

ISA-MXXMX

Single-Axis Robot: Medium X-Axis Mid-Support Type, Actuator Width 120mm, 200W, Straight Shape

ISPA-MXXMX

Single-Axis Robot: Medium X-Axis Mid-Support Type, Actuator Width 120mm, 200W, Straight Shape High-Precision Specification

| | | | | | |
|------|--|--------|--------------|---------------|-------------------|
| Type | Medium X-axis (120-mm wide) mid-support type | Stroke | 800 ~ 2000mm | Load capacity | 40kg (horizontal) |
|------|--|--------|--------------|---------------|-------------------|

Model specification items Series Type Encoder type Motor output Lead Stroke Applicable controller Cable length Options

ISA[ISPA] - MXXMX - A - 200 - 30 - 2000 - T1 - S - NM



* Refer to page 11 for the details of model specification items.

Models/Specifications

| Model | Encoder type | Motor output (W) | Lead (mm) | Stroke (mm) In increments of 10mm | Speed (Note 1) (mm/s) | Acceleration (Note 2) | | | | Load capacity (Note 2) | | | | Rated thrust (N) |
|---------------------------------------|--------------|------------------|-----------|--------------------------------------|--------------------------|-----------------------|---------|------------------------|---------|------------------------|---------|------------------------|---------|------------------|
| | | | | | | Horizontal (G) | | Vertical (G) | | Horizontal (kg) | | Vertical (kg) | | |
| | | | | | | Rated | Maximum | Rated | Maximum | Rated | Maximum | Rated | Maximum | |
| ISA [ISPA] -MXXMX-A-200-30-***-T1-△-□ | Absolute | 200 | 30 | 800 ~ 2000 | 1 ~ 1500 | 0.3 | | Horizontal application | | 25 | | Horizontal application | | 113 |
| ISA [ISPA] -MXXMX-A-200-20-***-T1-△-□ | | | 20 | | 1 ~ 1000 | 0.3 | | | | 40 | | | | 169.5 |
| ISA [ISPA] -MXXMX-I-200-30-***-T1-△-□ | Incremental | | 30 | | 1 ~ 1500 | 0.3 | | 25 | | 113 | | | | |
| ISA [ISPA] -MXXMX-I-200-20-***-T1-△-□ | | | 20 | | 1 ~ 1000 | 0.3 | | 40 | | 169.5 | | | | |

* In the above model names, *** indicates the stroke, △ the cable length and □ the applicable options.

*1.0G=9800mm/sec²

Options

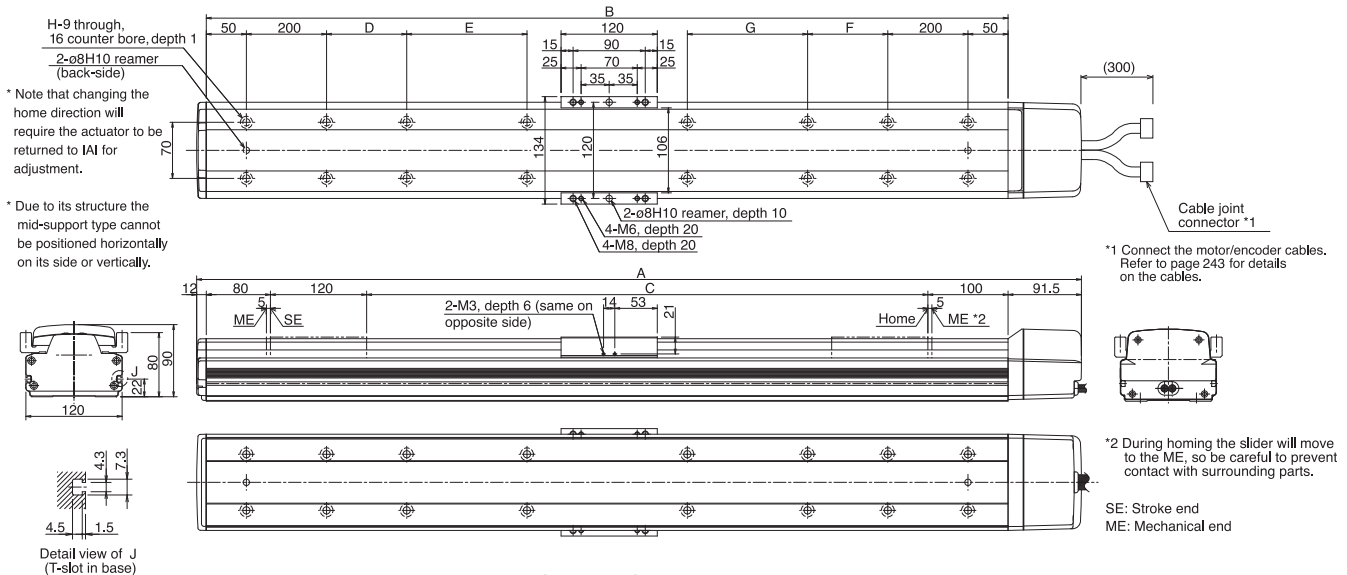
| Name | Code | Page | Name | Code | Page |
|------------------------------------|------|------|---|------|------|
| AQ seal | AQ | P13 | Master-axis designation | LM | P14 |
| Brake | B | P13 | Master-axis designation (sensor on opposite side) | LLM | P14 |
| Creep sensor | C | P13 | Reverse homing specification | NM | P14 |
| Creep sensor on opposite side | CL | P13 | Guide with ball-retaining mechanism | RT | P14 |
| Home limit switch | L | P14 | Slave-axis designation | S | P14 |
| Home limit switch on opposite side | LL | P14 | | | |

Common Specifications

* Refer to page 10 for the details of common specification items.

| | |
|--|--|
| Positioning repeatability (Note 3) | ±0.02mm [±0.01mm] |
| Drive system (Note 4) | Ball screw ø16mm, rolled C10 [equivalent to rolled C5] |
| Lost motion (Note 5) | 0.05mm or less [0.02mm or less] |
| Guide | integrated with base |
| Allowable static moment | Refer to page 242 |
| Allowable dynamic moment | Ma: 69.6N·m Mb: 99.0N·m Mc: 161.7N·m |
| Overhang load length | Ma direction: 600mm or less, Mb/Mc directions: 600mm or less |
| Base | Material: Aluminum, with white alumite treatment |
| Cable length (Note 6) | N: None, S: 3m, M: 5m, X□□: Specified length |
| Ambient operating temperature/humidity | 0 to 40°C, 85%RH max. (non-condensing) |

Dimensions



Dimensions, Weight and Maximum Speed by Stroke

| Stroke | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A | 1203.5 | 1303.5 | 1403.5 | 1503.5 | 1603.5 | 1703.5 | 1803.5 | 1903.5 | 2003.5 | 2103.5 | 2203.5 | 2303.5 | 2403.5 |
| B | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 |
| C | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 |
| D | 0 | 0 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 |
| E | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| F | 200 | 200 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 |
| G | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| H | 10 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 16 | 16 | 16 |
| Weight (kg) | 15.0 | 16.1 | 17.1 | 18.2 | 19.2 | 20.3 | 21.3 | 22.4 | 23.4 | 24.5 | 25.5 | 26.6 | 27.6 |
| Maximum speed (mm/s) | 1500 | | | | | | 1425 | 1200 | 1050 | 900 | 825 | 750 | 675 |
| Lead 30 | 1000 | | | | | | 950 | 800 | 700 | 600 | 550 | 500 | 450 |
| Lead 20 | | | | | | | | | | | | | |

Applicable Controller Specifications

| Applicable controller | Maximum number of controlled axes | Compatible encoder type | Program operation | Positioner operation | Pulse-train control | Supply voltage | Page |
|-----------------------|-----------------------------------|-------------------------|-------------------|----------------------|---------------------|----------------|------|
| X-SEL | 4 axes | Absolute/incremental | ○ | △ | × | AC100/200V | |
| E-Con | 1 axis | Absolute/incremental | × | ○ | × | AC100/200V | |
| P-Driver | 1 axis | Incremental | × | × | ○ | AC100/200V | |



Caution

(Note 1) The strokes that are set in increments of 50 mm are semi-standard settings.
(Note 2) Refer to page 40 for the relationship of acceleration and load capacity.
(Notes 3, 4, 5) The figures in brackets apply to the ISPA Series.
Other specification values apply to both the ISA and ISPA Series.
(Note 6) The maximum cable length is 30 m. Specify the desired length in meters (e.g., X08 = 8 m).

* Refer to page 9 for other points to note.