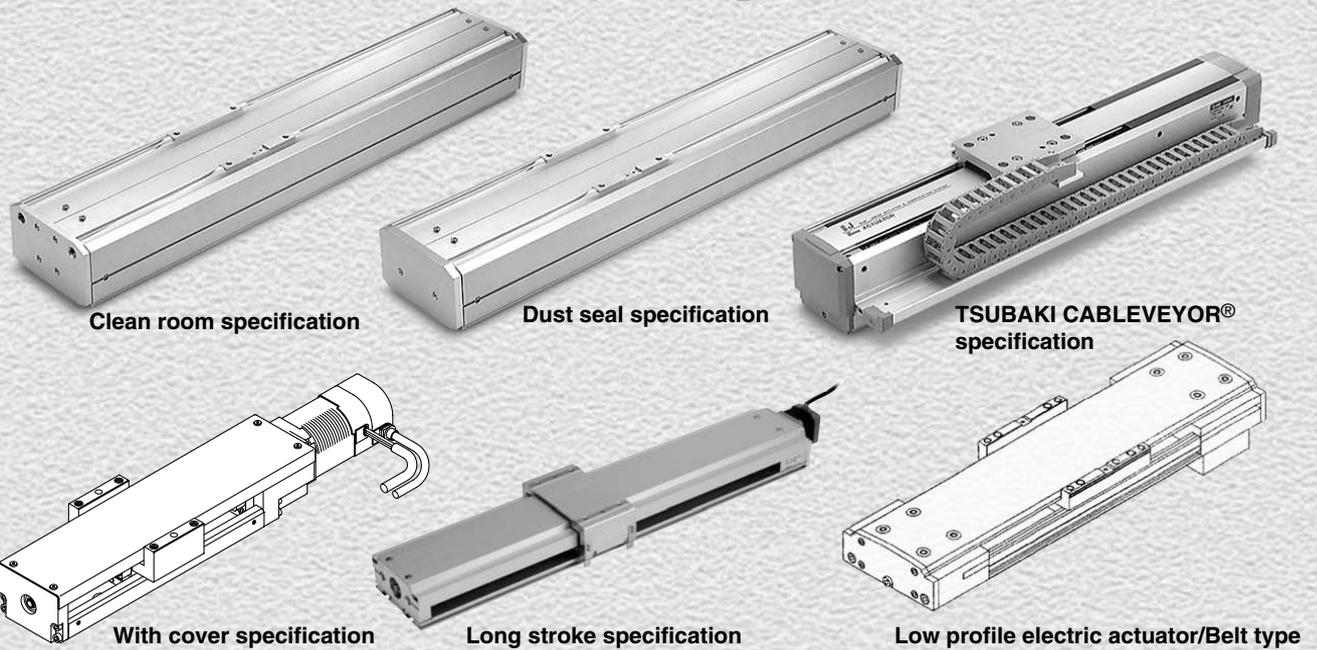


# Made to Order Specifications



|       |
|-------|
| LJ1   |
| LG1   |
| LTF   |
| LC1   |
| LC7   |
| LC8   |
| LXF   |
| LXP   |
| LXS   |
| LC6□  |
| LZ□   |
| LC3F2 |
| X□    |
| D-□   |
| E-MY  |

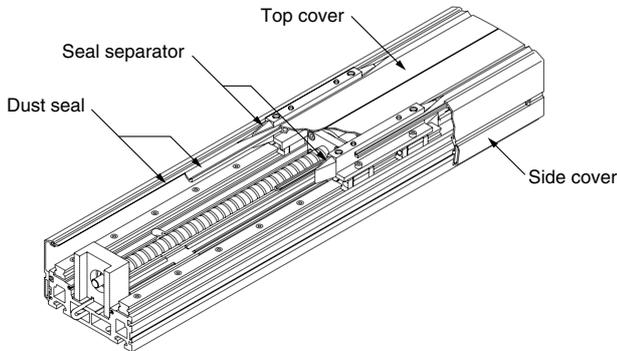
- **Clean Room Specification (X60)**  
LJ1H 10/20/30 (Horizontal mount/Vertical mount) — P.1002
- **Dust Seal Specification (X70)**  
LJ1H 10/20/30 (Horizontal mount/Vertical mount) — P.1014
- **Dust Seal Specification (X8)**  
LG1H (Horizontal mount) — P.1035
- **TSUBAKI CABLEVEYOR® Specification (X40)**  
LJ1H 10/20/30 (Horizontal mount) — P.1037
- **With Cover Specification**  
LTF6 With cover specification — P.1060  
LTF8 With cover specification — P.1062
- **AC Servomotor Specification (X20, X12)**  
LXF — P.1064  
LXP — P.1066  
LXS — P.1068
- **Low Particulate Generation Specification(X60)**  
LXF — P.1070  
LXP — P.1070  
LXS — P.1070
- **Long Stroke Specification**  
LX-112A — P.1072
- **Low Profile Electric Actuator/Belt Type**  
LB-3A-2R11A-□□□□-□□BC-□□□ — P.1074

# Series LJ1H/LJ1S Made to Order Specifications:



## 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.



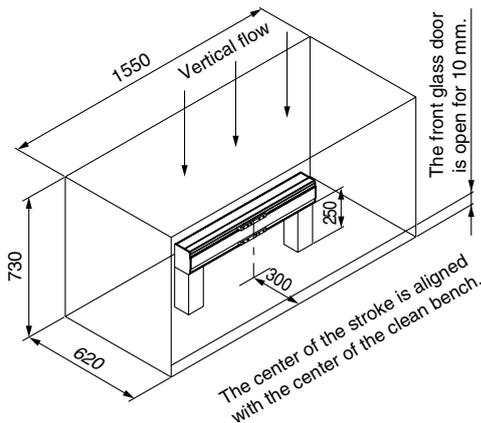
## Particulate Generation Performance

### Test method

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

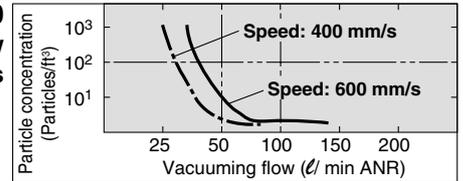
|   |
|---|
| <p><b>Test environment:</b> &lt;Clean bench&gt; Nippon Airtek: VS-1603L<br/>                 &lt;Size&gt; W x L x H = 620 mm x 1550 mm x 730 mm<br/>                 &lt;Clean level&gt; Fed-st class 10<br/>                 &lt;Down flow velocity&gt; Approx. 0.3 m/s</p>  |
| <p><b>Test equipment:</b> &lt;Test equipment&gt; Laser particle counter<br/>                 Hitachi Electric Engineering: TS-3500<br/>                 &lt;Target particle size&gt; 0.17 μm or larger<br/>                 &lt;Sampling flow rate&gt; 28 ℓ/min (ANR)<br/>                 &lt;Sampling time&gt; 1 min<br/>                 &lt;Holding time&gt; 2 min<br/>                 &lt;Number of tests&gt; 6</p> |

### Actuator placement and test points

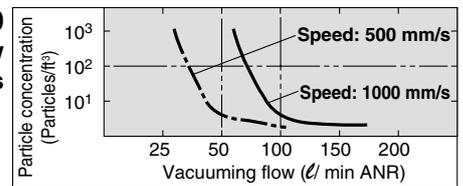


## Vacuuming Graphs

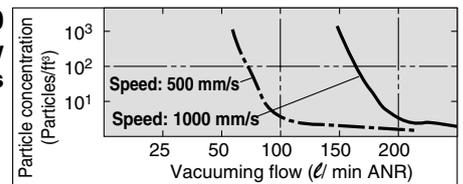
### LJ1H10 Vacuuming flow characteristics



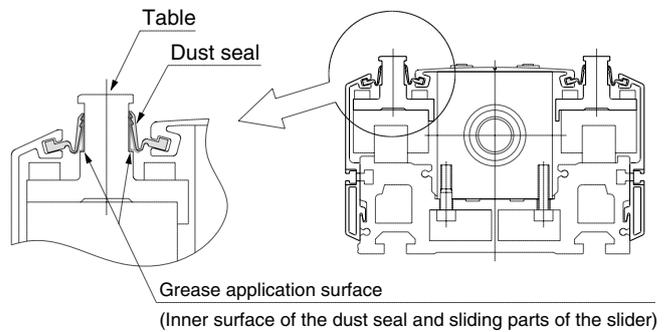
### LJ1H20 Vacuuming flow characteristics



### LJ1H30 Vacuuming flow characteristics



## Grease Application Areas

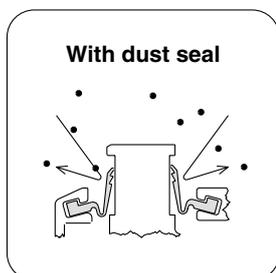
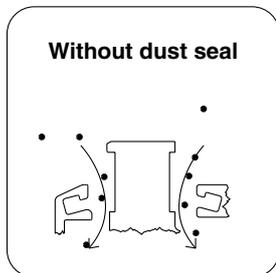


### ⚠ Caution

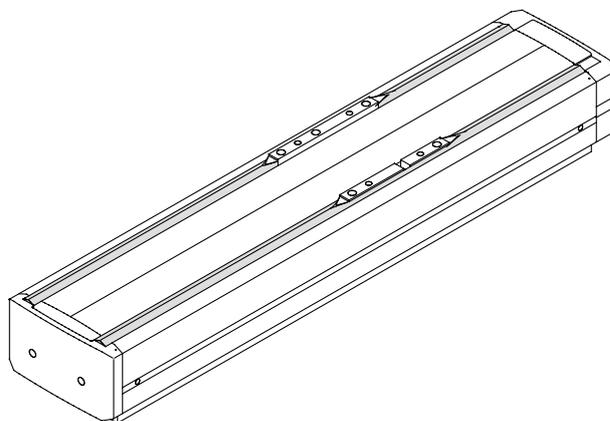
- Maintenance of the greased parts of the dust seal is necessary.**  
 With this specification, a vacuum grease is applied to the sliding parts of the dust seal in order to prevent particulate generation. Maintenance should be performed at 4000 km, 4 million reciprocations or within 6 months, whichever occurs first.  
 Specified grease: Barrierta IEL/V [fluorine grease (70 g) for vacuum equipment manufactured by NOK Kluber]
- A down flow environment with a flow velocity of 0.3 m/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.

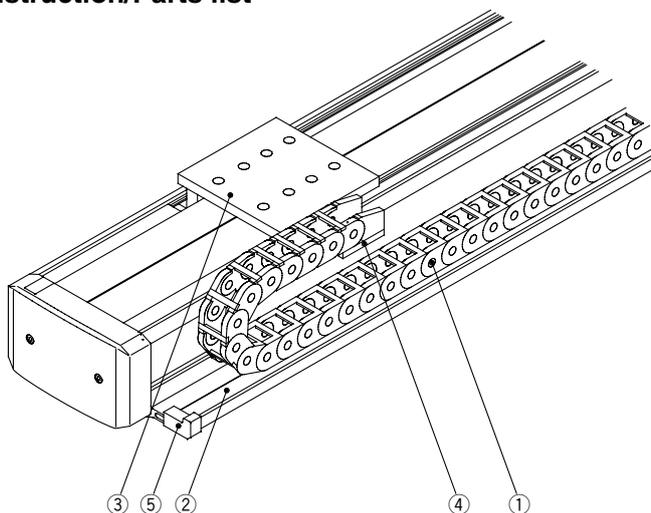
Note 2) Measures for use in an mist environment are not provided.  
Also, depending on the environment, it may not be possible to use the dust seal. Consult SMC.

## TSUBAKI CABLEVEYOR® Specification (X40)

Able to compactly arrange supporting guides for cables and hoses.

TSUBAKI CABLEVEYOR® is a registered trademark of Tsubakimoto Chain Co.

### Construction/Parts list



### Parts list

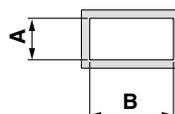
| No. | Description         | Material       | Note |
|-----|---------------------|----------------|------|
| 1   | TSUBAKI CABLEVEYOR® | —              | —    |
| 2   | Cable side cover    | Aluminum alloy | —    |
| 3   | Mounting plate      | Aluminum alloy | —    |
| 4   | Cable flange        | Aluminum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

### Precautions on handling of the TSUBAKI CABLEVEYOR®

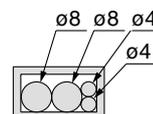
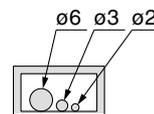
- When handling, connecting or disconnecting the TSUBAKI CABLEVEYOR®:
  - Wear suitable clothing and appropriate protective gear (safety glasses, gloves, safety shoes, etc.).
  - Use suitable tools.
  - Provide support so that the TSUBAKI CABLEVEYOR® and parts do not move freely.
- Implement protective measures (safety cover, etc.).
- Be sure to turn off the power and ensure that it cannot be turned on accidentally before installation, removal or maintenance of the equipment.
- In order to prevent secondary accidents, put the surrounding area in good order and operate under safe conditions.
- 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.
- The minimum clearance between the cable and TSUBAKI CABLEVEYOR® internal width should be "the larger of 10% of the cable O.D. or 2 mm".

### TSUBAKI CABLEVEYOR® cross-sectional dimensions (mm)

| Series                           | A  | B  |
|----------------------------------|----|----|
| LJ1 <sup>H</sup> <sub>S</sub> 10 | 10 | 20 |
| LJ1 <sup>H</sup> <sub>S</sub> 20 | 10 | 20 |
| LJ1 <sup>H</sup> <sub>S</sub> 30 | 14 | 40 |



Example) LJ1<sup>H</sup><sub>S</sub>10



Correct: 60% or less

Incorrect: More than 60%

LJ1

LG1

LTF

LC1

LC7

LC8

LXF

LXP

LXS

LC6□

LZ□

LC3F2

X□

D-□

E-MY

# High Rigidity Direct Acting Guide Type/Motor Output: 50 W/100 W

## Series LJ1H10

# Made to Order Specifications:



### Clean Room Specification

### How to Order

#### LC1 controller compatible/Non-standard motor specification

**Horizontal Mount Specification** LJ1H10 **11** **P** **B** - **300** - **F** **2** - **X60**

**Vertical Mount Specification** LJ1H10 **21** **P** **H** - **300** **K** - **F** **2** - **X60**

**Lead screw type**  
Refer to Table (1) below.

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|          |       |
|----------|-------|
| <b>H</b> | 8 mm  |
| <b>B</b> | 12 mm |

**Stroke (mm)**  
Refer to Table (1) below.

**With brake**

**Cable entry direction: Axial**

**Clean room specification**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

**Standard motor cable length**

#### Motor specification

| Symbol        | Motor manufacturer                   | Brake                                    | Motor output | Power supply voltage | Motor model    | Controller driver model*3 |             |
|---------------|--------------------------------------|--|--------------|----------------------|----------------|---------------------------|-------------|
| <b>11</b>     | SMC controller Series LC1 compatible | Without brake (Horizontal specification) | 50 W         | 100/110 VAC          | Standard motor | LC1-1B1H1-□□              |             |
| <b>12</b>     |                                      |  |              | 200/220 VAC          |                | LC1-1B1H2-□□              |             |
| <b>21</b>     |                                      | With brake (Vertical specification)      | 100 W        | 100 VAC              |                | LC1-1B1V□1-□□             |             |
| <b>22</b>     |                                      |  |              | 200 VAC              |                | LC1-1B1V□2-□□             |             |
| <b>R11</b>    | Mitsubishi Electric Corporation*2    | Without brake (Horizontal specification) | 50 W         | 100/115 VAC          | HC-PQ053       | MR-C10A1                  |             |
| <b>R12</b>    |                                      |  |              | 200/230 VAC          |                | MR-C10A                   |             |
| <b>R21</b>    |                                      | With brake (Vertical specification)      | 100 W        | 100/115 VAC          | HC-PQ13B       | MR-C10A1                  |             |
| <b>R22</b>    |                                      |  |              |                      |                |                           | 200/230 VAC |
| <b>R10</b> *1 |                                      | —  | —            | —                    | —              | —                         | —           |
| <b>R20</b> *1 |                                      | —  | —            | —                    | —              | —                         | —           |

**Non-standard motor switch**

|            |                                 |
|------------|---------------------------------|
| <b>Nil</b> | None                            |
| <b>W</b>   | N.C. (B contact) 2 pcs.: D-Y7GL |

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.  
 \*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation. Cable for joining motor and driver is optional. Refer to page 659 for part nos. Please contact individual motor manufacturers regarding motor/driver specifications or other details.  
 \*3 Order LC1 controller separately.

#### LC8 controller compatible

**Horizontal Mount Specification** LJ1H10 **811** **P** **B** - **300** - **F** **2** - **X60** - □

**Lead screw type**  
Refer to Table (1) below.

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|          |       |
|----------|-------|
| <b>B</b> | 12 mm |
|----------|-------|

**Stroke (mm)**  
Refer to Table (1) below.

**CE marking**

|            |                   |
|------------|-------------------|
| <b>Nil</b> | —                 |
| <b>Q</b>   | CE marked product |

**Clean room specification**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

**Standard motor cable length**

**Cable entry direction: Axial**

#### Power supply voltage

| Symbol     | Motor                                | Brake                                    | Motor output | Power supply voltage | Controller driver model* |
|------------|--------------------------------------|--|--------------|----------------------|--------------------------|
| <b>811</b> | SMC controller Series LC8 compatible | Without brake (Horizontal specification) | 50 W         | 100/115 VAC          | LC8-B1H1□-□□-□           |
| <b>812</b> |                                      |  |              | 200/230 VAC          | LC8-B1H2□-□□-□           |

\* Order LC8 controller separately.

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-Stroke-K-F□-X60 | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□2□NH-Stroke-K-F□-X60 | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□2□PB-Stroke-K-F□-X60 | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□2□NB-Stroke-K-F□-X60 | ●           | ●   | ●   | ●   | ●   |

Combinations other than the above cannot be manufactured.



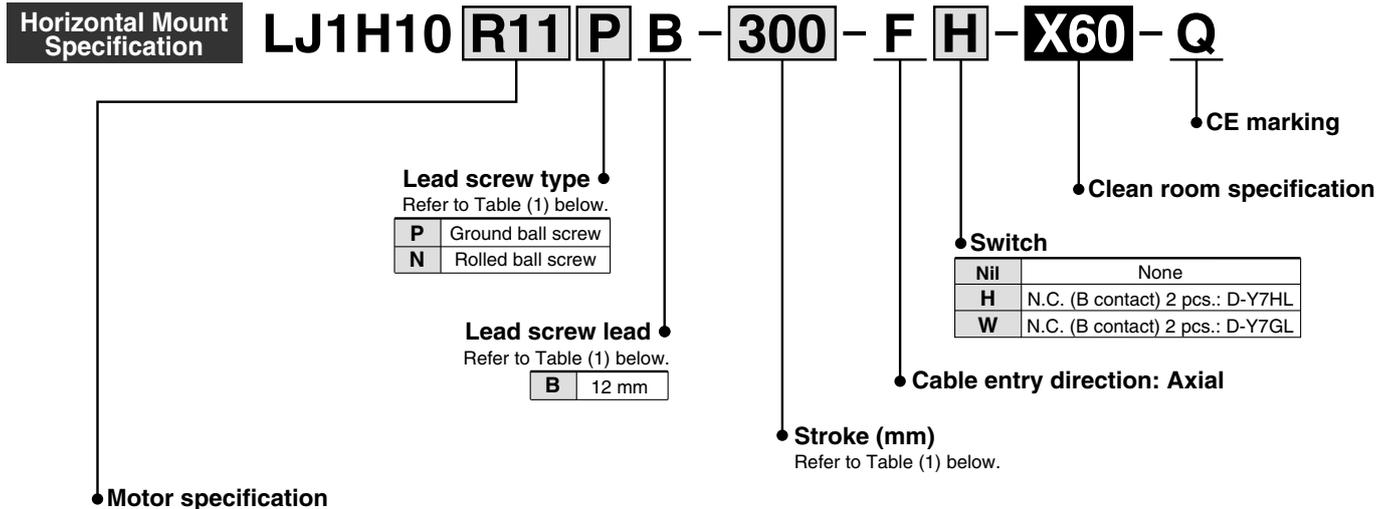
# High Rigidity Direct Acting Guide Type/Motor Output: 50 W/100 W Series LJ1H10 Made to Order Specifications:



## Clean Room Specification

### How to Order

#### Non-standard motor specification



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

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.  
 \*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.  
 Cable for joining motor and driver is optional.  
 Refer to page 659 for part nos.  
 Please contact individual motor manufacturers regarding motor/driver specifications or other details.

**Table (1) Lead screw/Lead/Stroke combinations**

| Model                       | Stroke (mm) |     |     |     |     |
|-----------------------------|-------------|-----|-----|-----|-----|
|                             | 100         | 200 | 300 | 400 | 500 |
| LJ1H10□1□PB-Stroke-F□-X60-Q | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□1□NB-Stroke-F□-X60-Q | ●           | ●   | ●   | ●   | ●   |

Combinations other than the above cannot be manufactured.

- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

# Series LJ1H10

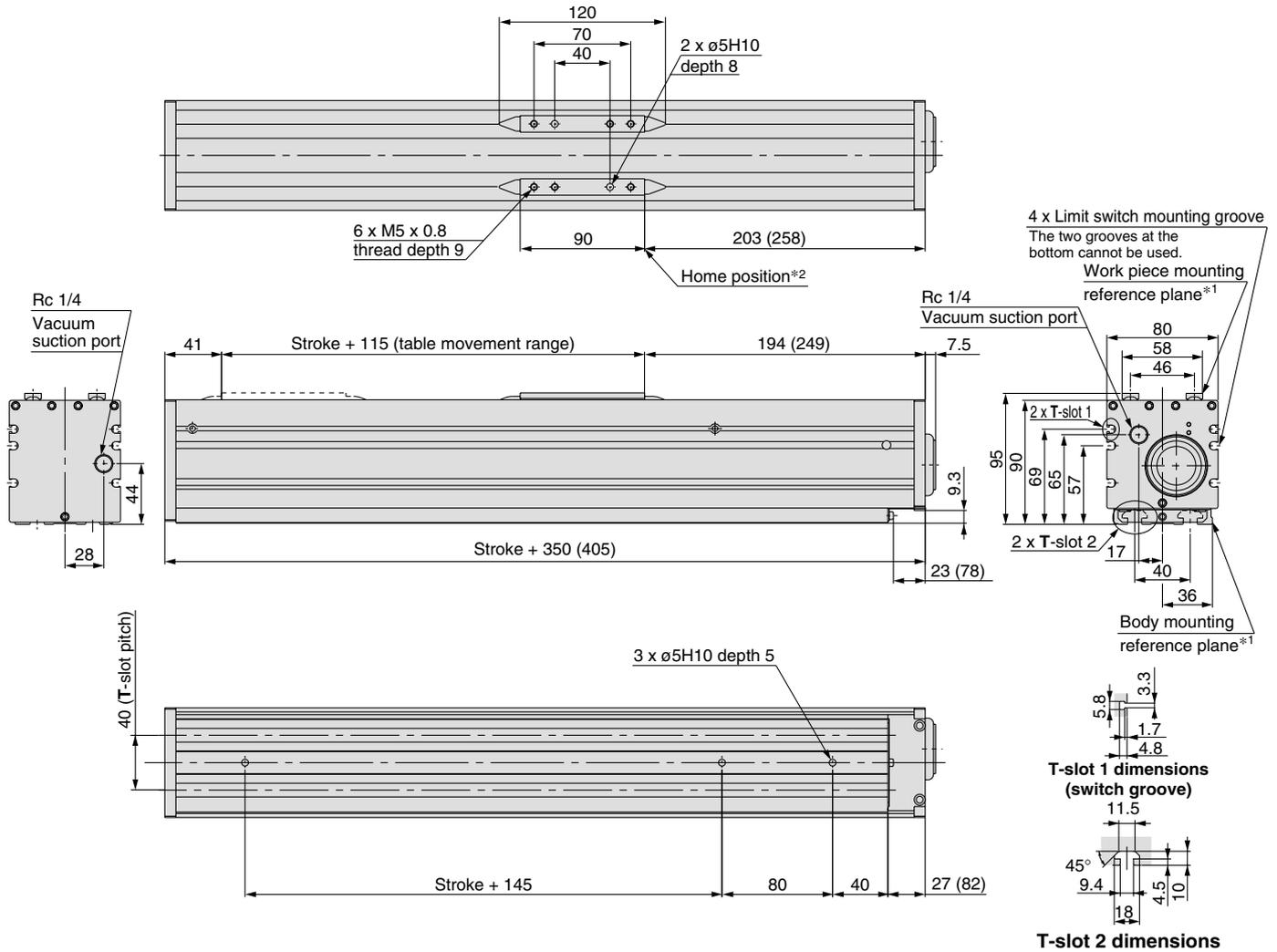
## Specifications

| Standard stroke (mm)             |  |                              |                   | 100   | 200 | 300 | 400 | 500 |
|----------------------------------|--|------------------------------|-------------------|---|-----|-----|-----|-----|
| Mass (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 (No condensation)   |     |     |     |     |
| Work load (kg)                   | Horizontal specification   | 12 mm lead                   | 50 W              | 10  |     |     |     |     |
|                                  |  | 12 mm lead                   | 100 W             | 5   |     |     |     |     |
|                                  | Vertical specification   | 8 mm lead                    | 100 W             | 10  |     |     |     |     |
|                                  |  |                              |                   |   |     |     |     |     |
| Maximum speed (mm/s)             | Horizontal specification   | 12 mm lead                   | 50 W              | 600   |     |     |     |     |
|                                  |  | 12 mm lead                   | 100 W             | 600   |     |     |     |     |
|                                  | Vertical specification   | 8 mm lead                    | 100 W             | 400   |     |     |     |     |
|                                  |  |                              |                   |   |     |     |     |     |
| Positioning repeatability (mm)   | Rolled ball screw  |                              |                   | ±0.05   |     |     |     |     |
|                                  | Ground ball screw  |                              |                   | ±0.02   |     |     |     |     |
| Motor output                     |  | Horizontal specification     |                   | AC servomotor (50 W)  |     |     |     |     |
|                                  |  | Vertical specification       |                   | AC servomotor (100 W) with brake  |     |     |     |     |
| Lead screw                       | Black chroming +<br>Special fluoropolymer<br>coating and grease<br>application | Horizontal specification     | Rolled ball screw | ø12 mm, 12 mm lead  |     |     |     |     |
|                                  |  |                              | Ground ball screw | ø12 mm, 12 mm lead  |     |     |     |     |
|                                  |  | Vertical specification       | Rolled ball screw | ø12 mm, 12 mm/8 mm lead   |     |     |     |     |
|                                  |  |                              | Ground ball screw | ø12 mm, 12 mm/8 mm lead   |     |     |     |     |
| Guide                            |  |                              |                   | High rigidity direct acting guide, Stainless steel rail, AFE grease (Made by THK) applied                       |     |     |     |     |
| 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 4000 km, 4 million reciprocations, or operation period of 6 months, whichever comes first |     |     |     |     |
| Vacuum suction port              |  |                              |                   | Rc 1/4, one each on both axial surfaces<br>Seal the unused port with a plug.                                    |     |     |     |     |
| Suction flow rate                |  |                              |                   | 50 ℓ/min (ANR)  |     |     |     |     |

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on pages 458 and 459.

## Dimensions/LJ1H10□<sup>1</sup>/<sub>2</sub> (X60)

 Dimensions inside ( ) are for the model with brake.



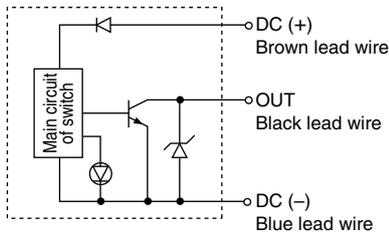
- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

\*1 The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 666 for mounting.

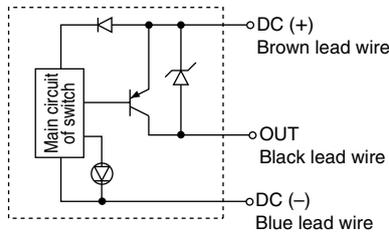
\*2 Dimension only when compatible with LC1/LC8 controller.

## Switch Internal Circuit

**D-Y7GL**



**D-Y7HL**



# High Rigidity Direct Acting Guide Type/Motor Output: 100 W

## Series LJ1H20

# Made to Order Specifications:



### Clean Room Specification

### How to Order

#### LC1 controller compatible/Non-standard motor specification

**Horizontal Mount Specification** LJ1H20 **21** **P** **A** - **300** - **F** **2** - **X60**

**Vertical Mount Specification** LJ1H20 **21** **P** **F** - **300** **K** - **F** **2** - **X60**

**Lead screw type**  
Refer to Table (1) below.  

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.  

|          |       |
|----------|-------|
| <b>F</b> | 5 mm  |
| <b>A</b> | 10 mm |
| <b>C</b> | 20 mm |

**Stroke (mm)**  
Refer to Table (1) below.

**With brake**

**Cable entry direction: Axial**

**Clean room specification**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

**Standard motor cable length**

**Motor specification**

| Symbol                  | Motor manufacturer                            | Brake                                    | Motor output | Power supply voltage | Motor model    | Controller driver model <sup>*3</sup> |
|-------------------------|---|--|--------------|----------------------|----------------|---------------------------------------|
| <b>21</b>               | SMC controller Series LC1 compatible          | Without brake (Horizontal specification) | 100 W        | 100/110 VAC          | Standard motor | LC1-1B2H1-□□                          |
| <b>22</b>               |   |  |              | 200/220 VAC          |                | LC1-1B2H2-□□                          |
| <b>21</b>               |   | With brake (Vertical specification)      |              | 100 VAC              |                | LC1-1B2V□1-□□                         |
| <b>22</b>               |   |  |              | 200 VAC              |                | LC1-1B2V□2-□□                         |
| <b>R21</b>              | Mitsubishi Electric Corporation <sup>*2</sup> | Without brake (Horizontal specification) | 100/115 VAC  | HC-PQ13              | MR-C10A1       |                                       |
| <b>R22</b>              |   |  | 200/230 VAC  |                      | MR-C10A        |                                       |
| <b>R21</b>              |   | With brake (Vertical specification)      | 100/115 VAC  | HC-PQ13B             | MR-C10A1       |                                       |
| <b>R22</b>              |   |  | 200/230 VAC  |                      | MR-C10A        |                                       |
| <b>R20<sup>*1</sup></b> |   | —  | —            | —                    | —              | —                                     |

#### Non-standard motor switch

|            |                                 |
|------------|---------------------------------|
| <b>Nil</b> | None                            |
| <b>W</b>   | N.C. (B contact) 2 pcs.: D-Y7GL |

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.  
 \*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation. Cable for joining motor and driver is optional. Refer to page 659 for part nos. Please contact individual motor manufacturers regarding motor/driver specifications or other details.  
 \*3 Order LC1 controller separately.

#### LC8 controller compatible

**Horizontal Mount Specification** LJ1H20 **821** **P** **A** - **300** - **F** **2** - **X60** - □

**Lead screw type**  
Refer to Table (1) below.  

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.  

|          |       |
|----------|-------|
| <b>A</b> | 10 mm |
| <b>C</b> | 20 mm |

**Stroke (mm)**  
Refer to Table (1) below.

**CE marking**

|            |                   |
|------------|-------------------|
| <b>Nil</b> | —                 |
| <b>Q</b>   | CE marked product |

**Clean room specification**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

**Standard motor cable length**

**Power supply voltage**

| Symbol     | Motor                 | Brake                      | Motor output | Power supply voltage | Controller driver model* |
|------------|-----------------------|----------------------------|--------------|----------------------|--------------------------|
| <b>821</b> | SMC controller        | Without brake              | 100 W        | 100/115 VAC          | LC8-B2H1□-□□-□           |
| <b>822</b> | Series LC8 compatible | (Horizontal specification) |              | 200/230 VAC          | LC8-B2H2□-□□-□           |

\* Order LC8 controller separately.

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-Stroke-K-F□-X60 | ●           | ●   | ●   | ●   | ●   | ●   |     |     |     |      |
| LJ1H20□2□NF-Stroke-K-F□-X60 | ●           | ●   | ●   | ●   | ●   | ●   |     |     |     |      |
| LJ1H20□2□PA-Stroke-K-F□-X60 | ●           | ●   | ●   | ●   | ●   | ●   |     |     |     |      |
| LJ1H20□2□NA-Stroke-K-F□-X60 | ●           | ●   | ●   | ●   | ●   | ●   |     |     |     |      |

Combinations other than the above cannot be manufactured.

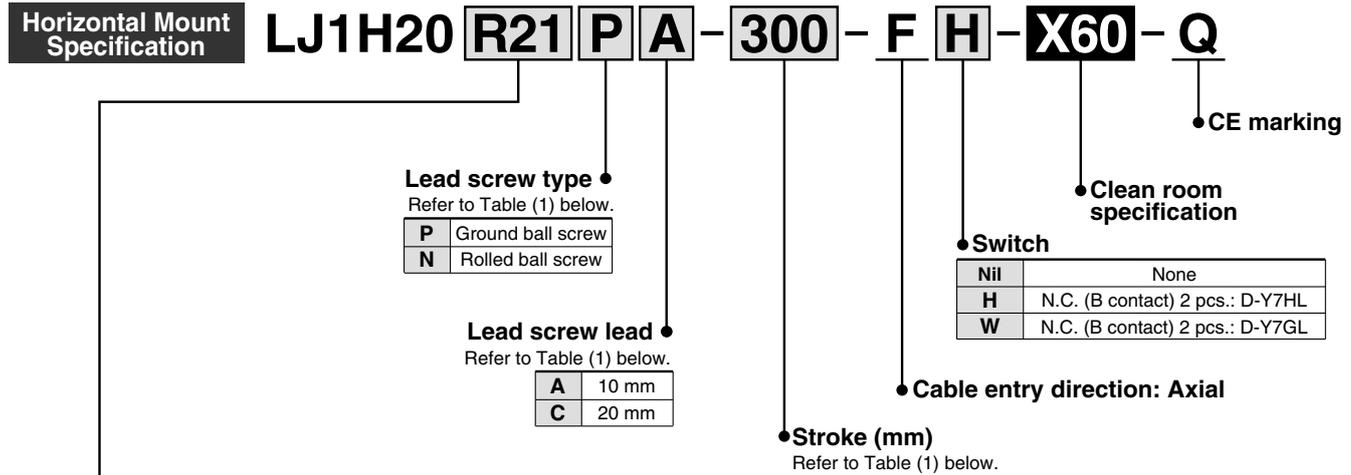




Clean Room Specification

How to Order

Non-standard motor specification



Motor specification

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

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.

\*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.

Cable for joining motor and driver is optional.

Refer to page 659 for part nos.

Please contact individual motor manufacturers regarding motor/driver specifications or other details.

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-Q | ●           | ●   | ●   | ●   | ●   | ●   |     |     |     |      |
| LJ1H20□2□NA-Stroke-F□-X60-Q | ●           | ●   | ●   | ●   | ●   | ●   |     |     |     |      |
| LJ1H20□2□PC-Stroke-F□-X60-Q |             |     |     |     | ●   | ●   | ●   | ●   | ●   | ●    |
| LJ1H20□2□NC-Stroke-F□-X60-Q |             |     |     |     | ●   | ●   | ●   | ●   | ●   | ●    |

Combinations other than the above cannot be manufactured.

- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

# Series LJ1H20

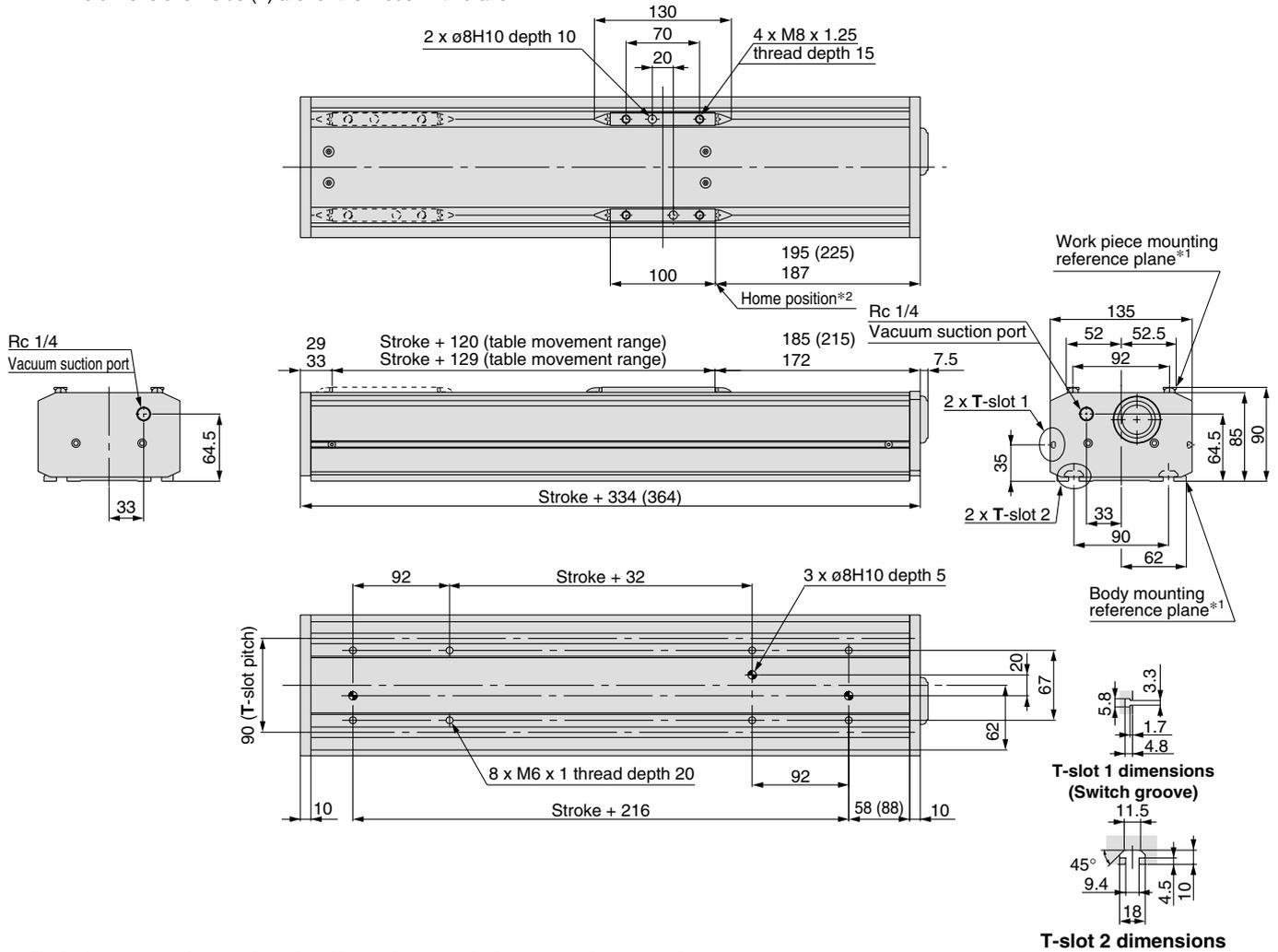
## Specifications

| Standard stroke (mm)             |  |                          | 100   | 200                              | 300                | 400  | 500  | 600  | 700                | 800  | 900  | 1000 |
|----------------------------------|--|--------------------------|---|----------------------------------|--------------------|------|------|------|--------------------|------|------|------|
| Mass (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 (No condensation)   |                                  |                    |      |      |      |                    |      |      |      |
| Work load (kg)                   | Horizontal specification   | 10 mm lead               | 30  |                                  |                    |      |      |      | —                  |      |      |      |
|                                  |  | 20 mm lead               | —   |                                  |                    |      | 15   |      |                    |      |      |      |
|                                  | Vertical specification   | 5 mm lead                | 15  |                                  |                    |      |      |      | —                  |      |      |      |
|                                  |  | 10 mm lead               | 8   |                                  |                    |      |      |      | —                  |      |      |      |
| Maximum speed (mm/s)             | Horizontal specification   | 10 mm lead               | 500   |                                  |                    |      |      |      | —                  |      |      |      |
|                                  |  | 20 mm lead               | —   |                                  |                    |      | 1000 |      | 930                | 740  | 600  | 500  |
|                                  | Vertical specification   | 5 mm lead                | 250   |                                  |                    |      |      |      | —                  |      |      |      |
|                                  |  | 10 mm lead               | 500   |                                  |                    |      |      |      | —                  |      |      |      |
| Positioning repeatability (mm)   | Rolled ball screw  |                          | ±0.05   |                                  |                    |      |      |      |                    |      |      |      |
|                                  | Ground ball screw  |                          | ±0.02   |                                  |                    |      |      |      |                    |      |      |      |
| Motor output                     |  | Horizontal specification |   | AC servomotor (100 W)            |                    |      |      |      |                    |      |      |      |
|                                  |  | Vertical specification   |   | AC servomotor (100 W) with brake |                    |      |      |      |                    |      |      |      |
| Lead screw                       | Black chroming +<br>Special fluoropolymer<br>coating and grease<br>application | Horizontal specification | Rolled ball screw   |                                  | ø15 mm, 10 mm lead |      |      |      | —                  |      |      |      |
|                                  |  |                          | Ground ball screw   |                                  | —                  |      |      |      | ø15 mm, 20 mm lead |      |      |      |
|                                  |  | Vertical specification   |   |                                  | ø15 mm, 5 mm lead  |      |      |      | —                  |      |      |      |
|                                  |  |                          |   |                                  | ø15 mm, 10 mm lead |      |      |      | —                  |      |      |      |
| Guide                            |  |                          | High rigidity direct acting guide, Stainless steel rail, AFE grease (Made by THK) applied                       |                                  |                    |      |      |      |                    |      |      |      |
| 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 4000 km, 4 million reciprocations, or operation period of 6 months, whichever comes first |                                  |                    |      |      |      |                    |      |      |      |
| Vacuum suction port              |  |                          | Rc 1/4, one each on both axial surfaces<br>Seal the unused port with a plug.                                    |                                  |                    |      |      |      |                    |      |      |      |
|                                  | Stroke: 500 mm or less   |                          | Suction at either end or both ends.   |                                  |                    |      |      |      |                    |      |      |      |
|                                  |  | Stroke: 500 mm or more   |   | Suction at both ends.            |                    |      |      |      |                    |      |      |      |
| Suction flow rate                | Speed: 500 mm/s or less  |                          | 50 ℓ/min (ANR)  |                                  |                    |      |      |      |                    |      |      |      |
|                                  | Speed: 500 mm/s or more  |                          | 100 ℓ/min (ANR)   |                                  |                    |      |      |      |                    |      |      |      |

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on pages 458 and 459.

## Dimensions/LJ1H20□2 (X60)

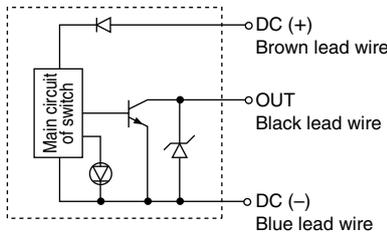
When two dimensions are shown, the top dimension is for 100 to 600 mm strokes, and the bottom dimension is for 700 to 1200 mm strokes. The dimensions inside ( ) are for the model with brake.



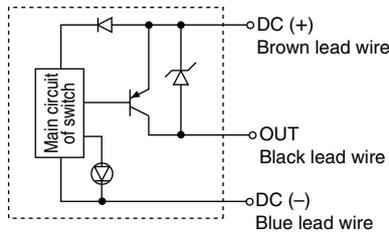
\*1 The body mounting reference plane should be used as a standard when mounting onto equipment.  
 \*2 Dimension only when compatible with LC1/LC8 controller.

## Switch Internal Circuit

D-Y7GL



D-Y7HL



- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY



Clean Room Specification

How to Order

LC1 controller compatible/Non-standard motor specification

**Horizontal Mount Specification** **LJ1H30** **31** **P** **D** - **300** - **F** **2** - **X60**

**Vertical Mount Specification** **LJ1H30** **31** **P** **A** - **300** **K** - **F** **2** - **X60**

**Lead screw type**  
Refer to Table (1) below.

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|          |       |
|----------|-------|
| <b>A</b> | 10 mm |
| <b>D</b> | 25 mm |

**Stroke (mm)**  
Refer to Table (1) below.

**With brake**

**Cable entry direction: Axial**

**Clean room specification**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

**Standard motor cable length**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

Motor specification

| Symbol        | Motor manufacturer                   | Brake                                    | Motor output | Power supply voltage | Motor model    | Controller driver model*3 |
|---------------|--------------------------------------|--|--------------|----------------------|----------------|---------------------------|
| <b>31</b>     | SMC controller Series LC1 compatible | Without brake (Horizontal specification) | 200 W        | 100/110 VAC          | Standard motor | LC1-1B3H1-□□              |
| <b>32</b>     |                                      | With brake (Vertical specification)      |              | 200 VAC              |                | LC1-1B3H2-□□              |
| <b>31</b>     |                                      | Without brake (Horizontal specification) |              | 100 VAC              |                | LC1-1B3VA1-□□             |
| <b>32</b>     |                                      |  |              | 200 VAC              |                | LC1-1B3VA2-□□             |
| <b>R31</b>    | Mitsubishi Electric Corporation*2    | Without brake (Horizontal specification) | 200 W        | 100/115 VAC          | HC-PQ23        | MR-C20A1                  |
| <b>R32</b>    |                                      | With brake (Vertical specification)      |              | 200/230 VAC          |                | MR-C20A                   |
| <b>R31</b>    |                                      | Without brake (Horizontal specification) |              | 100/115 VAC          | HC-PQ23B       | MR-C20A1                  |
| <b>R32</b>    |                                      |  |              | 200/230 VAC          |                | MR-C20A                   |
| <b>R30</b> *1 |                                      |  |              | —                    |                | —                         |

Non-standard motor switch

|            |                                 |
|------------|---------------------------------|
| <b>Nil</b> | None                            |
| <b>W</b>   | N.C. (B contact) 2 pcs.: D-Y7GL |

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.  
 \*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation. Cable for joining motor and driver is optional. Refer to page 659 for part nos. Please contact individual motor manufacturers regarding motor/driver specifications or other details.  
 \*3 Order LC1 controller separately.

LC8 controller compatible

**Horizontal Mount Specification** **LJ1H30** **831** **P** **D** - **300** - **F** **2** - **X60** - □

**Lead screw type**  
Refer to Table (1) below.

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|          |       |
|----------|-------|
| <b>D</b> | 25 mm |
|----------|-------|

**Stroke (mm)**  
Refer to Table (1) below.

**CE marking**

|            |                   |
|------------|-------------------|
| <b>Nil</b> | —                 |
| <b>Q</b>   | CE marked product |

**Clean room specification**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

**Standard motor cable length**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

**Power supply voltage**

| Symbol     | Motor                 | Brake                      | Motor output | Power supply voltage | Controller driver model* |
|------------|-----------------------|----------------------------|--------------|----------------------|--------------------------|
| <b>831</b> | SMC controller        | Without brake              | 200 W        | 100/115 VAC          | LC8-B3H1□-□□-□           |
| <b>832</b> | Series LC8 compatible | (Horizontal specification) |              | 200/230 VAC          | LC8-B3H2□-□□-□           |

\* Order LC8 controller separately.

**Cable entry direction: Axial**

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-Stroke-K-F□-X60 | ●           | ●   | ●   | ●   | ●   |     |      |      |      |
| LJ1H30□3□NA-Stroke-K-F□-X60 | ●           | ●   | ●   | ●   | ●   |     |      |      |      |

Combinations other than the above cannot be manufactured.



# High Rigidity Direct Acting Guide Type/Motor Output: 200 W Series LJ1H30 Made to Order Specifications:



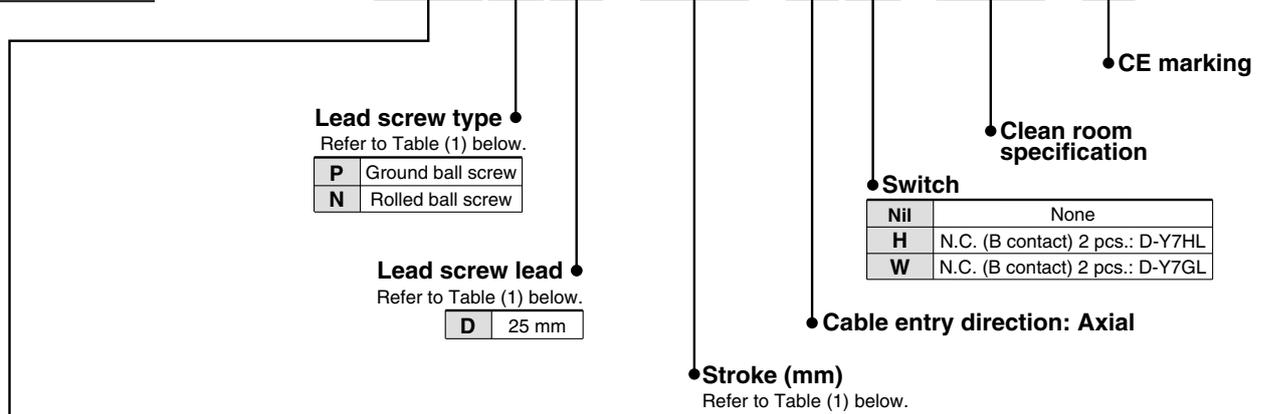
## Clean Room Specification

### How to Order

#### Non-standard motor specification

Horizontal Mount Specification

**LJ1H30 R31 P D - 300 - F H - X60 - Q**



#### Motor specification

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

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.

\*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.

Cable for joining motor and driver is optional.

Refer to page 659 for part nos.

Please contact individual motor manufacturers regarding motor/driver specifications or other details.

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-Q | ●           | ●   | ●   | ●   | ●   | ●   | ●    | ●    | ●    |
| LJ1H30□3□ND-Stroke-F□-X60-Q | ●           | ●   | ●   | ●   | ●   | ●   | ●    | ●    | ●    |

Combinations other than the above cannot be manufactured.

- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

# Series LJ1H30

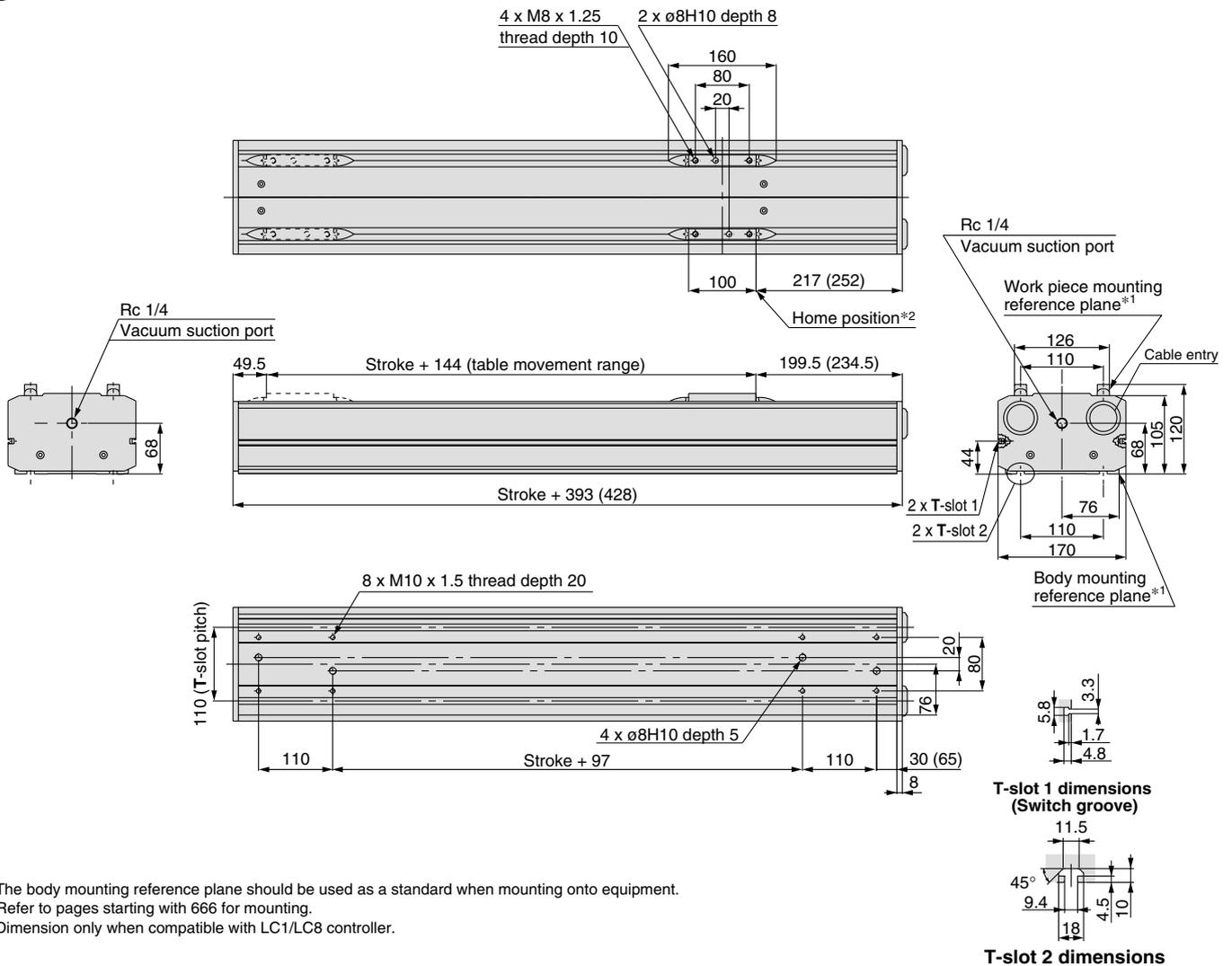
## Specifications

| Standard stroke (mm)             |  |                          | 200   | 300                              | 400                | 500  | 600  | 800  | 1000 | 1200 | 1500 |     |
|----------------------------------|--|--------------------------|---|----------------------------------|--------------------|------|------|------|------|------|------|-----|
| Mass (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 (No condensation)   |                                  |                    |      |      |      |      |      |      |     |
| Maximum work load (kg)           | Horizontal specification   | 25 mm lead               | 200 W   |                                  | 20                 |      |      | 60   |      |      | —    |     |
|                                  | Vertical specification   | 10 mm lead               |   |                                  |                    |      |      |      |      |      |      |     |
| Maximum speed (mm/s)             | Horizontal specification   | 25 mm lead               | 200 W   |                                  | 1000               |      |      | 700  |      | 500  |      |     |
|                                  | Vertical specification   | 10 mm lead               |   |                                  |                    |      |      |      |      |      |      | 500 |
| Positioning repeatability (mm)   | Rolled ball screw  |                          | ±0.05   |                                  |                    |      |      |      |      |      |      |     |
|                                  | Ground ball screw  |                          | ±0.02   |                                  |                    |      |      |      |      |      |      |     |
| Motor output                     |  | Horizontal specification |   | AC servomotor (200 W)            |                    |      |      |      |      |      |      |     |
|                                  |  | Vertical specification   |   | AC servomotor (200 W) with brake |                    |      |      |      |      |      |      |     |
| Lead screw                       | Black chroming +<br>Special fluoropolymer<br>coating and grease<br>application | Horizontal specification | Rolled ball screw   | ø25 mm, 25 mm lead               |                    |      |      |      |      |      |      |     |
|                                  |  | Vertical specification   |   | Ground ball screw                | ø20 mm, 10 mm lead |      |      | —    |      |      |      |     |
| Guide                            |  |                          | High rigidity direct acting guide, Stainless steel rail, AFE grease (Made by THK) applied                       |                                  |                    |      |      |      |      |      |      |     |
| 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 4000 km, 4 million reciprocations, or operation period of 6 months, whichever comes first |                                  |                    |      |      |      |      |      |      |     |
| Vacuum suction port              |  |                          | Rc 1/4, one each on both axial surfaces<br>Seal the unused port with a plug, suction at both ends               |                                  |                    |      |      |      |      |      |      |     |
| Suction flow rate                |  | Speed: 500 mm/s or less  |   | 100 ℓ/min (ANR)                  |                    |      |      |      |      |      |      |     |
|                                  |  | Speed: 500 mm/s or more  |   | 200 ℓ/min (ANR)                  |                    |      |      |      |      |      |      |     |

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on pages 458 and 459.

## Dimensions/LJ1H30□3 (X60)

 Dimensions inside ( ) are for the model with brake.

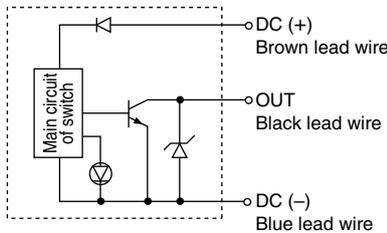


\*1 The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 666 for mounting.  
 \*2 Dimension only when compatible with LC1/LC8 controller.

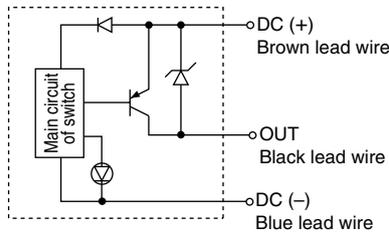
- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

## Switch Internal Circuit

D-Y7GL



D-Y7HL



# High Rigidity Direct Acting Guide Type/Motor Output: 50 W/100 W

## Series LJ1H10

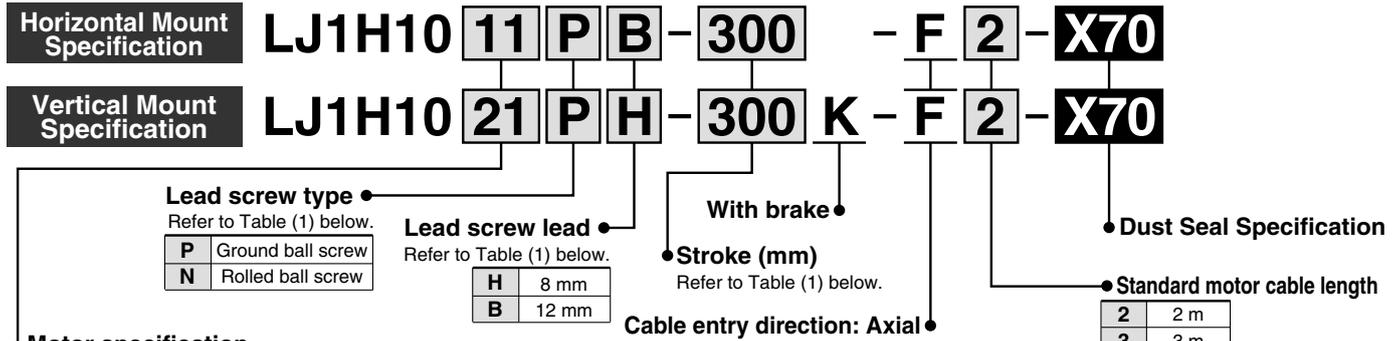
# Made to Order Specifications:



### Dust Seal Specification

### How to Order

#### LC1 controller compatible/Non-standard motor specification



| Symbol        | Motor manufacturer                   | Brake                                    | Motor output | Power supply voltage | Motor model    | Controller driver model*3 |   |
|---------------|--------------------------------------|--|--------------|----------------------|----------------|---------------------------|---|
| <b>11</b>     | SMC controller Series LC1 compatible | Without brake (Horizontal specification) | 50 W         | 100/110 VAC          | Standard motor | LC1-1B1H1-□□              |   |
| <b>12</b>     |                                      |  |              | 200/220 VAC          |                | LC1-1B1H2-□□              |   |
| <b>21</b>     |                                      | With brake (Vertical specification)      | 100 W        | 100 VAC              |                | LC1-1B1V□1-□□             |   |
| <b>22</b>     |                                      |  |              | 200 VAC              |                | LC1-1B1V□2-□□             |   |
| <b>R11</b>    | Mitsubishi Electric Corporation*2    | Without brake (Horizontal specification) | 50 W         | 100/115 VAC          | HC-PQ053       | MR-C10A1                  |   |
| <b>R12</b>    |                                      |  |              | 200/230 VAC          |                | MR-C10A                   |   |
| <b>R21</b>    |                                      | With brake (Vertical specification)      | 100 W        | 100/115 VAC          | HC-PQ13B       | MR-C10A1                  |   |
| <b>R22</b>    |                                      |  |              | 200/230 VAC          |                | MR-C10A                   |   |
| <b>R10</b> *1 |                                      | —  | —            | —                    | —              | —                         | — |
| <b>R20</b> *1 |                                      | —  | —            | —                    | —              | —                         | — |

**Non-standard motor switch**

|            |                                 |
|------------|---------------------------------|
| <b>Nil</b> | None                            |
| <b>W</b>   | N.C. (B contact) 2 pcs.: D-Y7GL |

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.  
 \*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation. Cable for joining motor and driver is optional. Refer to page 659 for part nos. Please contact individual motor manufacturers regarding motor/driver specifications or other details.  
 \*3 Order LC1 controller separately.

#### LC8 controller compatible

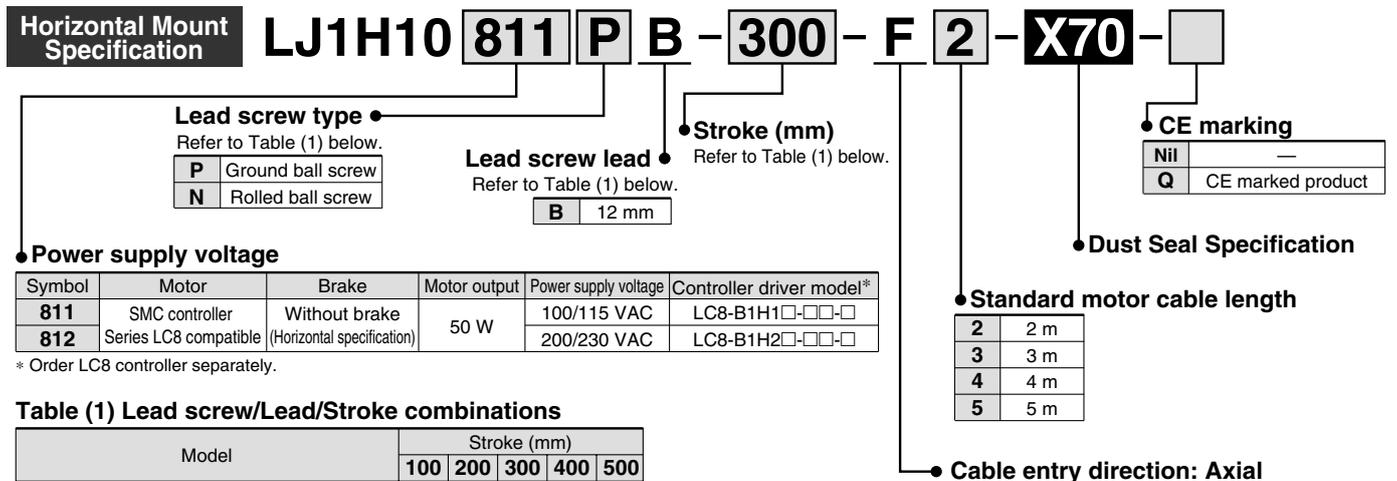


Table (1) Lead screw/Lead/Stroke combinations

| Model                       | Stroke (mm) |     |     |     |     |
|-----------------------------|-------------|-----|-----|-----|-----|
|                             | 100         | 200 | 300 | 400 | 500 |
| LJ1H10□1□PB-Stroke-F□-X70   | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□1□NB-Stroke-F□-X70   | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□2□PH-Stroke-K-F□-X70 | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□2□NH-Stroke-K-F□-X70 | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□2□PB-Stroke-K-F□-X70 | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□2□NB-Stroke-K-F□-X70 | ●           | ●   | ●   | ●   | ●   |

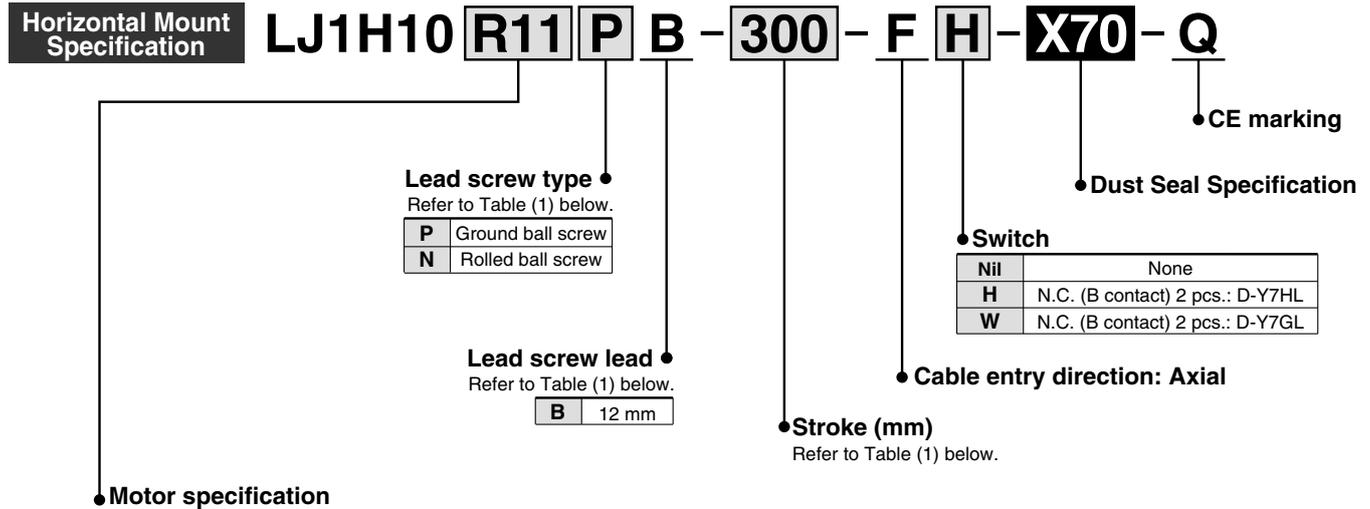
Combinations other than the above cannot be manufactured.



Dust Seal Specification

How to Order

Non-standard motor specification



Motor specification

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

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.

\*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.

Cable for joining motor and driver is optional.

Refer to page 659 for part nos.

Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Table (1) Lead screw/Lead/Stroke combinations

| Model                       | Stroke (mm) |     |     |     |     |
|-----------------------------|-------------|-----|-----|-----|-----|
|                             | 100         | 200 | 300 | 400 | 500 |
| LJ1H10□1□PB-Stroke-F□-X70-Q | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□1□NB-Stroke-F□-X70-Q | ●           | ●   | ●   | ●   | ●   |

Combinations other than the above cannot be manufactured.

- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

# Series LJ1H10

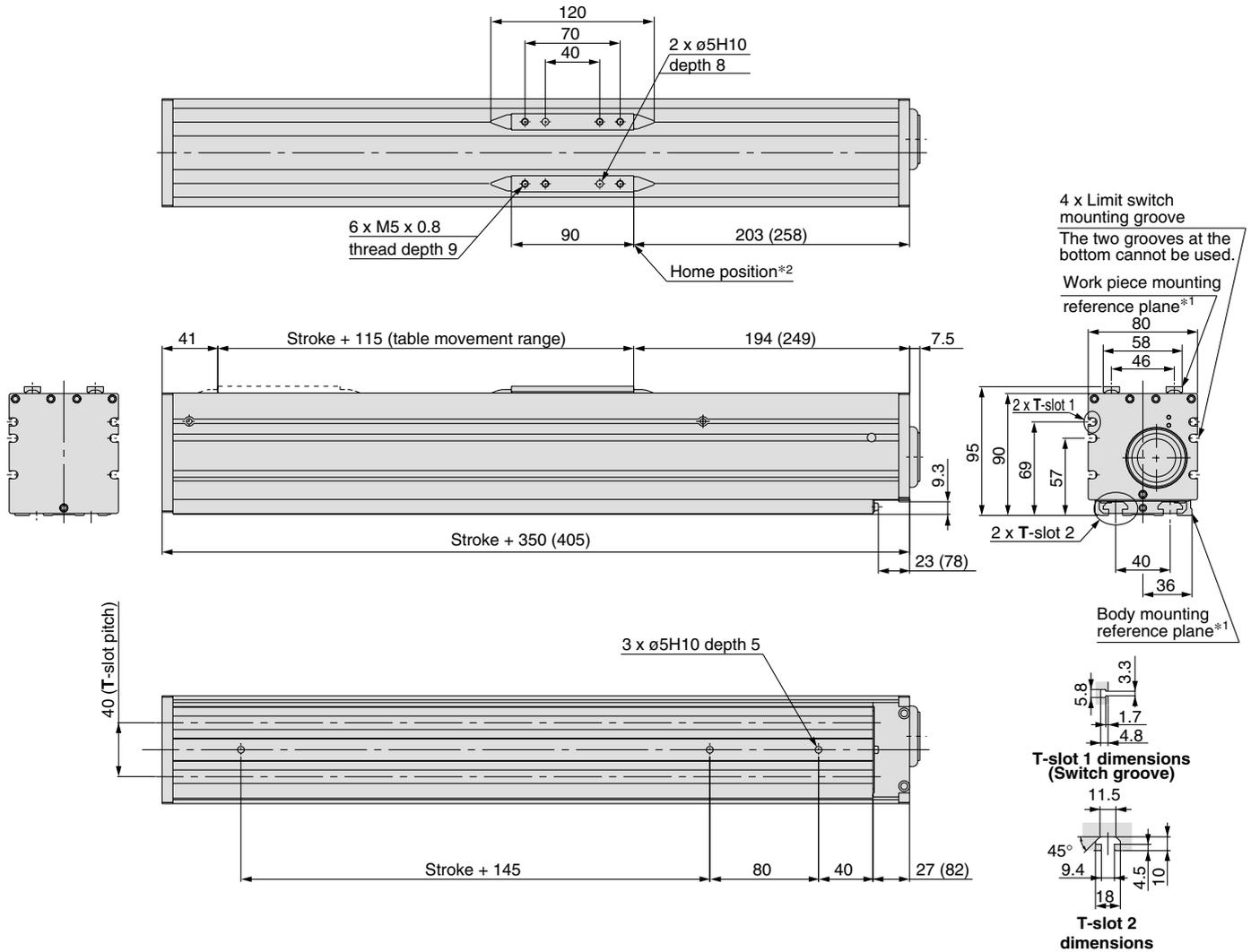
## Specifications

| Standard stroke (mm)             |                          |                   |               | 100                               | 200 | 300 | 400 | 500 |
|----------------------------------|--------------------------|-------------------|---------------|-----------------------------------|-----|-----|-----|-----|
| 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 |
| Operating temperature range (°C) |                          |                   |               | 5 to 40 (No condensation)         |     |     |     |     |
| Work load (kg)                   | Horizontal specification | 12 mm lead        | 50 W          | 10                                |     |     |     |     |
|                                  | Vertical specification   | 12 mm lead        | 100 W         | 5                                 |     |     |     |     |
| Maximum speed (mm/s)             | Horizontal specification | 12 mm lead        | 50 W          | 600                               |     |     |     |     |
|                                  |                          | 12 mm lead        | 100 W         | 600                               |     |     |     |     |
|                                  | Vertical specification   | 8 mm lead         | 100 W         | 400                               |     |     |     |     |
| Positioning repeatability (mm)   | Rolled ball screw        |                   |               | ±0.05                             |     |     |     |     |
|                                  | Ground ball screw        |                   |               | ±0.02                             |     |     |     |     |
| Motor output                     | Horizontal specification |                   |               | AC servomotor (50 W)              |     |     |     |     |
|                                  | Vertical specification   |                   |               | AC servomotor (100 W) with brake  |     |     |     |     |
| Lead screw                       | Horizontal specification | Rolled ball screw |               | ø12 mm, 12 mm lead                |     |     |     |     |
|                                  |                          | Ground ball screw |               | ø12 mm, 12 mm lead                |     |     |     |     |
|                                  | Vertical specification   | Rolled ball screw |               | ø12 mm, 12 mm/8 mm lead           |     |     |     |     |
|                                  |                          | Ground ball screw |               | ø12 mm, 12 mm/8 mm lead           |     |     |     |     |
| Guide                            |                          |                   |               | High rigidity direct acting guide |     |     |     |     |
| 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 pages 458 and 459.

## Dimensions/LJ1H10□<sub>2</sub><sup>1</sup> (X70)

 Dimensions inside ( ) are for the model with brake.



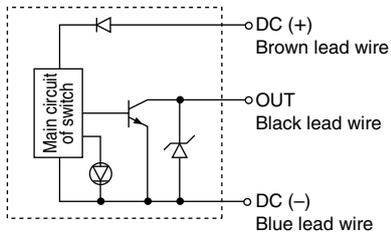
\*1 The body mounting reference plane should be used as a standard when mounting onto equipment.

Refer to pages starting with 666 for mounting.

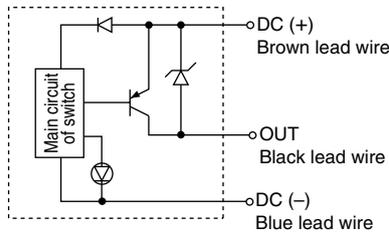
\*2 Dimension only when compatible with LC1/LC8 controller.

## Compatible Motors

### D-Y7GL



### D-Y7HL



- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

# High Rigidity Direct Acting Guide Type/Motor Output: 100 W

## Series LJ1H20

# Made to Order Specifications:



### Dust Seal Specification

### How to Order

#### LC1 controller compatible/Non-standard motor specification

**Horizontal Mount Specification** LJ1H20 **21** **P** **A** - **300** - **F** **2** - **X70**

**Vertical Mount Specification** LJ1H20 **21** **P** **F** - **300** **K** - **F** **2** - **X70**

**Lead screw type**  
Refer to Table (1) below.  

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.  

|          |       |
|----------|-------|
| <b>F</b> | 5 mm  |
| <b>A</b> | 10 mm |
| <b>C</b> | 20 mm |

**With brake**

**Stroke (mm)**  
Refer to Table (1) below.

**Cable entry direction: Axial**

**Dust Seal Specification**

**Standard motor cable length**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

#### Motor specification

| Symbol        | Motor manufacturer                   | Brake                                    | Motor output | Power supply voltage | Motor model    | Controller driver model*3 |
|---------------|--------------------------------------|--|--------------|----------------------|----------------|---------------------------|
| <b>21</b>     | SMC controller Series LC1 compatible | Without brake (Horizontal specification) | 100 W        | 100/110 VAC          | Standard motor | LC1-1B2H1-□□              |
| <b>22</b>     |                                      | With brake (Vertical specification)      |              | 200/220 VAC          |                | LC1-1B2H2-□□              |
| <b>21</b>     |                                      |  |              | 100 VAC              |                | LC1-1B2V□1-□□             |
| <b>22</b>     |                                      | 200 VAC                                  |              | LC1-1B2V□2-□□        |                |                           |
| <b>R21</b>    | Mitsubishi Electric Corporation*2    | Without brake (Horizontal specification) | 100 W        | 100/115 VAC          | HC-PQ13        | MR-C10A1                  |
| <b>R22</b>    |                                      | With brake (Vertical specification)      |              | 200/230 VAC          |                | MR-C10A                   |
| <b>R21</b>    |                                      |  |              | 100/115 VAC          | MR-C10A1       |                           |
| <b>R22</b>    |                                      |  |              | 200/230 VAC          | MR-C10A        |                           |
| <b>R20</b> *1 |                                      | —  |              | —                    | —              | —                         |

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.  
 \*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation. Cable for joining motor and driver is optional. Refer to page 659 for part nos. Please contact individual motor manufacturers regarding motor/driver specifications or other details.  
 \*3 Order LC1 controller separately.

#### LC8 controller compatible

**Horizontal Mount Specification** LJ1H20 **821** **P** **A** - **300** - **F** **2** - **X70** - □

**Lead screw type**  
Refer to Table (1) below.  

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.  

|          |       |
|----------|-------|
| <b>A</b> | 10 mm |
| <b>C</b> | 20 mm |

**Stroke (mm)**  
Refer to Table (1) below.

**Dust Seal Specification**

**Standard motor cable length**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

**CE marking**

|            |                   |
|------------|-------------------|
| <b>Nil</b> | —                 |
| <b>Q</b>   | CE marked product |

**Cable entry direction: Axial**

\* Order LC8 controller separately.

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□-X70   | ●           | ●   | ●   | ●   | ●   | ●   |     |     |     |      |
| LJ1H20□2□NA-Stroke-F□-X70   | ●           | ●   | ●   | ●   | ●   | ●   |     |     |     |      |
| LJ1H20□2□PC-Stroke-F□-X70   |             |     |     |     | ●   | ●   | ●   | ●   | ●   | ●    |
| LJ1H20□2□NC-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.



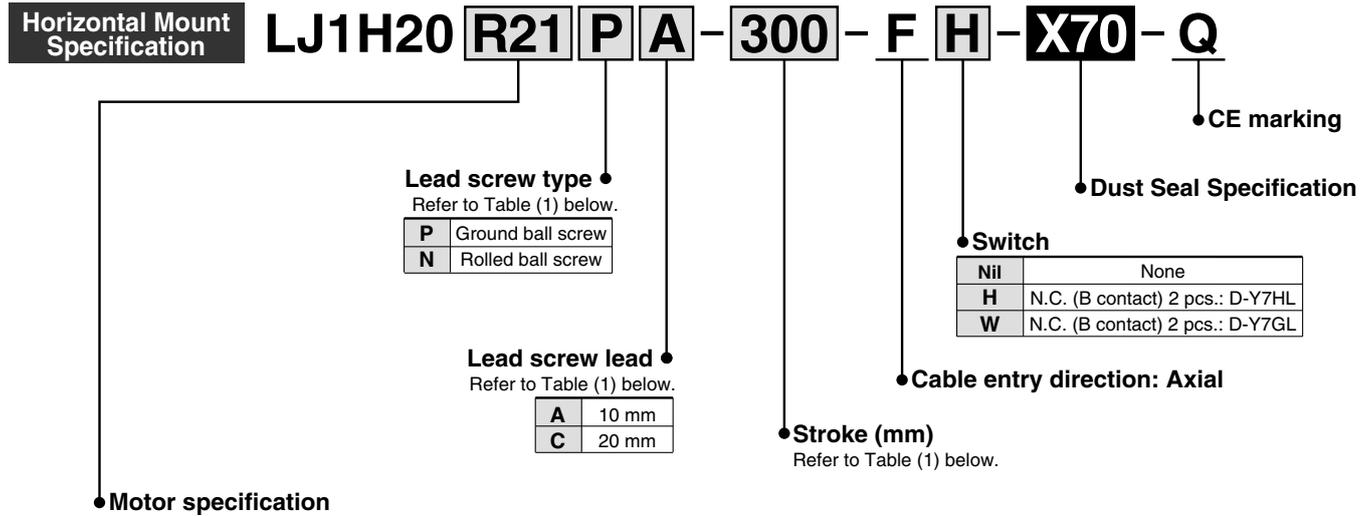
# High Rigidity Direct Acting Guide Type/Motor Output: 100 W Series LJ1H20 Made to Order Specifications:



## Dust Seal Specification

### How to Order

#### Non-standard motor specification



#### Motor specification

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

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.

\*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.

Cable for joining motor and driver is optional.

Refer to page 659 for part nos.

Please contact individual motor manufacturers regarding motor/driver specifications or other details.

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□-X70-Q | ●           | ●   | ●   | ●   | ●   | ●   |     |     |     |      |
| LJ1H20□2□NA-Stroke-F□-X70-Q | ●           | ●   | ●   | ●   | ●   | ●   |     |     |     |      |
| LJ1H20□2□PC-Stroke-F□-X70-Q |             |     |     |     | ●   | ●   | ●   | ●   | ●   | ●    |
| LJ1H20□2□NC-Stroke-F□-X70-Q |             |     |     |     | ●   | ●   | ●   | ●   | ●   | ●    |

Combinations other than the above cannot be manufactured.

LJ1

LG1

LTF

LC1

LC7

LC8

LXF

LXP

LXS

LC6□

LZ□

LC3F2

X□

D-□

E-MY

# Series LJ1H20

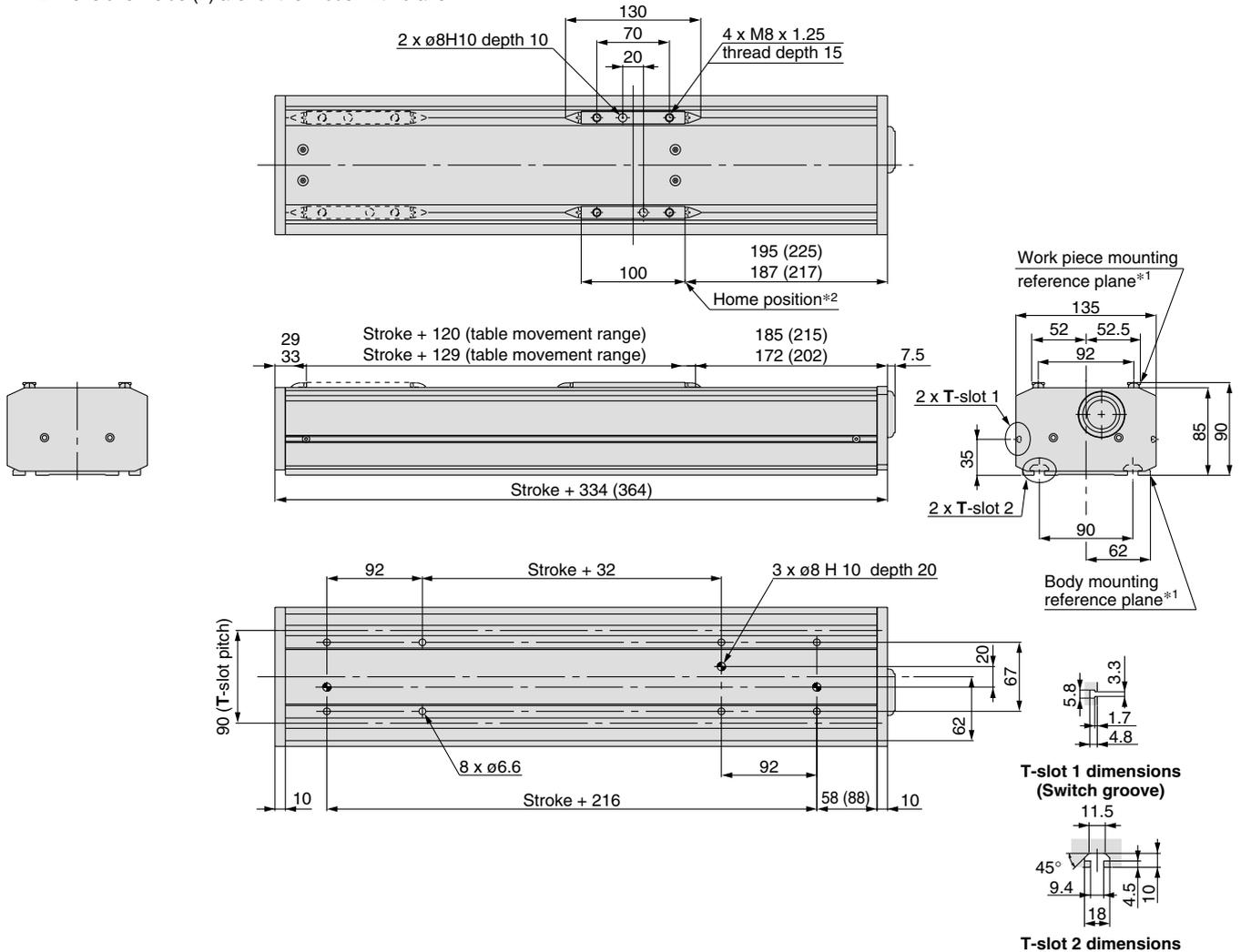
## Specifications

| Standard stroke (mm)             |                          |                         |                    | 100                               | 200 | 300  | 400  | 500  | 600  | 700  | 800  | 900  | 1000 |     |
|----------------------------------|--------------------------|-------------------------|--------------------|-----------------------------------|-----|------|------|------|------|------|------|------|------|-----|
| 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 | —    | —    | —    | —    | —   |
| Operating temperature range (°C) |                          |                         |                    | 5 to 40 (No condensation)         |     |      |      |      |      |      |      |      |      |     |
| Work load (kg)                   | Horizontal specification | Ball screw              | 10 mm lead         | 30                                |     |      |      |      | —    |      |      |      |      |     |
|                                  |                          |                         | 20 mm lead         | —                                 |     |      |      |      | 15   |      |      |      |      |     |
|                                  | Vertical specification   |                         | 5 mm lead          | 15                                |     |      |      |      | —    |      |      |      |      |     |
|                                  |                          |                         | 10 mm lead         | 8                                 |     |      |      |      | —    |      |      |      |      |     |
| Maximum speed (mm/s)             | Horizontal specification | Ball screw              | 10 mm lead         | 500                               |     |      |      |      | —    |      |      |      |      |     |
|                                  |                          |                         | 20 mm lead         | —                                 |     |      |      |      | 1000 |      | 930  | 740  | 600  | 500 |
|                                  | Vertical specification   |                         | 5 mm lead          | 250                               |     |      |      |      | —    |      |      |      |      |     |
|                                  |                          |                         | 10 mm lead         | 500                               |     |      |      |      | —    |      |      |      |      |     |
| Positioning repeatability (mm)   | Rolled ball screw        |                         |                    | ±0.05                             |     |      |      |      |      |      |      |      |      |     |
|                                  | Ground ball screw        |                         |                    | ±0.02                             |     |      |      |      |      |      |      |      |      |     |
| Motor output                     | Horizontal specification |                         |                    | AC servomotor (100 W)             |     |      |      |      |      |      |      |      |      |     |
|                                  | Vertical specification   |                         |                    | AC servomotor (100 W) with brake  |     |      |      |      | —    |      |      |      |      |     |
| Lead screw                       | Horizontal specification | Rolled/Grand ball screw | ø15 mm, 10 mm lead | —                                 |     |      |      |      | —    |      |      |      |      |     |
|                                  |                          |                         | —                  | ø15 mm, 20 mm lead                |     |      |      |      | —    |      |      |      |      |     |
|                                  | Vertical specification   |                         | ø15 mm, 5 mm lead  | —                                 |     |      |      |      | —    |      |      |      |      |     |
|                                  |                          |                         | ø15 mm, 10 mm lead | —                                 |     |      |      |      | —    |      |      |      |      |     |
| Guide                            |                          |                         |                    | High rigidity direct acting guide |     |      |      |      |      |      |      |      |      |     |
| 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 pages 458 and 459.

## Dimensions/LJ1H20□2 (X70)

When two dimensions are shown, the top dimension is for 100 to 600 mm strokes, and the bottom dimension is for 700 to 1000 mm strokes. Dimensions inside ( ) are for the model with brake.

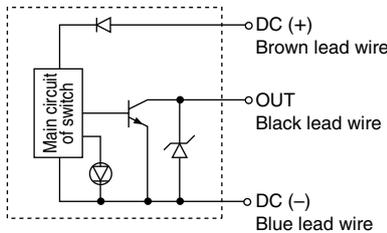


\*1 The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 666 for mounting.

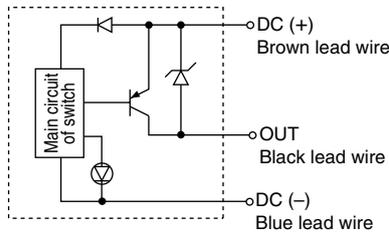
\*2 Dimension only when compatible with LC1/LC8 controller.

## Switch Internal Circuit

D-Y7GL



D-Y7HL



LJ1

LG1

LTF

LC1

LC7

LC8

LXF

LXP

LXS

LC6□

LZ□

LC3F2

X□

D-□

E-MY

# High Rigidity Direct Acting Guide Type/Motor Output: 200 W

## Series LJ1H30

# Made to Order Specifications:



### Dust Seal Specification

### How to Order

#### LC1 controller compatible/Non-standard motor specification

**Horizontal Mount Specification** LJ1H30 **31** **P** **D** - **300** - **F** **2** - **X70**

**Vertical Mount Specification** LJ1H30 **31** **P** **A** - **300** **K** - **F** **2** - **X70**

**Lead screw type**  
Refer to Table (1) below.

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|          |       |
|----------|-------|
| <b>A</b> | 10 mm |
| <b>D</b> | 25 mm |

**Stroke (mm)**  
Refer to Table (1) below.

**With brake**

**Dust Seal Specification**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

**Standard motor cable length**

**Non-standard motor switch**

|            |                                 |
|------------|---------------------------------|
| <b>Nil</b> | None                            |
| <b>W</b>   | N.C. (B contact) 2 pcs.: D-Y7GL |

**Cable entry direction: Axial**

#### Motor specification

| Symbol        | Motor manufacturer                   | Brake                                    | Motor output | Power supply voltage | Motor model    | Controller driver model*3 |
|---------------|--------------------------------------|--|--------------|----------------------|----------------|---------------------------|
| <b>31</b>     | SMC controller Series LC1 compatible | Without brake (Horizontal specification) | 200 W        | 100/110 VAC          | Standard motor | LC1-1B3H1-□□              |
| <b>32</b>     |                                      | With brake (Vertical specification)      |              | 200 VAC              |                | LC1-1B3H2-□□              |
| <b>31</b>     |                                      |  |              | 100 VAC              |                | LC1-1B3VA1-□□             |
| <b>32</b>     |                                      | 200 VAC                                  |              | LC1-1B3VA2-□□        |                |                           |
| <b>R31</b>    | Mitsubishi Electric Corporation*2    | Without brake (Horizontal specification) | 200 W        | 100/115 VAC          | HC-PQ23        | MR-C20A1                  |
| <b>R32</b>    |                                      | With brake (Vertical specification)      |              | 200/230 VAC          |                | MR-C20A                   |
| <b>R31</b>    |                                      |  |              | 100/115 VAC          | MR-C20A1       |                           |
| <b>R32</b>    |                                      |  |              | 200/230 VAC          | MR-C20A        |                           |
| <b>R30</b> *1 |                                      | —  |              | —                    | —              | —                         |

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.  
 \*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation. Cable for joining motor and driver is optional. Refer to page 659 for part nos. Please contact individual motor manufacturers regarding motor/driver specifications or other details.  
 \*3 Order LC1 controller separately.

#### LC8 controller compatible

**Horizontal Mount Specification** LJ1H30 **831** **P** **D** - **300** - **F** **2** - **X70** - □

**Lead screw type**  
Refer to Table (1) below.

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|          |       |
|----------|-------|
| <b>D</b> | 25 mm |
|----------|-------|

**Stroke (mm)**  
Refer to Table (1) below.

**CE marking**

|            |                   |
|------------|-------------------|
| <b>Nil</b> | —                 |
| <b>Q</b>   | CE marked product |

**Dust Seal Specification**

|          |     |
|----------|-----|
| <b>2</b> | 2 m |
| <b>3</b> | 3 m |
| <b>4</b> | 4 m |
| <b>5</b> | 5 m |

**Standard motor cable length**

**Power supply voltage**

| Symbol     | Motor                 | Brake                                    | Motor output | Power supply voltage | Controller driver model* |
|------------|-----------------------|--|--------------|----------------------|--------------------------|
| <b>831</b> | SMC controller        | Without brake (Horizontal specification) | 200 W        | 100/115 VAC          | LC8-B3H1□-□□-□           |
| <b>832</b> | Series LC8 compatible |  |              | 200/230 VAC          | LC8-B3H2□-□□-□           |

\* Order LC8 controller separately.

**Cable entry direction: Axial**

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□PA-Stroke-K-F□-X70 | ●           | ●   | ●   | ●   | ●   | ●   | ●    | ●    | ●    |
| LJ1H30□3□NA-Stroke-K-F□-X70 | ●           | ●   | ●   | ●   | ●   | ●   | ●    | ●    | ●    |

Combinations other than the above cannot be manufactured.

# High Rigidity Direct Acting Guide Type/Motor Output: 200 W Series LJ1H30 Made to Order Specifications:



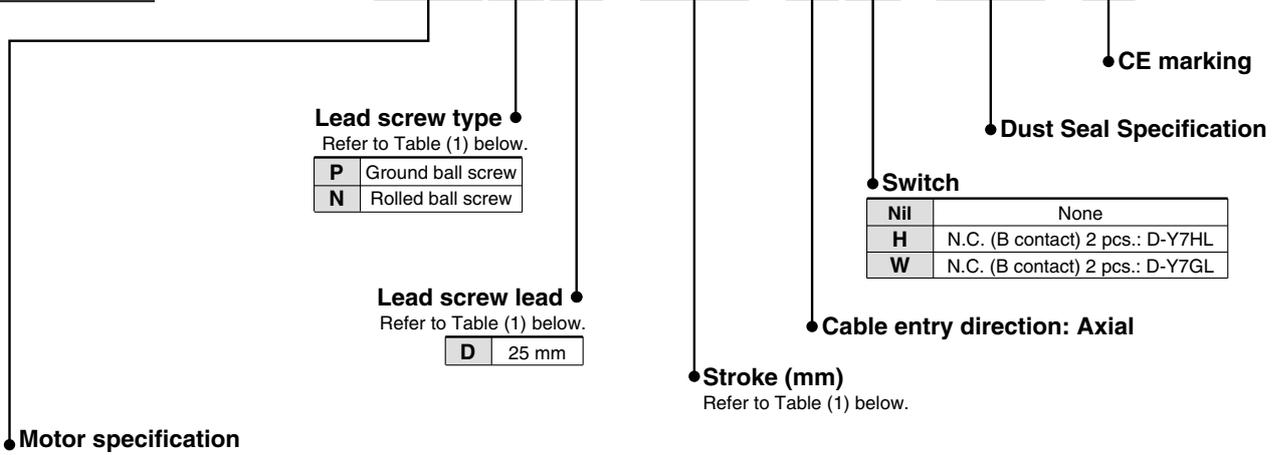
## Dust Seal Specification

### How to Order

#### Non-standard motor specification

Horizontal Mount Specification

**LJ1H30 R31 P D - 300 - F H - X70 - Q**



#### Motor specification

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

\*1 Without motor/driver. Refer to page 1059 for motor mounting dimensions.

\*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.

Cable for joining motor and driver is optional.

Refer to page 659 for part nos.

Please contact individual motor manufacturers regarding motor/driver specifications or other details.

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-Q | ●           | ●   | ●   | ●   | ●   | ●   | ●    | ●    | ●    |
| LJ1H30□3□ND-Stroke-F□-X70-Q | ●           | ●   | ●   | ●   | ●   | ●   | ●    | ●    | ●    |

Combinations other than the above cannot be manufactured.

LJ1

LG1

LTF

LC1

LC7

LC8

LXF

LXP

LXS

LC6□

LZ□

LC3F2

X□

D-□

E-MY

# Series LJ1H30

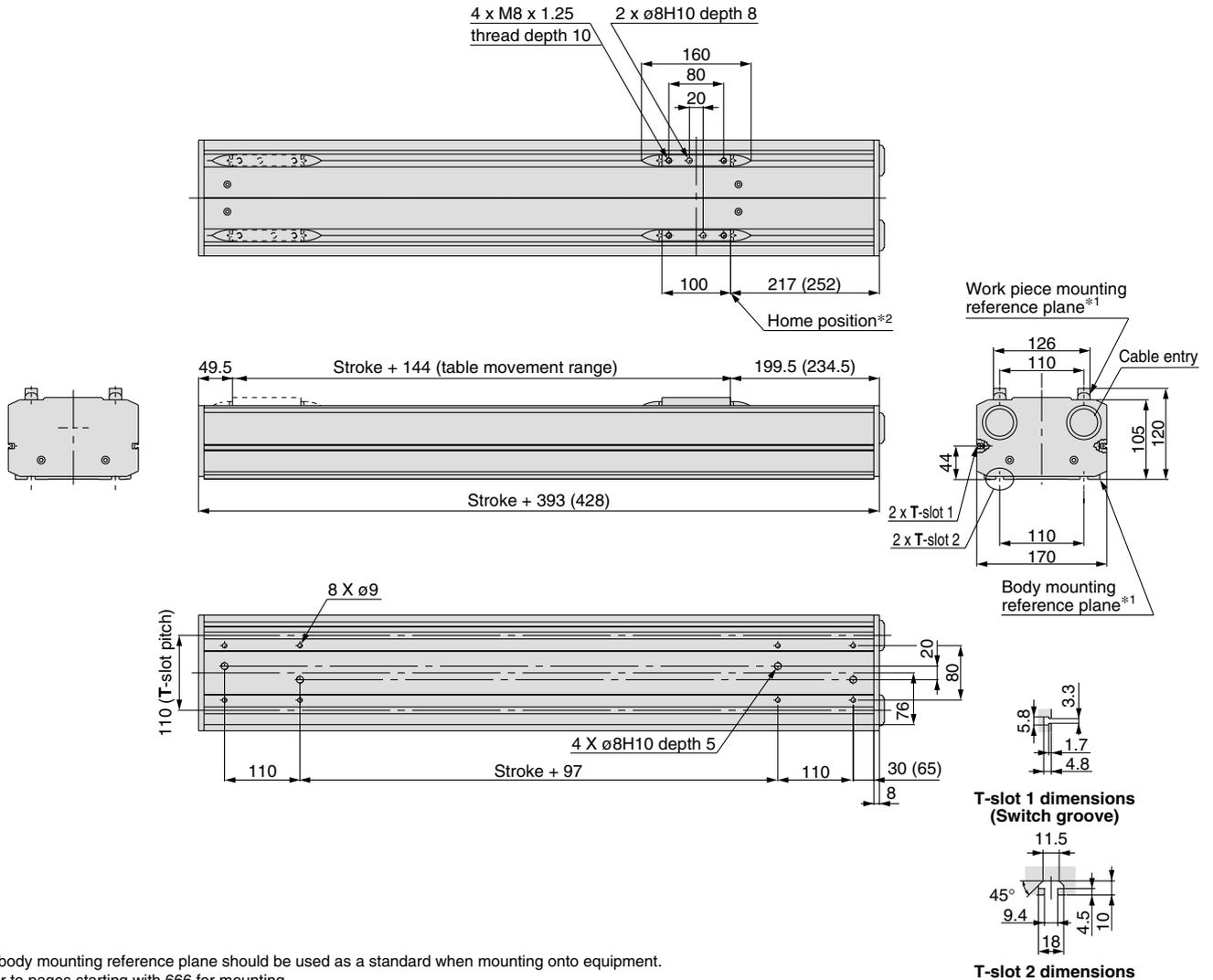
## Specifications

| 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 | —    | —    | —    | —    |
| Operating temperature range (°C) |                          |                          |               | 5 to 40 (No condensation)         |      |      |      |      |      |      |      |      |
| Work load (kg)                   | Horizontal specification | Ball screw               | 25 mm lead    | 200 W                             | 60   |      |      |      | —    |      |      |      |
|                                  | Vertical specification   |                          | 10 mm lead    |                                   | 20   |      |      |      | —    |      |      |      |
| Maximum speed (mm/s)             | Horizontal specification | Ball screw               | 25 mm lead    | 200 W                             | 1000 |      |      |      | 700  |      | 500  |      |
|                                  | Vertical specification   |                          | 10 mm lead    |                                   | 500  |      |      |      | —    |      |      |      |
| Positioning repeatability (mm)   | Rolled ball screw        |                          |               | ±0.05                             |      |      |      |      |      |      |      |      |
|                                  | Ground ball screw        |                          |               | ±0.02                             |      |      |      |      |      |      |      |      |
| Motor output                     | Horizontal specification |                          |               | AC servomotor (200 W)             |      |      |      |      |      |      |      |      |
|                                  | Vertical specification   |                          |               | AC servomotor (200 W) with brake  |      |      |      |      |      |      |      |      |
| Lead screw                       | Horizontal specification | Rolled/Ground ball screw |               | ø25 mm, 25 mm lead                |      |      |      |      |      |      |      |      |
|                                  | Vertical specification   |                          |               | ø20 mm, 10 mm lead                |      |      |      | —    |      |      |      |      |
| Guide                            |                          |                          |               | High rigidity direct acting guide |      |      |      |      |      |      |      |      |
| 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 pages 458 and 459.

## Dimensions/LJ1H30□3 (X70)

 Dimensions inside ( ) are for the model with brake.

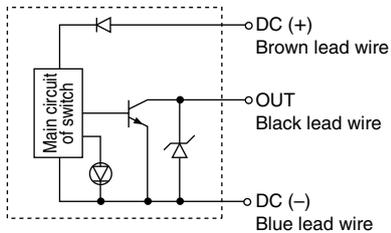


\*1 The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 666 for mounting.

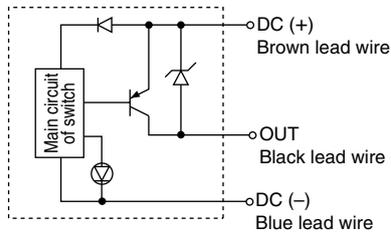
\*2 Dimension only when compatible with LC1/LC8 controller.

## Switch Internal Circuit

D-Y7GL



D-Y7HL

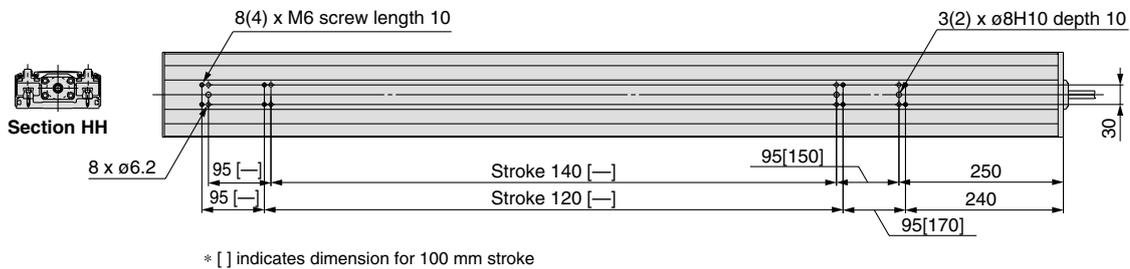
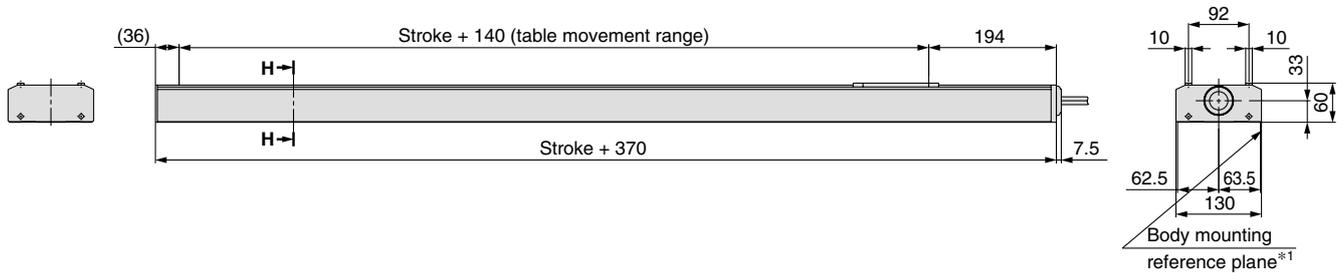
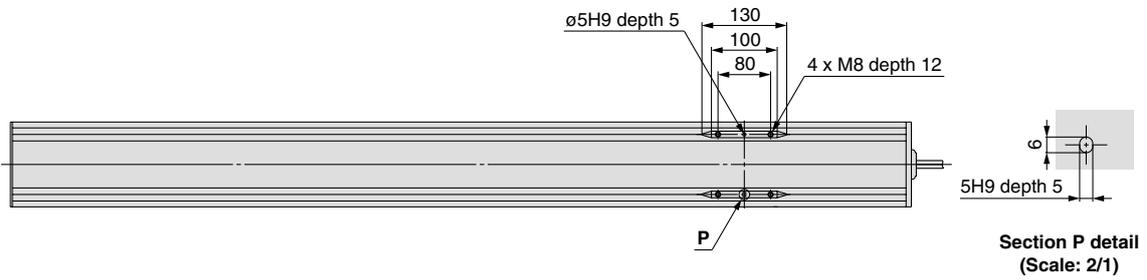


- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY



# Series LG1H21

## Dimensions



\* The body mounting reference side should be used as a guide.

# High Rigidity Direct Acting Guide Type/Motor Output: 50 W

## Series LJ1H10

# Made to Order Specifications:



### TSUBAKI CABLEVEYOR® Specification

TSUBAKI CABLEVEYOR® is a registered trademark of Tsubakimoto Chain Co.

### How to Order

#### LC1 controller compatible/Non-standard motor specification

**Horizontal Mount Specification** **LJ1H10 11 P B - 300 - F 2 - X40 L**

**Lead screw type**  
Refer to Table (1) below.

|   |                   |
|---|-------------------|
| P | Ground ball screw |
| N | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|   |       |
|---|-------|
| B | 12 mm |
|---|-------|

**Stroke (mm)**  
Refer to Table (1) below.

**Cable entry direction**

|   |        |
|---|--------|
| F | Axial  |
| R | Right  |
| L | Left   |
| T | Top    |
| B | Bottom |

**TSUBAKI CABLEVEYOR® entry direction**

|   |       |
|---|-------|
| L | Left  |
| R | Right |

**TSUBAKI CABLEVEYOR® Specification**

**Standard motor cable length**

|   |     |
|---|-----|
| 2 | 2 m |
| 3 | 3 m |
| 4 | 4 m |
| 5 | 5 m |

**Non-standard motor switch**

|     |                                 |
|-----|---------------------------------|
| Nil | None                            |
| W   | N.C. (B contact) 2 pcs.: D-Y7GL |

**Motor specification**

| Symbol | Motor manufacturer                | Brake                                       | Motor output | Power supply voltage | Motor model    | Controller driver model*3 |
|--------|-----------------------------------|---|--------------|----------------------|----------------|---------------------------|
| 11     | SMC controller                    | Without brake<br>(Horizontal specification) | 50 W         | 100/110 VAC          | Standard motor | LC1-1B1□1-□□              |
| 12     | Series LC1 compatible             |   |              | 200/220 VAC          |                | LC1-1B1□2-□□              |
| R11    | Mitsubishi Electric Corporation*2 | Without brake<br>(Horizontal specification) | 50 W         | 100/115 VAC          | HC-PQ053       | MR-C10A1                  |
| R12    |                                   |   |              | 200/230 VAC          |                | MR-C10A                   |
| R10    |                                   | —   | —            | —                    | —              | —                         |
| R20*1  |                                   | —   | —            | —                    | —              | —                         |

\*1 Without motor/driver. Refer to page 1058 for motor mounting dimensions.  
 \*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation. Cable for joining motor and driver is optional. Refer to page 659 for part nos. Please contact individual motor manufacturers regarding motor/driver specifications or other details.  
 \*3 Order LC1 controller separately.

#### LC8 controller compatible

**Horizontal Mount Specification** **LJ1H10 811 P B - 300 - F 2 - X40 L - □**

**Lead screw type**  
Refer to Table (1) below.

|   |                   |
|---|-------------------|
| P | Ground ball screw |
| N | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|   |       |
|---|-------|
| B | 12 mm |
|---|-------|

**Stroke (mm)**  
Refer to Table (1) below.

**Cable entry direction**

|   |        |
|---|--------|
| F | Axial  |
| R | Right  |
| L | Left   |
| T | Top    |
| B | Bottom |

**TSUBAKI CABLEVEYOR® entry direction**

|   |       |
|---|-------|
| L | Left  |
| R | Right |

**TSUBAKI CABLEVEYOR® Specification**

**Standard motor cable length**

|   |     |
|---|-----|
| 2 | 2 m |
| 3 | 3 m |
| 4 | 4 m |
| 5 | 5 m |

**CE marking**

|     |                   |
|-----|-------------------|
| Nil | —                 |
| Q   | CE marked product |

**Power supply voltage**

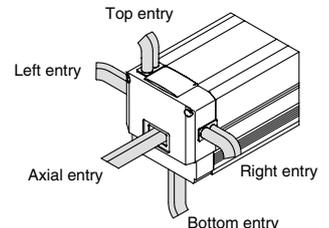
| Symbol | Motor                 | Brake                                       | Motor output | Power supply voltage | Controller driver model* |
|--------|-----------------------|---|--------------|----------------------|--------------------------|
| 811    | SMC controller        | Without brake<br>(Horizontal specification) | 50 W         | 100/115 VAC          | LC8-B1H1□-□□-□           |
| 812    | Series LC8 compatible |   |              | 200/230 VAC          | LC8-B1H2□-□□-□           |

\* Order LC8 controller separately.

Table (1) Lead screw/Lead/Stroke combinations

| Model                     | Stroke (mm) |     |     |     |     |
|---------------------------|-------------|-----|-----|-----|-----|
|                           | 100         | 200 | 300 | 400 | 500 |
| LJ1H10□1□PB-Stroke□□-X40□ | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□1□NB-Stroke□□-X40□ | ●           | ●   | ●   | ●   | ●   |

Combinations other than the above cannot be manufactured.



- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

# High Rigidity Direct Acting Guide Type/Motor Output: 50 W Series LJ1H10 Made to Order Specifications:



## TSUBAKI CABLEVEYOR® Specification

TSUBAKI CABLEVEYOR® is a registered trademark of Tsubakimoto Chain Co.

### How to Order

#### Non-standard motor specification

Horizontal Mount Specification

**LJ1H10 R11 P B - 300 - F H - X40 L - Q**

Lead screw type  
Refer to Table (1) below.

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

Stroke (mm)  
Refer to Table (1) below.

Cable entry direction

|          |        |
|----------|--------|
| <b>F</b> | Axial  |
| <b>R</b> | Right  |
| <b>L</b> | Left   |
| <b>T</b> | Top    |
| <b>B</b> | Bottom |

TSUBAKI CABLEVEYOR® entry direction

|          |       |
|----------|-------|
| <b>L</b> | Left  |
| <b>R</b> | Right |

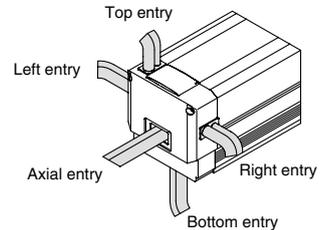
CE marking

TSUBAKI CABLEVEYOR® Specification

Switch

|            |                                 |
|------------|---------------------------------|
| <b>Nil</b> | None                            |
| <b>H</b>   | N.C. (B contact) 2 pcs.: D-Y7HL |
| <b>W</b>   | N.C. (B contact) 2 pcs.: D-Y7GL |

Cable/TSUBAKI CABLEVEYOR® entry direction



#### Motor specification

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

\*1 Without motor/driver. Refer to page 1058 for motor mounting dimensions.

\*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.

Cable for joining motor and driver is optional.

Refer to page 659 for part nos.

Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Table (1) Lead screw/Lead/Stroke combinations

| Model                       | Stroke (mm) |     |     |     |     |
|-----------------------------|-------------|-----|-----|-----|-----|
|                             | 100         | 200 | 300 | 400 | 500 |
| LJ1H10□1□PB-Stroke□□-X40□-Q | ●           | ●   | ●   | ●   | ●   |
| LJ1H10□1□NB-Stroke□□-X40□-Q | ●           | ●   | ●   | ●   | ●   |

Combinations other than the above cannot be manufactured.

## Specifications

| Standard stroke (mm)             |                              |            | 100   | 200 | 300 | 400 | 500 |
|----------------------------------|------------------------------|------------|---|-----|-----|-----|-----|
| Weight (kg)                      | With motor (Standard)        | Ball screw | 6.0   | 6.9 | 7.9 | 8.7 | 9.6 |
|                                  | Without motor (Non-Standard) |            | 5.6   | 6.5 | 7.5 | 8.3 | 9.2 |
| Mounting orientation             |                              |            | Horizontal  |     |     |     |     |
| Operating temperature range (°C) |                              |            | 5 to 40 (No condensation)                           |     |     |     |     |
| Work load (kg)                   | Ball screw                   | 12 mm lead | 10  |     |     |     |     |
| Maximum speed (mm/s)             | Ball screw                   | 12 mm lead | 600   |     |     |     |     |
| Positioning repeatability (mm)   | Rolled ball screw            |            | ±0.05   |     |     |     |     |
|                                  | Ground ball screw            |            | ±0.02   |     |     |     |     |
| Motor output                     |                              |            | AC servomotor (50 W)                                |     |     |     |     |
| Lead screw                       | Rolled ball screw            |            | ø12 mm, 12 mm lead                                  |     |     |     |     |
|                                  | Ground ball screw            |            |   |     |     |     |     |
| Guide                            |                              |            | High rigidity direct acting guide                   |     |     |     |     |
| 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 pages 458 and 459.

LJ1

LG1

LTF

LC1

LC7

LC8

LXF

LXP

LXS

LC6□

LZ□

LC3F2

X□

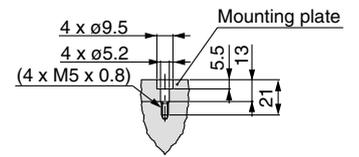
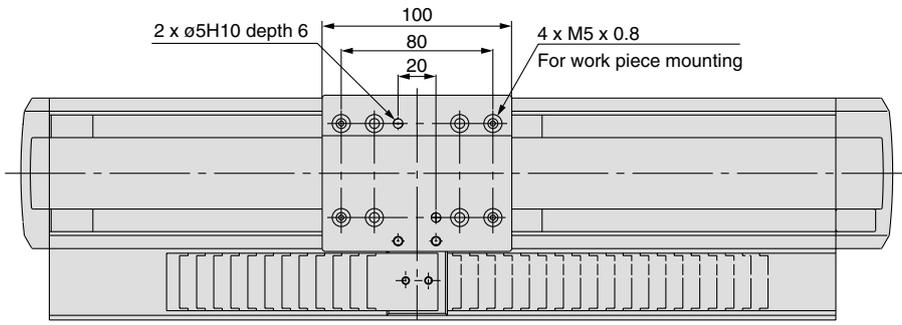
D-□

E-MY

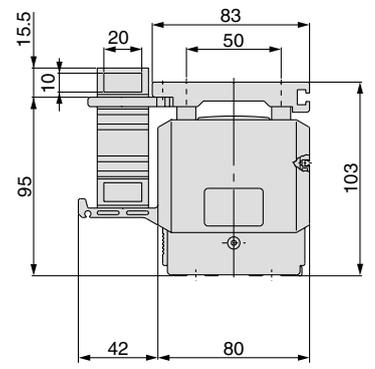
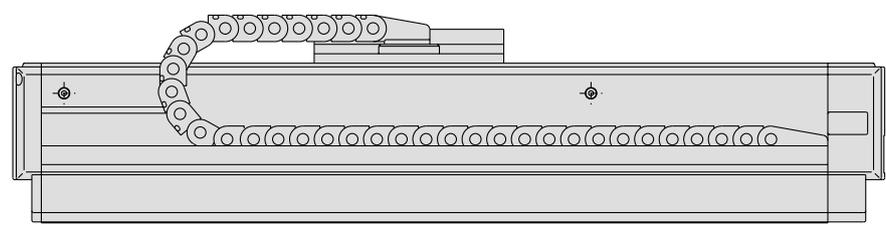
# Series LJ1H10

## Dimensions/LJ1H10□1 (X40)

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



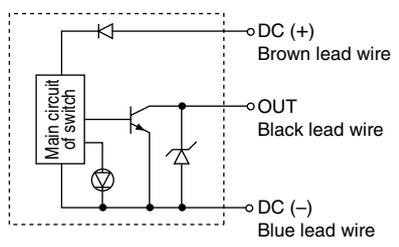
Work piece mounting dimensions



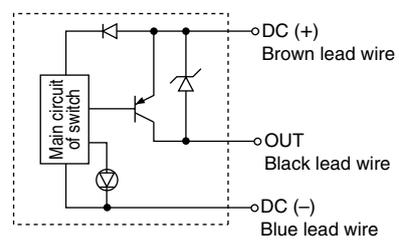
\* This drawing shows the TSUBAKI CABLEVEYOR® with left hand entry.

## Switch Internal Circuit

### D-Y7GL



### D-Y7HL



# High Rigidity Direct Acting Guide Type/Motor Output: 100 W

## Series LJ1H20

# Made to Order Specifications:



### TSUBAKI CABLEVEYOR® Specification

TSUBAKI CABLEVEYOR® is a registered trademark of Tsubakimoto Chain Co.

### How to Order

#### LC1 controller compatible/Non-standard motor specification

**Horizontal Mount Specification** **LJ1H20 21 P A - 300 - F 2 - X40 L**

**Lead screw type**  
Refer to Table (1) below.

|   |                   |
|---|-------------------|
| P | Ground ball screw |
| N | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|   |       |
|---|-------|
| A | 10 mm |
| C | 20 mm |

**Stroke (mm)**  
Refer to Table (1) below.

**Cable entry direction**

|   |        |
|---|--------|
| F | Axial  |
| R | Right  |
| L | Left   |
| T | Top    |
| B | Bottom |

**TSUBAKI CABLEVEYOR® entry direction**

|   |       |
|---|-------|
| L | Left  |
| R | Right |

**TSUBAKI CABLEVEYOR® Specification**

**Standard motor cable length**

|   |     |
|---|-----|
| 2 | 2 m |
| 3 | 3 m |
| 4 | 4 m |
| 5 | 5 m |

**Non-standard motor switch**

|     |                                 |
|-----|---------------------------------|
| Nil | None                            |
| W   | N.C. (B contact) 2 pcs.: D-Y7GL |

**Motor specification**

| Symbol | Motor manufacturer                   | Brake                                    | Motor output | Power supply voltage | Motor model    | Controller driver model*3 |
|--------|--------------------------------------|--|--------------|----------------------|----------------|---------------------------|
| 21     | SMC controller Series LC1 compatible | Without brake (Horizontal specification) | 100 W        | 100/110 VAC          | Standard motor | LC1-1B2□1-□□              |
| 22     |                                      |  |              | 200/220 VAC          |                | LC1-1B2□2-□□              |
| R21    | Mitsubishi Electric Corporation*2    | Without brake (Horizontal specification) | 100 W        | 100/115 VAC          | HC-PQ13        | MR-C10A1                  |
| R22    |                                      |  |              | 200/230 VAC          |                | MR-C10A                   |
| R20*1  |                                      |  |              | —                    |                | —                         |

\*1 Without motor/driver. Refer to page 1058 for motor mounting dimensions.  
 \*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation. Cable for joining motor and driver is optional. Refer to page 659 for part nos. Please contact individual motor manufacturers regarding motor/driver specifications or other details.  
 \*3 Order LC1 controller separately.

#### LC8 controller compatible

**Horizontal Mount Specification** **LJ1H20 821 P A - 300 - F 2 - X40 L - Q**

**Lead screw type**  
Refer to Table (1) below.

|   |                   |
|---|-------------------|
| P | Ground ball screw |
| N | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|   |       |
|---|-------|
| A | 10 mm |
| C | 20 mm |

**Stroke (mm)**  
Refer to Table (1) below.

**Cable entry direction**

|   |        |
|---|--------|
| F | Axial  |
| R | Right  |
| L | Left   |
| T | Top    |
| B | Bottom |

**TSUBAKI CABLEVEYOR® entry direction**

|   |       |
|---|-------|
| L | Left  |
| R | Right |

**TSUBAKI CABLEVEYOR® Specification**

**Standard motor cable length**

|   |     |
|---|-----|
| 2 | 2 m |
| 3 | 3 m |
| 4 | 4 m |
| 5 | 5 m |

**CE marking**

|     |                   |
|-----|-------------------|
| Nil | —                 |
| Q   | CE marked product |

**Power supply voltage**

| Symbol | Motor                                | Brake                                    | Motor output | Power supply voltage | Controller driver model* |
|--------|--------------------------------------|--|--------------|----------------------|--------------------------|
| 821    | SMC controller Series LC8 compatible | Without brake (Horizontal specification) | 100 W        | 100/115 VAC          | LC8-B2H1□-□□-□           |
| 822    |                                      |  |              | 200/230 VAC          | LC8-B2H2□-□□-□           |

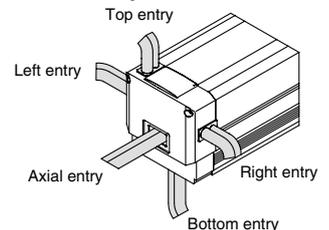
\* Order LC8 controller separately.

Table (1) Lead screw/Lead/Stroke combinations

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

Combinations other than the above cannot be manufactured.

#### Cable/TSUBAKI CABLEVEYOR® entry direction



- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY



# High Rigidity Direct Acting Guide Type/Motor Output: 100 W Series LJ1H20 Made to Order Specifications:



## TSUBAKI CABLEVEYOR® Specification

TSUBAKI CABLEVEYOR® is a registered trademark of Tsubakimoto Chain Co.

### How to Order

#### Non-standard motor specification

Horizontal Mount Specification

**LJ1H20 R21 P A - 300 - F H - X40 L - Q**

**Lead screw type**  
Refer to Table (1) below.

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|          |       |
|----------|-------|
| <b>A</b> | 10 mm |
| <b>C</b> | 20 mm |

**Stroke (mm)**  
Refer to Table (1) below.

**Cable entry direction**

|          |        |
|----------|--------|
| <b>F</b> | Axial  |
| <b>R</b> | Right  |
| <b>L</b> | Left   |
| <b>T</b> | Top    |
| <b>B</b> | Bottom |

**TSUBAKI CABLEVEYOR® entry direction**

|          |       |
|----------|-------|
| <b>L</b> | Left  |
| <b>R</b> | Right |

CE marking

**TSUBAKI CABLEVEYOR® Specification**

**Switch**

|            |                                 |
|------------|---------------------------------|
| <b>Nil</b> | None                            |
| <b>H</b>   | N.C. (B contact) 2 pcs.: D-Y7HL |
| <b>W</b>   | N.C. (B contact) 2 pcs.: D-Y7GL |

#### Motor specification

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

\*1 Without motor/driver. Refer to page 1058 for motor mounting dimensions.

\*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.

Cable for joining motor and driver is optional.

Refer to page 659 for part nos.

Please contact individual motor manufacturers regarding motor/driver specifications or other details.

#### Cable/TSUBAKI CABLEVEYOR® entry direction

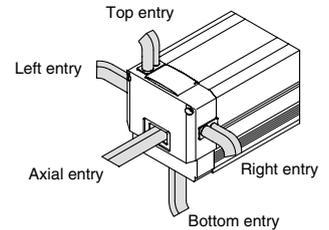


Table (1) Lead screw/Lead/Stroke combinations

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

Combinations other than the above cannot be manufactured.

**Specifications**

| Standard stroke (mm)             |                              |            | 100   | 200 | 300  | 400                | 500  | 600  | 700  | 800  | 900  | 1000 |
|----------------------------------|------------------------------|------------|---|-----|------|--------------------|------|------|------|------|------|------|
| 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 |
|                                  | Without motor (Non-Standard) |            | 8.2   | 9.4 | 10.6 | 11.8               | 13.0 | 14.2 | 15.4 | 16.6 | 17.8 | 19.0 |
| Mounting orientation             |                              |            | Horizontal  |     |      |                    |      |      |      |      |      |      |
| Operating temperature range (°C) |                              |            | 5 to 40 (No condensation)                           |     |      |                    |      |      |      |      |      |      |
| Work load (kg)                   | Ball screw                   | 10 mm lead | 30  |     |      |                    |      |      | —    |      |      |      |
|                                  |                              | 20 mm lead | —   |     |      | 15                 |      |      |      |      |      |      |
| Maximum speed (mm/s)             | Ball screw                   | 10 mm lead | 500   |     |      |                    |      |      | —    |      |      |      |
|                                  |                              | 20 mm lead | —   |     |      | 1000               |      | 930  | 740  | 600  | 500  |      |
| Positioning repeatability (mm)   | Rolled ball screw            |            | ±0.05   |     |      |                    |      |      |      |      |      |      |
|                                  | Ground ball screw            |            | ±0.02   |     |      |                    |      |      |      |      |      |      |
| Motor output                     |                              |            | AC servomotor (100 W)                               |     |      |                    |      |      |      |      |      |      |
| Lead screw                       | Rolled ball screw            |            | ø15 mm, 10 mm lead                                  |     |      |                    |      |      | —    |      |      |      |
|                                  | Ground ball screw            |            | —   |     |      | ø15 mm, 20 mm lead |      |      |      |      |      |      |
| Guide                            |                              |            | High rigidity direct acting guide                   |     |      |                    |      |      |      |      |      |      |
| TSUBAKI CABLEVEYOR®              |                              |            | TKP0130-2BR28 manufactured by TSUBAKIMOTO CHAIN CO. |     |      |                    |      |      |      |      |      |      |
| Side cover                       |                              |            | Cover with switch groove                            |     |      |                    |      |      |      |      |      |      |

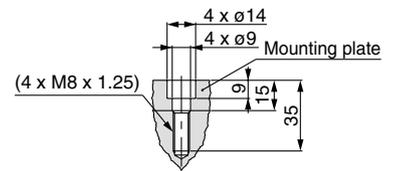
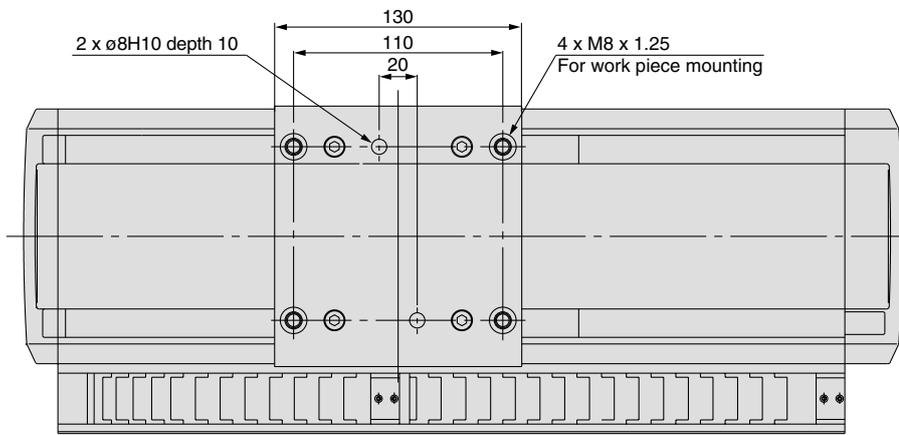
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on pages 458 and 459.

- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

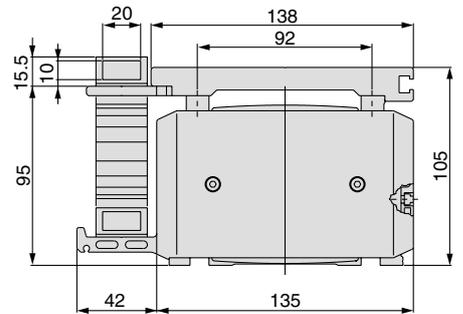
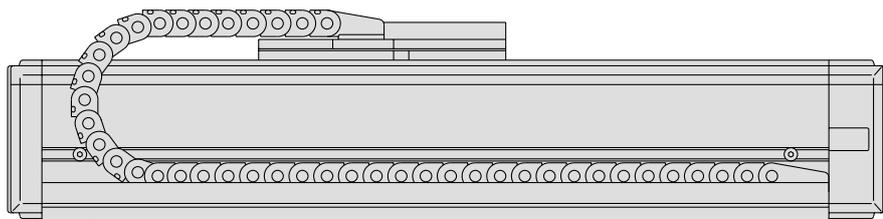
# Series LJ1H20

## Dimensions/LJ1H20□2 (X40)

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



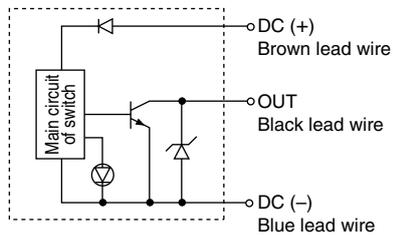
Work piece mounting dimensions



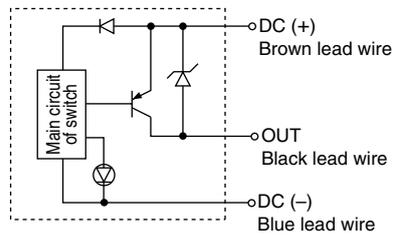
\* This drawing shows the TSUBAKI CABLEVEYOR® with left hand entry.

## Switch Internal Circuit

D-Y7GL



D-Y7HL



# High Rigidity Direct Acting Guide Type/Motor Output: 200 W

## Series LJ1H30

# Made to Order Specifications:



### TSUBAKI CABLEVEYOR® Specification

TSUBAKI CABLEVEYOR® is a registered trademark of Tsubakimoto Chain Co.

### How to Order

#### LC1 controller compatible/Non-standard motor specification

**Horizontal Mount Specification** **LJ1H30 31 P D - 300 - F 2 - X40 L**

**Lead screw type**  
Refer to Table (1) below.

|   |                   |
|---|-------------------|
| P | Ground ball screw |
| N | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|   |       |
|---|-------|
| D | 25 mm |
|---|-------|

**Stroke (mm)**  
Refer to Table (1) below.

**Cable entry direction**

|   |        |
|---|--------|
| F | Axial  |
| R | Right  |
| L | Left   |
| T | Top    |
| B | Bottom |

**TSUBAKI CABLEVEYOR® entry direction**

|   |       |
|---|-------|
| L | Left  |
| R | Right |

**TSUBAKI CABLEVEYOR® Specification**

**Standard motor cable length**

|   |     |
|---|-----|
| 2 | 2 m |
| 3 | 3 m |
| 4 | 4 m |
| 5 | 5 m |

**Non-standard motor switch**

|     |                                 |
|-----|---------------------------------|
| Nil | None                            |
| W   | N.C. (B contact) 2 pcs.: D-Y7GL |

**Motor specification**

| Symbol | Motor manufacturer                      | Brake                                       | Motor output | Power supply voltage | Motor model    | Controller driver model*3 |
|--------|---|---|--------------|----------------------|----------------|---------------------------|
| 31     | SMC controller<br>Series LC1 compatible | Without brake<br>(Horizontal specification) | 200 W        | 100/110 VAC          | Standard motor | LC1-1B3□1-□□              |
| 32     |   |   |              | 200 VAC              |                | LC1-1B3□2-□□              |
| R31    | Mitsubishi Electric<br>Corporation*2    | Without brake<br>(Horizontal specification) | 200 W        | 100/115 VAC          | HC-PQ23        | MR-C20A1                  |
| R32    |   |   |              | 200/230 VAC          |                | MR-C20A                   |
| R30*1  |   |   |              | —                    | —              | —                         |

\*1 Without motor/driver. Refer to page 1058 for motor mounting dimensions.  
 \*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.  
 Cable for joining motor and driver is optional.  
 Refer to page 659 for part nos.  
 Please contact individual motor manufacturers regarding motor/driver specifications or other details.  
 \*3 Order LC1 controller separately.

#### LC8 controller compatible

**Horizontal Mount Specification** **LJ1H30 831 P D - 300 - F 2 - X40 L - □**

**Lead screw type**  
Refer to Table (1) below.

|   |                   |
|---|-------------------|
| P | Ground ball screw |
| N | Rolled ball screw |

**Lead screw lead**  
Refer to Table (1) below.

|   |       |
|---|-------|
| D | 25 mm |
|---|-------|

**Stroke (mm)**  
Refer to Table (1) below.

**Cable entry direction**

|   |        |
|---|--------|
| F | Axial  |
| R | Right  |
| L | Left   |
| T | Top    |
| B | Bottom |

**TSUBAKI CABLEVEYOR® entry direction**

|   |       |
|---|-------|
| L | Left  |
| R | Right |

**TSUBAKI CABLEVEYOR® Specification**

**Standard motor cable length**

|   |     |
|---|-----|
| 2 | 2 m |
| 3 | 3 m |
| 4 | 4 m |
| 5 | 5 m |

**CE marking**

|     |                   |
|-----|-------------------|
| Nil | —                 |
| Q   | CE marked product |

**Power supply voltage**

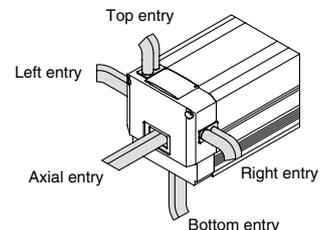
| Symbol | Motor                                   | Brake                                       | Motor output | Power supply voltage | Controller driver model* |
|--------|---|---|--------------|----------------------|--------------------------|
| 831    | SMC controller<br>Series LC8 compatible | Without brake<br>(Horizontal specification) | 200 W        | 100/115 VAC          | LC8-B3H1□-□□-□           |
| 832    |   |   |              | 200/230 VAC          | LC8-B3H2□-□□-□           |

\* Order LC8 controller separately.

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□-□ | ●           | ●   | ●   | ●   | ●   | ●   | ●    | ●    | ●    |

Combinations other than the above cannot be manufactured.



- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY



# High Rigidity Direct Acting Guide Type/Motor Output: 200 W Series LJ1H30 Made to Order Specifications:



## TSUBAKI CABLEVEYOR® Specification

TSUBAKI CABLEVEYOR® is a registered trademark of Tsubakimoto Chain Co.

### How to Order

#### Non-standard motor specification

Horizontal Mount Specification

**LJ1H30 R31 P D - 300 - F H - X40 L - Q**

**Lead screw type**  
Refer to Table (1) below.

|          |                   |
|----------|-------------------|
| <b>P</b> | Ground ball screw |
| <b>N</b> | Rolled ball screw |

**Stroke (mm)**  
Refer to Table (1) below.

**Cable entry direction**

|          |        |
|----------|--------|
| <b>F</b> | Axial  |
| <b>R</b> | Right  |
| <b>L</b> | Left   |
| <b>T</b> | Top    |
| <b>B</b> | Bottom |

**Lead screw lead**  
Refer to Table (1) below.

|          |       |
|----------|-------|
| <b>D</b> | 25 mm |
|----------|-------|

**TSUBAKI CABLEVEYOR® entry direction**

|          |       |
|----------|-------|
| <b>L</b> | Left  |
| <b>R</b> | Right |

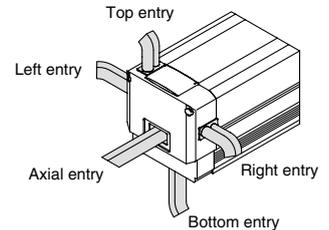
CE marking

**TSUBAKI CABLEVEYOR® Specification**

**Switch**

|            |                                 |
|------------|---------------------------------|
| <b>Nil</b> | None                            |
| <b>H</b>   | N.C. (B contact) 2 pcs.: D-Y7HL |
| <b>W</b>   | N.C. (B contact) 2 pcs.: D-Y7GL |

**Cable/TSUBAKI CABLEVEYOR® entry direction**



#### Motor specification

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

\*1 Without motor/driver. Refer to page 1058 for motor mounting dimensions.

\*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.

Cable for joining motor and driver is optional.

Refer to page 659 for part nos.

Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Table (1) Lead screw/Lead/Stroke combinations

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

Combinations other than the above cannot be manufactured.

**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 |  |
|                                  | Without motor (Non-Standard) |            | 16.4  | 18.6 | 20.8 | 23.0 | 25.1 | 30.0 | 34.9 | 39.2 | 45.8 |  |
| Mounting orientation             |                              |            | Horizontal  |      |      |      |      |      |      |      |      |  |
| Operating temperature range (°C) |                              |            | 5 to 40 (No condensation)                           |      |      |      |      |      |      |      |      |  |
| Work load (kg)                   | Ball screw                   | 25 mm lead | 60  |      |      |      |      |      |      |      |      |  |
| Maximum speed (mm/s)             | Ball screw                   | 25 mm lead | 1000  |      |      |      |      |      | 700  | 500  |      |  |
| Positioning repeatability (mm)   | Rolled ball screw            |            | ±0.05   |      |      |      |      |      |      |      |      |  |
|                                  | Ground ball screw            |            | ±0.02   |      |      |      |      |      |      |      |      |  |
| Motor output                     |                              |            | AC servomotor (200 W)                               |      |      |      |      |      |      |      |      |  |
| Lead screw                       | Rolled ball screw            |            | ø25 mm, 25 mm lead                                  |      |      |      |      |      |      |      |      |  |
|                                  | Ground ball screw            |            |   |      |      |      |      |      |      |      |      |  |
| Guide                            |                              |            | High rigidity direct acting guide                   |      |      |      |      |      |      |      |      |  |
| TSUBAKI CABLEVEYOR®              |                              |            | TKP0180-2BR28 manufactured by TSUBAKIMOTO CHAIN CO. |      |      |      |      |      |      |      |      |  |
| Side cover                       |                              |            | Cover with switch groove                            |      |      |      |      |      |      |      |      |  |

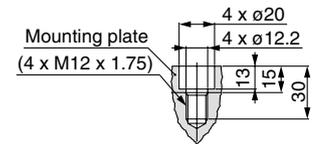
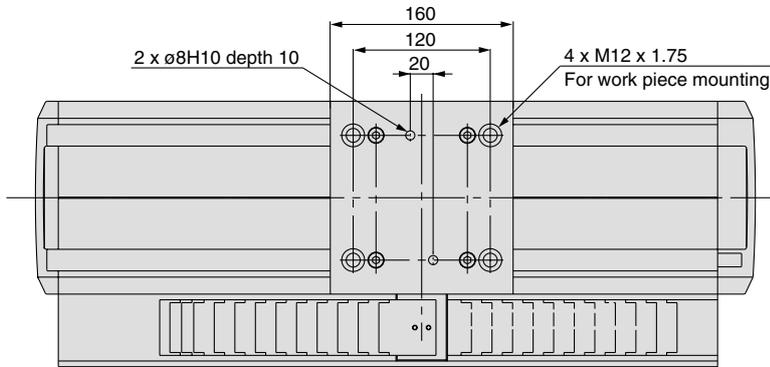
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on pages 458 and 459.

- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

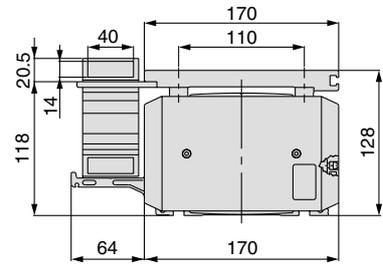
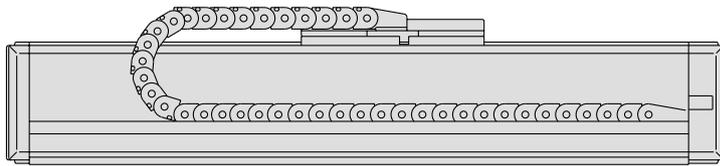
# Series LJ1H30

## Dimensions/LJ1H30□3 (X40)

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



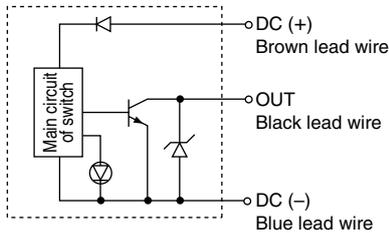
Work piece mounting dimensions



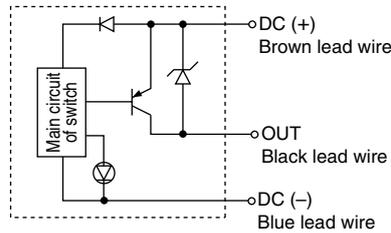
\* This drawing shows the TSUBAKI CABLEVEYOR® with left hand entry.

## Switch Internal Circuit

D-Y7GL



D-Y7HL



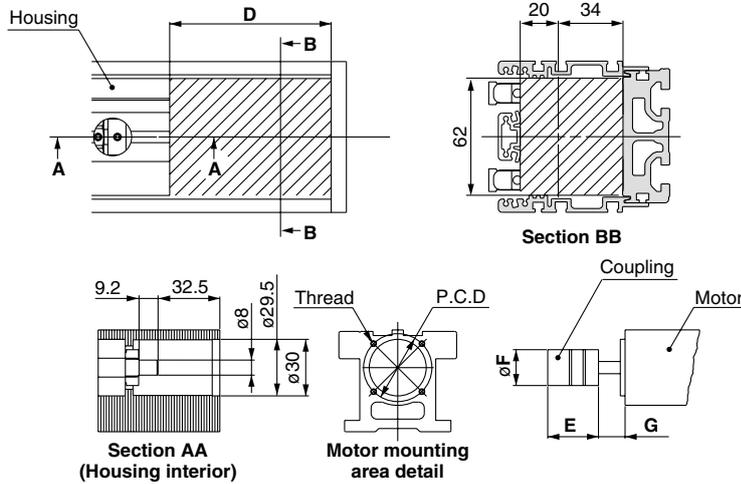


# Series LJ1H

# Non-standard Motor Mounting Dimensions 2

## Clean Room Specification/Dust Seal Specification

### Series LJ1H10



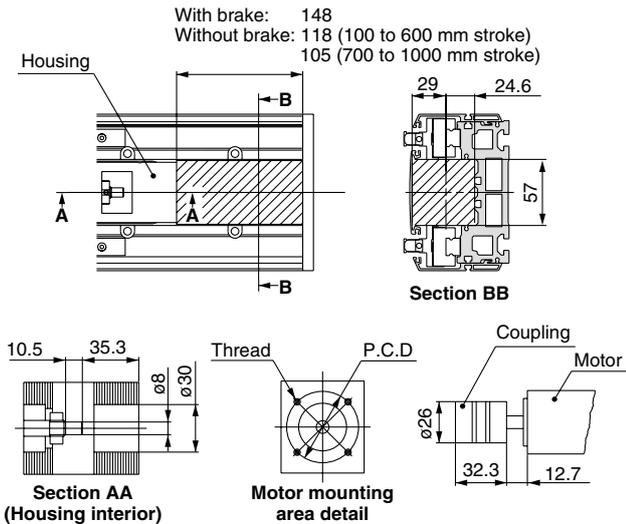
### Motor mounting area dimensions

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

### Dimensions

|                    | D   | E    | F  | G   |
|--------------------|-----|------|----|-----|
| With brake (mm)    | 163 | 32.3 | 26 | 8.5 |
| Without brake (mm) | 108 | 26.7 | 19 | 14  |

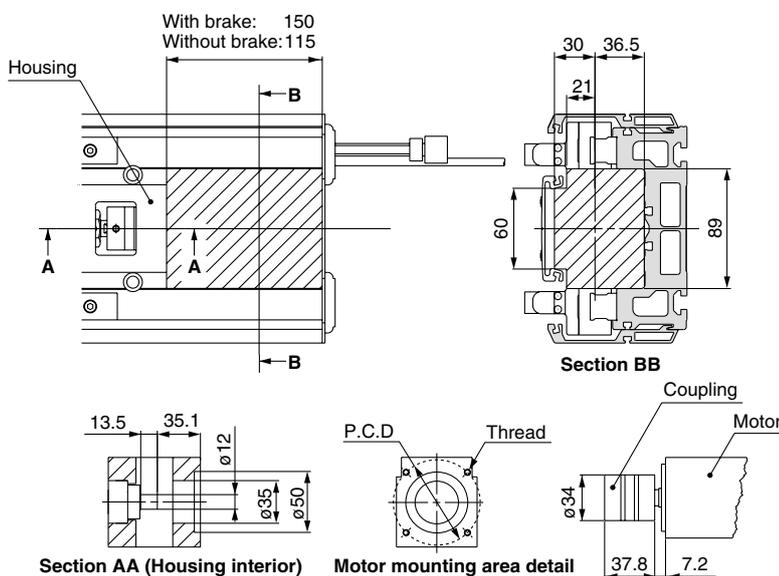
### Series LJ1H20



### Motor mounting area dimensions

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

### Series LJ1H30



### Motor mounting area dimensions

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

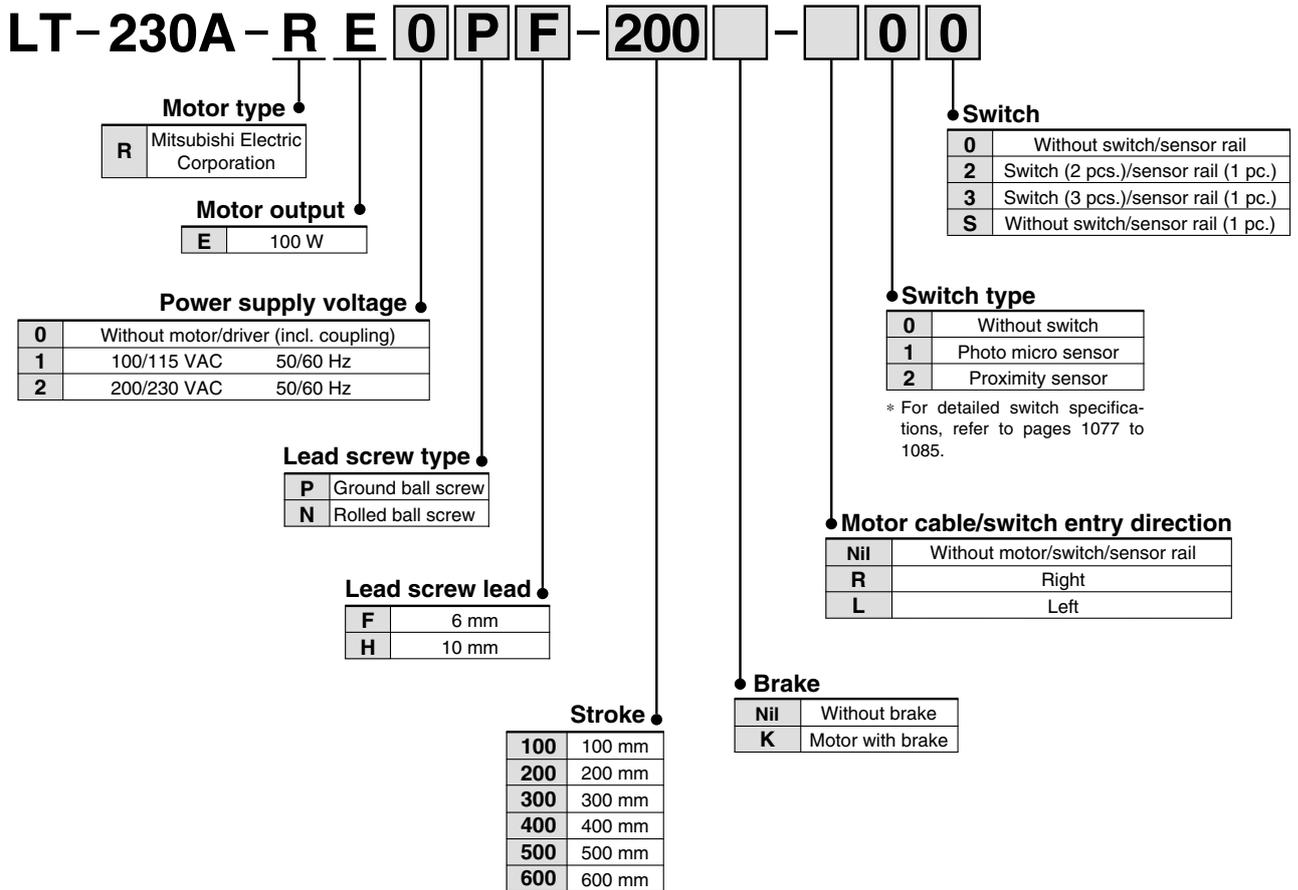
- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY



For details regarding dimensions/specifications and lead times, please consult with SMC.

## LTF6 With cover specification

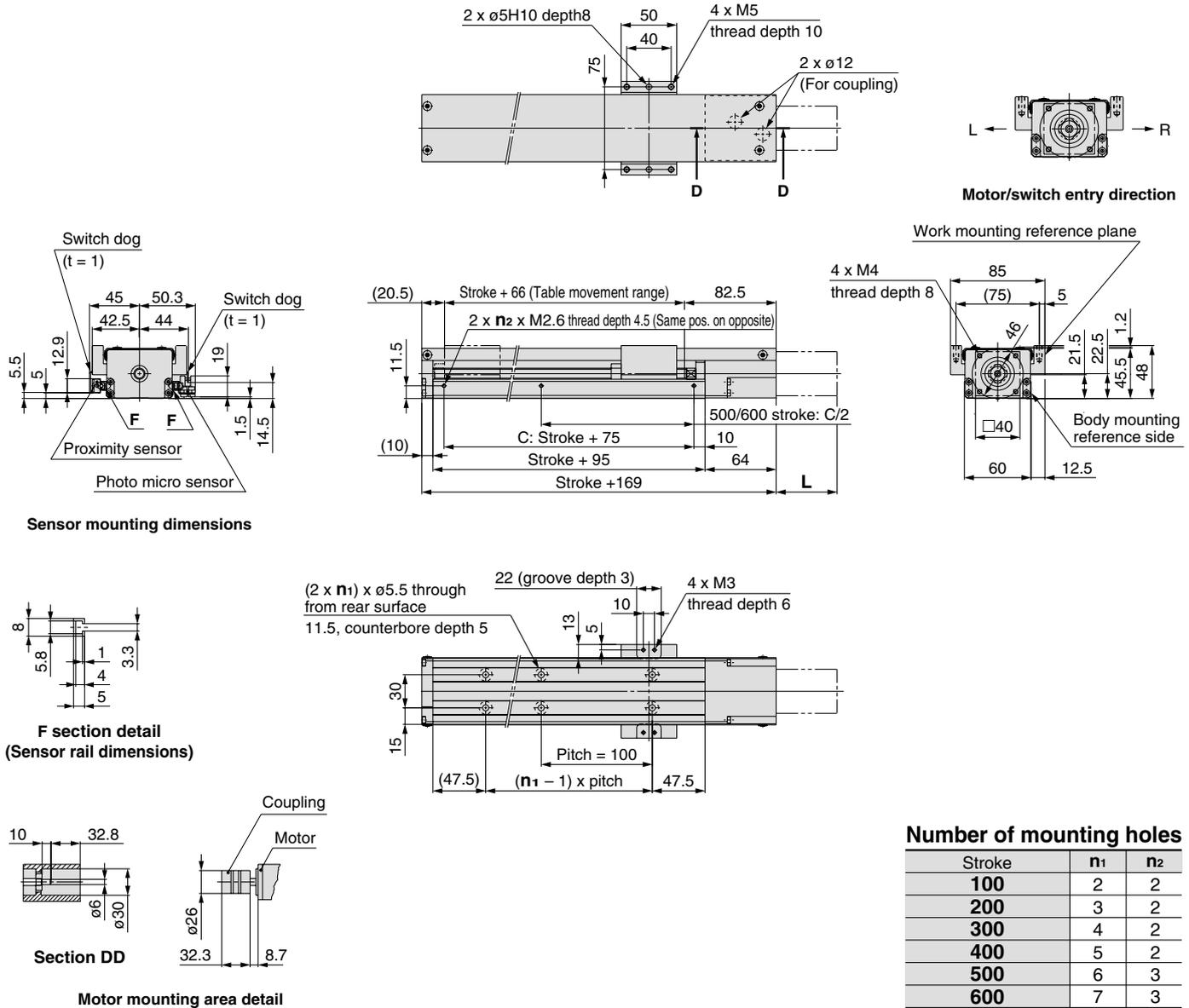
### How to Order



### Specifications

|                                  |   |                           |     |
|----------------------------------|---|---------------------------|-----|
| Model                            |   | LT-230A-RE□□□-□□-□□□□     |     |
| Stroke (mm)                      |   | 100 to 500                | 600 |
| Mounting orientation             |   | Horizontal/Vertical       |     |
| Operating temperature range (°C) |   | 5 to 40 (No condensation) |     |
| Maximum work load (kg)           | Horizontal specification  | 6 mm lead                 | 30  |
|                                  |   | 10 mm lead                | 15  |
|                                  | Vertical specification  | 6 mm lead                 | 6   |
|                                  |   | 10 mm lead                | 3   |
| Maximum speed (mm/s)             | 6 mm lead   | 300                       | 230 |
|                                  | 10 mm lead  | 500                       | 390 |
| Positioning repeatability (mm)   | Rolled  | ±0.05                     |     |
|                                  | Ground  | ±0.02                     |     |
| Lead screw                       | Rolled  | ø10 mm, 6 mm lead         |     |
|                                  | Ground  | ø10 mm, 10 mm lead        |     |
| Switch                           | Photo micro sensor EE-SX674 (OMRON)<br>Sensor cable EE-1010 (OMRON) Length: 2 m           |                           |     |
|                                  | Proximity sensor GXL-N12FT (SUNX) (A contact)<br>Sensor cable CN-13-C3 (SUNX) Length: 3 m |                           |     |

## Dimensions



- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

**Number of mounting holes**

| Stroke | $n_1$ | $n_2$ |
|--------|-------|-------|
| 100    | 2     | 2     |
| 200    | 3     | 2     |
| 300    | 4     | 2     |
| 400    | 5     | 2     |
| 500    | 6     | 3     |
| 600    | 7     | 3     |

## Applicable Motor List

| Motor manufacturer              | Motor output | Brake         | Power supply voltage | Motor model | Motor dimension | Compatible driver model |
|---------------------------------|--------------|---------------|----------------------|-------------|-----------------|-------------------------|
| Mitsubishi Electric Corporation | 100 W        | Without brake | 100/115 VAC          | HC-PQ13     | 86.5 mm         | MR-C10A1                |
|                                 |              |               | 200/230 VAC          |             |                 | MR-C10A                 |
|                                 |              | With brake    | 100/115 VAC          | HC-PQ13B    | 114.5 mm        | MR-C10A1                |
|                                 |              |               | 200/230 VAC          |             |                 | MR-C10A                 |

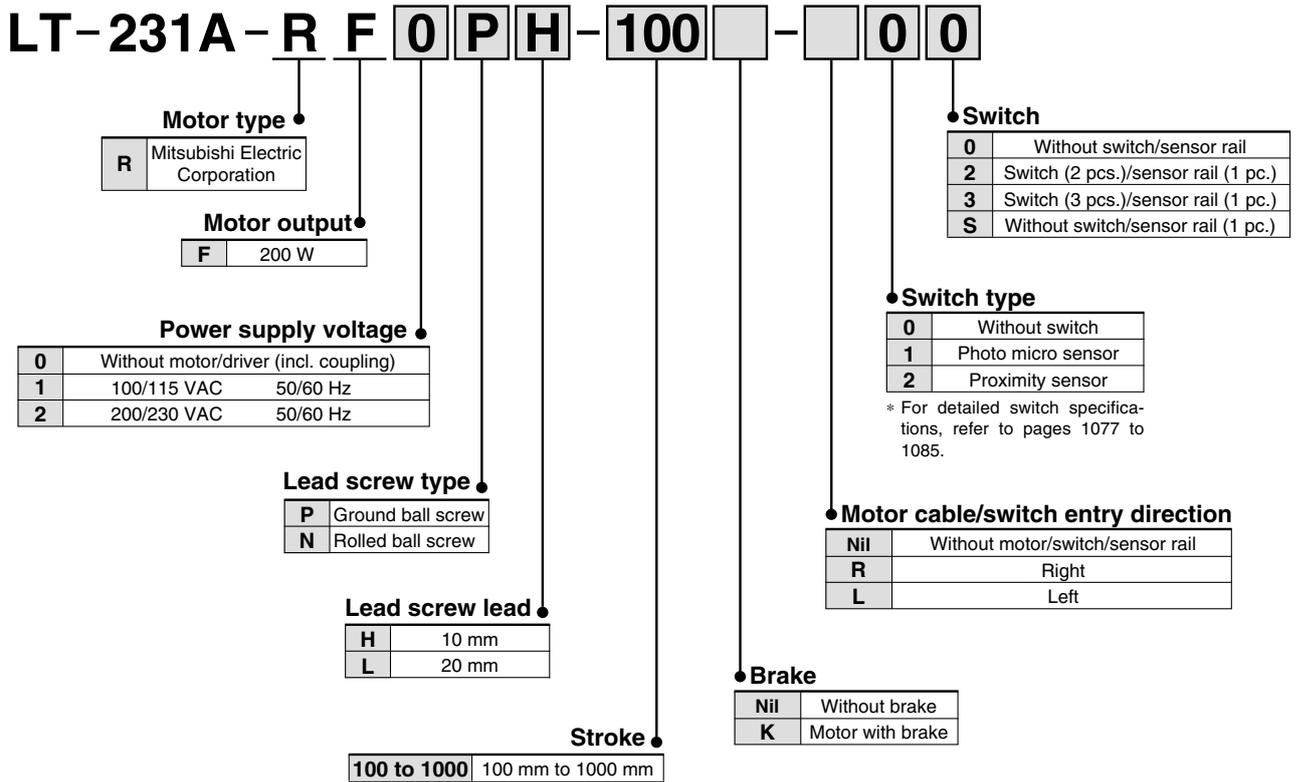
\* Cable for joining motor and driver is optional. Refer to page 659 for part nos.  
 A regenerative resistor may be required depending on operating conditions.  
 Maximum work load for vertical specifications is affected by regenerative capability. Be sure to give due consideration.  
 Please contact the motor manufacturers regarding motor/driver details.  
 The customer will need to perform gain adjustment.



For details regarding dimensions/specifications and lead times, please consult with SMC.

## LTF8 With cover specification

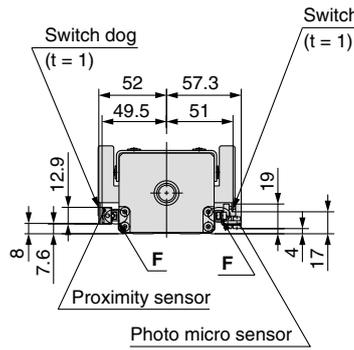
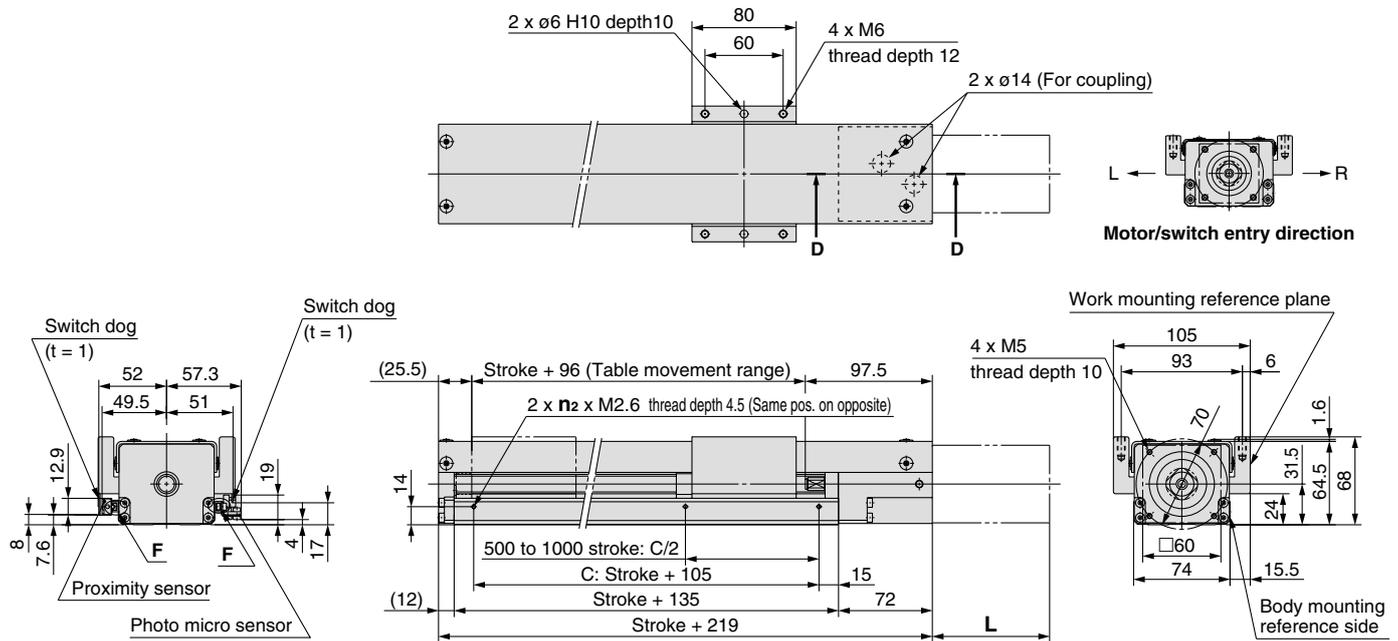
### How to Order



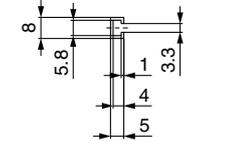
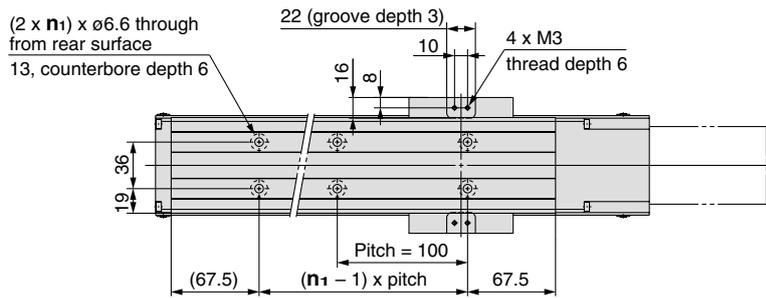
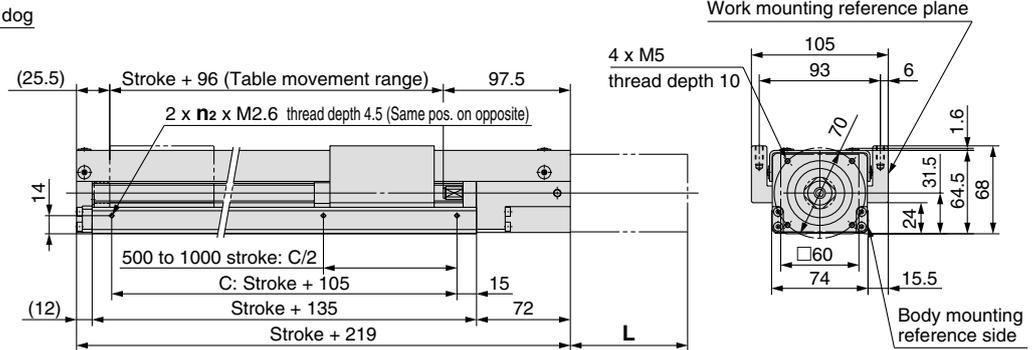
### Specifications

| Model                                   |   | LT-231A-RF□□□-□□-□□□      |     |     |     |      |
|---|---|---------------------------|-----|-----|-----|------|
| <b>Stroke (mm)</b>                      |   | 100 to 600                | 700 | 800 | 900 | 1000 |
| <b>Mounting orientation</b>             |   | Horizontal/Vertical       |     |     |     |      |
| <b>Operating temperature range (°C)</b> |   | 5 to 40 (No condensation) |     |     |     |      |
| <b>Maximum work load (kg)</b>           | Horizontal specification  | 10 mm lead                | 50  |     |     |      |
|   |   | 20 mm lead                | 25  |     |     |      |
|   | Vertical specification  | 10 mm lead                | 10  |     |     |      |
|   |   | 20 mm lead                | 5   |     |     |      |
| <b>Maximum speed (mm/s)</b>             | 10 mm lead  | 500                       | 440 | 350 | 290 | 240  |
|   | 20 mm lead  | 1000                      | 890 | 710 | 580 | 480  |
| <b>Positioning repeatability (mm)</b>   | Rolled  | ±0.05                     |     |     |     |      |
|   | Ground  | ±0.02                     |     |     |     |      |
| <b>Lead screw</b>                       | Rolled  | ø15mm, 10mm lead          |     |     |     |      |
|   | Ground  | ø15mm, 20mm lead          |     |     |     |      |
| <b>Switch</b>                           | Photo micro sensor EE-SX674 (OMRON)<br>Sensor cable EE-1010 (OMRON) Length: 2 m           |                           |     |     |     |      |
|   | Proximity sensor GXL-N12FT (SUNX) (A contact)<br>Sensor cable CN-13-C3 (SUNX) Length: 3 m |                           |     |     |     |      |

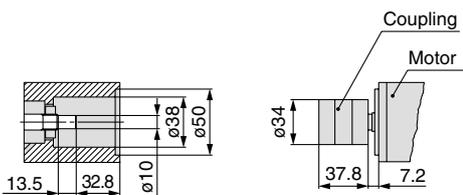
## Dimensions



Sensor mounting dimensions



F section detail (Sensor rail dimensions)



Section DD Motor mounting area detail

### Number of mounting holes

| Stroke | n <sub>1</sub> | n <sub>2</sub> |
|--------|----------------|----------------|
| 100    | 2              | 2              |
| 200    | 3              | 2              |
| 300    | 4              | 2              |
| 400    | 5              | 2              |
| 500    | 6              | 3              |
| 600    | 7              | 3              |
| 700    | 8              | 3              |
| 800    | 9              | 3              |
| 900    | 10             | 3              |
| 1000   | 11             | 3              |

## Applicable Motor List

| Motor manufacturer              | Motor output | Brake         | Power supply voltage | Motor model | Motor dimension | Compatible driver model |
|---------------------------------|--------------|---------------|----------------------|-------------|-----------------|-------------------------|
| Mitsubishi Electric Corporation | 200 W        | Without brake | 100/115 VAC          | HC-PQ23     | 89 mm           | MR-C20A1                |
|                                 |              |               | 200/230 VAC          |             |                 | MR-C20A                 |
|                                 |              | With brake    | 100/115 VAC          | HC-PQ23B    | 121 mm          | MR-C20A1                |
|                                 |              |               | 200/230 VAC          |             |                 | MR-C20A                 |

\* Cable for joining motor and driver is optional. Refer to page 659 for part nos.  
 A regenerative resistor may be required depending on operating conditions.  
 Maximum work load for vertical specifications is affected by regenerative capability. Be sure to give due consideration.  
 Please contact the motor manufacturers regarding motor/driver details.  
 The customer will need to perform gain adjustment.

- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

# Low Profile Slide Table Type With Motor Brake/Without Motor Brake

## Series LXF

# Made to Order Specifications:



### AC Servomotor Specification

### How to Order

**LXFHABD-50- -GN1-X20**

**Actuator configuration**  
**F** Flat table type

**Guide type**  
**H** Direct acting guide

**Motor type**  
**A** AC servomotor

**Lead screw type**  
**B** Ball screw

**Lead screw lead**  
**C** 2 mm  
**D** 5 mm

**Stroke**  
**25** 25 mm  
**50** 50 mm  
**75** 75 mm  
**100** 100 mm

**Brake**  
**Nil** Without brake  
**B** With brake

**Home position switch**  
**Nil** None  
**S** Yes (cable length 0.3 m)

**Mitsubishi Electric Corporation AC servomotor specification**

**Number of proximity switches**

|   |        |
|---|--------|
| 1 | 1 pc.  |
| 2 | 2 pcs. |
| ⋮ | ⋮      |
| 6 | 6 pcs. |

**Proximity switch type**

| Symbol | Model                                      | Wiring/ Output type | Lead wire length (m) | Contact          |
|--------|--|---------------------|----------------------|------------------|
| GN     | With sensor rail, without proximity switch | —                   | —                    | —                |
| G      | GXL-8F                                     | 3 wire/NPN          | 1                    | N.O. (A contact) |
| GD     | GXL-8FI                                    | 3 wire/NPN          | 1                    | N.O. (A contact) |
| GB     | GXL-8FB                                    | 3 wire/NPN          | 1                    | N.C. (B contact) |
| GDB    | GXL-8FIB                                   | 3 wire/NPN          | 1                    | N.C. (B contact) |
| GU     | GXL-8FU                                    | 2 wire/solid state  | 1                    | N.O. (A contact) |
| GUB    | GXL-8FUB                                   | 2 wire/solid state  | 1                    | N.C. (B contact) |

\* Refer to page 1082 for detailed specifications of proximity switches.

### Specifications

|  |  |       |
|--|--|-------|
| <b>Motor</b>                                 | AC servomotor (30 w)   |       |
| <b>Lead screw (mm)</b>                       | Ball screw ø8 mm   |       |
| <b>Positioning repeatability (mm)</b>        | ±0.03  |       |
| <b>Lead (mm)</b>                             | 2  | 5     |
| <b>Maximum speed (mm/s)</b>                  | 40   | 100   |
| <b>Work load (kg)</b> <small>Note 1)</small> | <b>Horizontal</b>  | 3 (2) |
|  | <b>Vertical</b>  | 2     |
| <b>Guide type</b>                            | Direct acting guide  |       |
| <b>Operating temperature range (°C)</b>      | 5 to 40 (No condensation)  |       |
| <b>Home position switch</b>                  | Photo micro sensor EE-SX674<br>(Refer to page 1084 for details.) |       |

\* Please contact motor manufacturers for brake specifications.

Note 1) When mounting a work piece to the actuator's end plate, its mass should be within the value inside ( ).

### Mass

| Model       | Standard stroke (mm) |     |     |     | Additional mass with motor<br>With brake |
|-------------|----------------------|-----|-----|-----|--|
|             | 25                   | 50  | 75  | 100 |  |
| LXFHAB□-X20 | 0.9                  | 1.1 | 1.2 | 1.3 | 0.3                                      |

For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on pages 462 and 463.



# Guide Rod Type With Motor Brake/Without Motor Brake

## Series LXP

# Made to Order Specifications:



### AC Servomotor Specification

### How to Order

**LX P B A B D - 100 - M9N 1 - X12**

- Actuator configuration**
  - P** Guide rod type
- Guide type**
  - B** Ball bushing
- Motor type**
  - A** AC servomotor
- Lead screw type**
  - B** Ball screw
- Lead screw lead**
  - C** 2 mm
  - D** 5 mm
- Stroke**

|     |        |
|-----|--------|
| 50  | 50 mm  |
| 75  | 75 mm  |
| 100 | 100 mm |
| 125 | 125 mm |
| 150 | 150 mm |
| 175 | 175 mm |
| 200 | 200 mm |
- Home position switch** Note 1)

|     |                          |
|-----|--------------------------|
| Nil | None                     |
| S   | Yes (cable length 0.3 m) |
- Brake**

|     |               |
|-----|---------------|
| Nil | Without brake |
| B   | With brake    |
- AC servomotor specification**  
Refer to the applicable motor list on the next page.
- Number of auto switches**

|   |        |
|---|--------|
| 1 | 1 pc.  |
| 2 | 2 pcs. |
| ⋮ | ⋮      |
| 6 | 6 pcs. |
- Auto switch type** Note 1)

| Symbol | Model               | Wiring/Output type | Lead wire length (m) | Contact          |
|--------|---------------------|--------------------|----------------------|------------------|
| Nil    | Without auto switch |                    |                      |                  |
| M9N    | D-M9N               | 3 wire/NPN         | 0.5                  | N.O. (A contact) |
| M9P    | D-M9P               | 3 wire/PNP         | 0.5                  | N.O. (A contact) |
| M9B    | D-M9B               | 2 wire             | 0.5                  | N.O. (A contact) |
| F9G    | D-F9G               | 3 wire/NPN         | 0.5                  | N.C. (B contact) |
| F9H    | D-F9H               | 3 wire/PNP         | 0.5                  | N.C. (B contact) |
| F9GL   | D-F9GL              | 3 wire/NPN         | 3                    | N.C. (B contact) |
| F9HL   | D-F9HL              | 3 wire/PNP         | 3                    | N.C. (B contact) |
| M9NL   | D-M9NL              | 3 wire/NPN         | 3                    | N.O. (A contact) |
| M9PL   | D-M9PL              | 3 wire/PNP         | 3                    | N.O. (A contact) |
| M9BL   | D-M9BL              | 2 wire             | 3                    | N.O. (A contact) |

Note 1) For Tamagawa Seiki Co., Ltd. motors (X12, X13), only "Yes" is applicable for the home position switch setting. Also, auto switch M9N (1 pc.) is always attached for this specification. When using another switch in addition, list its part number next.

Example) LXPBABC-100SB-M9N1F9G1-X12

### Specifications

|  |  |     |
|--|--|-----|
| <b>Motor</b>                                 | AC servomotor (30 w)   |     |
| <b>Lead screw (mm)</b>                       | Ball screw ø8 mm   |     |
| <b>Positioning repeatability (mm)</b>        | ±0.03  |     |
| <b>Lead (mm)</b>                             | 2  | 5   |
| <b>Maximum speed (mm/s)</b>                  | 50   | 100 |
| <b>Work load (kg)</b> <small>Note 1)</small> | <b>Horizontal</b>  | 6   |
|  | <b>Vertical</b>  | 5   |
| <b>Guide type</b>                            | Ball bushing   |     |
| <b>Operating temperature range (°C)</b>      | 5 to 40 (No condensation)  |     |
| <b>Home position switch</b>                  | Photo micro sensor EE-SX673 [OMRON Corporation]<br>(Refer to page 1084 for details.) |     |

\* Please contact motor manufacturers for brake specifications.

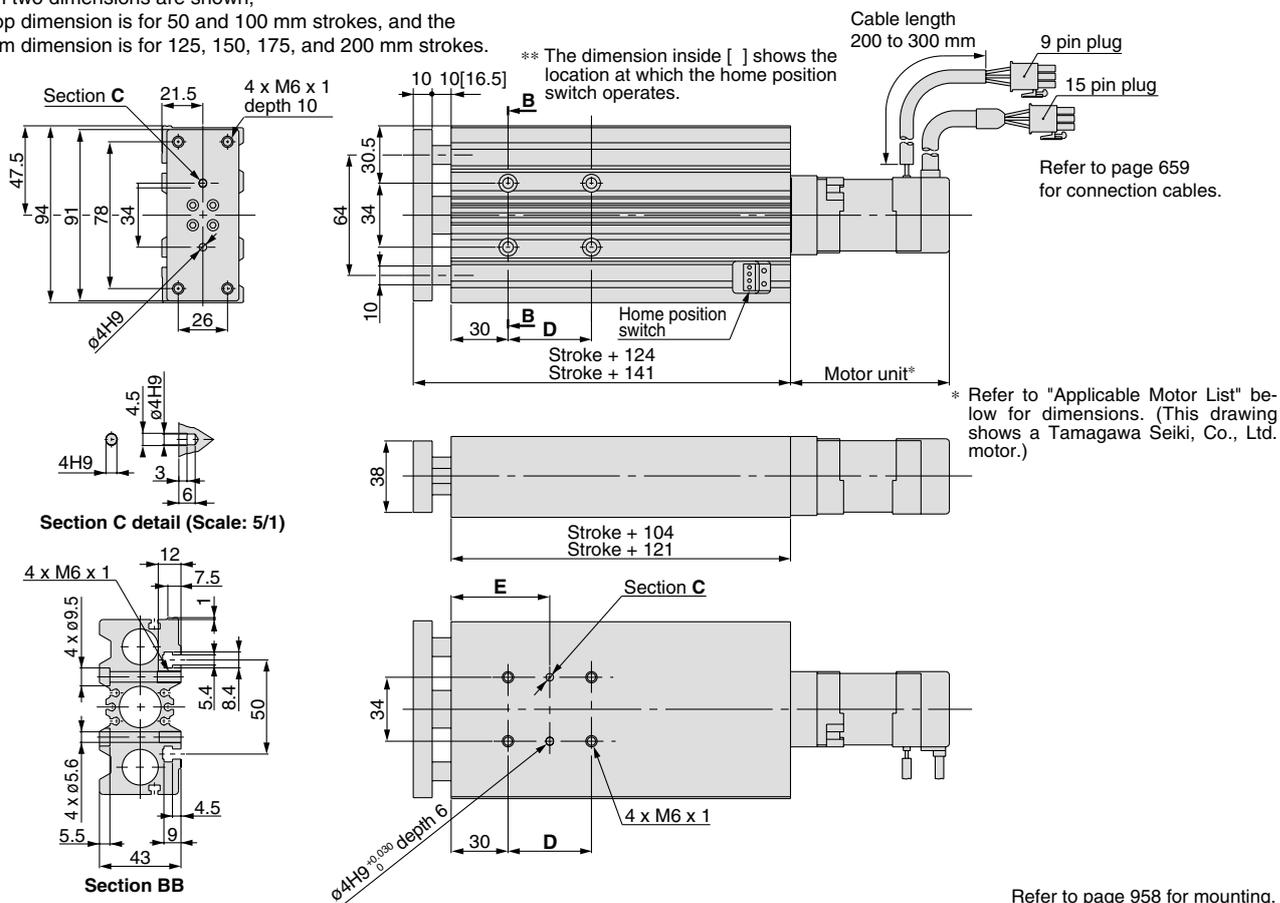
### Mass

| Model           | Standard stroke (mm) |     |     |     |     |     |     | Additional mass with motor<br>With brake |
|-----------------|----------------------|-----|-----|-----|-----|-----|-----|--|
|                 | 50                   | 75  | 100 | 125 | 150 | 175 | 200 |  |
| LXPBAB□-X12/X13 | 2.0                  | 2.2 | 2.3 | 2.6 | 2.8 | 2.9 | 3.1 | 0.3                                      |
| LXPBAB□-X18/X19 | 2.0                  | 2.2 | 2.3 | 2.6 | 2.8 | 2.9 | 3.1 | 0.3                                      |

For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on pages 462 and 463.

## Dimensions/LXPBAB

When two dimensions are shown, the top dimension is for 50 and 100 mm strokes, and the bottom dimension is for 125, 150, 175, and 200 mm strokes.



Refer to page 958 for mounting.

| Model                | D   | E  |
|----------------------|-----|----|
| LXPBAB- 50S-□□□□-X□□ | 44  | 52 |
| LXPBAB- 75S-□□□□-X□□ |     |    |
| LXPBAB-100S-□□□□-X□□ |     |    |
| LXPBAB-125S-□□□□-X□□ | 120 | 90 |
| LXPBAB-150S-□□□□-X□□ |     |    |
| LXPBAB-175S-□□□□-X□□ |     |    |
| LXPBAB-200S-□□□□-X□□ |     |    |

Note) The overall length of an actuator is Stroke + 124 (141) + Motor dimension.

## Applicable Motor List

| Symbol                            | Motor manufacturer              | Motor output | Power supply voltage | Brake         | Motor model | Compatible driver model                                     | Motor dimension (mm) |            |
|-----------------------------------|---------------------------------|--------------|----------------------|---------------|-------------|---|----------------------|------------|
|                                   |                                 |              |                      |               |             |   | Without brake        | With brake |
| <b>X12</b> <small>Note 1)</small> | Tamagawa Seiki Co., Ltd.        | 30 W         | 100/115 VAC          | Without brake | TS4501N     | SMC controller LC1-□-X233<br>Refer to page 836 for details. | 80.5                 | 111.5      |
| <b>X13</b> <small>Note 1)</small> |                                 |              |                      | With brake    |             |   |                      |            |
| <b>X18A</b>                       | Mitsubishi Electric Corporation |              | 100/115 VAC          | Without brake | HC-PQ033    | MR-C10A1  | 87.5                 | 111.5      |
| <b>X18</b> <small>Note 2)</small> |                                 |              |                      | With brake    | HC-PQ033B   |   |                      |            |
| <b>X19</b> <small>Note 2)</small> |                                 | 200/220 VAC  | Without brake        | HC-PQ033      | MR-C10A     |   |                      |            |
|                                   |                                 |              | With brake           | HC-PQ033B     |             |   |                      |            |

Note 1) Order LC1 controller and cable separately. Refer to page 658 for part nos.

Note 2) Refer to page 851 for driver dimensions. Please contact motor manufacturers for each motor's detailed specifications, etc. However, the cable that connects the motor and driver is optional. Refer to page 659 for part numbers.

LJ1

LG1

LTF

LC1

LC7

LC8

LXF

LXP

LXS

LC6□

LZ□

LC3F2

X□

D-□

E-MY

# High Rigidity Slide Table Type With Motor Brake/Without Motor Brake

## Series LXS

# Made to Order Specifications:



### AC Servomotor Specification

### How to Order

**LX S H A B D - 100 - M9N 1 - X12**

**Actuator configuration**  
**S** Slide table type

**Guide type**  
**H** Direct acting guide

**Motor type**  
**A** AC servomotor

**Lead screw type**  
**B** Ball screw

**Lead screw lead**  
**C** 2 mm  
**D** 5 mm

**Stroke**

|     |        |
|-----|--------|
| 50  | 50 mm  |
| 75  | 75 mm  |
| 100 | 100 mm |
| 125 | 125 mm |
| 150 | 150 mm |

**Home position switch** Note 1)  
**Nil** None  
**S** Yes (cable length 0.3 m)

**Brake**  
**Nil** Without brake  
**B** With brake

**AC servomotor specification**  
Refer to the applicable motor list on the next page.

**Number of auto/proximity switches**

|   |        |
|---|--------|
| 1 | 1 pc.  |
| 2 | 2 pcs. |
| ⋮ | ⋮      |
| 6 | 6 pcs. |

When using both auto and proximity switches, list the proximity switch part number after the auto switch part number.  
Example) M9N1G2

**Auto switch type** Note 1)

| Symbol              | Model  | Wiring/Output type | Lead wire length (m) | Contact         |
|---------------------|--------|--------------------|----------------------|-----------------|
| Without auto switch |        |                    |                      |                 |
| Nil                 |        |                    |                      |                 |
| M9N                 | D-M9N  | 3 wire/NPN         | 0.5                  | N.O (A contact) |
| M9P                 | D-M9P  | 3 wire/PNP         | 0.5                  | N.O (A contact) |
| M9B                 | D-M9B  | 2 wire             | 0.5                  | N.O (A contact) |
| F9G                 | D-F9G  | 3 wire/NPN         | 0.5                  | N.C (B contact) |
| F9H                 | D-F9H  | 3 wire/PNP         | 0.5                  | N.C (B contact) |
| F9GL                | D-F9GL | 3 wire/NPN         | 3                    | N.C (B contact) |
| F9HL                | D-F9HL | 3 wire/PNP         | 3                    | N.C (B contact) |
| M9NL                | D-M9NL | 3 wire/NPN         | 3                    | N.O (A contact) |
| M9PL                | D-M9PL | 3 wire/PNP         | 3                    | N.O (A contact) |
| M9BL                | D-M9BL | 2 wire             | 3                    | N.O (A contact) |

**Proximity switch type**

| Symbol | Model                                      | Wiring/Output type | Lead wire length (m) | Contact         |
|--------|--|--------------------|----------------------|-----------------|
| GN     | With sensor rail, without proximity switch | —                  | —                    | —               |
| G      | GXL-8F                                     | 3 wire/NPN         | 1                    | N.O (A contact) |
| GD     | GXL-8FI                                    | 3 wire/NPN         | 1                    | N.O (A contact) |
| GB     | GXL-8FB                                    | 3 wire/NPN         | 1                    | N.C (B contact) |
| GDB    | GXL-8FIB                                   | 3 wire/NPN         | 1                    | N.C (B contact) |
| GU     | GXL-8FU                                    | 2 wire/Solid state | 1                    | N.O (A contact) |
| GUB    | GXL-8FUB                                   | 2 wire/Solid state | 1                    | N.C (B contact) |

### Specifications

|                                  |   |        |
|----------------------------------|---|--------|
| Motor                            | AC servomotor (30 w)  |        |
| Lead screw (mm)                  | Ball screw ø8 mm  |        |
| Positioning repeatability (mm)   | ±0.03   |        |
| Lead (mm)                        | 2   | 5      |
| Maximum speed (mm/s)             | 50  | 100    |
| Work load (kg) Note 1)           | Horizontal  | 10 (4) |
|                                  | Vertical  | 5 (4)  |
| Guide type                       | High rigidity direct acting guide   |        |
| Operating temperature range (°C) | 5 to 40 (No condensation)   |        |
| Home position switch             | Photo micro sensor EE-SX673 [OMRON Corporation] (Refer to page 1084 for details.) |        |

\* Please contact motor manufacturers for brake specifications.

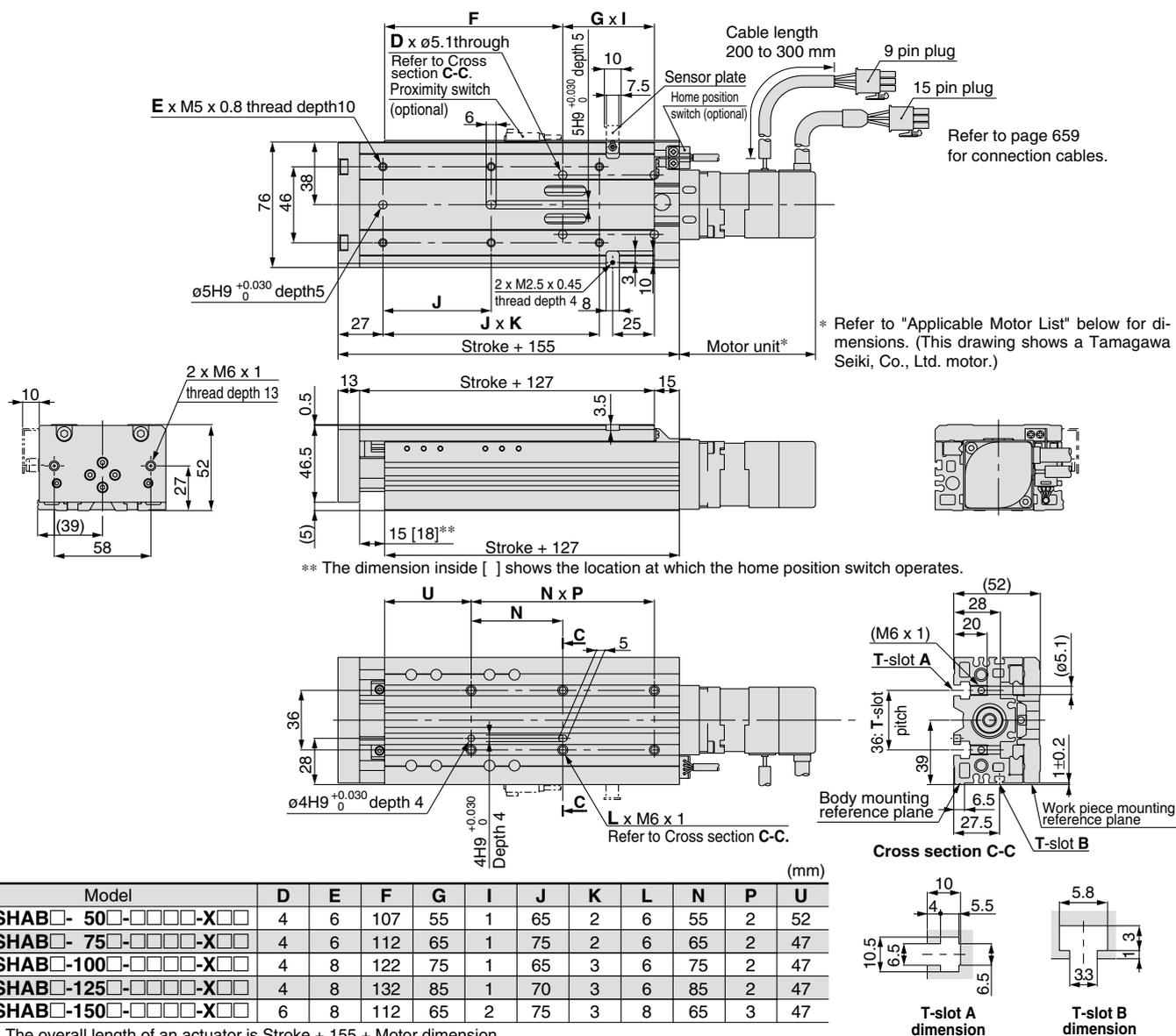
Note 1) When mounting a work piece to the actuator's end plate, its mass should be within the value inside ( ).

### Mass

| Model           | Standard stroke (mm) |     |     |     |     | Additional mass with motor (kg) |
|-----------------|----------------------|-----|-----|-----|-----|---------------------------------|
|                 | 50                   | 75  | 100 | 125 | 150 |                                 |
| LXSHAB□-X12/X13 | 1.9                  | 2.1 | 2.3 | 2.5 | 2.7 | With brake<br>0.3               |
| LXSHAB□-X18/X19 | 1.9                  | 2.1 | 2.3 | 2.5 | 2.7 | 0.3                             |

For basic specifications such as allowable moment, refer to the "Standard" pages for equivalent products listed on pages 462 and 463.

## Dimensions/LXSHAB



- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- X□
- D-□
- E-MY

Note) The overall length of an actuator is Stroke + 155 + Motor dimension.

Refer to page 959 for mounting.

## Applicable Motor List

| Symbol                            | Motor manufacturer              | Motor output | Power supply voltage | Brake         | Motor model | Compatible driver model                                     | Motor dimension (mm) |            |
|-----------------------------------|---------------------------------|--------------|----------------------|---------------|-------------|---|----------------------|------------|
|                                   |                                 |              |                      |               |             |   | Without brake        | With brake |
| <b>X12</b> <small>Note 1)</small> | Tamagawa Seiki Co., Ltd.        | 30 W         | 100/115 VAC          | Without brake | TS4501N     | SMC controller LC1-□-X180<br>Refer to page 836 for details. | 82.5                 | 113.5      |
| <b>X13</b> <small>Note 1)</small> |                                 |              |                      | With brake    |             |   |                      |            |
| <b>X18A</b>                       |                                 |              | 200/220 VAC          | Without brake |             |   |                      |            |
|                                   |                                 |              |                      | With brake    |             |   |                      |            |
| <b>X18</b> <small>Note 2)</small> | Mitsubishi Electric Corporation | 30 W         | 100/115 VAC          | Without brake | HC-PQ033    | MR-C10A1  | 89                   | 117        |
| <b>X19</b> <small>Note 2)</small> |                                 |              |                      | With brake    |             |   |                      |            |
| <b>X19</b> <small>Note 2)</small> |                                 |              | 200/220 VAC          | Without brake | HC-PQ033    | MR-C10A   | 89                   | 117        |
|                                   |                                 |              |                      | With brake    |             |   |                      |            |

Note 1) Order LC1 controller and cable separately.

Note 2) Refer to page 837 for driver dimensions. Please contact motor manufacturers for each motor's detailed specifications, etc.

However, the cable that connects the motor and driver is optional. Refer to page 659 for part numbers.

# Short Stroke Type With Motor Brake/Without Motor Brake

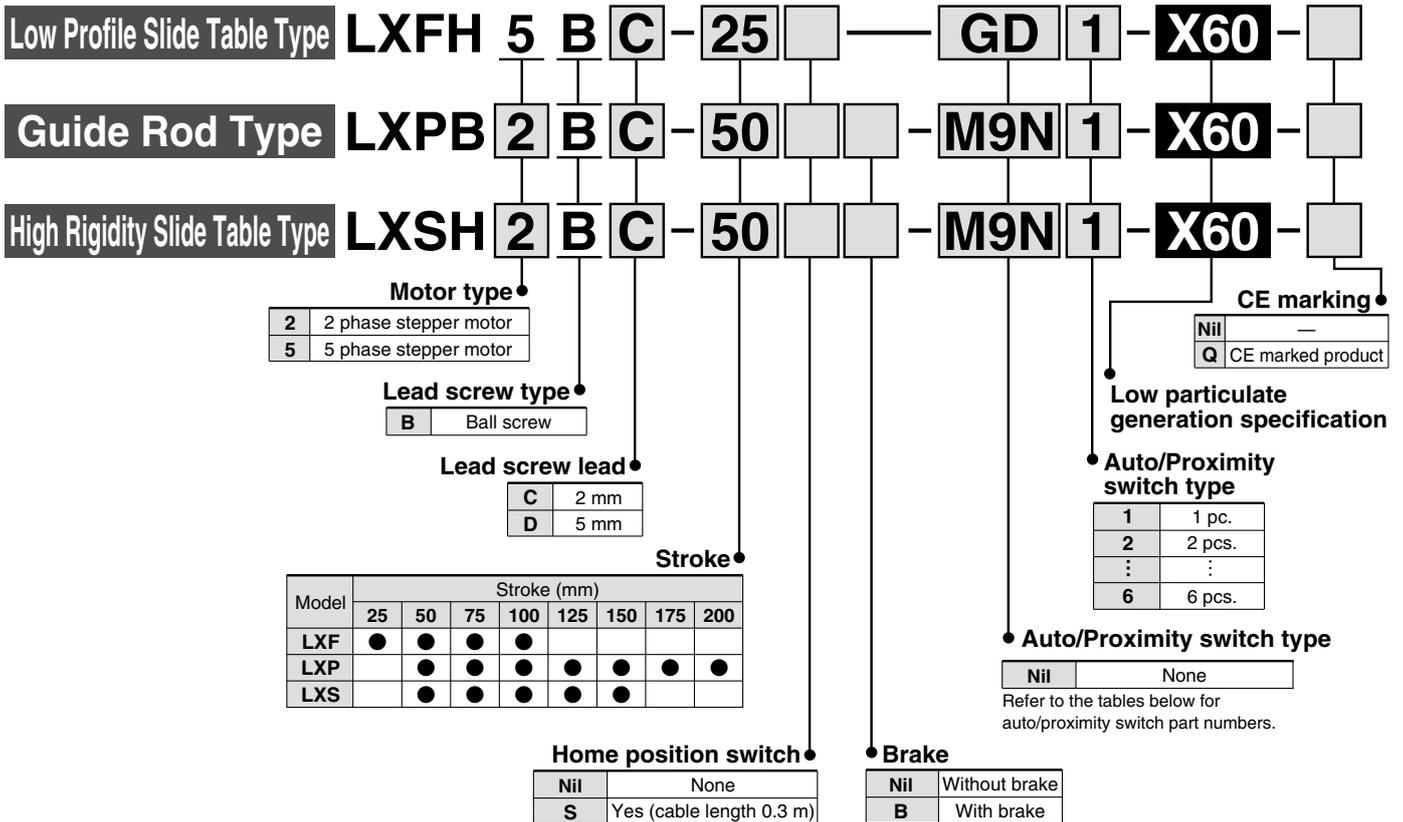
## Series **LXF, LXP, LXS**

# Made to Order Specifications:



### Low Particulate Generation Specification

### How to Order



#### Auto switch types

| Symbol | Model  | Wiring/ Output type | Lead wire length (m) | Contact          | Applicable actuator |
|--------|--------|---------------------|----------------------|------------------|---------------------|
| M9N    | D-M9N  | 3 wire/NPN          | 0.5                  | N.O. (A contact) | LXP<br>LXS          |
| M9P    | D-M9P  | 3 wire/PNP          | 0.5                  | N.O. (A contact) |                     |
| M9B    | D-M9B  | 2 wire              | 0.5                  | N.O. (A contact) |                     |
| F9G    | D-F9G  | 3 wire/NPN          | 0.5                  | N.C. (B contact) |                     |
| F9H    | D-F9H  | 3 wire/PNP          | 0.5                  | N.C. (B contact) |                     |
| F9GL   | D-F9GL | 3 wire/NPN          | 3                    | N.C. (B contact) |                     |
| F9HL   | D-F9HL | 3 wire/PNP          | 3                    | N.C. (B contact) |                     |
| M9NL   | D-M9NL | 3 wire/NPN          | 3                    | N.O. (A contact) |                     |
| M9PL   | D-M9PL | 3 wire/PNP          | 3                    | N.O. (A contact) |                     |
| M9BL   | D-M9BL | 2 wire              | 3                    | N.O. (A contact) |                     |

\* When using both auto and proximity switches, list the proximity switch part number after the auto switch part number. Example) M9N1G2

#### Proximity switch types

| Symbol | Model   | Wiring/ Output type | Lead wire length (m) | Contact          | Applicable actuator |
|--------|---|---------------------|----------------------|------------------|---------------------|
| GN     | With sensor rail (LXF)<br>With sensor plate (LXS)<br>Without proximity switch | —                   | —                    | —                | LXF<br>LXS          |
| G      | GXL-8F  | 3 wire/NPN          | 1                    | N.O. (A contact) |                     |
| GD     | GXL-8FI   | 3 wire/NPN          | 1                    | N.O. (A contact) |                     |
| GB     | GXL-8FB   | 3 wire/NPN          | 1                    | N.C. (B contact) |                     |
| GDB    | GXL-8FIB  | 3 wire/NPN          | 1                    | N.C. (B contact) |                     |
| GU     | GXL-8FU   | 2 wire/Solid state  | 1                    | N.O. (A contact) |                     |
| GUB    | GXL-8FUB  | 2 wire/Solid state  | 1                    | N.C. (B contact) |                     |

\* Refer to page 1082 for detailed specifications of proximity switches.

### Specifications

| Model                  | LXF  | LXP   | LXS  |
|------------------------|--|---|--|
| <b>Guide type</b>      | Direct acting guide<br>Stainless steel, With low particulate generating grease   | Ball bushing<br>Stainless steel, With low particulate generating grease | High rigidity direct acting guide<br>Stainless steel, With low particulate generating grease |
| <b>Lead screw (mm)</b> | Ball screw ø8 mm<br>2 mm/5 mm lead<br>Black chrome coating + Special fluororesin coating, AFE grease (made by THK) applied |   |  |

Specifications and O.D. dimensions other than those above are the same as specifications for standard actuator/ball screw.

LJ1

LG1

LTF

LC1

LC7

LC8

LXF

LXP

LXS

LC6□

LZ□

LC3F2

X□

D-□

E-MY

# Electric Actuator

## LX-112A

# Made to Order Specifications:

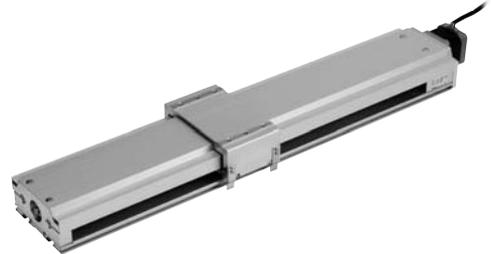


### Long stroke specification

- Features**
- Space-saving low profile and rodless design
  - Accommodates up to 400 mm strokes

**Compared to standard type**

- Long strokes
- Rodless type



### How to Order

**LX-112A** - [ ] **B** **E** - **300** [ ] [ ] - [ ] [ ] - [ ] [ ] - [ ] [ ]

**Motor type**

|   |                       |
|---|-----------------------|
| 2 | 2 phase stepper motor |
| 5 | 5 phase stepper motor |

**Screw specification**

|   |            |
|---|------------|
| B | Ball screw |
|---|------------|

**Screw lead**

|   |       |
|---|-------|
| E | 10 mm |
| F | 15 mm |
| G | 20 mm |

**Stroke**

|     |        |
|-----|--------|
| 50  | 50 mm  |
| 100 | 100 mm |
| 150 | 150 mm |
| 200 | 200 mm |
| 250 | 250 mm |
| 300 | 300 mm |
| 350 | 350 mm |
| 400 | 400 mm |

**Position switch**

|     |                  |
|-----|------------------|
| Nil | None             |
| S1M | At motor (1 pc.) |
| S1E | At end (1 pc.)   |
| S2  | 2 pcs.           |

**Brake**

|     |               |
|-----|---------------|
| Nil | Without brake |
| B   | With brake    |

**Motor/lead entry direction**

|     |        |
|-----|--------|
| Nil | Top    |
| L   | Left   |
| R   | Right  |
| B   | Bottom |

**Number of proximity switches**

|     |        |
|-----|--------|
| Nil | None   |
| n   | n pcs. |

**Number of switches**

|     |        |
|-----|--------|
| Nil | None   |
| 1   | 1 pc.  |
| 2   | 2 pcs. |

**Proximity switch types**

| Symbol | Model    | Wiring/ Output type | Lead wire length (m) | Contact          |
|--------|----------|---------------------|----------------------|------------------|
| GB     | GXL-8FB  | 3 wire/NPN          | 1                    | N.C. (B contact) |
| GDB    | GXL-8FIB | 3 wire/NPN          | 1                    | N.C. (B contact) |
| GU     | GXL-8FU  | 2 wire/Solid state  | 1                    | N.O. (A contact) |
| GUB    | GXL-8FUB | 2 wire/Solid state  | 1                    | N.C. (B contact) |

\* Refer to page 1082 for detailed specifications of proximity switches.

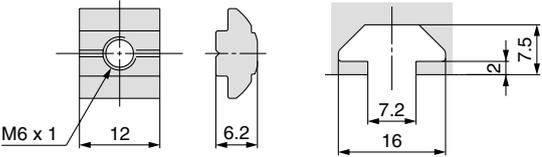
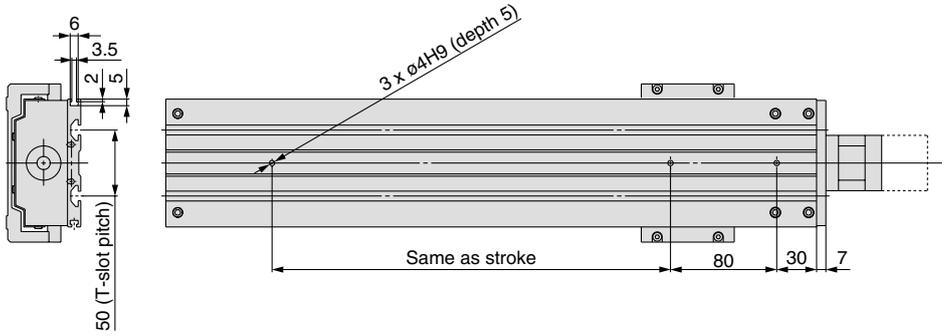
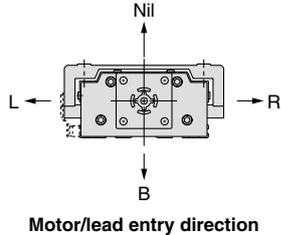
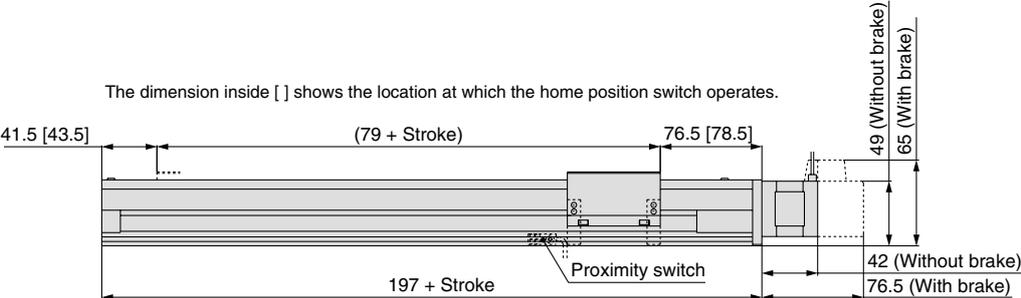
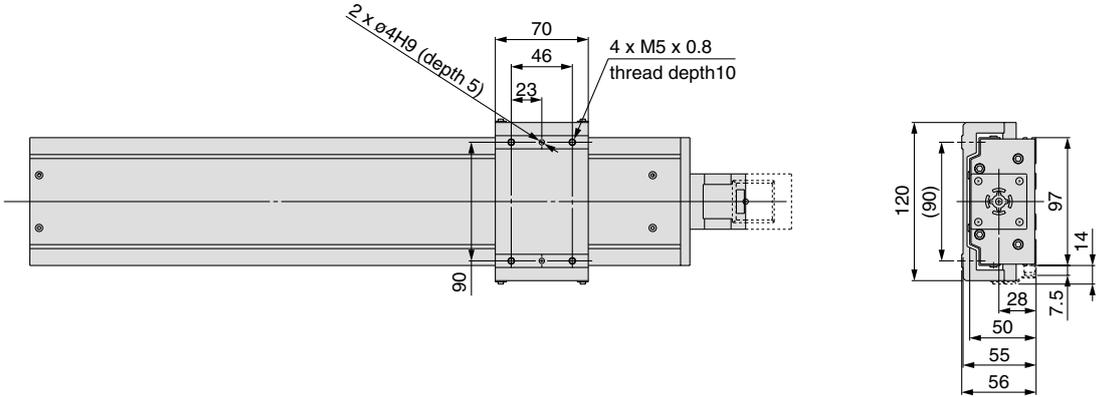
**Switch types**

| Symbol | Model  | Wiring/ Output type | Lead wire length (m) | Contact          |
|--------|--------|---------------------|----------------------|------------------|
| N      | D-M9N  | 3 wire/NPN          | 0.5                  | N.O. (A contact) |
| P      | D-M9P  | 3 wire/PNP          | 0.5                  | N.O. (A contact) |
| B      | D-M9B  | 2 wire              | 0.5                  | N.O. (A contact) |
| NL     | D-M9NL | 3 wire/NPN          | 3                    | N.O. (A contact) |
| PL     | D-M9PL | 3 wire/PNP          | 3                    | N.O. (A contact) |
| BL     | D-M9BL | 2 wire              | 3                    | N.O. (A contact) |

### Specifications

| Model                                   | LX-112A-□BE               | LX-112A-□BF                                   | LX-112A-□BG  |
|---|---------------------------|---|--------------|
| <b>Lead screw type</b>                  | Ball screw                |   |              |
| <b>Lead screw (mm)</b>                  | ø10, 10 lead              | ø10, 15 lead                                  | ø10, 20 lead |
| <b>Work load (kg)</b>                   | Horizontal                | 7   |              |
|   | Vertical                  | 3   | 2            |
| <b>Maximum speed (mm/s)</b>             | 170 mm/s                  | 260 mm/s                                      | 400 mm/s     |
| <b>Positioning repeatability (mm)</b>   | ±0.03                     |   |              |
| <b>Guide type</b>                       | Ball bushing              |   |              |
| <b>Operating temperature range (°C)</b> | 5 to 40 (No condensation) |   |              |
| <b>Compatible driver</b>                | 2 phase                   | LC6D-220AD-□ (Refer to page 964 for details.) |              |
|   | 5 phase                   | LC6D-507AD-□ (Refer to page 964 for details.) |              |
| <b>Positioning driver</b>               | 2 phase                   | LC6C-220AD (Refer to page 967 for details.)   |              |

## Dimensions



T-nut  
With 6 T-nuts

T-slot dimensions

- LJ1
- LG1
- LTF
- LC1
- LC7
- LC8
- LXF
- LXP
- LXS
- LC6
- LZ
- LC3F2
- X
- D-
- E-MY

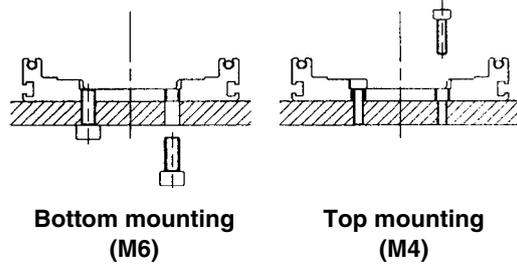
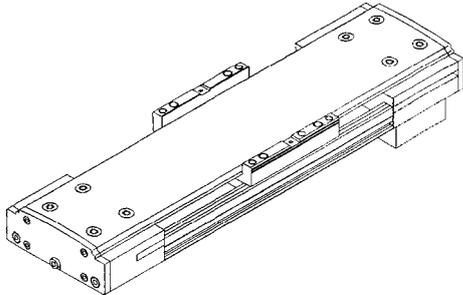
## Low Profile Electric Actuator/Belt Type

**LB-3A-2R11A-□□□□-□□BC-□□□**

# Made to Order Specifications:



- Features:**
1. Belt-driven, long-stroke transfer (Up to 2000 mm)
  2. Choose from stepper motor or AC servomotor
  3. Body mounting can be done from either bottom or top surface



## Specifications

|  |  |
|--|--|
| Model  | <b>LB-3A-2R11A-□□□□-□□BC-□□□</b>           |
| Stroke   | <b>50 to 2000</b> (Increments of 50)       |
| Body mass (kg)   | 2 + actuator stroke (mm)/250               |
| Operating temperature range (°C)                       | 5 to 40 (No condensation)                  |
| Positioning repeatability (mm)                         | ±0.08                                      |
| Drive belt   | Pitch 3, Width 6, Urethane                 |
| Drive pulley number of teeth (Teeth)                   | 14 (42 lead equiv.)                        |
| Guide  | High Rigidity Direct Acting Guide Type     |
| Work load (kg)   | 15   |
| Maximum speed (mm/s)                                   | 2100                                       |
| Maximum acceleration/deceleration (mm/s <sup>2</sup> ) | 14685/work load (kg)                       |
| Mounting orientation                                   | Horizontal                                 |
| Photo micro light blocker kit * optional               | LB-11A-1 (Light blocker, mounting bolts)   |
| Photo micro bracket kit * optional                     | LB-12A-1 (Sensor, mounting bracket, bolts) |
| Static moment (N·m)                                    | $M_P = 66.8, M_V = 78.4, M_R = 70.4$       |

### **⚠ Caution**

Customers choosing a servomotor:  
Gain adjustment is required when using this product. Adjust the values for each driver according to the user's manual.  
Driving the product without adjustments made may lead to serious damage. Items packed and shipped together with drivers are pre-adjusted.

Motor/driver peripheral equipment (cables, communication cables, software) are not included with this product.

**How to Order**

**LB-3A-2R11A-500-□C BC-M9B□□**

● **Standard stroke**

|      |         |
|------|---------|
| 100  | 100 mm  |
| 200  | 200 mm  |
| 300  | 300 mm  |
| 400  | 400 mm  |
| 500  | 500 mm  |
| 600  | 600 mm  |
| 700  | 700 mm  |
| 800  | 800 mm  |
| 900  | 900 mm  |
| 1000 | 1000 mm |
| 1200 | 1200 mm |
| 1500 | 1500 mm |
| 1800 | 1800 mm |
| 2000 | 2000 mm |

Strokes other than the above standard strokes are made to order.

● **Motor driver setting**

|     |                      |
|-----|----------------------|
| E   | Without driver 200 V |
| D   | Without driver 100 V |
| N   | Without motor        |
| A   | 200 V                |
| Nil | 100 V                |

● **Number of switches**

|        |
|--------|
| 1 to 4 |
|--------|

● **Switch lead wire length**

|     |       |
|-----|-------|
| L   | 3 m   |
| Nil | 0.5 m |

● **Switch specification**<sup>\*3</sup>

| Symbol | Model  | Wiring/Output type | Lead wire length (m) | Contact          |
|--------|--------|--------------------|----------------------|------------------|
| M9N    | D-M9N  | 3 wire/NPN         | 0.5                  | N.O. (A contact) |
| M9P    | D-M9P  | 3 wire/PNP         | 0.5                  | N.O. (A contact) |
| M9B    | D-M9B  | 2 wire             | 0.5                  | N.O. (A contact) |
| M9NL   | D-M9NL | 3 wire/NPN         | 3                    | N.O. (A contact) |
| M9PL   | D-M9PL | 3 wire/PNP         | 3                    | N.O. (A contact) |
| M9BL   | D-M9BL | 2 wire             | 3                    | N.O. (A contact) |

● **Motor type**<sup>\*2</sup>

|   |  |
|---|--|
| C | ORIENTAL MOTOR Co., Ltd. 2 phase stepper UMK268A <sup>*1, *2</sup> |
| I | Sanyo Denki Co., Ltd. 2 phase stepper 103H7126-0440 <sup>*1</sup>  |
| L | ORIENTAL MOTOR Co., Ltd. 5 phase stepper UPK569AW2 <sup>*2</sup>   |
| Q | Sanyo Denki Co., Ltd. 5 phase stepper 103H7523-7051                |
| T | Mitsubishi Electric Corporation AC servo HC-PQ13                   |

\*1: Not compatible with 200 V motor type C or I.

\*2: A motor by ORIENTAL MOTOR without driver cannot be selected.

\*3: Auto switch is packed in the same container as the main body.

**Compatible driver**

| Symbol | 100 V           | 200 V    |
|--------|-----------------|----------|
| C      | Packed together | —        |
| I      | PMM-UA-4303-1   | —        |
| L      | Packed together |          |
| Q      | PMM-BA-5603-1   | FSIW075P |
| T      | MR-C10A1        | MR-C10A  |

LJ1

LG1

LTF

LC1

LC7

LC8

LXF

LXP

LXS

LC6□

LZ□

LC3F2

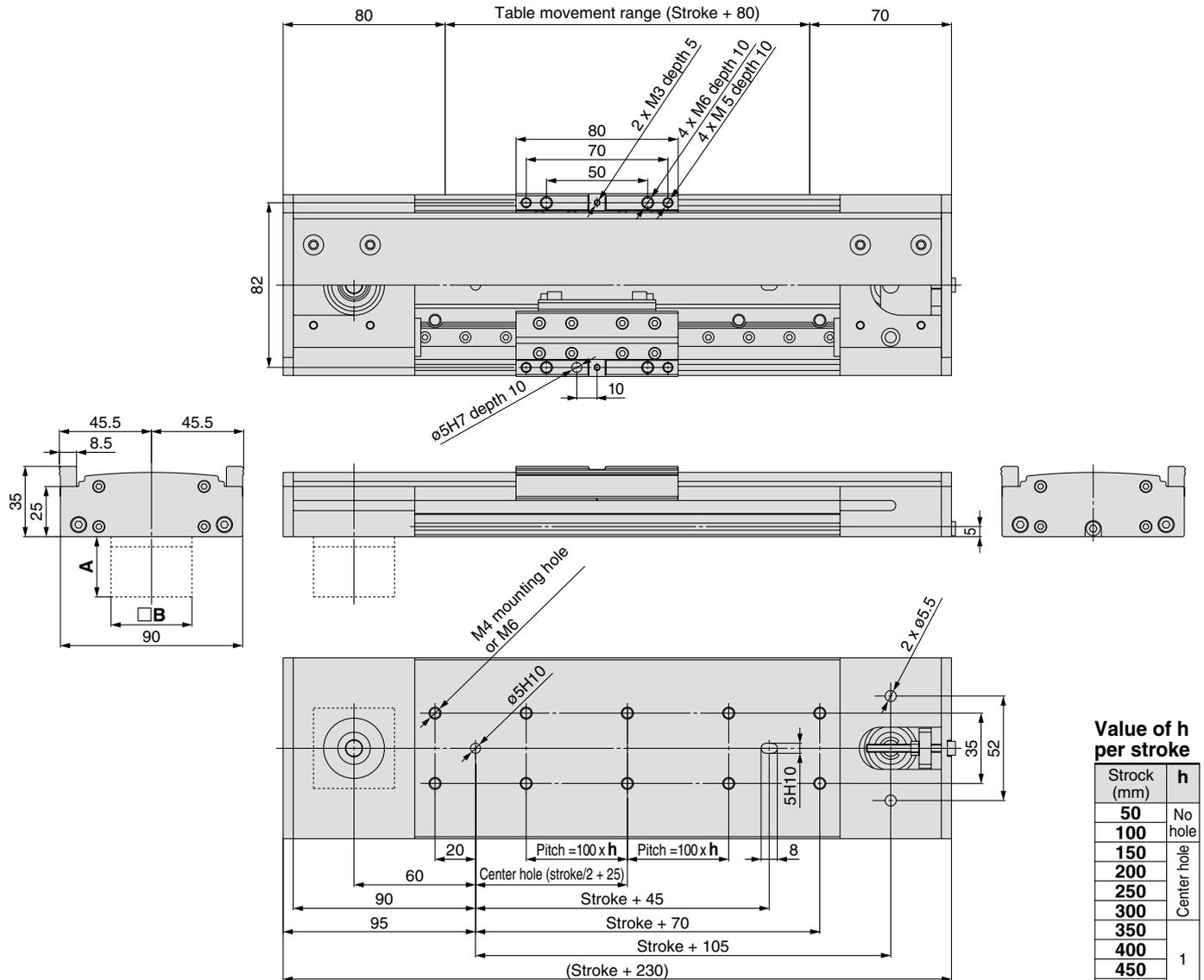
X□

D-□

E-MY

# LB-3A-2R11A-□□□□-□□BC-□□□□

## Dimensions



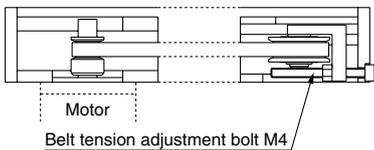
### Value of h per stroke

| Stroke (mm) | h           |
|-------------|-------------|
| 50          | No hole     |
| 100         | No hole     |
| 150         | Center hole |
| 200         |             |
| 250         |             |
| 300         |             |
| 350         |             |
| 400         | 1           |
| 450         |             |
| 500         |             |
| 550         |             |
| 600         |             |
| 650         | 2           |
| 700         |             |
| 750         |             |
| 800         |             |
| 850         |             |
| 900         | 3           |
| 950         |             |
| 1000        |             |
| 1050        |             |
| 1100        |             |
| 1150        | 4           |
| 1200        |             |
| 1250        |             |
| 1300        |             |
| 1350        |             |
| 1400        | 5           |
| 1450        |             |
| 1500        |             |
| 1550        |             |
| 1600        |             |
| 1650        | 6           |
| 1700        |             |
| 1750        |             |
| 1800        |             |
| 1850        |             |
| 1900        | 7           |
| 1950        |             |
| 2000        |             |
| 2050        |             |
| 2100        |             |
| 2150        | 8           |
| 2200        |             |
| 2250        |             |
| 2300        |             |
| 2350        |             |
| 2400        | 9           |
| 2450        |             |
| 2500        |             |
| 2550        |             |
| 2600        |             |

### Replacement belt part no. (Durable urethane)

#### LB-S3MU-6-□L

(Product attachment length:  
Length (mm) 2 x Stroke + 370)



Motor/end cross-section

| Motor type  | A    | □B   | Torque | Voltage   |
|---|------|------|--------|-----------|
| ORIENTAL MOTOR Co., Ltd. 2 phase stepper UMK268A    | 76   | 56.4 | 1.35   | 100 V     |
| Sanyo Denki Co., Ltd. 2 phase stepper 103H7126-0440 | 75.8 | 56   | 1.30   | 100 V     |
| ORIENTAL MOTOR Co., Ltd. 5 phase stepper UPK569     | 89   | 60   | 1.66   | 100/200 V |
| Sanyo Denki Co., Ltd. 5 phase stepper 103H7523-7051 | 85.8 | 60   | 1.57   | 100/200 V |
| Mitsubishi Electric Corporation AC servo HC-PQ13    | 86.5 | 40   | 0.32   | 100/200 V |

### Pulley attachment for LB-3A-2R11A-□-N□BC-□□□□

**1**

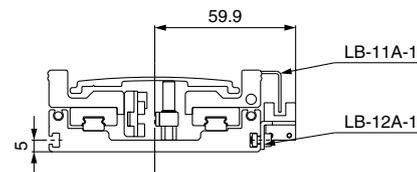
Fix the motor pulley in place so that the screw hole is facing downward and there is a 3 mm space between the motor mounting surface and the bottom of the pulley.

**2**

Fix in place with M3 x 4 hexagon socket head set screws and bind with locking grease. Recommended tightening torque: 0.6 + 0.06 N·m (6 + 0.6 kgf·cm)

**3**

The shape of the motor axle depends on the motor, and requires attention for where the screw is tightened. Tighten at the arrows. Be sure that screws are tightened at the cut surfaces for D-cut and L-cut axles.



Cross-section and example of photo micro attachment