

# ISDA-LX-200

Single-Axis Robot: Large Dust-proof Mid-support Type, Actuator Width 155mm, 200W, Straight Shape

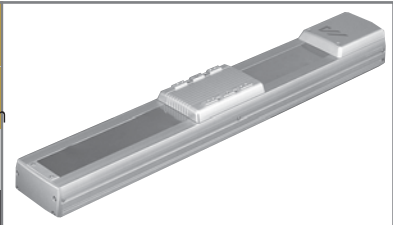
# ISPDA-LX-200

Single-Axis Robot: Large Dust-proof Mid-support Type, Actuator Width 155mm, 200W, Straight Shape, High-Precision Specification

|  |                      |                                   |
|--|----------------------|-----------------------------------|
| Type / Large dust-proof (155 mm wide) Mid-support Type | Stroke / 1000~1600mm | Load capacity / 40kg (horizontal) |
|--|----------------------|-----------------------------------|

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

(Example) ISDA - LX - A - 200 - 20 - 1600 - T1 - S - B



\* Refer to page 1 for the details of model specification items.

## Model/Specifications

| Model   | Encoder Type            | Motor output (W) | Lead (mm) | Stroke 100mm increments (mm) | Speed (mm/s) (Note 1) | Load capacity (Note 2) |                 | Rated thrust (N) | Positioning repeatability (mm) (Note 3) |
|---|-------------------------|------------------|-----------|------------------------------|-----------------------|------------------------|-----------------|------------------|---|
|   |                         |                  |           |                              |                       | Horizontal (kg)        | Vertical (kg)   |                  |   |
| ISDA [ISPDA]-LX- [1]-200-20- [2]- [3]- [4]- [5] | Absolute<br>Incremental | 200              | 20        | 1000 ~ 1600                  | 1 ~ 1000              | 40                     | Horizontal only | 169.5            | ±0.02<br>[±0.01]                        |

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

## Options

| Name                                | Code | Page | Remarks |
|-------------------------------------|------|------|---------|
| AQ seal                             | AQ   | ·P18 |         |
| Brake                               | B    | ·P18 |         |
| Reversed home specification         | NM   | ·P18 |         |
| Guide with ball-retaining mechanism | RT   | ·P18 |         |

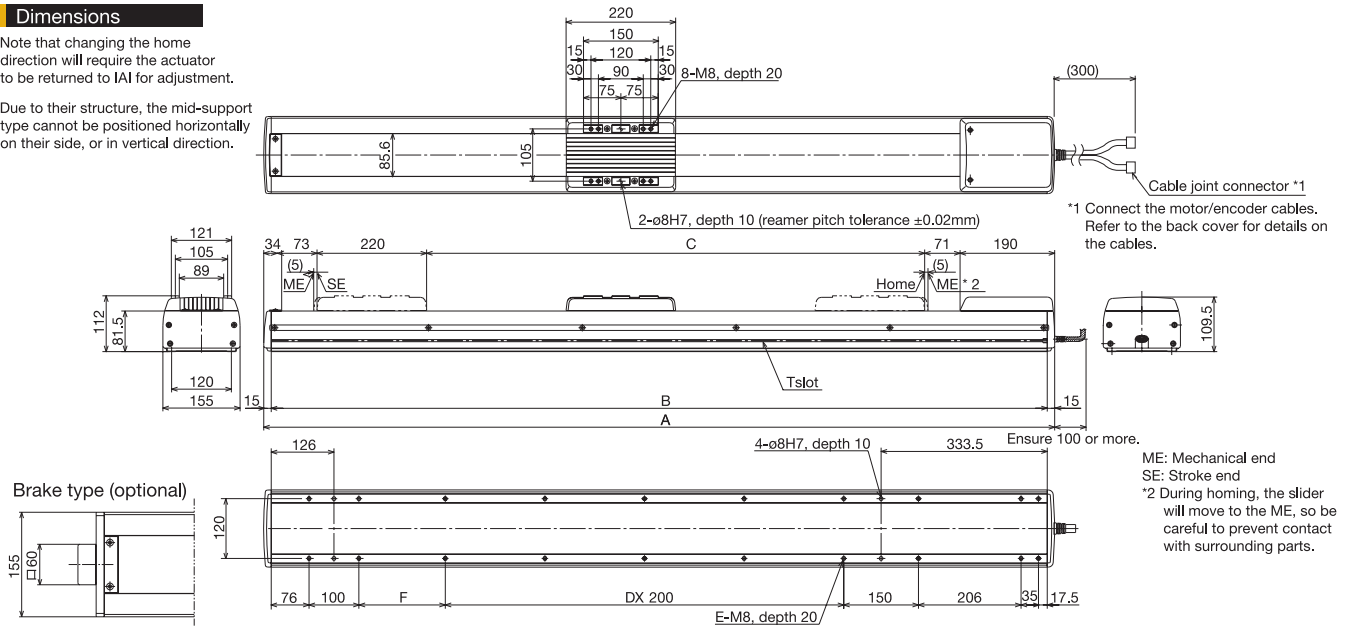
## Common Specifications

|  |  |
|--|--|
| Drive system (Note 4)                  | Ball screw ø20mm, rolled C10 [equivalent to rolled C5] |
| Backlash (Note 5)                      | 0.05mm or less [0.02mm or less]                        |
| Guide                                  | Integrated with base                                   |
| Allowable load moment                  | Ma: 104.9N · m, Mb: 149.9N · m, Mc: 248.9N · m         |
| Overhang load length                   | Ma/Mb/Mc directions: 750mm or less                     |
| Base                                   | Material: Aluminum with white alumite treatment        |
| Applicable controller                  | T1: XSEL-J/K, E-Con, P-Driver; T2: XSEL-P/Q            |
| Cable length (Note 6)                  | S: 3m, M: 5m, X□□: Length specification                |
| Ambient operating temperature/humidity | 0~40°C, 85%RH (non-condensing)                         |

## Dimensions

\* Note that changing the home direction will require the actuator to be returned to IAI for adjustment.

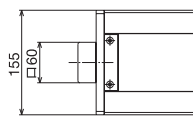
\* Due to their structure, the mid-support type cannot be positioned horizontally on their side, or in vertical direction.



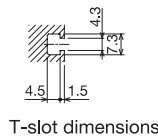
\*1 Connect the motor/encoder cables. Refer to the back cover for details on the cables.

ME: Mechanical end  
SE: Stroke end  
\*2 During homing, the slider will move to the ME, so be careful to prevent contact with surrounding parts.

### Brake type (optional)



\* Actuators with the brake are longer by 24 mm and heavier by 1.0 kg than their non-brake counterparts.



Maximum speed (mm/s)  
\* Varies depending on the stroke.

| Stroke      | 1000  | 1100 | 1200  | 1300 | 1400  | 1500 | 1600  |
|-------------|-------|------|-------|------|-------|------|-------|
| A           | 1588  | 1688 | 1788  | 1888 | 1988  | 2088 | 2188  |
| B           | 1558  | 1658 | 1758  | 1858 | 1958  | 2058 | 2158  |
| C           | 1000  | 1100 | 1200  | 1300 | 1400  | 1500 | 1600  |
| D           | 4     | 5    | 5     | 6    | 6     | 7    | 7     |
| E           | 20    | 22   | 22    | 24   | 24    | 26   | 26    |
| F           | 173.5 | 73.5 | 173.5 | 73.5 | 173.5 | 73.5 | 173.5 |
| Weight (kg) | 30.8  | 32.4 | 34.0  | 35.6 | 37.2  | 38.9 | 40.5  |
| Lead 20     | 1000  |      |       |      |       | 950  | 830   |

## 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          | 3-phase 200VAC          | Back cover |
| X-SEL-J/K             | 4 axes                            |                         |                  | Single-phase 100/200VAC |            |
| E-Con                 | 1 axis                            | Absolute /incremental   | Positioner       | AC100/AC200V            | Back cover |
| P-Driver              | 1 axis                            | Incremental             | Pulse train      | AC100/AC200V            | Back cover |



(Note 1) When the stroke increases, the maximum speed drops in order to prevent the ball screw from reaching a dangerous speed. (Refer to the above table for the maximum speed at each stroke.)  
(Note 2) Refer to page 18 for the relationship of acceleration and load capacity.  
(Notes 3, 4, 5) The figures in [ ] apply to the ISPDA Series.  
(Note 6) The maximum cable length is 30 m. Specify a desired length in meters. (Example: X08 = 8 m)