

# ISDA-LX-400

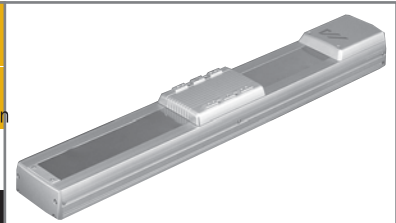
Single-Axis Robot: Large Dust-proof Mid-support Type, Actuator Width 155mm, 400W, Straight Shape

# ISPDA-LX-400

Single-Axis Robot: Large Dust-proof Mid-support Type, Actuator Width 155mm, 400W, Straight Shape, High-Precision Specification

Type / Large dust-proof (155 mm wide) Mid-support Type	Stroke / 1000~1600mm	Load capacity / 80kg (horizontal)
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Model specification items Series Type Encoder type Motor output Lead Stroke Applicable controller Cable length Options  
 (Example) ISDA - LX - A - 400 - 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)			
						Rated acceleration	Maximum acceleration	Rated acceleration	Maximum acceleration		
ISDA [ISPDA]-LX-[1]-400-20-[2]-[3]-[4]-[5]	Absolute Incremental	400	20	1000 ~ 1600	1 ~ 1000	80	Horizontal only		340.1	±0.02 [±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	

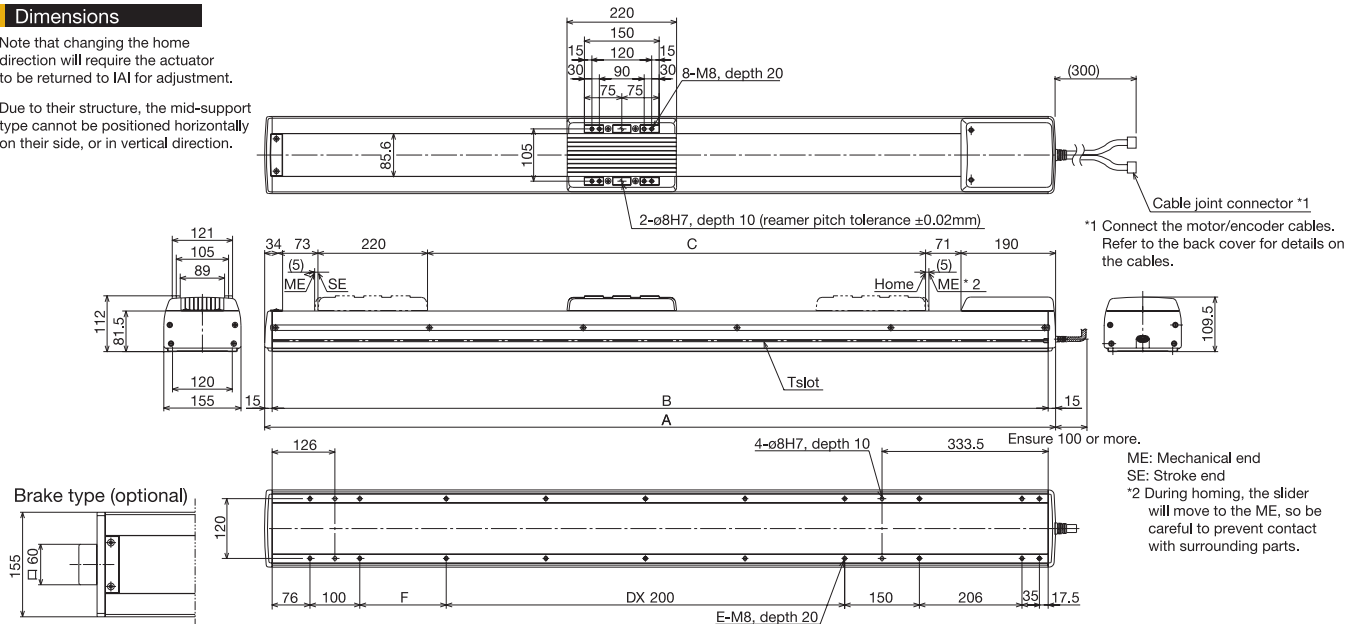
## Common Specifications

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.

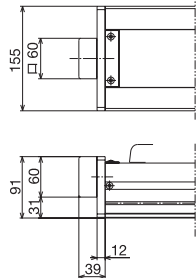
\* Due to their structure, the mid-support type cannot be positioned horizontally on their side, or in vertical direction.



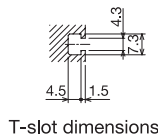
\*1 Connect the motor/encoder cables. Refer to the back cover for details on the cables.

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)	31.2	32.8	34.4	36.0	37.6	39.2	40.8
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)