

ISA-WXM-600

Single-Axis Robot: Super-Large X-Axis Type, Actuator Width 198mm, 600W. Straight Shape

ISPA-WXM-600

Single-Axis Robot: Super-Large X-Axis Type, Actuator Width 198mm, 600W. Straight Shape High-Precision Specification

| Model specification items | Series | WXM Type | Encoder type | Motor Output | Lead | Stroke | Applicable controller | Cable length | Options |
|---|----------|----------|-------------------------------|--------------|-------------------------------|---|--|---|---------------------------------|
| ISA: Standard Specification ISPA: High-Precision Specification | Standard | | A: Absolute I: Incremental | 600:600W | 40:40mm 20:20mm 10:10mm | 100:100mm 1300:1300mm (every 100mm) | T1:XSEL-J/K T2:SCON SSEL XSEL-P/Q | N:None S:3 m M:5 m X□□: Length specification | Refer to the option list below. |



* 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 100mm | Speed (Note 1) (mm/s) | Acceleration (Note 2) | | | | Load capacity (Note 2) | | | | Rated thrust (N) |
|---------------------------------|----------------------|------------------|-----------|------------------------------------|-----------------------|-----------------------|---------|--------------|---------|------------------------|----------------------|--------------------|----------------------|------------------|
| | | | | | | Horizontal (G) | | Vertical (G) | | Horizontal (G) | | Vertical (G) | | |
| | | | | | | Rated | Maximum | Rated | Maximum | Rated acceleration | Maximum acceleration | Rated acceleration | Maximum acceleration | |
| ISA[ISA]-WXM-①-600-40-②-③-④-L-⑤ | Absolute/Incremental | 600 | 40 | 100 ~ 1300 | 1 ~ 2400 | 0.3 | 1.0 | 0.3 | 1.0 | 60 | 18 | 14 | 5 | 255 |
| ISA[ISA]-WXM-①-600-20-②-③-④-L-⑤ | | | 20 | | 1 ~ 1200 | 0.3 | 1.0 | 0.3 | 0.8 | 120 | 36 | 29 | 15 | 510 |
| ISA[ISA]-WXM-①-600-10-②-③-④-L-⑤ | | | 10 | | 1 ~ 600 | 0.3 | 0.6 | 0.3 | 0.5 | 150 | 75 | 60 | 40 | 1020 |

* In the above model names, ① indicates the encoder type, ② stroke, ③ applicable controller, ④ cable length and ⑤ options.

Options

| Name | Code | Page | Name | Code | Page |
|-------------------|------|------|-------------------------------|-------|---------------------------|
| AQ seal | AQ | →P13 | Master-axis designation | LM | →P14 |
| Brake | B | →P13 | Reverse homing specification | NM | →P14 |
| Creep sensor | C | →P13 | Slave-axis designation | S | →P14 |
| Home limit switch | L | →P14 | Optional cable exit direction | A1/A3 | Refer to the figure below |

* With the WXM type, the home limit switch (L) is a standard equipment.

Common Specifications

| | |
|--|--|
| Positioning repeatability (Note 3) | ± 0.02 mm [± 0.01 mm] |
| Drive system (Note 4) | Ball screw ø20 mm, rolled C10 [equivalent to C5] |
| Lost motion (Note 5) | 0.05 mm or less [0.02 mm or less] |
| Allowable static moment | Refer to page 242 |
| Allowable dynamic moment (Note 6) | Ma: 139.2 N · m Mb: 199.9 N · m Mc: 391 N · m |
| Overhang load length | Ma direction: 900 mm or less, Mb/Mc directions: 900 mm or less |
| Base | Material: Aluminum with white alumite treatment |
| Applicable controller | T1: XSEL-J/K T2: XSEL-P/Q, SSEL, SCON |
| Cable length (Note 7) | N: No cable, S: 3 m, M: 5 m, X□□: Length specification |
| Ambient operating temperature · humidity | 0 to 40°C, 85% RH or less (Non-condensing) |

Dimensions

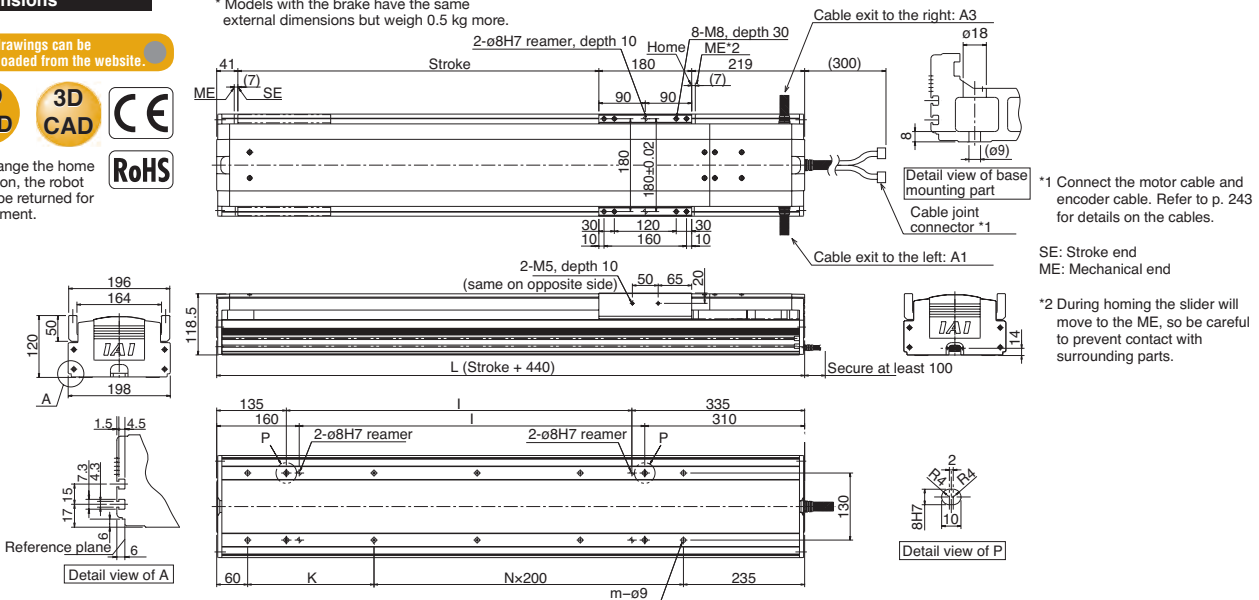
* Models with the brake have the same external dimensions but weigh 0.5 kg more.

CAD drawings can be downloaded from the website.

2D CAD 3D CAD

CE RoHS

* To change the home direction, the robot must be returned for adjustment.



Dimensions, Weight and Maximum Speed by Stroke

| Stroke | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 |
|-----------------------------------|---|------|------|------|------|------|------|------|------|------|------|------|------|
| L | 540 | 640 | 740 | 840 | 940 | 1040 | 1140 | 1240 | 1340 | 1440 | 1540 | 1640 | 1740 |
| I | 70 | 170 | 270 | 370 | 470 | 570 | 670 | 770 | 870 | 970 | 1070 | 1170 | 1270 |
| K | 245 | 145 | 245 | 145 | 245 | 145 | 245 | 145 | 245 | 145 | 245 | 145 | 245 |
| N | - | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 |
| m | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 |
| Weight (kg) | 18.1 | 20.1 | 22.1 | 24.1 | 26.1 | 28.0 | 30.0 | 32.0 | 34.0 | 35.9 | 37.9 | 39.9 | 41.9 |
| Maximum speed (mm/s) | 2400 | | | | | | | | | | | | |
| * Varies depending on the stroke. | Lead 40: 1200 Lead 20: 920 Lead 10: 460 | | | | | | | | | | | | |

Applicable Controller Specifications

| Applicable controller | Maximum number of controlled axes | Compatible encoder type | Operating method | Supply voltage | Page |
|-----------------------|-----------------------------------|-------------------------|--------------------------------|----------------------------------|------|
| X-SEL-P/Q | 6 axes | Absolute/Incremental | Program | Single phase/ Three-phase 200VAC | |
| X-SEL-K | 4 axes | | | Single phase AC 100/200V | |
| X-SEL-J (Note 8) | 4 axes | | | Single phase AC 200V | |
| SSEL | 2 axes | | | | |
| SCON | 1 axis | | Positioner pulse train control | | |



(Note 1) A longer stroke will result in a lower maximum speed to prevent the ball screw from reaching a dangerous speed. (Refer to the above table for the maximum speed at a given stroke.)

(Note 2) Refer to page 40 for the relationship of acceleration and payload. (Note 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) Traveling life of 10,000 km is assumed.

(Note 7) The maximum cable length is 30 m. Specify the desired length in meters (e.g. X08 = 8 m)

(Note 8) If the WXM type is to be used vertically, use a controller other than the XSEL-J type.

* The WXM type comes with the home limit switch as a standard equipment, so use a controller of limit switch specification for this type.