Single Axis Electric Actuator

Series LJ1S

Slider Guide

Series	Motor type	Guide type	Mounting orientation	Model	Lead screw lead mm / Slide screw	Page
LJ1S	Standard motor	Slider guide	Horizontal	LJ1S10	20	88
				LJ1S20	20	90
				LJ1S30	20	92
	Standard motor			LJ1S10	20	94
				LJ1S20	20	96
				LJ1S30	20	98

Part Number Designations

LJ1 S 10 G 1 1 S C — 100 — F W — X10

Guide type
S	Slider guide

Series
10	Series 10
20	Series 20
30	Series 30

Motor specification
Nil	Standard motor
G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Motor output
1	50W
2	100W
3	200W

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

Lead screw type
S	Slide screw

Lead screw lead
C	20mm

Stroke

Cable entry direction
F	Axial
R	Right
L	Left
T	Top
B	Bottom

Limit switch
Nil	None
W	B contact specification 2 pcs.

Cable length
2	2m
3	3m
4	4m
5	5m

X10 Non-standard motor

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

How to Order

LJ1H101 1 SC — Stroke — F 2

Power supply voltage

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

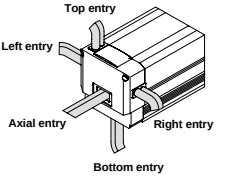
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

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

Cable entry direction



Specifications

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000
Performance	Body weight	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 (with no condensation)									
	Work load	kg	5									
	Rated thrust	N	24									
	Maximum speed	mm/s	300									
	Positioning repeatability	mm	±0.1									
Main parts	Motor		AC servomotor (50W)									
	Encoder		Incremental system									
	Lead screw		Slide screw ø20mm, 20mm lead									
	Guide		Slider guide									
	Motor/Screw connection		With coupling									
Controller	Model		LC1-1B1S□-□□ (Refer to page 185 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) **LJ1S1011SC-150-F2-X2**

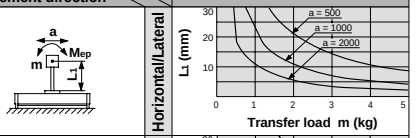
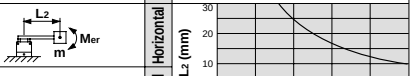
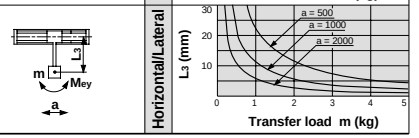
Allowable Moment (N·m)

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)

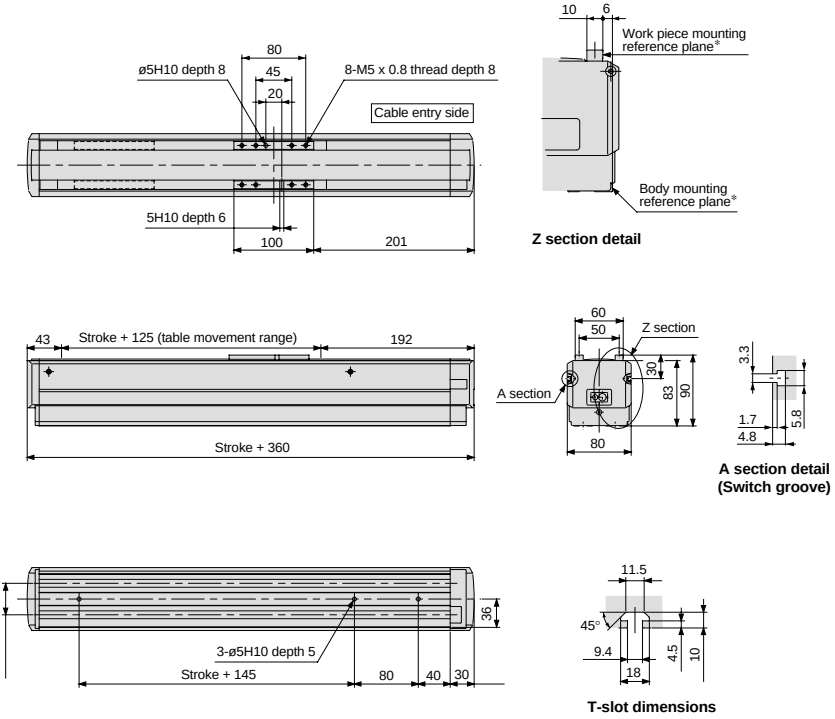
Allowable dynamic moment

Mounting orientation / Load movement direction	Model	LJ1S10
Pitching	Horizontal/Lateral	
Rolling	Horizontal	
Rolling	Lateral	
Yawing	Horizontal/Lateral	

Refer to page 145 for deflection data.

Dimensions/LJ1S101□SC

Scale: 15%

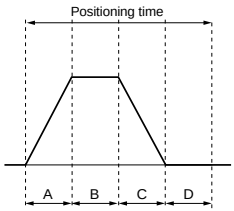


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		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 (0.1sec.)
Maximum acceleration: 2000mm/s²

How to Order

LJ1S202 1 SC — Stroke — F 2

Power supply voltage

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

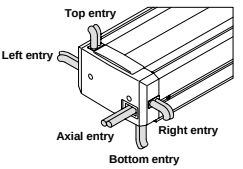
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

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

Cable entry direction



Specifications

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000	1200
Performance	Body weight	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 (with no condensation)										
	Work load	kg	10										
	Rated thrust	N	50										
	Maximum speed	mm/s	300										
	Positioning repeatability	mm	±0.1										
Main parts	Motor		AC servomotor (100W)										
	Encoder		Incremental system										
	Lead screw		Slide screw ø20mm, 20mm lead										
	Guide		Slider guide										
	Motor/Screw connection		With coupling										
Controller	Model		LC1-1B2S□-□□ (Refer to page 185 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) **LJ1S2021SC-150-F2-X2**

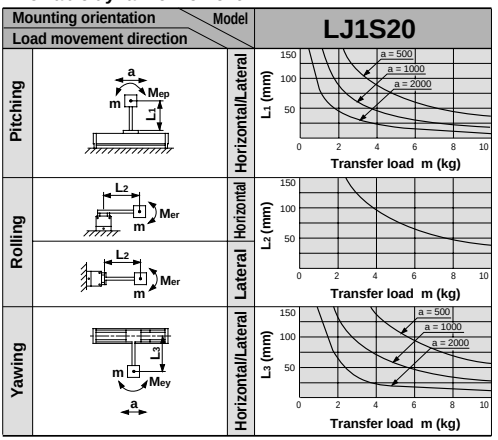
Allowable Moment (N·m)

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

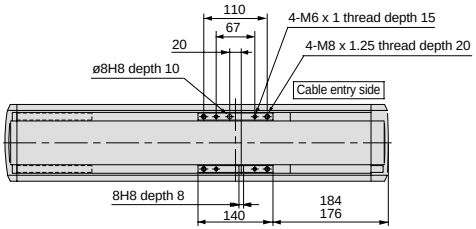


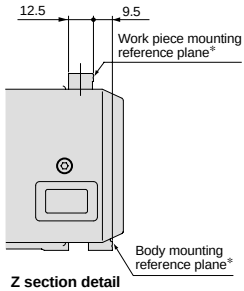
Refer to page 145 for deflection data.

Dimensions/LJ1S202□SC

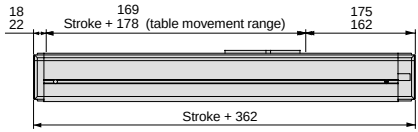
When two dimensions are shown, the top dimension is for 100 to 600mm stokes, and the bottom dimension is for 700 to 1200mm strokes.

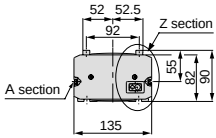
Scale: 10%

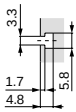




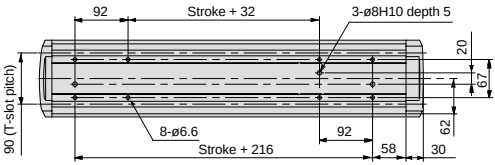
Z section detail

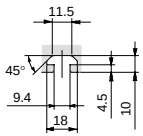






A section detail (Switch groove)





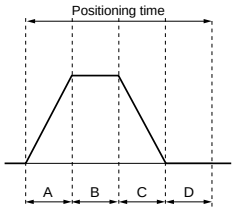
T-slot dimensions

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

Positioning Time Guide

		Positioning time (sec.)				
Positioning 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
	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 (0.4sec.)
Maximum acceleration: 2000mm/s²

How to Order

LJ1S303 [1] [SC] — [Stroke] — [F] [2]

Power supply voltage

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

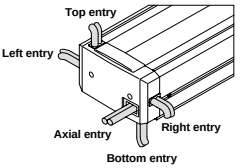
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

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

Cable entry direction



Specifications

	Standard stroke	mm	200	300	400	500	600	800	1000	1200	1500
Performance	Body weight	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 (with no condensation)								
	Work load	kg	20								
	Rated thrust	N	50								
	Maximum speed	mm/s	300								
	Positioning repeatability	mm	±0.1								
Main parts	Motor		AC servomotor (200W)								
	Encoder		Incremental system								
	Lead screw		Slide screw ø25mm, 20mm lead								
	Guide		Slider guide								
	Motor/Screw connection		With coupling								
Controller	Model		LC1-1B3S□-□□ (Refer to page 185 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) **LJ1S3031SC-250-F2-X2**

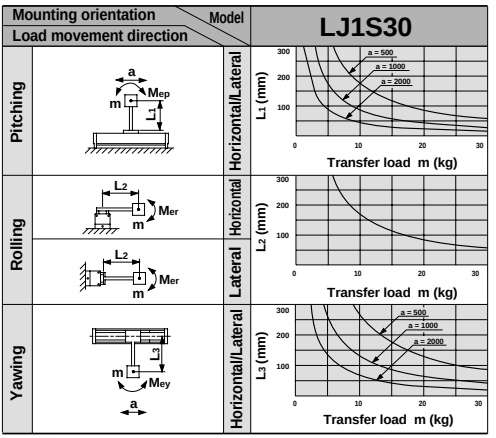
Allowable Moment (N·m)

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)

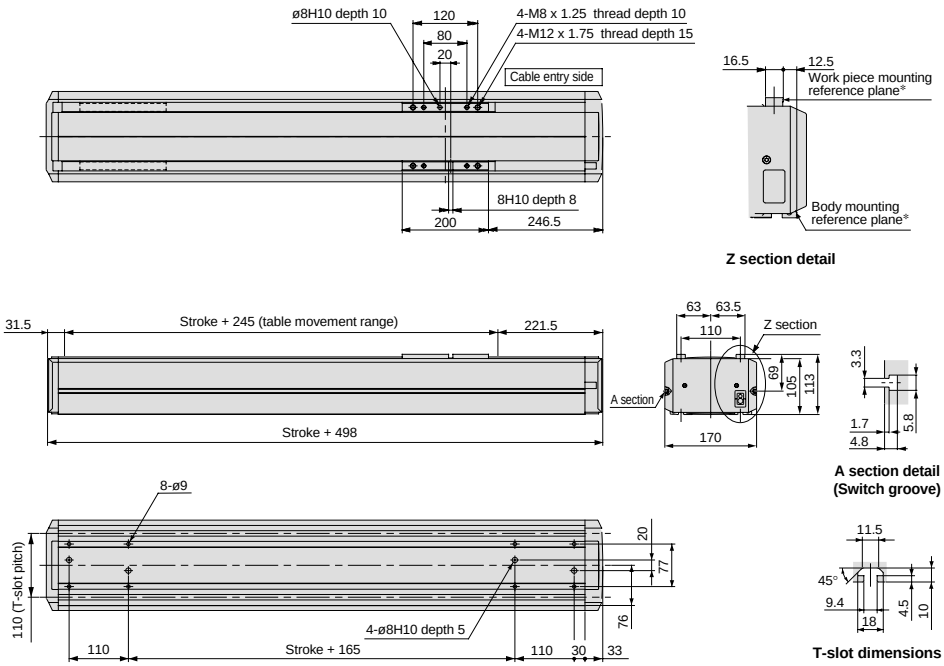
Allowable dynamic moment



Refer to page 145 for deflection data.

Dimensions/LJ1S303□SC

Scale: 10%

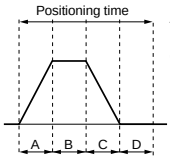


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

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
	500	1.1	1.2	1.6	4.2	7.2
	1000	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 (0.4sec.)

How to Order

LJ1S10 G 1 1 SC — Stroke — F W — X10

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

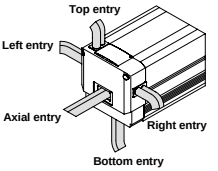
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

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

Cable entry direction



Specifications

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000
Performance	Body weight (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 (with no condensation)									
	Work load	kg	5									
	Maximum speed	mm/s	300									
	Positioning repeatability	mm	±0.1									
Main parts	Motor		AC servomotor (50W)									
	Encoder		Incremental system									
	Lead screw		Slide screw ø20mm, 20mm lead									
	Guide		Slider guide									
	Motor/Screw connection		With coupling									
Switch	Model		D-Y7GL									
	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									

Intermediate strokes

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

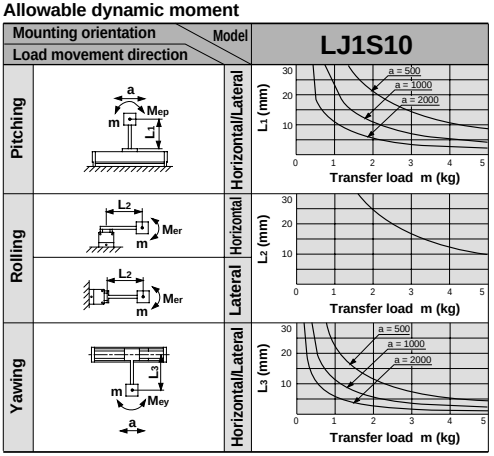
Allowable Moment (N·m)

Allowable static moment

Pitching	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)

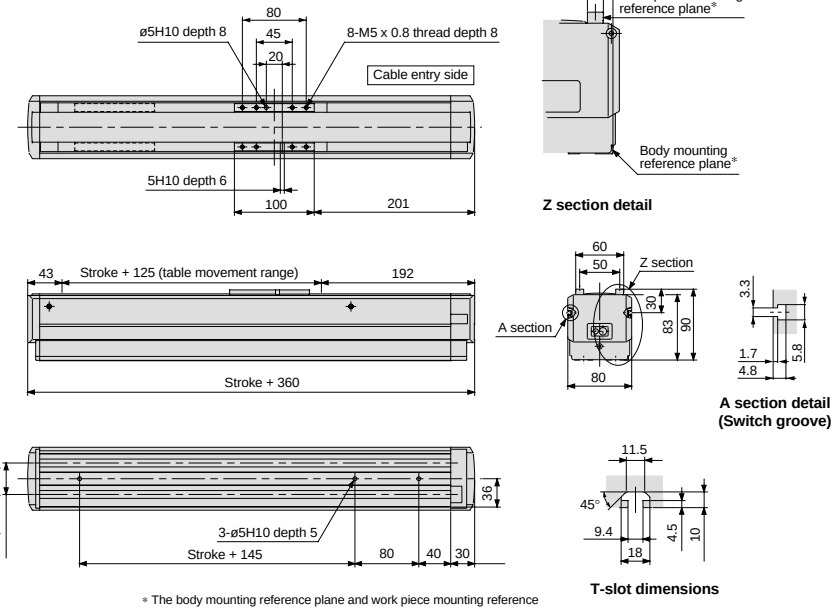
Allowable dynamic moment



Refer to page 145 for deflection data.

Dimensions/LJ1S10□1□SC(X10)

Scale: 15%

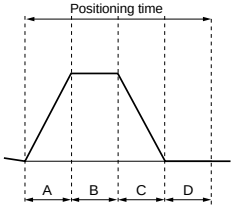


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

Positioning distance (mm)		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 (0.1sec.)*
Maximum acceleration: 2000mm/s²

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

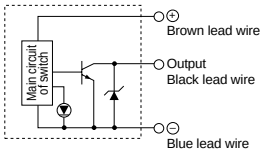
Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

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

* For motor mounting dimensions, refer to the dimensions for series LJ1$^{H}_{S}$10 on page 143 as a reference for mounting and design.
* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.
* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



How to Order

LJ1S20 G 2 1 SC — Stroke — F W — X10

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

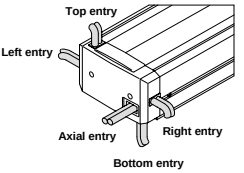
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

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

Cable entry direction



Specifications

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000	1200
Performance	Body weight (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 (with no condensation)										
	Work load	kg	10										
	Maximum speed	mm/s	300										
	Positioning repeatability	mm	±0.1										
Main parts	Motor		AC servomotor (100W)										
	Encoder		Incremental system										
	Lead screw		Slide screw ø20mm, 20mm lead										
	Guide		Slider guide										
	Motor/Screw connection		With coupling										
Switch	Model		D-Y7GL										
	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less										

Immediate strokes

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

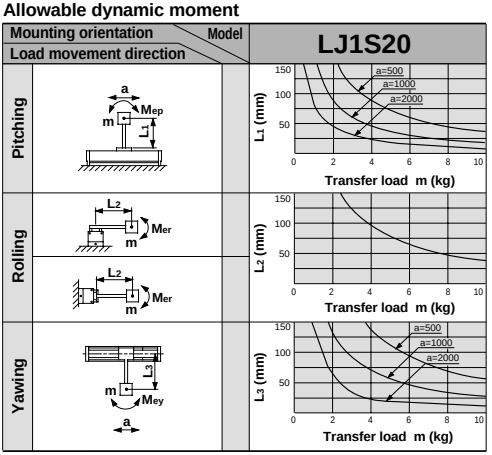
Allowable Moment (N·m)

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

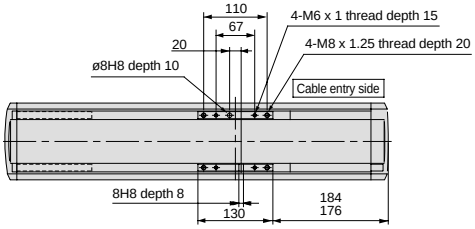


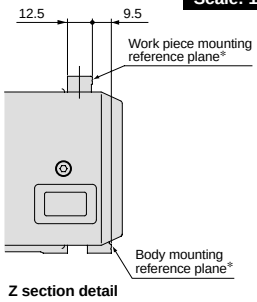
Refer to page 145 for deflection data.

Dimensions/LJ1S20□2□SC(X10)

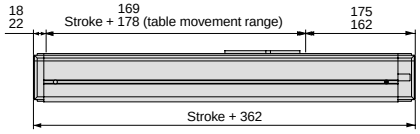
When two dimensions are shown, the top dimension is for 100 to 600mm stokes, and the bottom dimension is for 700 to 1200mm strokes.

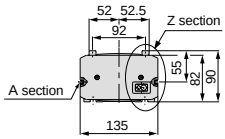
Scale: 10%

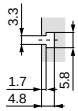




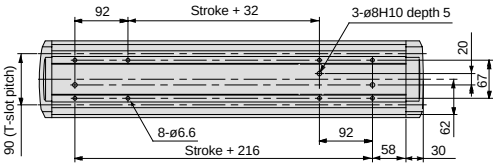
Z section detail

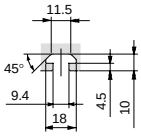






A section detail (Switch groove)





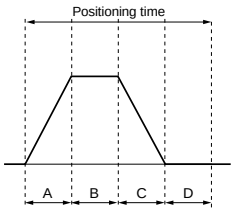
T-slot dimensions

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

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	500	1000
Speed (mm/s)	10	0.6	1.5	10.5	50.5	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 (0.4sec.)∗
Maximum acceleration: 2000mm/s²

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

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

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

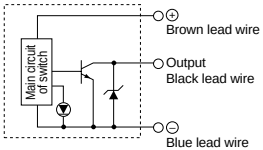
∗ For motor mounting dimensions, refer to the dimensions for series LJ1S20 on page 143 as a reference for mounting and design.

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

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

Switch Internal Circuit

D-Y7GL



How to Order

LJ1S30 G 3 1 SC — Stroke — F W — X10

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

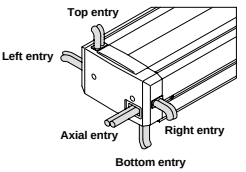
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

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

Cable entry direction



Specifications

	Standard stroke	mm	200	300	400	500	600	800	1000	1200	1500
Performance	Body weight (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 (with no condensation)								
	Work load	kg	20								
	Maximum speed	mm/s	300								
	Positioning repeatability	mm	±0.1								
Main parts	Motor		AC servomotor (200W)								
	Encoder		Incremental system								
	Lead screw		Slide screw ø25mm, 20mm lead								
	Guide		Slider guide								
	Motor/Screw connection		With coupling								
Switch	Model		D-Y7GL								
	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								

Immediate strokes

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

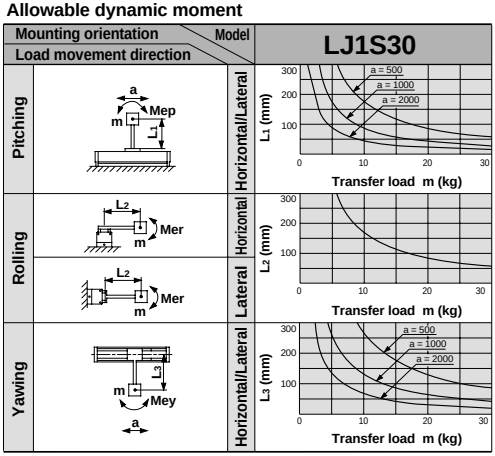
Allowable Moment (N·m)

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)

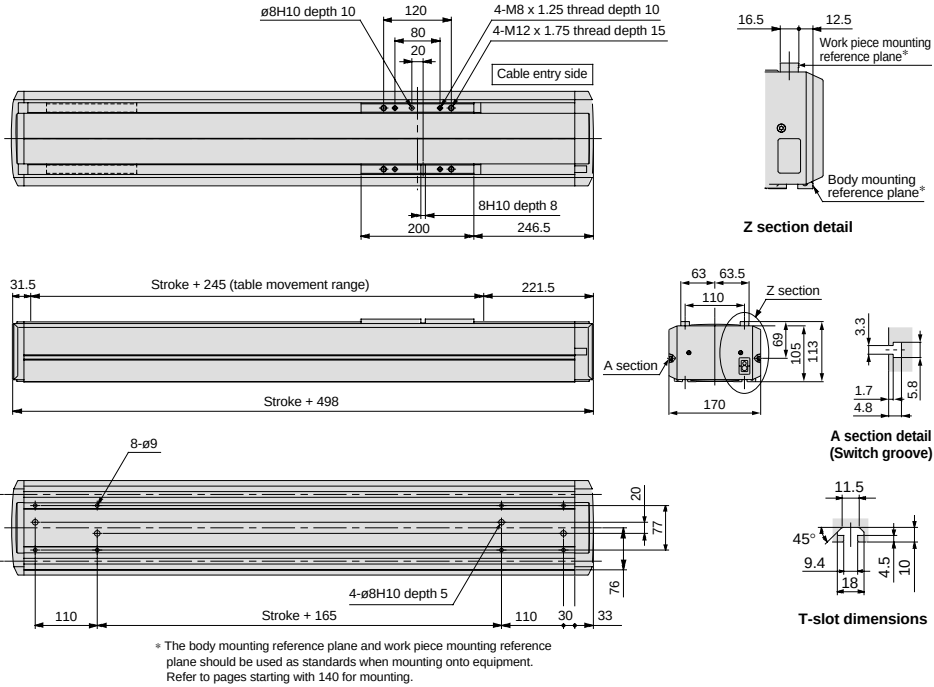
Allowable dynamic moment



Refer to page 145 for deflection data.

Dimensions/LJ1S30□3□SC(X10)

Scale: 10%

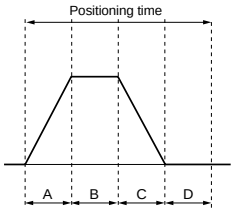


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

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 (0.4sec.)*
Maximum acceleration: 2000mm/s²

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

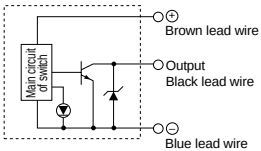
Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

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

* For motor mounting dimensions, refer to the dimensions for series LJ$^{H}_{S}$30 on page 143 as a reference for mounting and design.
* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.
* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

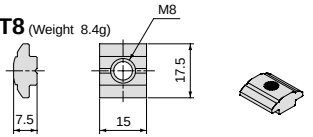
D-Y7GL



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 (Weight 8.4g)



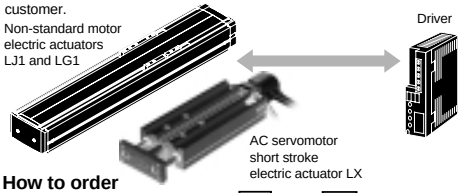
T-nut quantity

Model	Quantity
LJ1$^{H}_{S}$10	200mm stroke or less: 6 pcs.
	300mm stroke or more: 8 pcs.
LJ1$^{H}_{S}$20	8 pcs.
LJ1$^{H}_{S}$30	8 pcs.

∗ Only series LJ1$^{H}_{S}$10 has the T-nuts built into the body.

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 – G 05 B

Compatible model

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Cable length

05	5m

Brake

Nil	Without brake
B	With brake

Applicable cables
LJ1 (non-standard motor), LXP/LXS (AC servomotor)

Model	Manufacturer part no.
LJ1-1-G05∗1	MFMCA0050AEB (for motor) MFECA0050EAB (for encoder)
LJ1-1-G05B	MFECA0050FAB (for motor) MFMCA0050AEB (for encoder) MFMCB0050CET (for brake)
LJ1-1-R05	(for motor)∗2 MR-JCCBL5M (for encoder)
LJ1-1-Y05∗3	DP9320081-2 (for motor) DP9320089-2 (for encoder)
LJ1-1-Y05B	DP9320083-2 (for motor/brake) DP9320089-2 (for encoder)

LXF (AC servomotor by Mitsubishi Electric Corporation)

Model	Manufacturer part no.
LJ1-1-RJ-05	MR-JRCBL5M-H (motor/encoder/brake)

∗1 When the Matsushita Electric Industrial Co., Ltd. motor driver is selected, in addition to the cable, a power connector (MOLEX 5569 – 10R) and an interface connector (Sumitomo/3-M Limited 10126-3000VE) are also required.
∗2 A cable is not provided for the Mitsubishi Electric Corporation motor and brake, and therefore, the customer should arrange a 4 core, 0.75mm² electric cable.
∗3 When the Yaskawa Electric Corporation motor driver is selected, a digital operator and PC are required for selecting the various parameters.

Please refer to the technical literature of each manufacturer for further details.

Non-standard Motor Driver Regenerative Absorption Unit/Regenerative Resistor

This is a regenerative absorption unit and regenerative resistor for a non-standard motor. Make a selection providing an allowance beyond the calculated capacity.

How to order

LJ1 – 7 – G

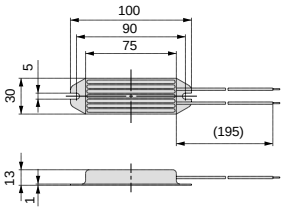
Compatible model

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

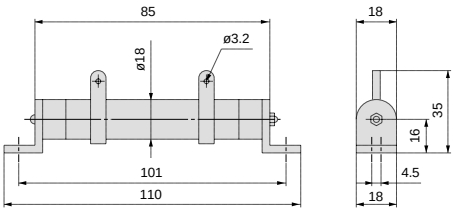
Applicable types
LJ1 (non-standard motor), LXP/LXS (AC servomotor)

Model	Manufacturer part no.
LJ1-7-G	DVO P0820
LJ1-7-R	MR-RB013
LJ1-7-Y	JUSP-RG08

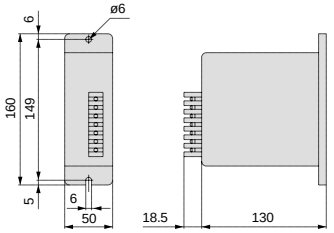
LJ1-7-G/Matsushita Electric Industrial Co., Ltd.



LJ1-7-R/Mitsubishi Electric Corporation

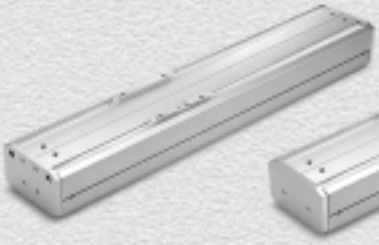


LJ1-7-Y/Yaskawa Electric Corporation

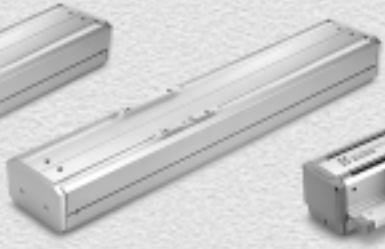


Electric Actuator *Series* ***LJ1H/LJ1S***

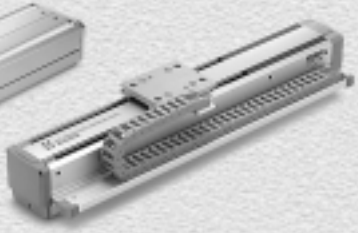
Made to Order Specifications



Clean room specification



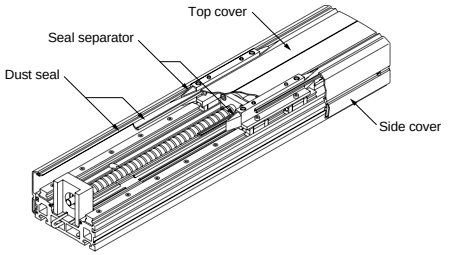
Dust seal specification



TSUBAKI CABLEVEYOR specification

Clean Room Specification (-X60)

Change of materials, anti-corrosive treatment, use of a special grease, and vacuum cleaning of the inside of the actuator allow operation in a clean room.



Particulate Generation Performance

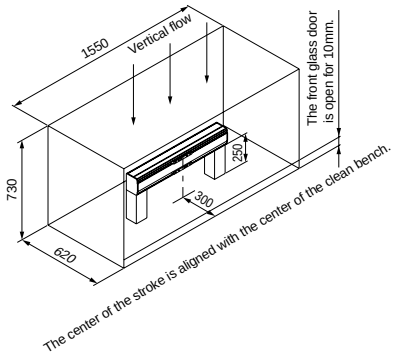
Test method

An actuator was placed inside a clean bench and particle concentration was measured at each neighboring point.

Test environment: <Clean bench> Nippon Airtek: VS-1603L
<Size> W x L x H = 620mm x 1550mm x 730mm
<Clean level> Fed-st class 10
<Down flow velocity> Approx. 0.3m/s

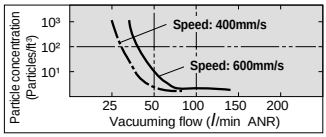
Test equipment: <Test equipment> Laser particle counter
Hitachi Electric Engineering: TS-3500
<Target particle size> 0.17μm or larger
<Sampling flow rate> 28ℓ/min (ANR)
<Sampling time> 1min
<Holding time> 2min
<Number of tests> 6

Actuator placement and test points

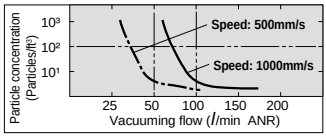


Vacuuming Graphs

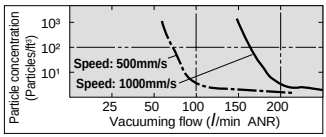
LJ1H10 Vacuuming flow characteristics



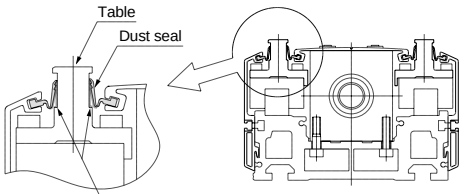
LJ1H20 Vacuuming flow characteristics



LJ1H30 Vacuuming flow characteristics



Grease Application Areas



⚠Caution

① **Maintenance of the greased parts of the dust seal is necessary.**

With this specification, a vacuum grease is applied to the sliding parts of the dust seal in order to prevent particulate generation. Maintenance should be performed at 4000km, 4 million reciprocations or within 6 months, whichever occurs first.

Specified grease: Barrierta IEL/V [fluorine grease (70g) for vacuum equipment manufactured by NOK Kluber]

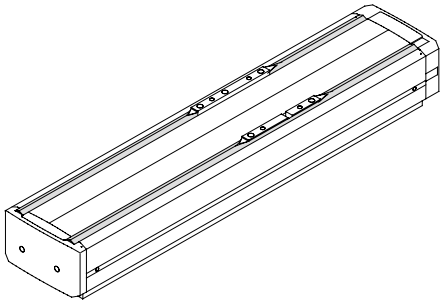
② **A down flow environment with a flow velocity of 0.3m/s or more is required.**

The particulate generation performance of this specification has been tested in the environment shown on the left.

Dust Seal Specification (-X70)

The dust seal (dust cover) prevents the entry of dust, paper dust and scraps, etc.

Dust Cover

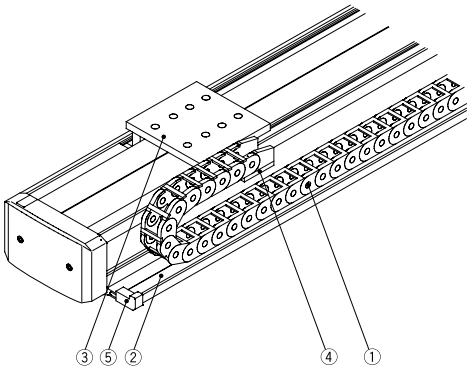


Note 1) Dust seal material: Polyurethane
Consult SMC for details.
Note 2) Measures for use in an mist environment are not provided.
Also, depending on the environment, it may not be possible to use the dust seal. Consult SMC.

TSUBAKI CABLEVEYOR Specification (-X40)

Able to compactly arrange supporting guides for cables and hoses.

Construction

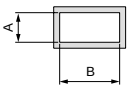


Parts list

No.	Description	Material	Note
1	TSUBAKI CABLEVEYOR	—	—
2	Cable side cover	Aluminum alloy	—
3	Mounting plate	Aluminum alloy	—
4	Cable flange	Aluminum alloy	—
5	End cap	EP	—

Precautions on handling of the TSUBAKI CABLEVEYOR

1. When handling, connecting or disconnecting the TSUBAKI CABLEVEYOR:
   - Wear suitable clothing and appropriate protective gear (safety glasses, gloves, safety shoes, etc.).
   - Use suitable tools.
   - Provide support so that the TSUBAKI CABLEVEYOR and parts do not move freely.
2. Implement protective measures (safety cover, etc.).
3. Be sure to turn off the power and ensure that it cannot be turned on accidentally before installation, removal or maintenance of the equipment.
4. In order to prevent secondary accidents, put the surrounding area in good order and operate under safe conditions.
5. The total cross-sectional area of the cable inserted into the TSUBAKI CABLEVEYOR should be no more than 60% of the TSUBAKI CABLEVEYOR cross-sectional area.
6. The minimum clearance between the cable and TSUBAKI CABLEVEYOR internal width should be "the larger of 10% of the cable O.D. or 2mm".

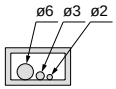


TSUBAKI CABLEVEYOR cross-sectional dimensions

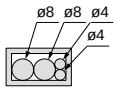
(mm)

Series	A	B
$LJ1^{H}_{S}10$	10	20
$LJ1^{H}_{S}20$	10	20
$LJ1^{H}_{S}30$	14	40

Example) For $LJ1^{H}_{S}10$



Correct: 60% or less



Incorrect: More than 60%

High Rigidity Direct Acting Guide Type Motor Output: 50W/100W Series LJ1H10 Clean Room Specification

How to Order

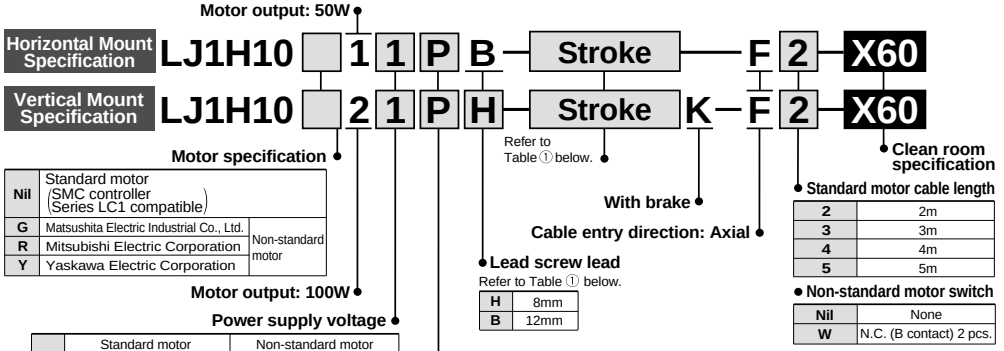


Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)				
	100	200	300	400	500
LJ1H10□1□PB-Stroke-F□-X60	●	●	●	●	●
LJ1H10□1□NB-Stroke-F□-X60	●	●	●	●	●
LJ1H10□2□PH-StrokeK-F□-X60	●	●	●	●	●
LJ1H10□2□NH-StrokeK-F□-X60	●	●	●	●	●
LJ1H10□2□PB-StrokeK-F□-X60	●	●	●	●	●
LJ1H10□2□NB-StrokeK-F□-X60	●	●	●	●	●

Combinations other than the above cannot be manufactured.

Specifications

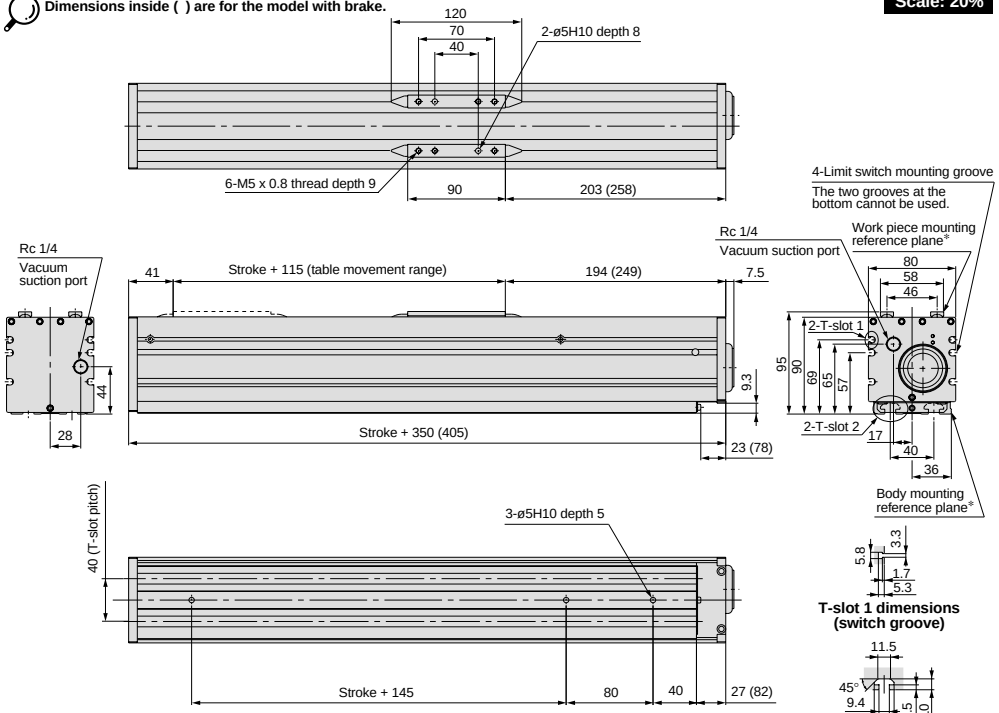
Standard stroke mm				100	200	300	400	500
Weight kg	Without brake	With motor (standard)		5.4	6.2	7.0	7.7	8.5
		Without motor (non-standard)		5.0	5.8	6.6	7.3	8.1
	With brake	With motor (standard)		5.9	6.7	7.5	8.2	9.0
		Without motor (non-standard)		5.5	6.3	7.1	7.8	8.6
Operating temperature range °C				5 to 40 (with no condensation)				
Work load kg	Horizontal specification	12mm lead	50W	10				
	Vertical specification	12mm lead	100W	5				
		8mm lead	100W	10				
Maximum speed mm/s	Horizontal specification	12mm lead	50W	600				
	Vertical specification	12mm lead	100W	600				
		8mm lead	100W	400				
Positioning repeatability mm	Rolled ball screw			±0.05				
	Ground ball screw			±0.02				
Motor output	Horizontal specification			AC servomotor (50W)				
	Vertical specification			AC servomotor (100W) with brake				
Lead screw: Black chroming + Special fluoro resin coating and grease application	Horizontal specification	Rolled ball screw		ø12mm, 12mm lead				
		Ground ball screw		ø12mm, 12mm lead				
	Vertical specification	Rolled ball screw		ø12mm, 12mm/8mm lead				
		Ground ball screw		ø12mm, 12mm/8mm lead				
Guide				High rigidity direct acting guide, Stainless steel rail, AFE grease (made by THK) applied				
Switch				Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less				
Table specification				With dust seal				
Grease for dust seal application				Fluorine grease for vacuum equipment made by NOK Kluber				
Grease maintenance schedule				Traveling distance of 4000km, 4 million reciprocations, or operation period of 6 months, whichever comes first				
Vacuum suction port				Rc 1/4, one each on both axial surfaces Seal the unused port with a plug.				
Suction flow rate				50ℓ/min (ANR)				

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1H10□$^{1}_{2}$ (X60)

Dimensions inside ( ) are for the model with brake.

Scale: 20%



∗ The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 140 for mounting.

Compatible Motors

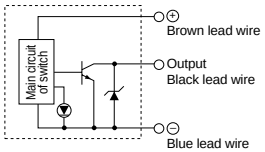
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	**Nil**	Without brake (Horizontal specification)	50	100/110	——	LC1-1B1H1-□□
				200/220	——	LC1-1B1H2-□□
		With brake (Vertical specification)	100	100	——	LC1-1B1V□1-□□
				200	——	LC1-1B1V□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	**G**	Without brake (Horizontal specification)	50	100/115	MSM5AZP1A	MSD5A1P1E
				200/230		MSD5A3P1E
		With brake (Vertical specification)	100	100/115	MSM011P1B	MSD011P1E
				200/230	MSM012P1B	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	**R**	Without brake (Horizontal specification)	50	100/115	HC-PQ053	MR-C10A1
				200/230		MR-C10A
		With brake (Vertical specification)	100	100/115	HC-PQ13B	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	**Y**	Without brake (Horizontal specification)	50	100/115	SGME-A5BF12	SGDE-A5BP
				200/230	SGME-A5AF12	SGDE-A5AP
		With brake (Vertical specification)	100	100/115	SGME-01BF12B	SGDE-01BP
				200/230	SGME-01AF12B	SGDE-01AP

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

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

Switch Internal Circuit

D-Y7GL



Made to Order

High Rigidity Direct Acting Guide Type Motor Output: 100W — Series LJ1H20 — Clean Room Specification

How to Order

Refer to Table ① below.

Horizontal Mount Specification LJ1H20 □ 2 1 P A — Stroke — F 2 — X60

Vertical Mount Specification LJ1H20 □ 2 1 P F — Stroke K — F 2 — X60

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))
G	Matsushita Electric Industrial Co., Ltd. (Non-standard motor)
R	Mitsubishi Electric Corporation (Non-standard motor)
Y	Yaskawa Electric Corporation (Non-standard motor)

Motor output: 100W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw lead Refer to Table ① below.

F	5mm
A	10mm
C	20mm

Lead screw type Refer to Table ① below.

P	Ground ball screw
N	Rolled ball screw

With brake

Cable entry direction : Axial

Clean room specification

Standard motor cable length

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

Non-standard motor switch

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

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)									
	100	200	300	400	500	600	700	800	900	1000
LJ1H20□2□PA-Stroke-F□-X60	●	●	●	●	●	●				
LJ1H20□2□NA-Stroke-F□-X60	●	●	●	●	●	●				
LJ1H20□2□PC-Stroke-F□-X60					●	●	●	●	●	●
LJ1H20□2□NC-Stroke-F□-X60					●	●	●	●	●	●
LJ1H20□2□PF-StrokeK-F□-X60	●	●	●	●	●	●				
LJ1H20□2□NF-StrokeK-F□-X60	●	●	●	●	●	●				
LJ1H20□2□PA-StrokeK-F□-X60	●	●	●	●	●	●				
LJ1H20□2□NA-StrokeK-F□-X60	●	●	●	●	●	●				

Combinations other than the above cannot be manufactured.

Specifications

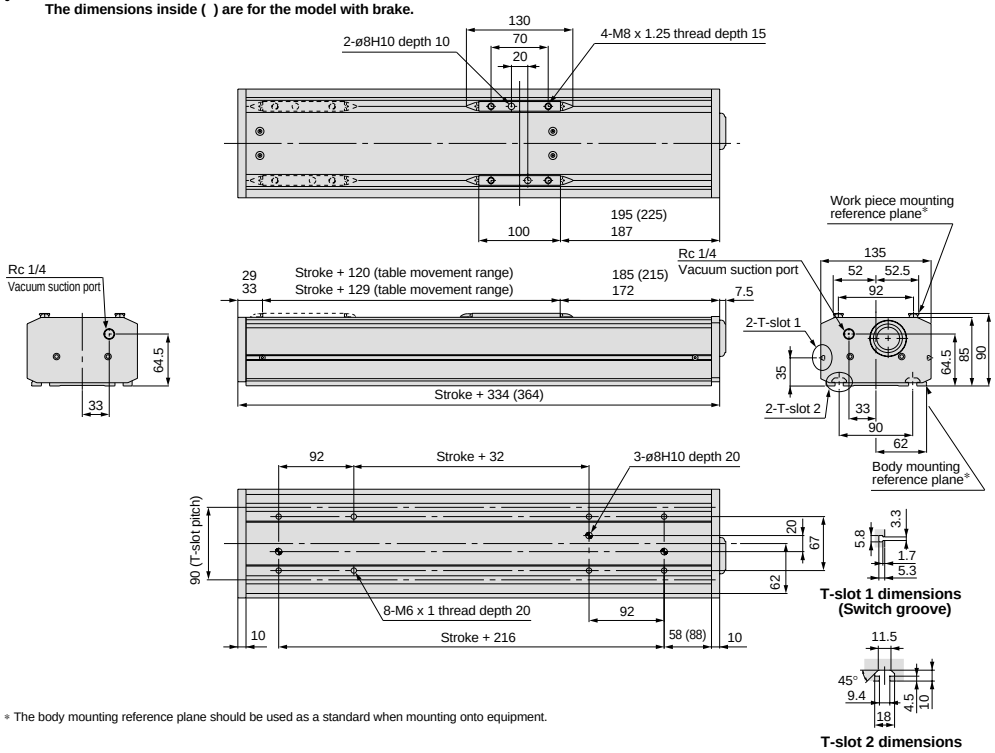
Standard stroke mm				100	200	300	400	500	600	700	800	900	1000
Weight kg	Without brake	With motor		7.9	9.1	10.3	11.4	12.8	13.9	15.1	16.3	17.5	18.7
		Without motor		7.4	8.6	9.8	10.9	12.3	13.4	14.6	15.8	17.0	18.2
	With brake	With motor		8.6	9.8	11.0	12.1	13.5	14.6	—	—	—	—
		Without motor		8.1	9.3	10.5	11.6	13.0	14.1	—	—	—	—
Operating temperature range °C				5 to 40 (with no condensation)									
Work load kg	Horizontal specification	10mm lead	100W	30						—			
		20mm lead		—				15					
	Vertical specification	5mm lead		15						—			
		10mm lead		8						—			
Maximum speed mm/s	Horizontal specification	10mm lead	100W	500						—			
		20mm lead		—				1000		930	740	600	500
	Vertical specification	5mm lead		250						—			
		10mm lead		500						—			
Positioning repeatability mm	Rolled ball screw			±0.05									
	Ground ball screw			±0.02									
Motor output	Horizontal specification			AC servomotor (100W)									
	Vertical specification			AC servomotor (100W) with brake									
Lead screw	Black chroming + Special fluoro resin coating and grease application	Horizontal specification	Rolled ball screw	ø15mm, 10mm lead						—			
				—						ø15mm, 20mm lead			
		Vertical specification	Ground ball screw	ø15mm, 5mm lead						—			
				ø15mm,10mm lead						—			
Guide				High rigidity direct acting guide, Stainless steel rail, AFE grease (made by THK) applied									
Switch				Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									
Table specification				With dust seal									
Grease for dust seal application				Fluorine grease for vacuum equipment made by NOK Kluber									
Grease maintenance schedule				Traveling distance of 4000km, 4 million reciprocations, or operation period of 6 months, whichever comes first									
Vacuum suction port				Rc 1/4, one each on both axial surfaces Seal the unused port with a plug.									
	Stroke: 500mm or less			Suction at either end or both ends.									
	Stroke: 500mm or more			Suction at both ends.									
Suction flow rate	Speed: 500mm/s or less			50ℓ/min (ANR)									
	Speed: 500mm/s or more			100ℓ/min (ANR)									

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1H20□2 (X60)

When two dimensions are shown, the top dimension is for 100 to 600mm strokes, and the bottom dimension is for 700 to 1200mm strokes. The dimensions inside ( ) are for the model with brake.

Scale: 15%



* The body mounting reference plane should be used as a standard when mounting onto equipment.

Compatible Motors

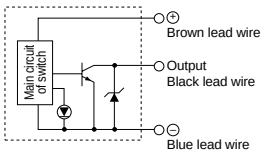
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	100	100/110	——	LC1-1B2H1-□□
				200/220	——	LC1-1B2H2-□□
		With brake (Vertical specification)	100	100	——	LC1-1B2V□1-□□
				200	——	LC1-1B2V□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	100	100/115	MSM011P1A	MSD011P1E
				200/230	MSM012P1A	MSD013P1E
		With brake (Vertical specification)	100	100/115	MSM011P1B	MSD011P1E
				200/230	MSM012P1B	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	100	100/115	HC-PQ013	MR-C10A1
				200/230		MR-C10A
		With brake (Vertical specification)	100	100/115	HC-PQ13B	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	100	100/115	SGME-01BF12	SGDE-01BP
				200/230	SGME-01AF12	SGDE-01AP
		With brake (Vertical specification)	100	100/115	SGME-01BF12B	SGDE-01BP
				200/230	SGME-01AF12B	SGDE-01AP

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

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

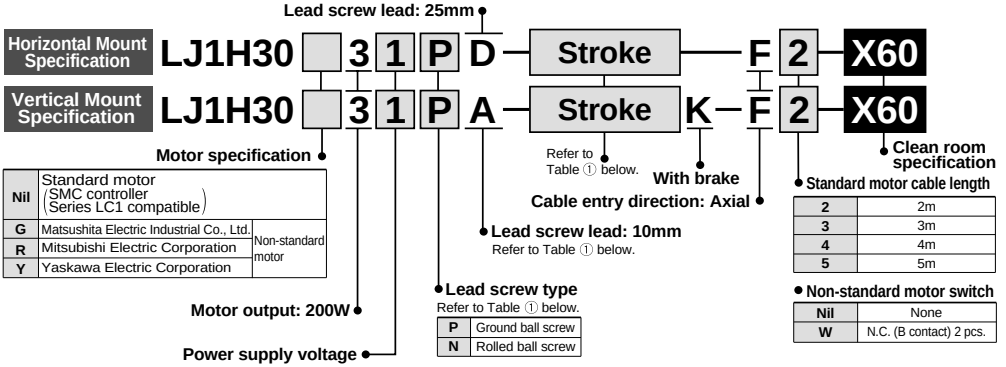
Switch Internal Circuit

D-Y7GL



High Rigidity Direct Acting Guide Type Motor Output: 200W — Series LJ1H30 — Clean Room Specification

How to Order



Nil	Standard motor (SMC controller (Series LC1 compatible))
G	Matsushita Electric Industrial Co., Ltd. (Non-standard motor)
R	Mitsubishi Electric Corporation (Non-standard motor)
Y	Yaskawa Electric Corporation (Non-standard motor)

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

P	Ground ball screw
N	Rolled ball screw

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

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

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)								
	200	300	400	500	600	800	1000	1200	1500
LJ1H30□3□PD-Stroke-F□-X60	●	●	●	●	●	●	●	●	●
LJ1H30□3□ND-Stroke-F□-X60	●	●	●	●	●	●	●	●	●
LJ1H30□3□PA-StrokeK-F□-X60	●	●	●	●	●				
LJ1H30□3□NA-StrokeK-F□-X60	●	●	●	●	●				

Combinations other than the above cannot be manufactured.

Specifications

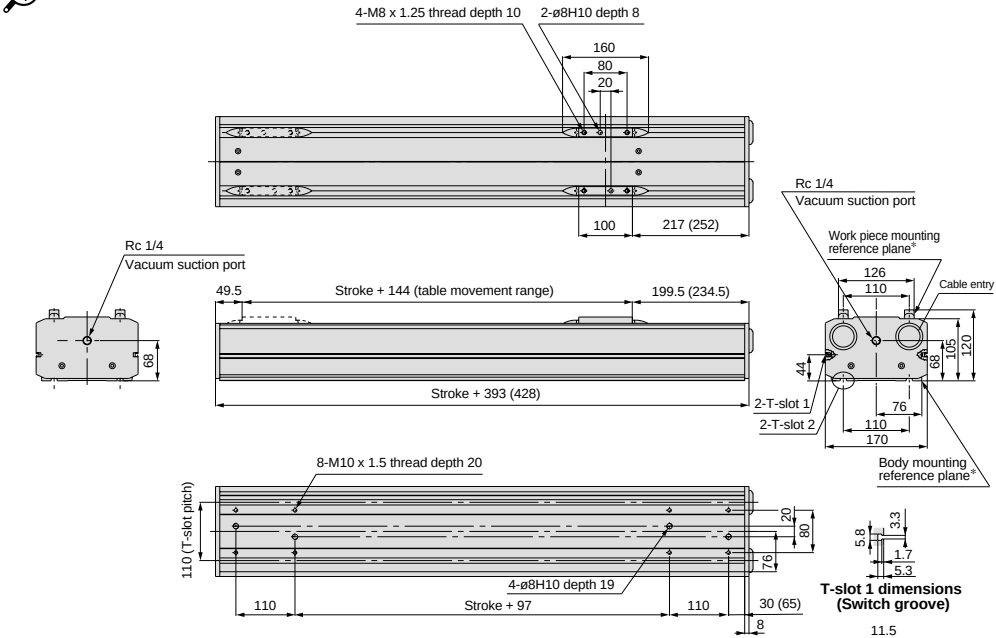
Standard stroke mm				200	300	400	500	600	800	1000	1200	1500
Weight kg	Without brake	With motor		16.2	18.2	20.2	22.2	24.2	28.7	33.2	37.2	43.2
		Without motor		15.1	17.1	19.1	21.1	23.1	27.6	32.1	36.1	42.1
	With brake	With motor		17.2	19.2	21.2	23.2	25.2	—	—	—	—
		Without motor		16.1	18.1	20.1	22.1	24.1	—	—	—	—
Operating temperature range °C				5 to 40 (with no condensation)								
Maximum work load kg	Horizontal specification	25mm lead	200W	60								
	Vertical specification	10mm lead	200W	20					—			
Maximum speed mm/s	Horizontal specification	25mm lead	200W	1000						700	500	
	Vertical specification	10mm lead	200W	500					—			
Positioning repeatability mm	Rolled ball screw			±0.05								
	Ground ball screw			±0.02								
Motor output	Horizontal specification			AC servomotor (200W)								
	Vertical specification			AC servomotor (200W) with brake								
Lead screw (Black chroming + Special fluoro resin coating and grease application)	Horizontal specification	Rolled ball screw		ø25mm, 25mm lead								
	Vertical specification	Ground ball screw		ø20mm, 10mm lead					—			
Guide				High rigidity direct acting guide, Stainless steel rail, AFE grease (made by THK) applied								
Switch				Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								
Table specification				With dust seal								
Grease for dust seal application				Fluorine grease for vacuum equipment made by NOK Kluber								
Grease maintenance schedule				Traveling distance of 4000km, 4 million reciprocations, or operation period of 6 months, whichever comes first								
Vacuum suction port				Rc 1/4, one each on both axial surfaces Seal the unused port with a plug, suction at both ends								
Suction flow rate	Speed: 500 mm/s or less			100ℓ/min (ANR)								
	Speed: 500 mm/ or more			200ℓ/min (ANR)								

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1H30□3 (X60)

Dimensions inside ( ) are for the model with brake.

Scale: 15%



∗ The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 140 for mounting.

Compatible Motors

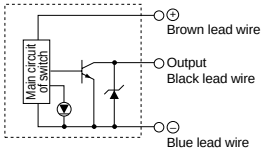
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model∗
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	200	100/110	——	LC1-1B3H1-□□
				200	——	LC1-1B3H2-□□
		With brake (Vertical specification)	200	100	——	LC1-1B3VA1-□□
				200	——	LC1-1B3VA2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	200	100/115	MSM021P1A	MSD021P1E
				200/230	MSM022P1A	MSD023P1E
		With brake (Vertical specification)	200	100/115	MSM021P1B	MSD021P1E
				200/230	MSM022P1B	MSD023P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	200	100/115	HC-PQ23	MR-C20A1
				200/230		MR-C20A
		With brake (Vertical specification)	200	100/115	HC-PQ23B	MR-C20A1
				200/230		MR-C20A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	200	100/115	SGME-02BF12	SGDE-02BP
				200/230	SGME-02AF12	SGDE-02AP
		With brake (Vertical specification)	200	100/115	SGME-02BF12B	SGDE-02BP
				200/230	SGME-02AF12B	SGDE-02AP

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

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

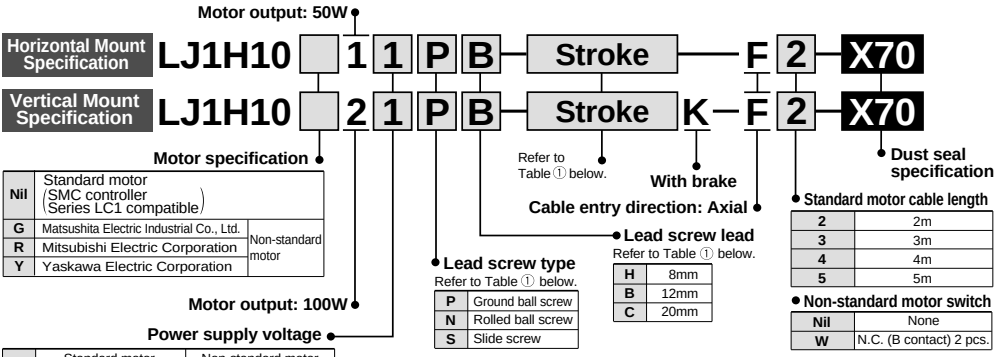
Switch Internal Circuit

D-Y7GL



High Rigidity Direct Acting Guide Type Motor Output: 50W/100W — Series LJ1H10 — Dust Seal Specification

How to Order



Nil	Standard motor (SMC controller \Series LC1 compatible/)
G	Matsushita Electric Industrial Co., Ltd. (Non-standard motor)
R	Mitsubishi Electric Corporation (Non-standard motor)
Y	Yaskawa Electric Corporation (Non-standard motor)

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

H	8mm
B	12mm
C	20mm

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

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

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)									
	100	200	300	400	500	600	700	800	900	1000
LJ1H10□1□PB-Stroke-F□-X70	●	●	●	●	●					
LJ1H10□1□NB-Stroke-F□-X70	●	●	●	●	●					
LJ1H10□1□SC-Stroke-F□-X70	●	●	●	●	●	●	●	●	●	●
LJ1H10□2□PH-StrokeK-F□-X70	●	●	●	●	●					
LJ1H10□2□NH-StrokeK-F□-X70	●	●	●	●	●					
LJ1H10□2□PB-StrokeK-F□-X70	●	●	●	●	●					
LJ1H10□2□NB-StrokeK-F□-X70	●	●	●	●	●					

Combinations other than the above cannot be manufactured.

Specifications

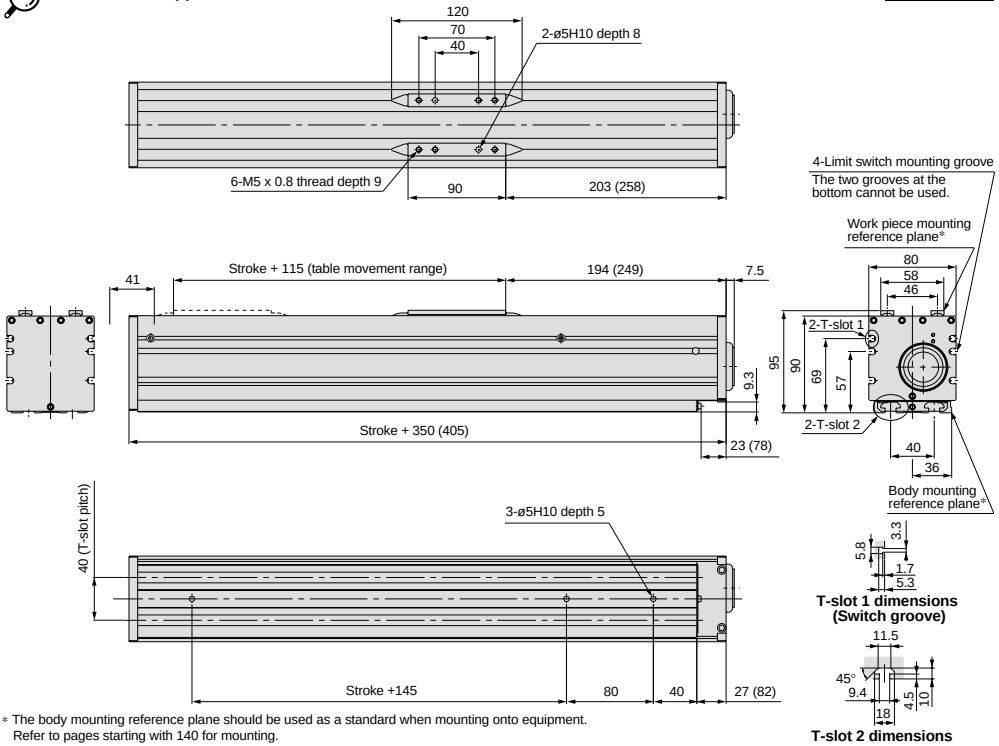
Standard stroke mm				100	200	300	400	500	600	700	800	900	1000
Weight kg	Ball screw	Without brake	With motor	5.4	6.2	7.0	7.7	8.5	—	—	—	—	—
			Without motor	5.0	5.8	6.6	7.3	8.1	—	—	—	—	—
		With brake	With motor	5.9	6.7	7.5	8.2	9.0	—	—	—	—	—
			Without motor	5.5	6.3	7.1	7.8	8.6	—	—	—	—	—
	Slide screw	Without brake	With motor	5.3	6.2	7.2	8.0	8.8	9.7	10.5	11.3	12.2	13.0
			Without motor	4.9	5.8	6.8	7.6	8.4	9.3	10.1	10.9	11.8	12.6
Operating temperature range °C				5 to 40 (with no condensation)									
Work load kg	Horizontal specification	12mm lead	50W	10									
		20mm lead	50W	10									
	Vertical specification	12mm lead	100W	5					—				
		8mm lead	100W	10					—				
Maximum speed mm/s	Horizontal specification	12mm lead	50W	600									
		20mm lead	50W	500									
	Vertical specification	12mm lead	100W	600					—				
		8mm lead	100W	400					—				
Positioning repeatability mm	Rolled ball screw			±0.05									
	Ground ball screw			±0.02									
	Slide screw			±0.1									
Motor output	Horizontal specification			AC servomotor (50W)									
	Vertical specification			AC servomotor (100W) with brake									
Lead screw	Horizontal specification	Rolled ball screw		ø12mm, 12mm lead									
		Ground ball screw		ø12mm, 12mm lead									
		Slide screw		ø20mm, 20mm lead									
	Vertical specification	Rolled ball screw		ø12mm, 12mm/8mm lead					—				
		Ground ball screw		ø12mm, 12mm/8mm lead					—				
Guide				High rigidity direct acting guide									
Switch				Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									
Table specification				With dust seal									
Grease for dust seal application				Special lubricant									

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1H10□$\frac{1}{2}$ (X70)

Dimensions inside ( ) are for the model with brake.

Scale: 20%



* The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 140 for mounting.

Compatible Motors

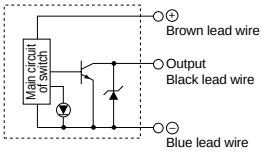
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	**Nil**	Without brake (Horizontal specification)	50	100/110	—	LC1-1B1□1-□□
				200/220	—	LC1-1B1□2-□□
		With brake (Vertical specification)	100	100	—	LC1-1B1V□1-□□
				200	—	LC1-1B1V□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	**G**	Without brake (Horizontal specification)	50	100/115	MSM5AZP1A	MSD5A1P1E
				200/230		MSD5A3P1E
		With brake (Vertical specification)	100	100/115	MSM011P1B	MSD011P1E
				200/230	MSM012P1B	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	**R**	Without brake (Horizontal specification)	50	100/115	HC-PQ053	MR-C10A1
				200/230		MR-C10A
		With brake (Vertical specification)	100	100/115	HC-PQ13B	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	**Y**	Without brake (Horizontal specification)	50	100/115	SGME-A5BF12	SGDE-A5BP
				200/230	SGME-A5AF12	SGDE-A5AP
		With brake (Vertical specification)	100	100/115	SGME-01BF12B	SGDE-01BP
				200/230	SGME-01AF12B	SGDE-01AP

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

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

Switch Internal Circuit

D-Y7GL



High Rigidity Direct Acting Guide Type Motor Output: 100W — Series LJ1H20 — Dust Seal Specification

How to Order

Horizontal Mount Specification LJ1H20 □ 2 1 P A — Stroke — F 2 — X70

Vertical Mount Specification LJ1H20 □ 2 1 P A — Stroke K — F 2 — X70

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))
G	Matsushita Electric Industrial Co., Ltd. (Non-standard motor)
R	Mitsubishi Electric Corporation (Non-standard motor)
Y	Yaskawa Electric Corporation (Non-standard motor)

Motor output: 100W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type (Refer to Table ① below.)

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

Lead screw lead (Refer to Table ① below.)

F	5mm
A	10mm
C	20mm

Refer to Table ① below. **With brake**

Cable entry direction: Axial

Dust seal specification

Standard motor cable length

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

Non-standard motor switch

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

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)										
	100	200	300	400	500	600	700	800	900	1000	1200
LJ1H20□2□PA-Stroke-F□-X70	●	●	●	●	●	●					
LJ1H20□2□NA-Stroke-F□-X70	●	●	●	●	●	●					
LJ1H20□2□PC-Stroke-F□-X70					●	●	●	●	●	●	
LJ1H20□2□NC-Stroke-F□-X70					●	●	●	●	●	●	
LJ1H20□2□SC-Stroke-F□-X70	●	●	●	●	●	●	●	●	●	●	●
LJ1H20□2□PF-Stroke-K-F□-X70	●	●	●	●	●	●					
LJ1H20□2□NF-Stroke-K-F□-X70	●	●	●	●	●	●					
LJ1H20□2□PA-Stroke-K-F□-X70	●	●	●	●	●	●					
LJ1H20□2□NA-Stroke-K-F□-X70	●	●	●	●	●	●					

Combinations other than the above cannot be manufactured.

Specifications

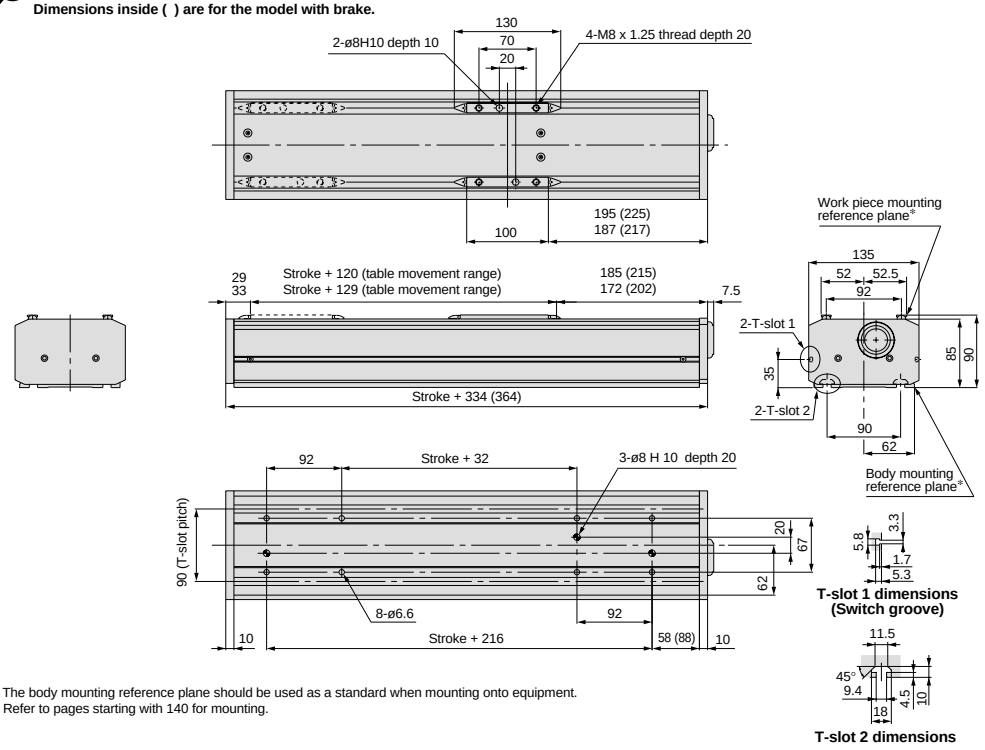
Standard stroke mm					100	200	300	400	500	600	700	800	900	1000	1200
Weight kg	Ball screw	Without brake	With motor		7.9	9.1	10.3	11.4	12.8	13.9	15.1	16.3	17.5	18.7	—
			Without motor		7.4	8.6	9.8	10.9	12.3	13.4	14.6	15.8	17.0	18.2	—
		With brake	With motor		8.6	9.8	11.0	12.1	13.5	14.6	—	—	—	—	—
			Without motor		8.1	9.3	10.5	11.6	13.0	14.1	—	—	—	—	—
	Slide screw	Without brake	With motor		9.0	10.0	11.1	12.2	13.3	14.3	15.3	17.2	19.1	20.6	24.7
			Without motor		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 (with no condensation)										
Work load kg	Horizontal specification	Ball screw	10mm lead		30						—				
			20mm lead		—				15						—
		Slide screw	20mm lead	100W	15										
	Vertical specification	Ball screw	5mm lead		15						—				
			10mm lead		8						—				
Maximum speed mm/s	Horizontal specification	Ball screw	10mm lead		500						—				
			20mm lead		—		1000			930	740	600	500	—	
		Slide screw	10mm lead	100W	500										
	Vertical specification	Ball screw	5mm lead		250						—				
			10mm lead		500						—				
Positioning repeatability mm	Rolled ball screw				±0.05										—
	Ground ball screw				±0.02										—
	Slide screw				±0.1										
Motor output	Horizontal specification				AC servomotor (100W)										
	Vertical specification				AC servomotor (100W) with brake						—				
Lead screw	Horizontal specification	Rolled/Grand ball screw			ø15mm, 10mm lead						—				
					—				ø15mm, 20mm lead						—
		Slide screw			ø20mm, 20mm lead										
	Vertical specification	Rolled/Grand ball screw			ø15mm, 5mm lead						—				
					ø15mm, 10mm lead						—				
Guide					High rigidity direct acting guide										
Switch					Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less										
Table specifications					With dust seal										
Grease for dust seal application					Special lubricant										

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1H20□2 (X70)

When two dimensions are shown, the top dimension is for 100 to 600mm strokes, and the bottom dimension is for 700 to 1200mm strokes.
Dimensions inside ( ) are for the model with brake.

Scale: 15%



* The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 140 for mounting.

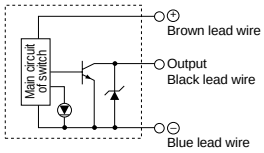
Compatible Motors

Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	**Nil**	Without brake (Horizontal specification)	100	100/110	—	LC1-1B2□1-□□
				200/220	—	LC1-1B2□2-□□
		With brake (Vertical specification)	100	100	—	LC1-1B2V□1-□□
				200	—	LC1-1B2V□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	**G**	Without brake (Horizontal specification)	100	100/115	MSM011P1A	MSD011P1E
				200/230	MSM012P1A	MSD013P1E
		With brake (Vertical specification)	100	100/115	MSM011P1B	MSD011P1E
				200/230	MSM012P1B	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	**R**	Without brake (Horizontal specification)	100	100/115	HC-PQ13	MR-C10A1
				200/230		MR-C10A
		With brake (Vertical specification)	100	100/115	HC-PQ13B	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	**Y**	Without brake (Horizontal specification)	100	100/115	SGME-01BF12	SGDE-01BP
				200/230	SGME-01AF12	SGDE-01AP
		With brake (Vertical specification)	100	100/115	SGME-01BF12B	SGDE-01BP
				200/230	SGME-01AF12B	SGDE-01AP

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

Switch Internal Circuit

D-Y7GL



High Rigidity Direct Acting Guide Type Motor Output: 200W — Series LJ1H30 — Dust Seal Specification

How to Order

Horizontal Mount Specification **LJ1H30 □ 3 1 P D — 200 — F 2 — X70**

Vertical Mount Specification **LJ1H30 □ 3 1 P A — 200 K — F 2 — X70**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))
G	Matsushita Electric Industrial Co., Ltd. (Non-standard motor)
R	Mitsubishi Electric Corporation (Non-standard motor)
Y	Yaskawa Electric Corporation (Non-standard motor)

Motor output: 200W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type Refer to Table ① below.

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

Stroke Refer to Table ① below.

With brake

Lead screw lead Refer to Table ① below.

A	10mm
B	25mm
E	40mm

Cable entry direction: Axial

Standard motor cable length

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

Non-standard motor switch

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

Dust seal specification

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)								
	200	300	400	500	600	800	1000	1200	1500
LJ1H30□3□PD-Stroke-F□-X70	●	●	●	●	●	●	●	●	●
LJ1H30□3□ND-Stroke-F□-X70	●	●	●	●	●	●	●	●	●
LJ1H30□3□SE-Stroke-F□-X70	●	●	●	●	●	●	●	●	●
LJ1H30□3□PA-StrokeK-F□-X70	●	●	●	●	●				
LJ1H30□3□NA-StrokeK-F□-X70	●	●	●	●	●				

Combinations other than the above cannot be manufactured.

Specifications

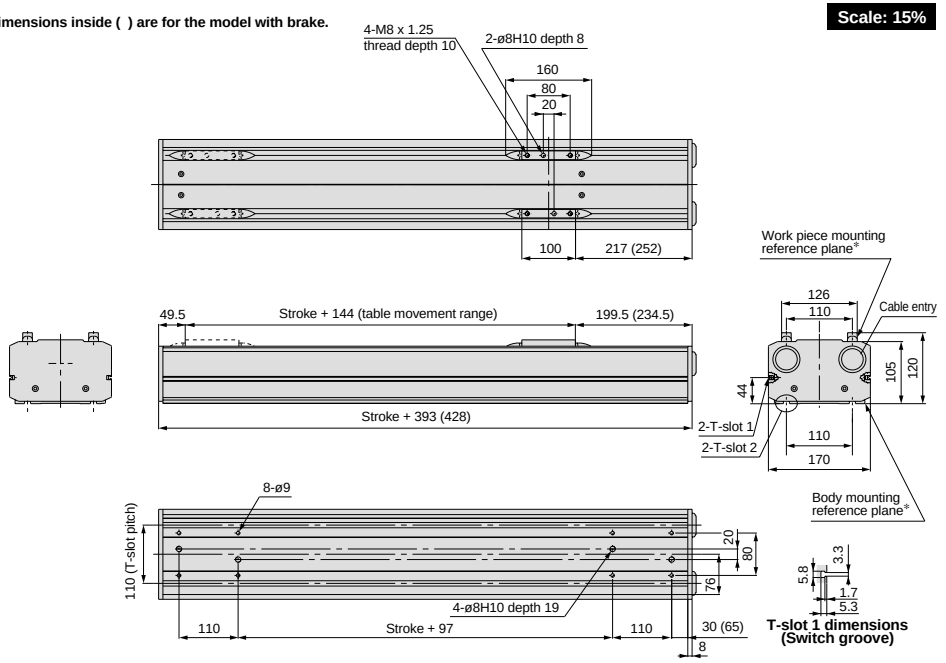
Standard stroke mm				200	300	400	500	600	800	1000	1200	1500
Weight kg	Ball screw	Without brake	With motor	16.2	18.2	20.2	22.2	24.2	28.7	33.2	37.2	43.2
			Without motor	15.1	17.1	19.1	21.1	23.1	27.6	32.1	36.1	42.1
		With brake	With motor	17.2	19.2	21.2	23.2	25.2	—	—	—	—
			Without motor	16.1	18.1	20.1	22.1	24.1	—	—	—	—
	Slide screw	Without brake	With motor	14.9	17.0	19.0	21.1	23.2	27.3	31.5	35.6	41.9
			Without motor	13.8	15.9	17.9	20.0	22.1	26.2	30.4	34.5	40.8
Operating temperature range °C				5 to 40 (with no condensation)								
Work load kg	Horizontal specification	Ball screw	25mm lead	200W	60							
		Slide screw	40mm lead		30							
	Vertical specification	Ball screw	10mm lead		20				—			
Maximum speed mm/s	Horizontal specification	Ball screw	25mm lead	200W	1000						700	500
		Slide screw	40mm lead		500							
	Vertical specification	Ball screw	10mm lead		500				—			
Positioning repeatability mm	Rolled ball screw			±0.05								
	Ground ball screw			±0.02								
	Slide screw			±0.1								
Motor output	Horizontal specification			AC servomotor (200W)								
	Vertical specification			AC servomotor (200W) with brake								
Lead screw	Horizontal specification	Rolled/Ground ball screw		ø25mm, 25mm lead								
		Slide screw		ø30mm, 40mm lead								
	Vertical specification	Rolled/Ground ball screw		ø20mm, 10mm lead					—			
Guide	High rigidity direct acting guide											
Switch	Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less											
Table specifications	With dust seal											
Grease for dust seal application	Special lubricant											

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1H30□3 (X70)

Dimensions inside ( ) are for the model with brake.

Scale: 15%



∗ The body mounting reference plane should be used as a standard when mounting onto equipment.
Refer to pages starting with 140 for mounting.

Compatible Motors

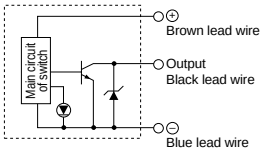
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	200	100/110	—	LC1-1B3□1-□□
				200	—	LC1-1B3□2-□□
		With brake (Vertical specification)	200	100	—	LC1-1B3VA1-□□
				200	—	LC1-1B3VA2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	200	100/115	MSM021P1A	MSD021P1E
				200/230	MSM022P1A	MSD023P1E
		With brake (Vertical specification)	200	100/115	MSM021P1B	MSD021P1E
				200/230	MSM022P1B	MSD023P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	200	100/115	HC-PQ23	MR-C20A1
				200/230		MR-C20A
		With brake (Vertical specification)	200	100/115	HC-PQ23B	MR-C20A1
				200/230		MR-C20A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	200	100/115	SGME-02BF12	SGDE-02BP
				200/230	SGME-02AF12	SGDE-02AP
		With brake (Vertical specification)	200	100/115	SGME-02BF12B	SGDE-02BP
				200/230	SGME-02AF12B	SGDE-02AP

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

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

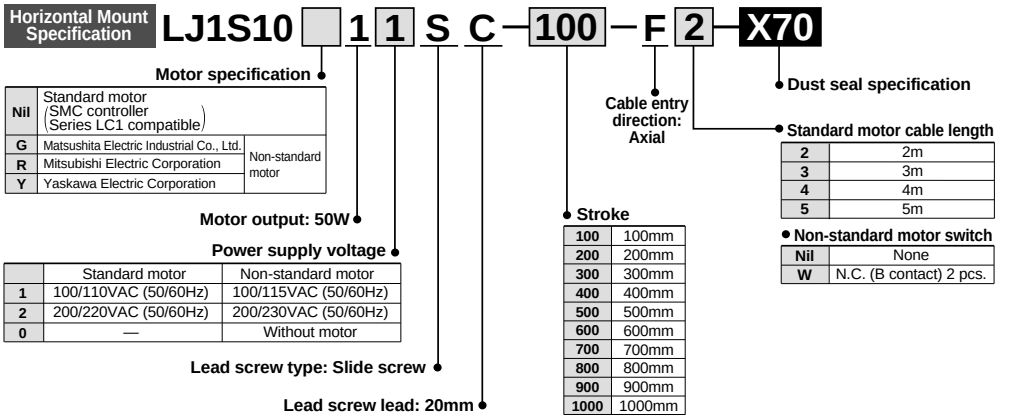
Switch Internal Circuit

D-Y7GL



Slider Guide Type
Motor Output: 50W
Series LJ1S10
Dust Seal Specification

How to Order



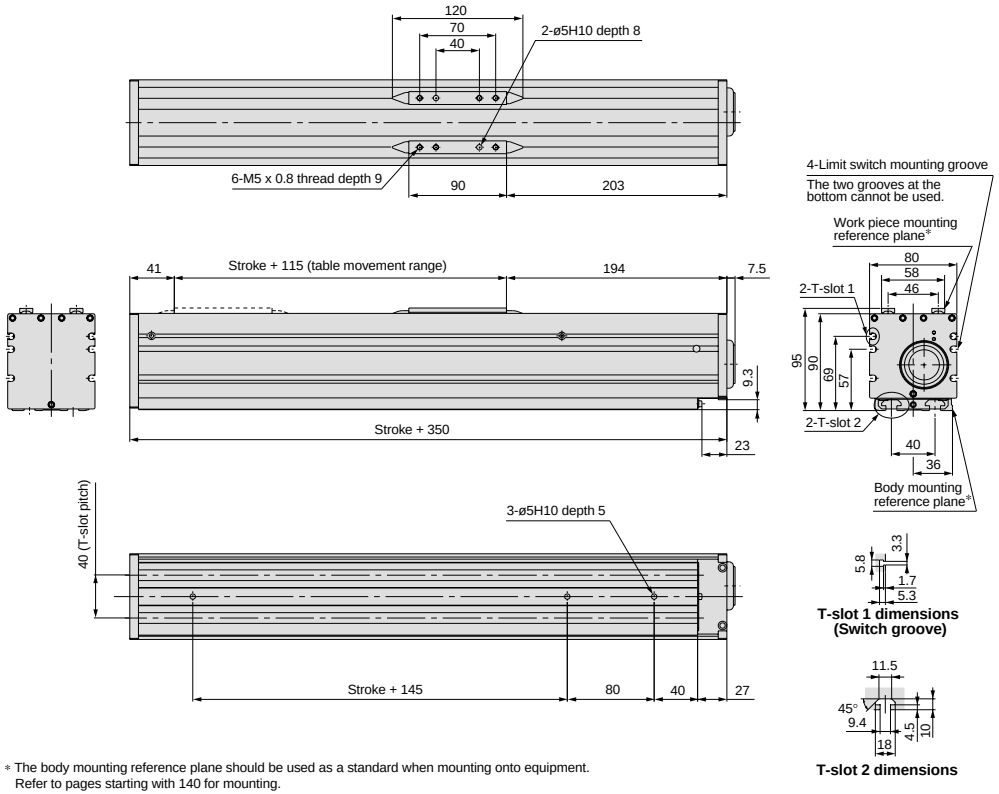
Specifications

Standard stroke mm		100	200	300	400	500	600	700	800	900	1000
Weight kg	With motor (Standard)	5.4	6.1	6.9	7.7	8.5	9.3	10.0	10.8	11.6	12.4
	Without motor (Non-standard)	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 (with no condensation)									
Work load kg		5									
Maximum speed mm/s		300									
Positioning repeatability mm		±0.1									
Motor output		AC servomotor (50W)									
Lead screw		Slide screw ø20mm, 20mm lead									
Guide		Slider guide									
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									
Table specifications		With dust seal									
Grease for dust seal application		Special lubricant									

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1S10□1SC (X70)

Scale: 15%



∗ The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 140 for mounting.

Compatible Motors

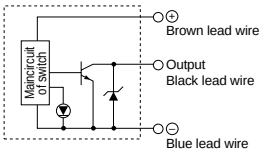
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	50	100/110	—	LC1-1B1S1-□□
				200/220	—	LC1-1B1S2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	50	100/115	MSM5AZP1A	MSD5A1P1E
				200/230		MSD5A3P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	50	100/115	HC-PQ053	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	50	100/115	SGME-A5BF12	SGDE-A5BP
				200/230	SGME-A5AF12	SGDE-A5AP

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

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

Switch Internal Circuit

D-Y7GL



Slider Guide Type
Motor Output: 100W
Series LJ1S20
Dust Seal Specification

How to Order

Horizontal Mount Specification **LJ1S20 □ 2 1 S C – 100 – F 2 – X70**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 100W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type: Slide screw

Lead screw lead: 20mm

Stroke

100	100mm
200	200mm
300	300mm
400	400mm
500	500mm
600	600mm
700	700mm
800	800mm
900	900mm
1000	1000mm
1200	1200mm

Cable entry direction: Axial

Standard motor cable length

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

Dust seal specification

Non-standard motor switch

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

Specifications

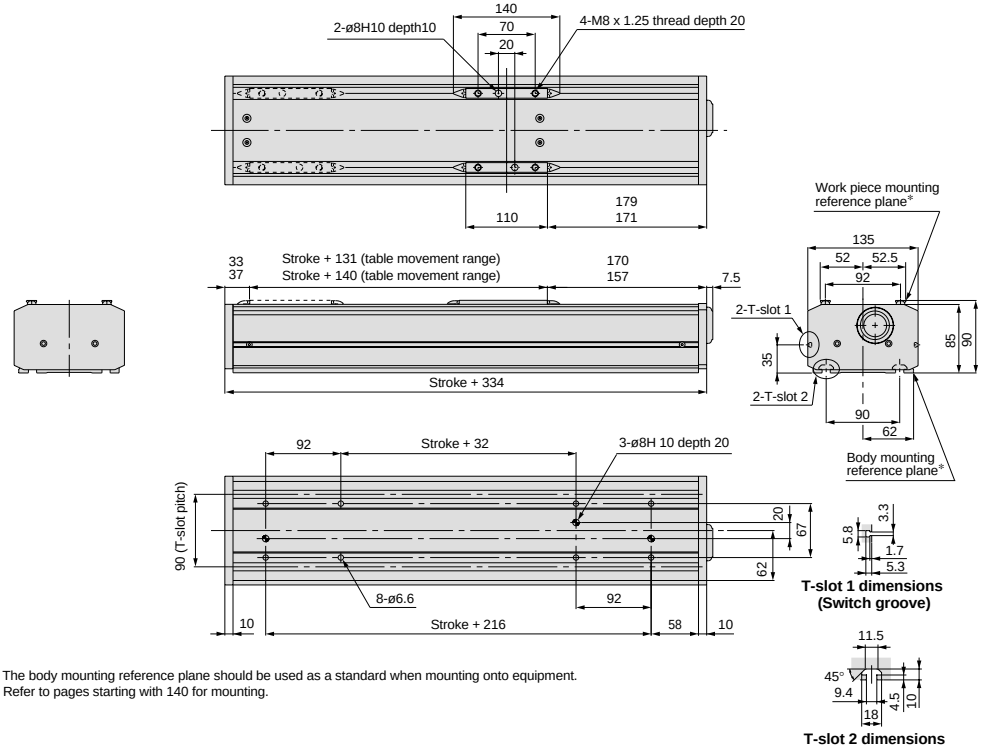
Standard stroke mm		**100**	**200**	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1200**
Weight kg	With motor (Standard)	6.8	7.9	9.0	10.1	11.1	12.2	13.3	14.3	15.4	16.4	18.6
	Without motor (Non-standard)	6.3	7.4	8.5	9.6	10.7	11.7	12.8	13.8	14.9	15.9	18.1
Operating temperature range °C		5 to 40 (with no condensation)										
Work load kg		10										
Maximum speed mm/s		300										
Positioning repeatability mm		±0.1										
Motor output		AC servomotor (100W)										
Lead screw		Slide screw ø20mm, 20mm lead										
Guide		Slider guide										
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less										
Table specifications		With dust seal										
Grease for dust seal application		Special lubricant										

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/ LJ1S20□2□SC (X70)

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

Scale: 15%



∗ The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 140 for mounting.

Compatible Motors

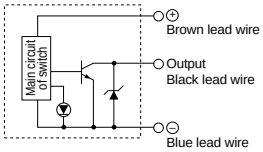
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	100	100/110	—	LC1-1B2S1-□□
				200/220	—	LC1-1B2S2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	100	100/115	MSM011P1A	MSD011P1E
				200/230	MSM012P1A	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	100	100/115	HC-PQ13	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	100	100/115	SGME-01BF12	SGDE-01BP
				200/230	SGME-01AF12	SGDE-01AP

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

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

Switch Internal Circuit

D-Y7GL



How to Order

Horizontal Mount Specification **LJ1S30 ☐ 3 1 S C – 200 – F 2 – X70**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 200W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type: Slide screw

Lead screw lead: 20mm

Stroke

200	200mm
300	300mm
400	400mm
500	500mm
600	600mm
800	800mm
1000	1000mm
1200	1200mm
1500	1500mm

Cable entry direction: Axial

Standard motor cable length

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

Dust seal specification

Non-standard motor switch

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

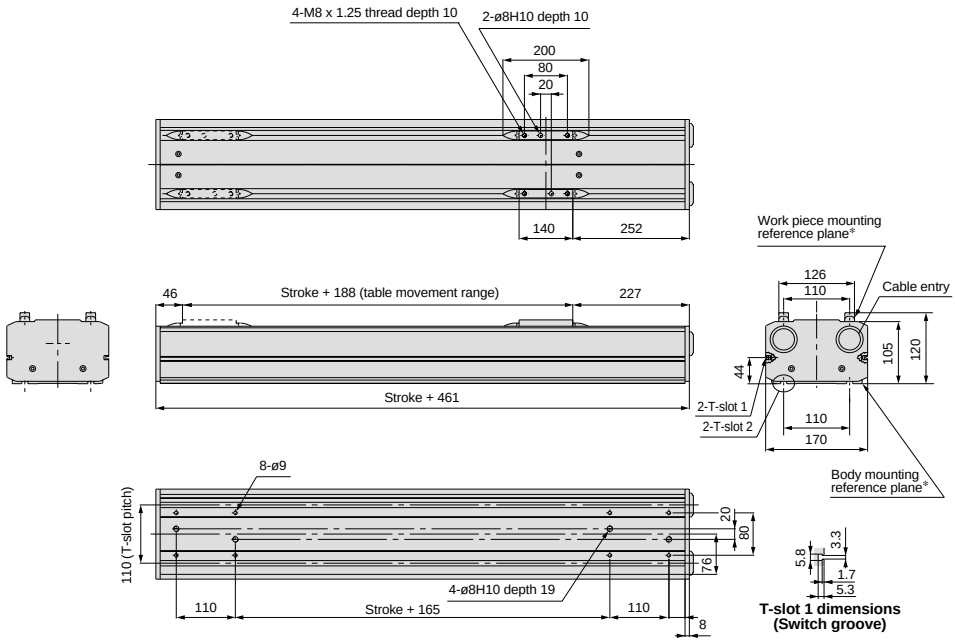
Specifications

Standard stroke mm		200	300	400	500	600	800	1000	1200	1500
Weight kg	With motor (Standard)	14.4	16.2	18.0	19.8	21.5	25.7	29.7	33.3	38.7
	Without motor (Non-standard)	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 (with no condensation)								
Work load kg		20								
Maximum speed mm/s		300								
Positioning repeatability mm		±0.1								
Motor output		AC servomotor (200W)								
Lead screw		Slide screw ø25mm, 20mm lead								
Guide		Slider guide								
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								
Table specifications		With dust seal								
Grease for dust seal application		Special lubricant								

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1S30□3□SC (X70)

Scale: 15%



* The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 140 for mounting.

Compatible Motors

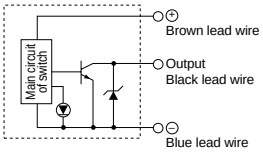
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	**Nil**	Without brake (Horizontal specification)	200	100/110	—	LC1-1B3S1-□□
				200	—	LC1-1B3S2-□□
Non-standard Matsus-hita Electric Industrial Co., Ltd. motor	**G**	Without brake (Horizontal specification)	200	100/115	MSM021P1A	MSD021P1E
				200/230	MSM022P1A	MSD023P1E
Non-standard Mitsubishi Electric Corporation motor	**R**	Without brake (Horizontal specification)	200	100/115	HC-PQ023	MR-C20A1
				200/230		MR-C20A
Non-standard Yaskawa Electric Corporation motor	**Y**	Without brake (Horizontal specification)	200	100/115	SGME-02BF12	SGDE-02BP
				200/230	SGME-02AF12	SGDE-02AP

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

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

Switch Internal Circuit

D-Y7GL



How to Order

Horizontal Mount Specification **LJ1H10 □ 1 1 P B — 100 — F 2 — X40 L**

Motor specification

Nil	Standard motor (SMC controller / Series LC1 compatible)	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 50W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type Refer to Table ① below.

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

Lead screw lead Refer to Table ① below.

B	12mm
C	20mm

Stroke Refer to Table ① below.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

TSUBAKI CABLEVEYOR specification

Standard motor cable length

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

Non-standard motor switch

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

TSUBAKI CABLEVEYOR entry direction

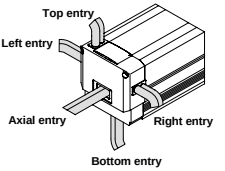
L	Left
R	Right

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)									
	100	200	300	400	500	600	700	800	900	1000
LJ1H10□1□PB-Stroke □□-X40□	●	●	●	●	●					
LJ1H10□1□NB-Stroke □□-X40□	●	●	●	●	●					
LJ1H10□1□SC-Stroke □□-X40□	●	●	●	●	●	●	●	●	●	●

Combinations other than the above cannot be manufactured.

Cable/TSUBAKI CABLEVEYOR entry direction



Specifications

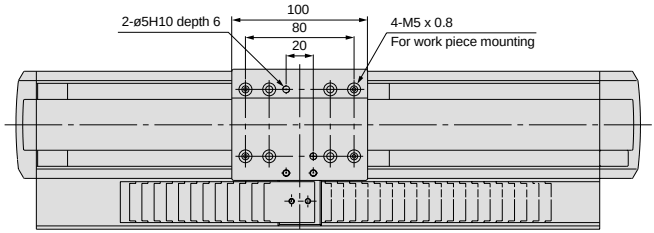
Standard stroke mm			100	200	300	400	500	600	700	800	900	1000
Weight kg	With motor (Standard)	Ball screw	6.0	6.9	7.9	8.7	9.6	—	—	—	—	—
		Slide screw	6.1	7.1	8.3	9.2	10.1	11.1	12.0	13.0	14.0	14.9
	Without motor (Non-Standard)	Ball screw	5.6	6.5	7.5	8.3	9.2	—	—	—	—	—
		Slide screw	5.7	6.7	7.9	8.8	9.7	10.7	11.6	12.6	13.6	14.5
Mounting orientation			Horizontal									
Operating temperature range °C			5 to 40 (with no condensation)									
Work load kg	Ball screw	12mm lead	10					—				
	Slide screw	20mm lead	10					—				
Maximum speed mm/s	Ball screw	12mm lead	600					—				
	Slide screw	20mm lead	500					—				
Positioning repeatability mm	Rolled ball screw		±0.05					—				
	Ground ball screw		±0.02					—				
	Slide screw		±0.1					—				
Motor output			AC servomotor (50W)									
Lead screw	Rolled ball screw		ø12mm, 12mm lead					—				
	Ground ball screw		ø12mm, 12mm lead					—				
	Slide screw		ø20mm, 20mm lead									
Guide			High rigidity direct acting guide									
Switch			Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									
TSUBAKI CABLEVEYOR			TKP0130-2BR18 manufactured by TSUBAKIMOTO CHAIN CO.									
Side cover			Cover with switch groove									

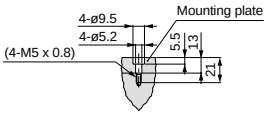
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1H10□1 (X40)

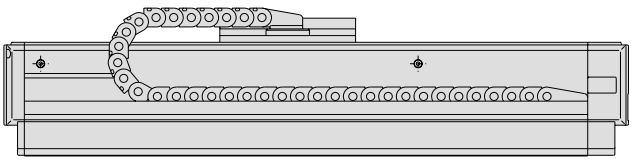
Dimensions other than those shown in the drawing are the same as standard.

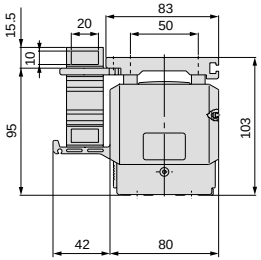
Scale: 25%





Work piece mounting dimensions





∗ This drawing shows the TSUBAKI CABLEVEYOR with left hand entry.

Compatible Motors

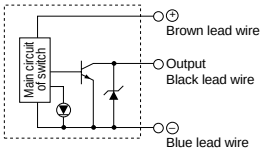
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model
SMC controller LC1 compatible	**Nil**	Without brake (Horizontal specification)	50	100/110	—	LC1-1B1□1-□□
				200/220	—	LC1-1B1□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	**G**	Without brake (Horizontal specification)	50	100/115	MSM5AZP1A	MSD5A1P1E
				200/230		MSD5A3P1E
Non-standard Mitsubishi Electric Corporation motor	**R**	Without brake (Horizontal specification)	50	100/115	HC-PQ053	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	**Y**	Without brake (Horizontal specification)	50	100/115	SGME-A5BF12	SGDE-A5BP
				200/230	SGME-A5AF12	SGDE-A5AP

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

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

Switch Internal Circuit

D-Y7GL



High Rigidity Direct Acting Guide Type
Motor Output: 100W
Series LJ1H20
TSUBAKI CABLEVEYOR Specification

How to Order

Horizontal Mount Specification **LJ1H20 □ 2 1 P A – 100 – F 2 – X40 L**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible)	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 100W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type
Refer to Table ① below.

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

Lead screw lead
Refer to Table ① below.

A	10mm
C	20mm

Stroke
Refer to Table ① below.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

TSUBAKI CABLEVEYOR specification

TSUBAKI CABLEVEYOR entry direction

L	Left
R	Right

Standard motor cable length

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

Non-standard motor switch

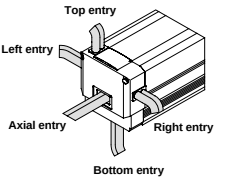
Nil	None
W	N.C. (B contact) 2 pcs.

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)										
	100	200	300	400	500	600	700	800	900	1000	1200
LJ1H20□2□PA-Stroke-□□-X40□	●	●	●	●	●	●					
LJ1H20□2□NA-Stroke-□□-X40□	●	●	●	●	●	●					
LJ1H20□2□PC-Stroke-□□-X40□					●	●	●	●	●	●	
LJ1H20□2□NC-Stroke-□□-X40□					●	●	●	●	●	●	
LJ1H20□2□SC-Stroke-□□-X40□	●	●	●	●	●	●	●	●	●	●	●

Combinations other than the above cannot be manufactured.

Cable/TSUBAKI CABLEVEYOR entry direction



Specifications

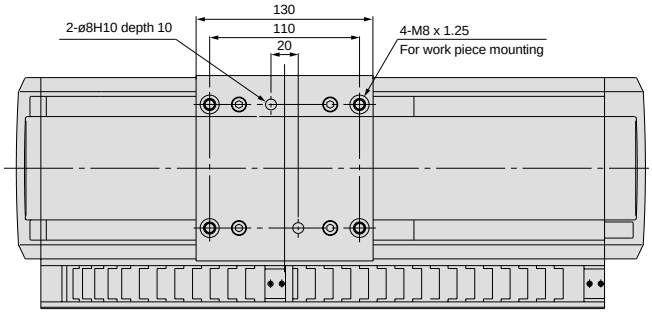
Standard stroke mm			100	200	300	400	500	600	700	800	900	1000	1200
Weight kg	With motor (Standard)	Ball screw	8.7	9.9	11.1	12.3	13.5	14.7	15.9	17.1	18.3	19.5	—
		Slide screw	10.0	11.2	12.4	13.6	14.8	16.0	17.2	18.4	19.6	20.8	23.2
	Without motor (Non-Standard)	Ball screw	8.2	9.4	10.6	11.8	13.0	14.2	15.4	16.6	17.8	19.0	—
		Slide screw	9.5	10.7	11.9	13.1	14.3	15.5	16.7	17.9	19.1	20.3	22.7
Mounting orientation			Horizontal										
Operating temperature range °C			5 to 40 (with no condensation)										
Work load kg	Ball screw	10mm lead	30						—				
		20mm lead	—				15						—
	Slide screw	20mm lead	15										
Maximum speed mm/s	Ball screw	10mm lead	500						—				
		20mm lead	—				1000		930	740	600	500	—
	Slide screw	20mm lead	500										
Positioning repeatability mm	Rolled ball screw		±0.05										
	Ground ball screw		±0.02										
	Slide screw		±0.1										
Motor output			AC servomotor (100W)										
Lead screw	Rolled ball screw		ø15mm, 10mm lead						—				
	Ground ball screw		—				ø15mm, 20mm lead						—
	Slide screw		ø20mm, 20mm lead										
Guide			High rigidity direct acting guide										
Switch			Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less										
TSUBAKI CABLEVEYOR			TKP0130-2BR28 manufactured by TSUBAKIMOTO CHAIN CO.										
Side cover			Cover with switch groove										

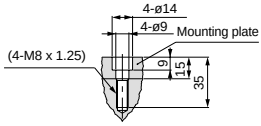
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1H20□2 (X40)

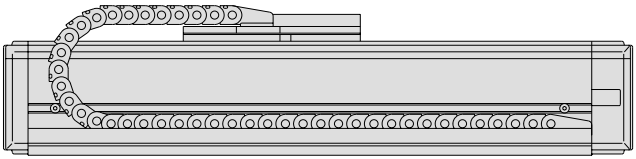
Dimensions other than those shown in the drawing are the same as standard.

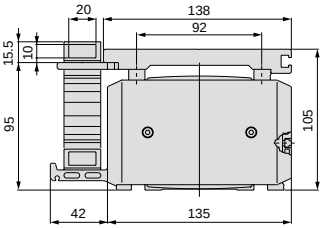
Scale: 25%





Work piece mounting dimensions





∗ This drawing shows the TSUBAKI CABLEVEYOR with left hand entry.

Compatible Motors

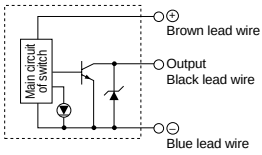
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model∗
SMC controller LC1 compatible	**Nil**	Without brake (Horizontal specification)	100	100/110	—	LC1-1B2□1-□□
				200/220	—	LC1-1B2□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	**G**	Without brake (Horizontal specification)	100	100/115	MSM011P1A	MSD011P1E
				200/230	MSM012P1A	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	**R**	Without brake (Horizontal specification)	100	100/115	HC-PQ13	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	**Y**	Without brake (Horizontal specification)	100	100/115	SGME-01BF12	SGDE-01BP
				200/230	SGME-01AF12	SGDE-01AP

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

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

Switch Internal Circuit

D-Y7GL



How to Order

Horizontal Mount Specification **LJ1H30** □ **3** **1** **P** **D** – **200** – **F** **2** – **X40** **L**

Motor specification

Nil	Standard motor (SMC controller Series LC1 compatible)	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 200W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type
Refer to Table ① below.

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

Lead screw lead
Refer to Table ① below.

D	25mm
E	40mm

Stroke
Refer to Table ① below.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

TSUBAKI CABLEVEYOR specification

TSUBAKI CABLEVEYOR entry direction

L	Left
R	Right

Standard motor cable length

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

Non-standard motor switch

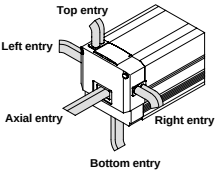
Nil	None
W	N.C. (B contact) 2 pcs.

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)								
	200	300	400	500	600	800	1000	1200	1500
LJ1H30□3□PD-[Stroke]-□□-X40□	●	●	●	●	●	●	●	●	●
LJ1H30□3□ND-[Stroke]-□□-X40□	●	●	●	●	●	●	●	●	●
LJ1H30□3□SE-[Stroke]-□□-X40□	●	●	●	●	●	●	●	●	●

Combinations other than the above cannot be manufactured.

Cable/TSUBAKI CABLEVEYOR entry direction



Specifications

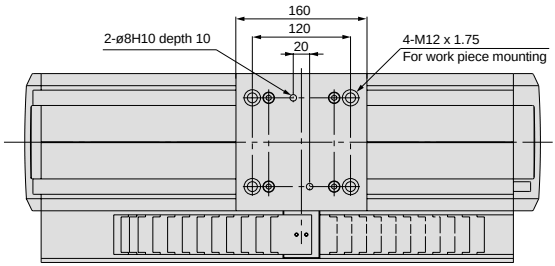
Standard stroke mm			200	300	400	500	600	800	1000	1200	1500
Weight kg	With motor (Standard)	Ball screw	17.5	19.7	21.9	24.1	26.2	31.1	36.0	40.3	46.9
		Slide screw	16.4	18.7	20.9	23.2	25.4	29.9	34.5	39.0	45.8
	Without motor (Non-Standard)	Ball screw	16.4	18.6	20.8	23.0	25.1	30.0	34.9	39.2	45.8
		Slide screw	15.3	17.6	19.8	22.1	24.3	28.8	33.4	37.8	44.7
Mounting orientation			Horizontal								
Operating temperature range °C			5 to 40 (with no condensation)								
Work load kg	Ball screw	25mm lead	60								
	Slide screw	40mm lead	30								
Maximum speed mm/s	Ball screw	25mm lead	1000							700	500
	Slide screw	40mm lead	500								
Positioning repeatability mm	Rolled ball screw		±0.05								
	Ground ball screw		±0.02								
	Slide screw		±0.1								
Motor output			AC servomotor (200W)								
Lead screw	Rolled ball screw		ø25mm, 25mm lead								
	Ground ball screw										
	Slide screw		ø30mm, 40mm lead								
Guide			High rigidity direct acting guide								
Switch			Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								
TSUBAKI CABLEVEYOR			TKP0180-2BR28 manufactured by TSUBAKIMOTO CHAIN CO.								
Side cover			Cover with switch groove								

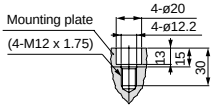
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1H30□3 (X40)

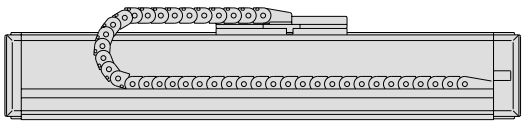
Dimensions other than those shown in the drawing are the same as standard.

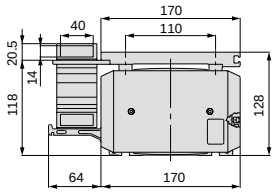
Scale: 20%





Work piece mounting dimensions





∗ This drawing shows the TSUBAKI CABLEVEYOR with left hand entry.

Compatible Motors

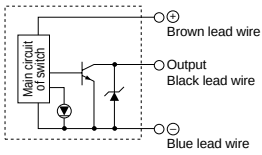
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model∗
SMC controller LC1 compatible	**Nil**	Without brake (Horizontal specification)	200	100/110	—	LC1-1B3□1-□□
				200	—	LC1-1B3□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	**G**	Without brake (Horizontal specification)	200	100/115	MSM021P1A	MSD021P1E
				200/230	MSM022P1A	MSD023P1E
Non-standard Mitsubishi Electric Corporation motor	**R**	Without brake (Horizontal specification)	200	100/115	HC-PQ23	MR-C20A1
				200/230		MR-C20A
Non-standard Yaskawa Electric Corporation motor	**Y**	Without brake (Horizontal specification)	200	100/115	SGME-02BF12	SGDE-02BP
				200/230	SGME-02AF12	SGDE-02AP

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

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

Switch Internal Circuit

D-Y7GL



Slider Guider Type
Motor Output: 50W
Series LJ1S10
TSUBAKI CABLEVEYOR Specification

How to Order

Horizontal Mount Specification **LJ1S10 □ 1 1 S C – 100 – F 2 – X40 L**

Motor specification

Nil	Standard motor (SMC controller / Series LC1 compatible)
G	Matsushita Electric Industrial Co., Ltd. (Non-standard motor)
R	Mitsubishi Electric Corporation (Non-standard motor)
Y	Yaskawa Electric Corporation (Non-standard motor)

Motor output: 50W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type: Slide screw

Lead screw lead: 20mm

Stroke

100	100mm
200	200mm
300	300mm
400	400mm
500	500mm
600	600mm
700	700mm
800	800mm
900	900mm
1000	1000mm

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

TSUBAKI CABLEVEYOR specification

Standard motor cable length

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

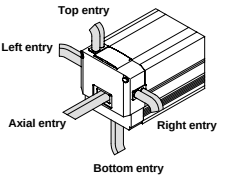
Non-standard motor switch

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

TSUBAKI CABLEVEYOR entry direction

L	Left
R	Right

Cable/TSUBAKI CABLEVEYOR entry direction



Specifications

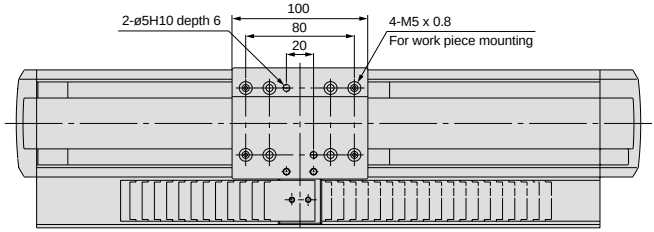
Standard stroke mm		100	200	300	400	500	600	700	800	900	1000
Weight kg	With motor (Standard)	6.2	7.0	8.0	8.9	9.8	10.7	11.5	12.5	13.4	14.3
	Without motor (Non-Standard)	5.8	6.6	7.6	8.5	9.4	10.3	11.1	12.1	13.0	13.9
Mounting orientation		Horizontal									
Operating temperature range °C		5 to 40 (with no condensation)									
Work load kg		5									
Maximum speed mm/s		300									
Positioning repeatability mm		±0.1									
Motor output		AC servomotor (50W)									
Lead screw		ø20mm, 20mm lead									
Guide		Slide guide									
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									
TSUBAKI CABLEVEYOR		TKP0130-2BR18 manufactured by TSUBAKIMOTO CHAIN CO.									
Side cover		Cover with switch groove									

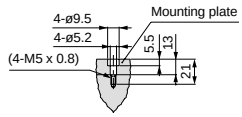
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/ LJ1S10□1□SC (X40)

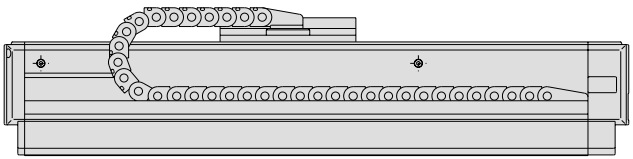
Dimensions other than those shown in the drawing are the same as standard.

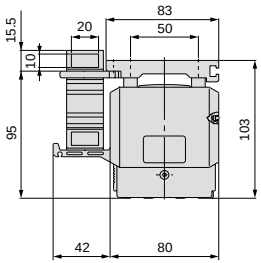
Scale: 20%





Work piece mounting dimensions





∗ This drawing shows the TSUBAKI CABLEVEYOR with left hand entry.

Compatible Motors

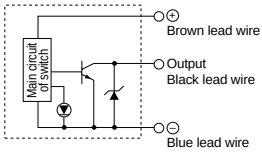
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model∗
SMC controller LC1 compatible	**Nil**	Without brake (Horizontal specification)	50	100/110	—	LC1-1B1S1-□□
				200/220	—	LC1-1B1S2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	**G**	Without brake (Horizontal specification)	50	100/115	MSM5AZP1A	MSD5A1P1E
				200/230		MSD5A3P1E
Non-standard Mitsubishi Electric Corporation motor	**R**	Without brake (Horizontal specification)	50	100/115	HC-PQ053	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	**Y**	Without brake (Horizontal specification)	50	100/115	SGME-A5BF12	SGDE-A5BP
				200/230	SGME-A5AF12	SGDE-A5AP

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

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

Switch Internal Circuit

D-Y7GL



Slider Guide Type
Motor Output: 100W
Series LJ1S20
TSUBAKI CABLEVEYOR Specification

How to Order

Horizontal Mount Specification **LJ1S20 □ 2 1 S C — 200 — □ 2 — X40 L**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 100W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type: Slide screw

Lead screw lead: 20mm

Stroke

200	200mm
300	300mm
400	400mm
500	500mm
600	600mm
700	700mm
800	800mm
900	900mm
1000	1000mm
1200	1200mm

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

TSUBAKI CABLEVEYOR specification

Standard motor cable length

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

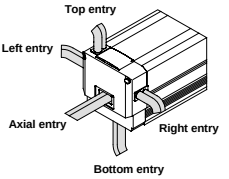
Non-standard motor switch

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

TSUBAKI CABLEVEYOR entry direction

L	Left
R	Right

Cable/TSUBAKI CABLEVEYOR entry direction



Specifications

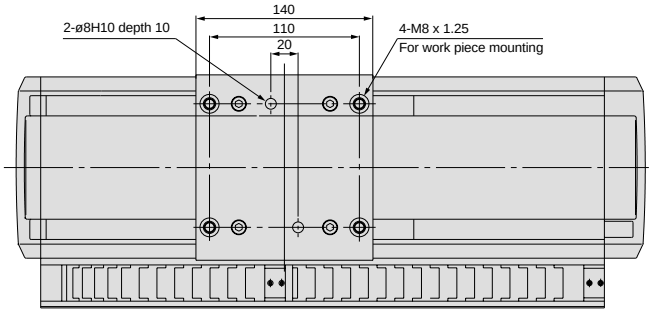
Standard stroke mm		**100**	**200**	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1200**
Weight kg	With motor (Standard)	7.8	9.0	10.3	11.5	12.6	13.8	15.0	16.2	17.4	18.5	20.9
	Without motor (Non-Standard)	7.3	8.5	9.8	11.0	12.1	13.3	14.5	15.7	16.9	18.0	20.4
Mounting orientation		Horizontal										
Operating temperature range °C		5 to 40 (with no condensation)										
Work load kg		10										
Maximum speed mm/s		300										
Positioning repeatability mm		±0.1										
Motor output		AC servomotor (100W)										
Lead screw		ø20mm, 20mm lead										
Guide		Slide guide										
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less										
TSUBAKI CABLEVEYOR		TKP0130-2BR28 manufactured by TSUBAKIMOTO CHAIN CO.										
Side cover		Cover with switch groove										

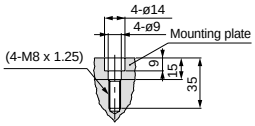
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1S20□2□SC (X40)

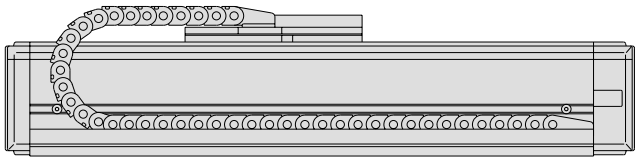
Dimensions other than those shown in the drawing are the same as standard.

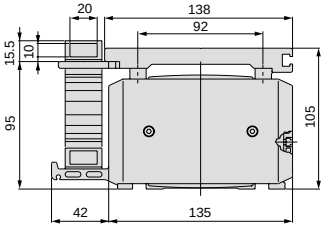
Scale: 20%





Work piece mounting dimensions





∗ This drawing shows the TSUBAKI CABLEVEYOR with left hand entry.

Compatible Motors

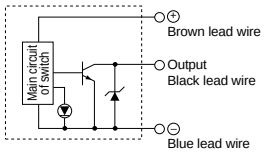
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model
SMC controller LC1 compatible	**Nil**	Without brake (Horizontal specification)	100	100/110	—	LC1-1B2S1-□□
				200/220	—	LC1-1B2S2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	**G**	Without brake (Horizontal specification)	100	100/115	MSM011P1A	MSD011P1E
				200/230	MSM012P1A	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	**R**	Without brake (Horizontal specification)	100	100/115	HC-PQ013	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	**Y**	Without brake (Horizontal specification)	100	100/115	SGME-01BF12	SGDE-01BP
				200/230	SGME-01AF12	SGDE-01AP

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

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

Switch Internal Circuit

D-Y7GL



Slider Guide Type
Motor Output: 200W
Series LJ1S30
TSUBAKI CABLEVEYOR Specification

How to Order

Horizontal Mount Specification **LJ1S30 G 3 1 S C – 200 – F 2 – X40 L**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible)	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 200W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type: Slide screw

Lead screw lead: 20mm

Stroke

200	200mm
300	300mm
400	400mm
500	500mm
600	600mm
800	800mm
1000	1000mm
1200	1200mm
1500	1500mm

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Standard motor cable length

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

Non-standard motor switch

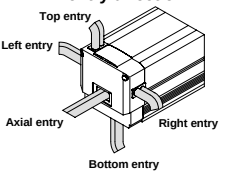
Nil	None
W	N.C. (B contact) 2 pcs.

TSUBAKI CABLEVEYOR specification

TSUBAKI CABLEVEYOR entry direction

L	Left
R	Right

Cable/TSUBAKI CABLEVEYOR entry direction



Specifications

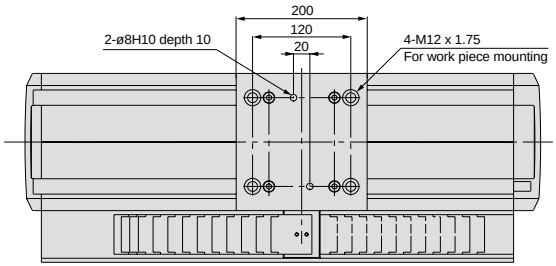
Standard stroke mm		200	300	400	500	600	800	1000	1200	1500
Weight kg	With motor (Standard)	15.9	17.9	19.9	21.9	23.8	28.3	32.7	36.6	42.6
	Without motor (Non-Standard)	14.8	16.8	18.8	20.8	22.7	27.2	31.6	35.5	41.5
Mounting orientation		Horizontal								
Operating temperature range °C		5 to 40 (with no condensation)								
Work load kg		20								
Maximum speed mm/s		300								
Positioning repeatability mm		±0.1								
Motor output		AC servomotor (200W)								
Lead screw		ø25mm, 20mm lead								
Guide		Slide guide								
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								
TSUBAKI CABLEVEYOR		TKP0180-2BR28 manufactured by TSUBAKIMOTO CHAIN CO.								
Side cover		Cover with switch groove								

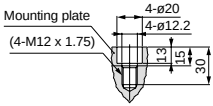
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/ LJ1S30□3□SC (X40)

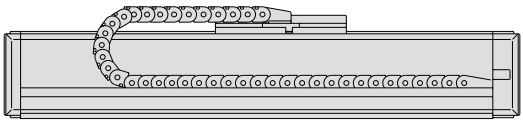
Dimensions other than those shown in the drawing are the same as standards.

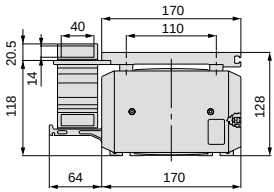
Scale: 20%





Work piece mounting dimensions





∗ This drawing shows the TUBAKI CABLE VEYOR with left hand entry.

Compatible Motors

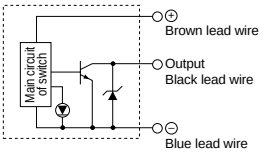
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model
SMC controller LC1 compatible	**Nil**	Without brake (Horizontal specification)	200	100/110	—	LC1-1B3S1-□□
				200/220	—	LC1-1B3S2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	**G**	Without brake (Horizontal specification)	200	100/115	MSM021P1A	MSD021P1E
				200/230	MSM022P1A	MSD023P1E
Non-standard Mitsubishi Electric Corporation motor	**R**	Without brake (Horizontal specification)	200	100/115	HC-PQ023	MR-C20A1
				200/230		MR-C20A
Non-standard Yaskawa Electric Corporation motor	**Y**	Without brake (Horizontal specification)	200	100/115	SGME-02BF12	SGDE-02BP
				200/230	SGME-02AF12	SGDE-02AP

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

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

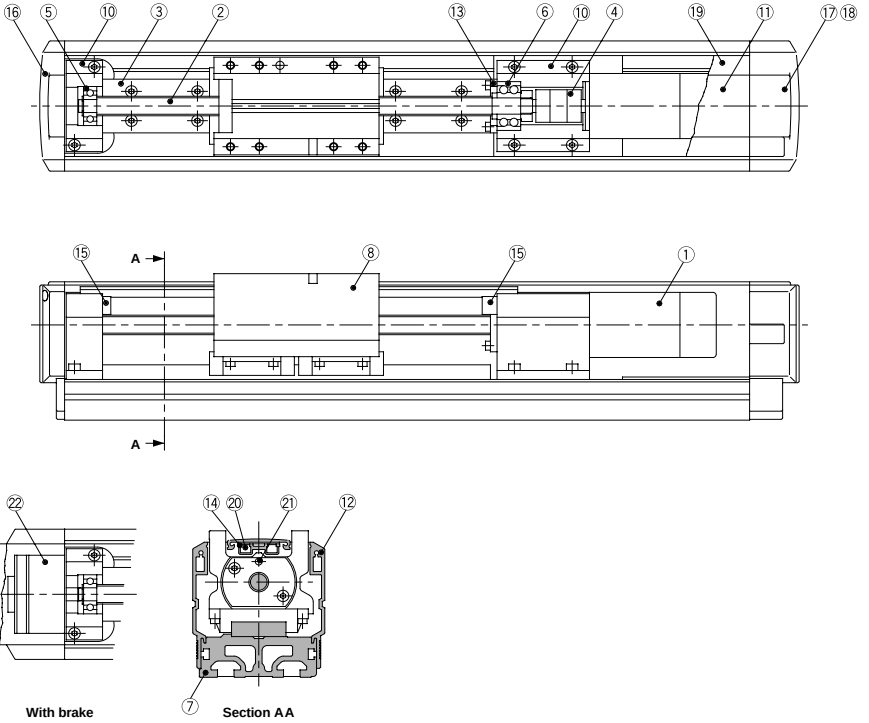
Switch Internal Circuit

D-Y7GL



Construction

LJ1H10



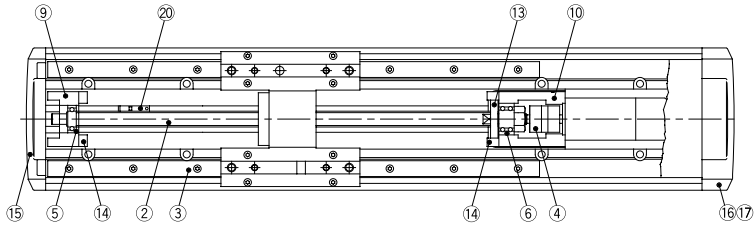
Parts list

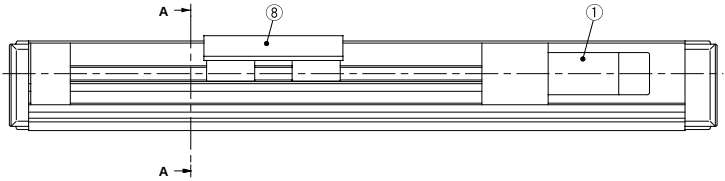
No.	Description	Material	Note
1	AC servomotor	—	50W/100W
2	Lead screw	—	Ball screw/Slide screw
3	High rigidity direct acting guide	—	
4	Coupling	—	
5	Bearing R	—	
6	Bearing F	—	
7	Body A	Aluminum alloy	
8	Table	Aluminum alloy	
9	Housing A	Aluminum alloy	
10	Housing B	Aluminum alloy	
11	Top cover	Aluminum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

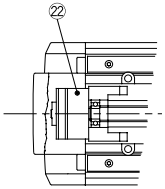
No.	Description	Material	Note
12	Side cover	Aluminum alloy	
13	Bearing retainer	Aluminum alloy	
14	Sensor rail	Aluminum alloy	
15	Bumper	IIR	
16	End cover A	PC	
17	End cover B	PC	
18	Inner cover	PC	
19	Motor cover	PC	
20	Auto switch	—	
21	Magnet	Rare earth magnet	
22	Brake	—	

Construction

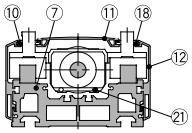
LJ1H20







With brake



Section A A

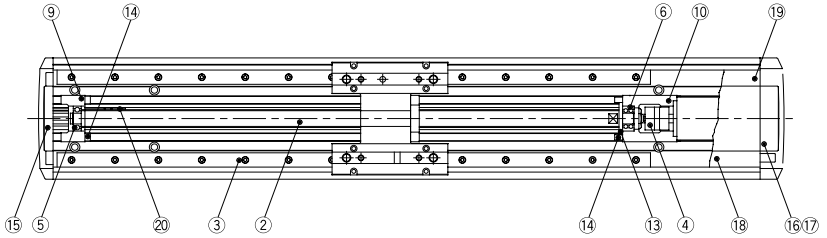
Parts list

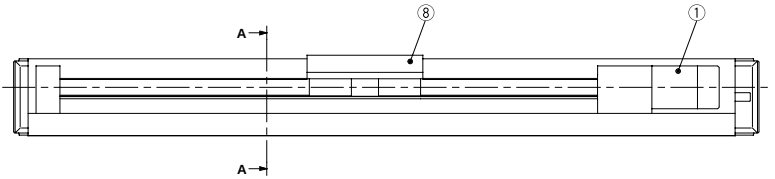
No.	Description	Material	Note
1	**AC servomotor**	—	100W
2	**Lead screw**	—	Ball screw/Slide screw
3	**High rigidity direct acting guide**	—	
4	**Coupling**	—	
5	**Bearing R**	—	
6	**Bearing F**	—	
7	**Body A**	Aluminum alloy	
8	**Table**	Aluminum alloy	
9	**Housing A**	Aluminum alloy	
10	**Housing B**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

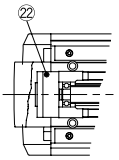
No.	Description	Material	Note
12	**Side cover**	Aluminum alloy	
13	**Bearing retainer**	Aluminum alloy	
14	**Bumper**	IIR	
15	**End cover A**	PC	
16	**End cover B**	PC	
17	**Inner cover**	PC	
18	**Motor cover R**	PC	
19	**Motor cover L**	PC	
20	**Auto switch**	—	
21	**Magnet**	Rare earth magnet	
22	**Brake**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

Construction

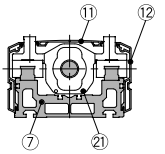
LJ1H30







With brake



Section A A

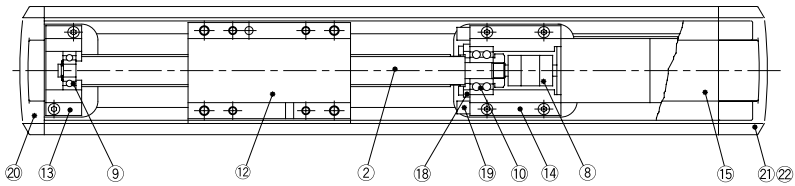
Parts list

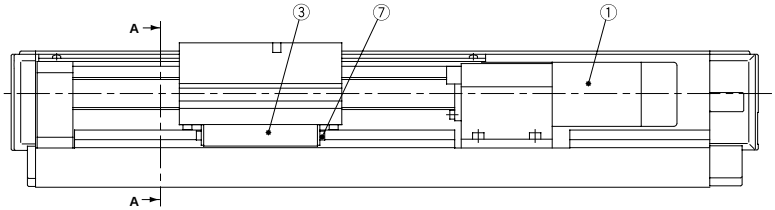
No.	Description	Material	Note
1	**AC servomotor**	—	200W
2	**Lead screw**	—	Ball screw/Slide screw
3	**High rigidity direct acting guide**	—	
4	**Coupling**	—	
5	**Bearing R**	—	
6	**Bearing F**	—	
7	**Body A**	Aluminum alloy	
8	**Table**	Aluminum alloy	
9	**Housing A**	Aluminum alloy	
10	**Housing B**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

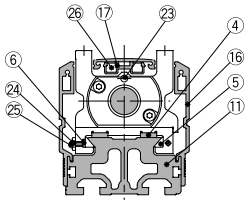
No.	Description	Material	Note
12	**Side cover**	Aluminum alloy	
13	**Bearing retainer**	Carbon steel	Electroless nickel plated
14	**Bumper**	IIR	
15	**End cover A**	PC	
16	**End cover B**	PC	
17	**Inner cover**	PC	
18	**Motor cover A**	PC	
19	**Motor cover B**	PC	
20	**Auto switch**	—	
21	**Magnet**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

Construction

LJ1S10







Section A A

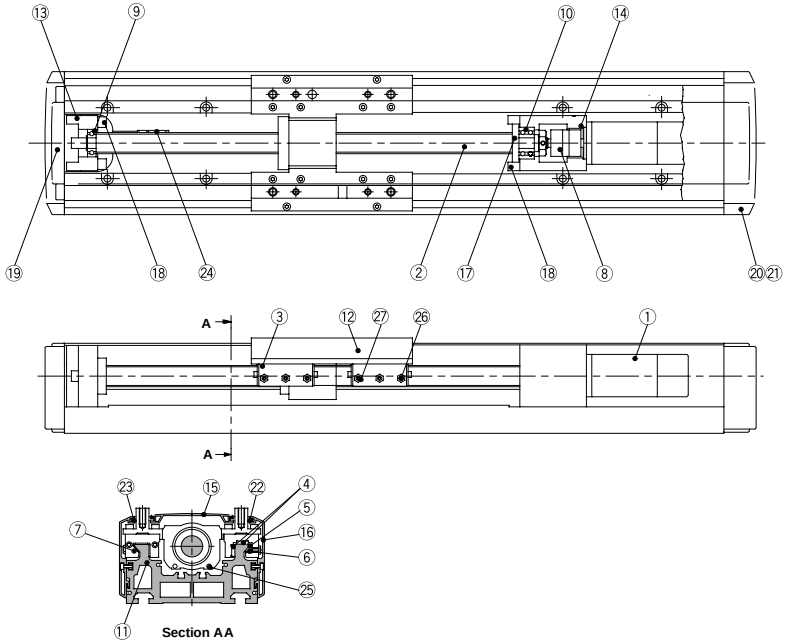
Parts list

No.	Description	Material	Note
1	**AC servomotor**	—	50W
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**	Rare earth magnet	
24	**Hexagon socket head set screw**	Chrome molybdenum steel	M3 x 8
25	**Nut**	Mild steel	M3
26	**Auto switch**	—	

Construction

LJ1S20



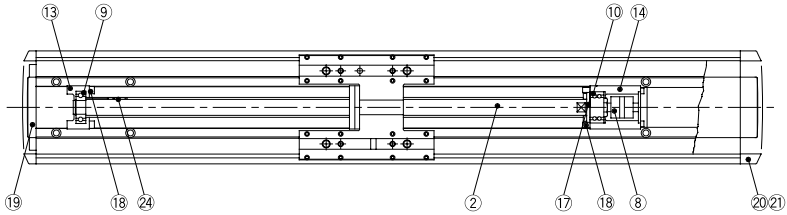
Parts list

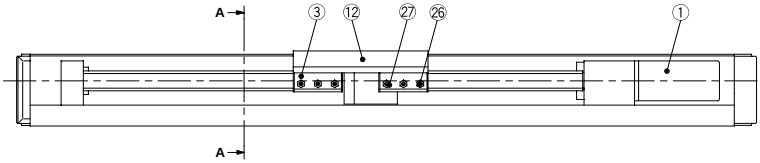
No.	Description	Material	Note
1	**AC servomotor**	—	100W
2	**Lead screw**	—	Slide screw
3	**Guide frame**	Aluminum alloy	
4	**Guide plate A**	Special resin	
5	**Guide plate B**	Special resin	
6	**Push bar**	Carbon steel	Zinc plated
7	**Frame cover**	Stainless steel	
8	**Coupling**	—	
9	**Bearing R**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

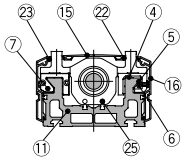
No.	Description	Material	Note
14	**Housing B**	Aluminum alloy	
15	**Top cover**	Aluminum alloy	
16	**Side cover**	Aluminum alloy	
17	**Bearing retainer**	Aluminum alloy	
18	**Bumper**	IIR	
19	**End cover A**	PC	
20	**End cover B**	PC	
21	**Inner cover**	PC	
22	**Motor cover R**	PC	
23	**Motor cover L**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

Construction

LJ1S30







Section A A

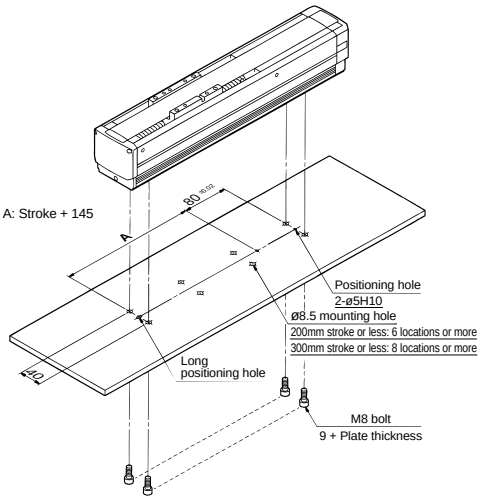
Parts list

No.	Description	Material	Note
1	**AC servomotor**	—	200W
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	

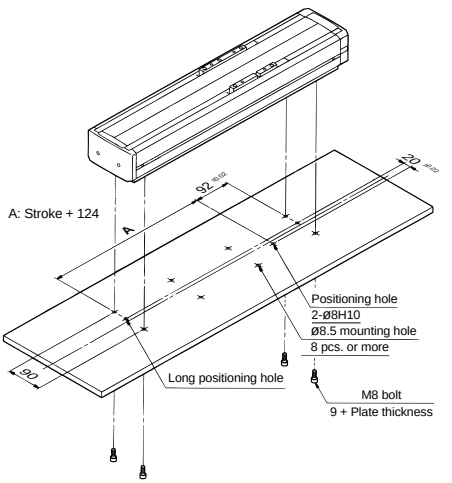
No.	Description	Material	Note
14	**Housing B**	Aluminum alloy	
15	**Top cover**	Aluminum alloy	
16	**Side cover**	Aluminum alloy	
17	**Bearing retainer**	Carbon steel	Electroless nickel plated
18	**Bumper**	IIR	
19	**End cover A**	PC	
20	**End cover B**	PC	
21	**Inner cover**	PC	
22	**Motor cover R**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

T-slot Bottom Mount

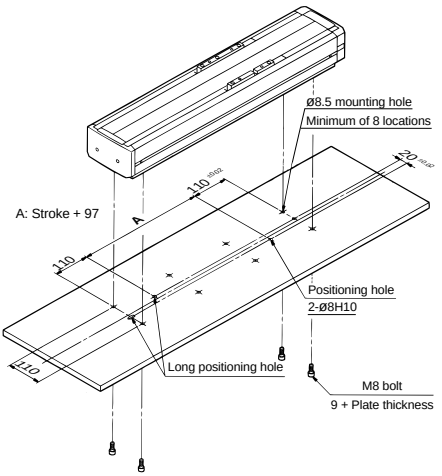
LJ1H10/LJ1S10



LJ1H20/LJ1S20



LJ1H30/LJ1S30



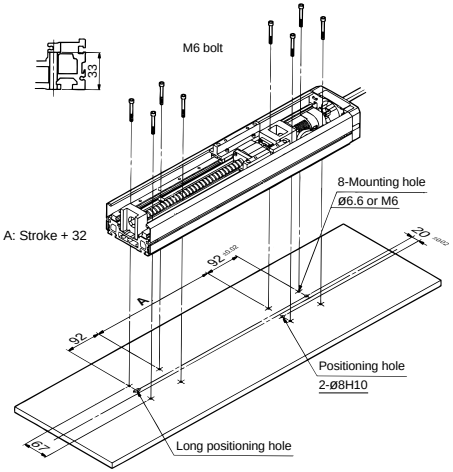
Note 1) Although T-nuts (LJ1-T8) for mounting are included with the body for LJ1H10/LJ1S10, they are optional for other models. (See page 100.)

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

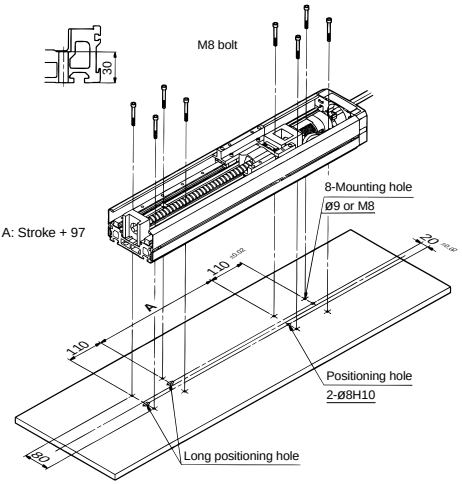
Note 3) When positioning of the body is required, also perform pin hole machining.

Top Mount

LJ1H20/LJ1S20

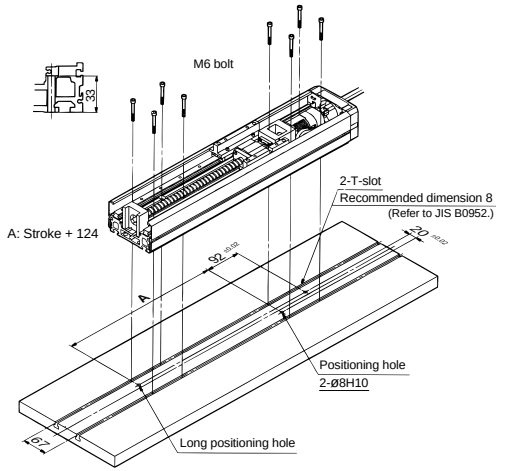


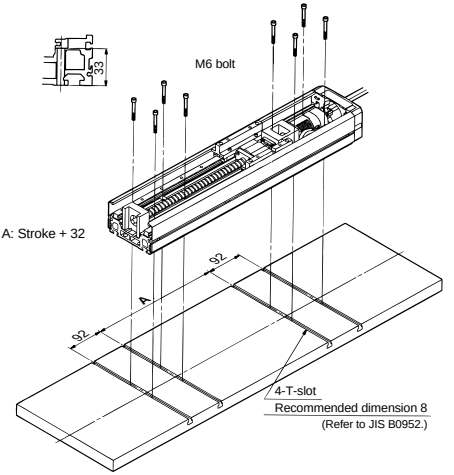
LJ1H30/LJ1S30



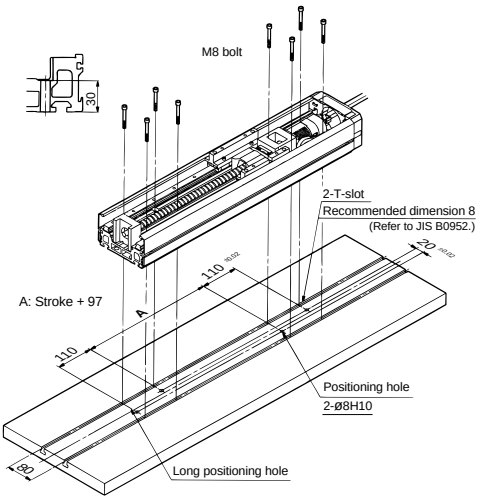
Top Mount (Using T-slots on the Mounting Frame)

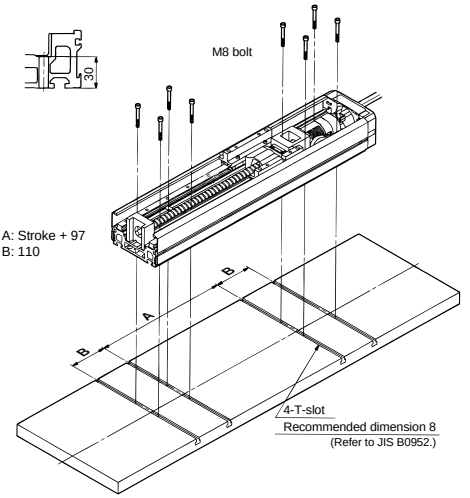
LJ1H20/LJ1S20





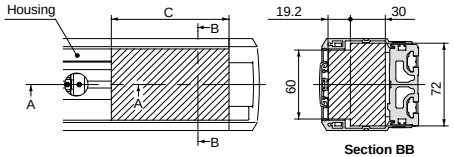
LJ1H30/LJ1S30

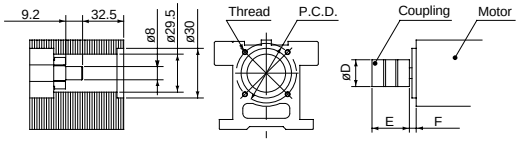




Standard/TSUBAKI CABLEVEYOR Specifications

Series LJ1$^{H}_{S}$10





Motor mounting area dimensions

Manufacturer	Mitsubishi Electric Corporation Yaskawa Electric Corporation	Matsushita Electric Industrial Co., Ltd.
Thread size	M4 x 0.7	M3 x 0.5
Effective thread length (mm)	8	6
Quantity	2	4
P.C.D.	46	45

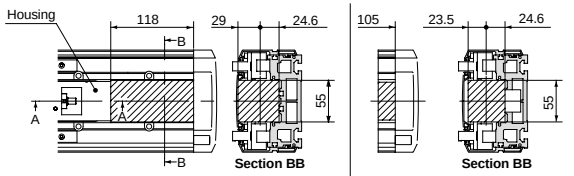
Motor mounting area

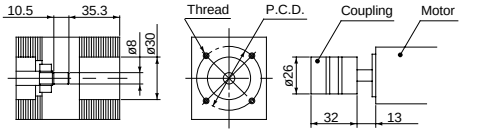
* When mounting a coupling on the motor, mount it within the dimensional range shown on the left.

Dimensions

	C	D	E	F
With brake (mm)	101	26	32	8.5
Without brake (mm)	93	19	27.5	17

Series LJ1$^{H}_{S}$20





Motor mounting area dimensions

Manufacturer	Mitsubishi Electric Corporation Yaskawa Electric Corporation	Matsushita Electric Industrial Co., Ltd.
Thread size	M4 x 0.7	M3 x 0.5
Effective thread length (mm)	8	6
Quantity	2	4
P.C.D.	46	45

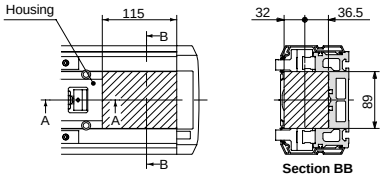
Motor mounting area

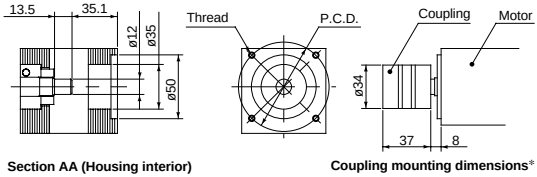
*1 For the motor mounting area dimensions of the models below, refer to the long stroke type dimensions.

LJ1H20□□□$^{N}_{P}$C	700 to 1000mm stroke
LJ1H20□□□SC	700 to 1200mm stroke
LJ1S20□□□SC	700 to 1200mm stroke

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

Series LJ1$^{H}_{S}$30





Motor mounting area dimensions

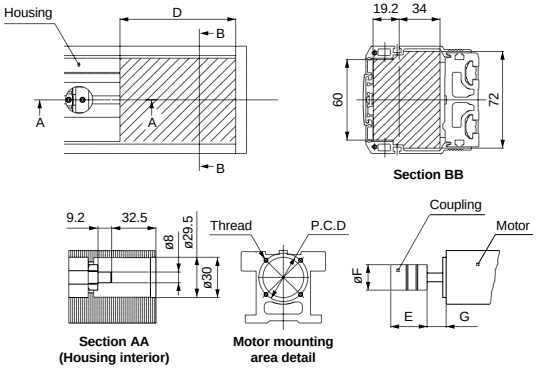
Manufacturer	Mitsubishi Electric Corporation Yaskawa Electric Corporation	Matsushita Electric Industrial Co., Ltd.
Thread size	M5 x 0.8	M4 x 0.7
Effective thread length (mm)	6	6
Quantity	4	4
P.C.D.	70	70

Motor mounting area

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

Clean Room Specification/Dust Seal Specification

Series LJ1$^{H}_{S}$10



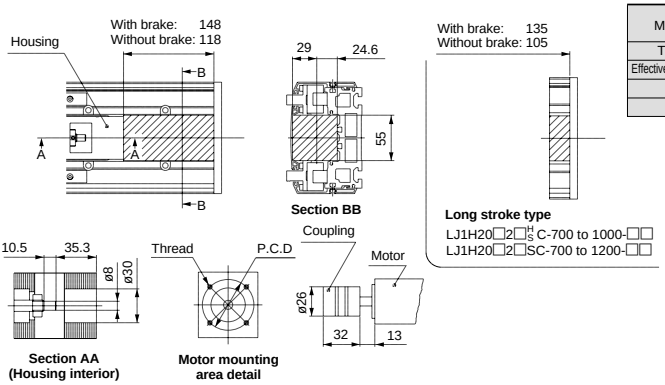
Motor mounting area dimensions

Manufacturer	Mitsubishi Electric Corporation Yaskawa Electric Corporation	Matsushita Electric Industrial Co., Ltd.
Thread size	M4 x 0.7	M3 x 0.5
Effective thread length (mm)	8	6
Quantity	2	4
P.C.D.	46	45

Dimensions

	D	E	F	G
With brake (mm)	171	32	26	9.5
Without brake (mm)	116	27.5	19	15

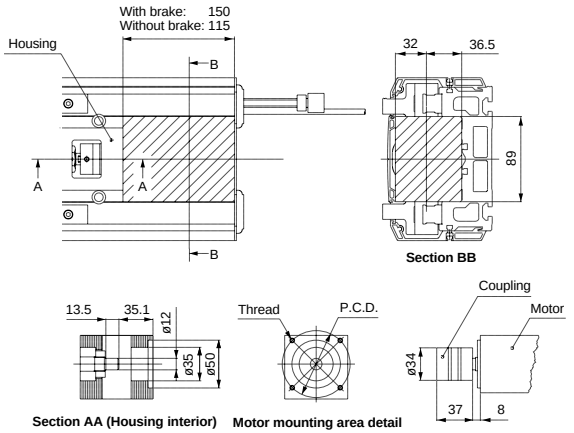
Series LJ1$^{H}_{S}$20



Motor mounting area dimensions

Manufacturer	Mitsubishi Electric Corporation Yaskawa Electric Corporation	Matsushita Electric Industrial Co., Ltd.
Thread size	M4 x 0.7	M3 x 0.5
Effective thread length (mm)	8	6
Quantity	2	4
P.C.D.	46	45

Series LJ1$^{H}_{S}$30



Motor mounting area dimensions

Manufacturer	Mitsubishi Electric Corporation Yaskawa Electric Corporation	Matsushita Electric Industrial Co., Ltd.
Thread size	M5 x 0.8	M4 x 0.7
Effective thread length (mm)	6	6
Quantity	4	4
P.C.D.	70	70

Deflection Data/LJ1H

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

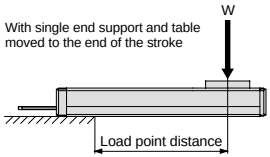


Figure 1. Horizontal

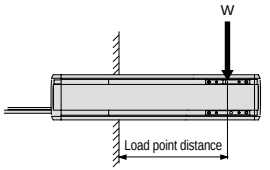
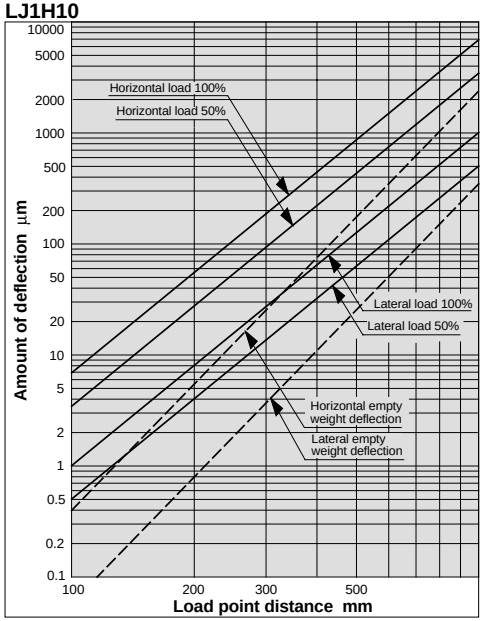
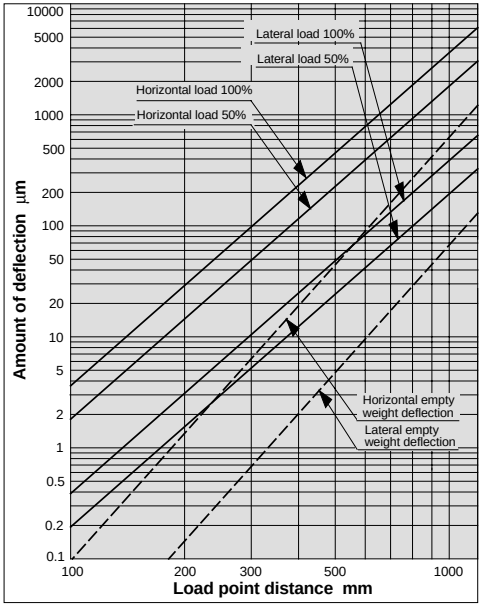


Figure 2. Lateral

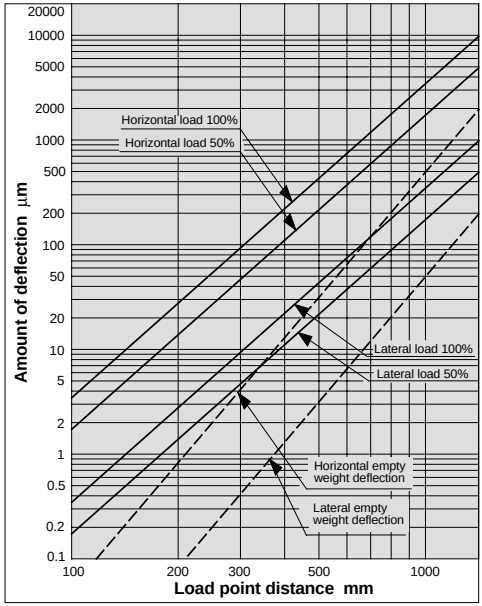
LJ1H10



LJ1H20



LJ1H30



Deflection Data/LJ1S

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

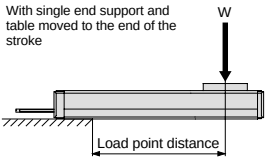


Figure 1. Horizontal

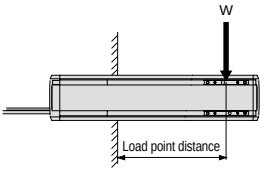
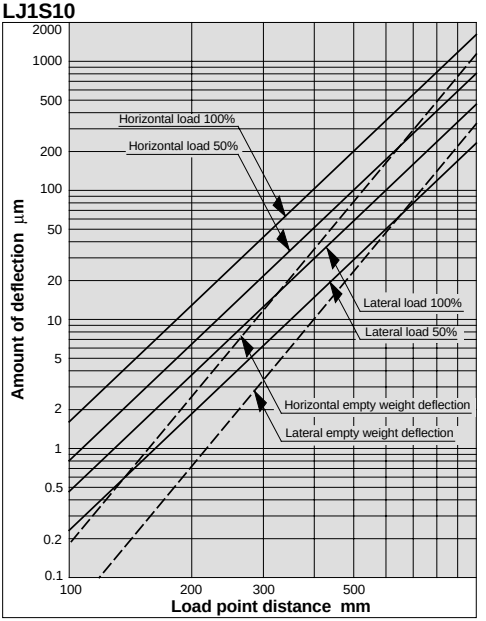
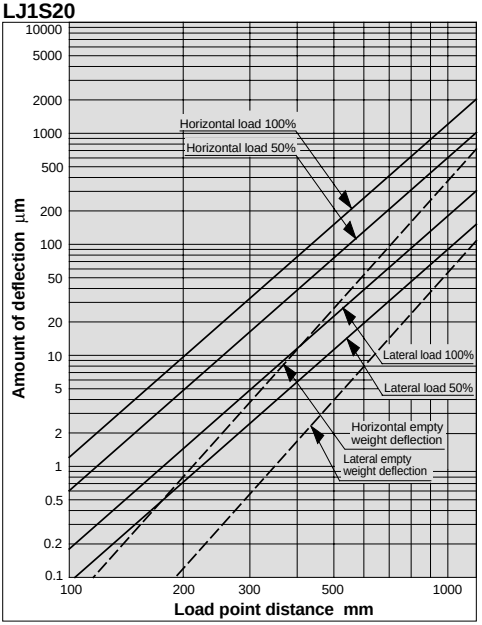


Figure 2. Lateral

LJ1S10



LJ1S20



LJ1S30