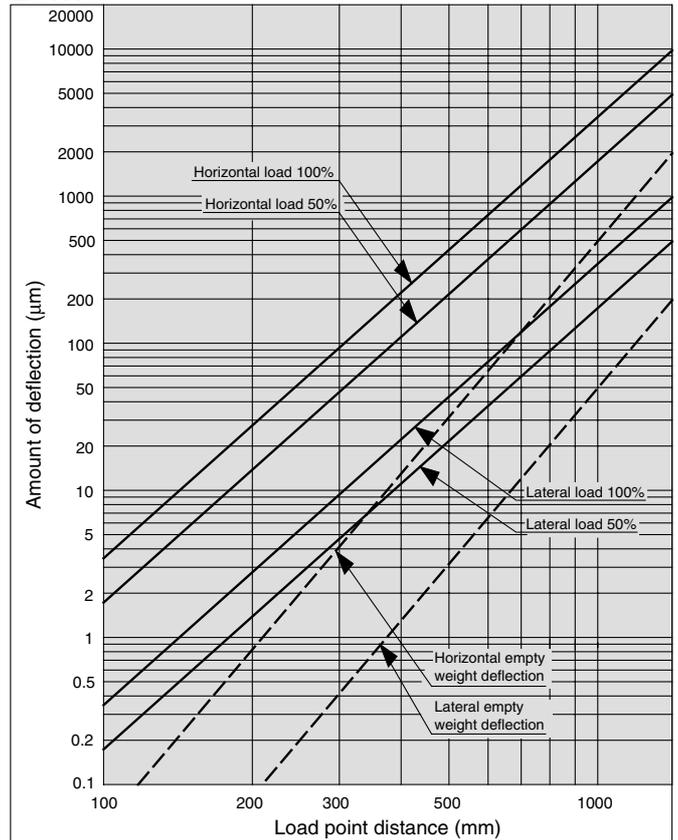
LJ1H10



LJ1H20



LJ1H30



Deflection Data/LJ1S

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

