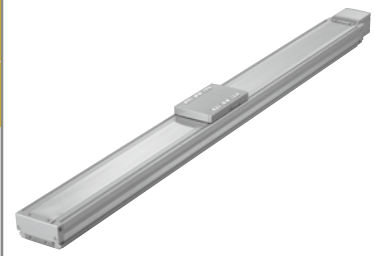


# ISDB-LX-400

Single-axis robot/Large, dustproof, mid-support type/Actuator width: 150mm/400W Straight shape

# ISPDB-LX-400

Single-axis robot/Large, dustproof, mid-support type/Actuator width: 150mm/400W Straight shape **High precision specification**



## Model Specification Items

Series	LX	Encoder type	400	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
ISDB: Standard specification ISPDB: High precision specification	Type	A: Absolute specification I: Incremental specification	400: 400W	40: 40mm 20: 20mm	1000: 1000mm 1600: 1600mm (in 100mm increments)	T1: XSEL-J/K T2: SCON SSEL XSEL-P/Q	N: None S: 3m M: 5m X□: Specified length	Refer to the options table below.	

\* Refer to P. 10 for the details of items comprising the model number.

## Model Number/Specification

Model number	Encoder type	Motor output (W)	Lead (mm)	Stroke in 100mm increments (mm)	Speed (mm/s)	Acceleration (Note 1)				Payload (Note 1)				Rated thrust (N)
						Horizontal (G)		Vertical (G)		Horizontal (kg)		Vertical (kg)		
						Rated	Maximum	Rated	Maximum	Rated acceleration	Maximum acceleration	Rated acceleration	Maximum acceleration	
ISDB[ISPDB]-LX-①-400-40-②-③-④-⑤	Absolute Incremental	400	40	1000~1600	1~1800	0.4				40		Designed exclusively for horizontal use	169.6	
ISDB[ISPDB]-LX-①-400-20-②-③-④-⑤			20		1~1200	0.4			90			339.1		

\*In the above model numbers, ① indicates the encoder type, ② indicates the stroke, ③ indicates the applicable controller, ④ indicates the cable length, and ⑤ indicates the option(s).

## Option

Name	Model number	Reference page	Name	Model number	Reference page
Cable exit from the left	A1S	→P11	Home limit switch	L	→P11
Cable exit from the rear left	A1E	→P11	Home limit switch on the opposite side	LL	→P11
Cable exit from the right	A3S	→P11	Master axis specification	LM	→P12
Cable exit from the rear right	A3E	→P11	Master axis specification (sensor on the opposite side)	LLM	→P12
AQ seal (standard feature)	AQ	→P11	Non-motor side specification	NM	→P12
Brake	B	→P11	Guide with ball retention mechanism	RT	→P12
Creep sensor	C	→P11	Slave axis specification	S	→P12
Creep sensor on the opposite side	CL	→P11	High straightness, precision specification	ST	→P13

## Common Specifications

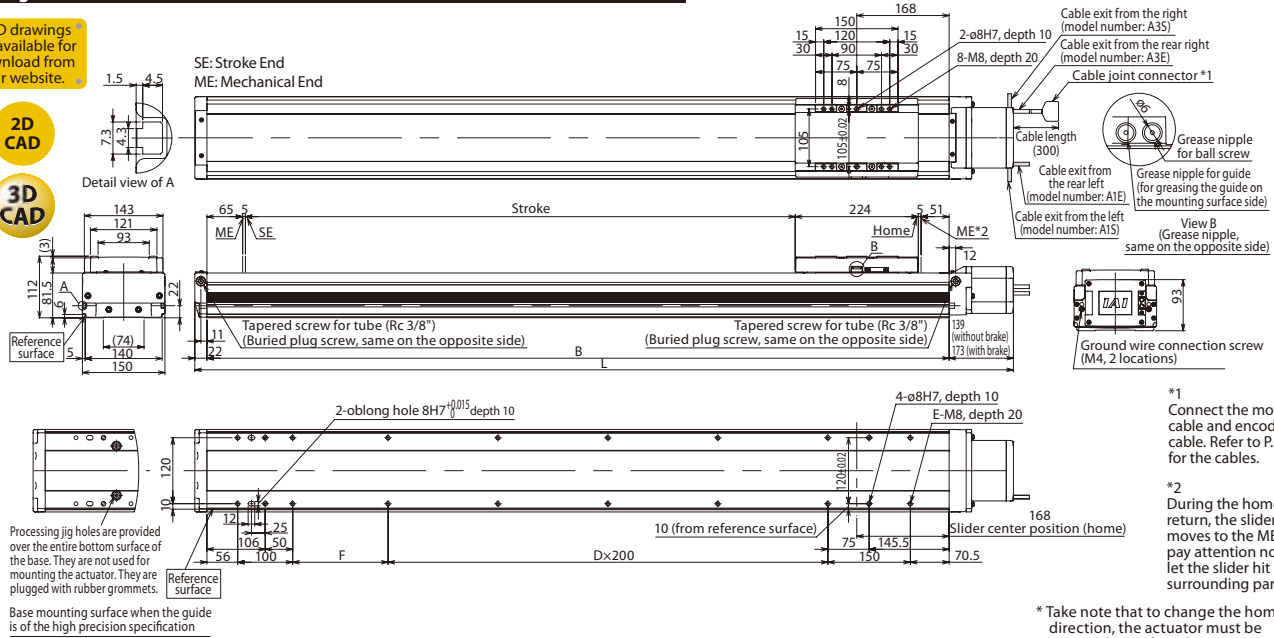
Positioning repeatability (Note 2)	±0.01mm [±0.005mm]
Drive method (Note 3)	Ball screw ø20mm, rolled C10 [equivalent to rolled C5]
Lost Motion (Note 4)	0.05mm [0.02mm] max.
Dynamic allowable load moment (Note 5)	Ma: 104.9N·m Mb: 149.9N·m Mc: 248.9N·m
Overhang load length	Ma direction: 750mm max. Mb, Mc directions: 750mm max.
Dynamic straightness (Note 6)	0.02mm/m max.
Base	Material: Aluminum, with white alumite treatment
Applicable controller	T1: XSEL-J/K T2: XSEL-P/Q, SSEL, SCON
Cable length (Note 7)	N: None, S: 3m, M: 5m, X□□: Specified length
Protection structure	IP30
Ambient operating temperature/humidity	0 to 40°C, 85%RH max. (non-condensing)

## Diagram

CAD drawings are available for download from our website.

2D CAD

3D CAD



## Dimensions, Mass and Maximum Speed by Stroke

\*If the brake is equipped, the mass increases by 0.5kg. \*The maximum speed (mm/s) varies depending on the stroke.

Stroke	1000	1100	1200	1300	1400	1500	1600
	L	1511	1611	1711	1811	1911	2011
B	1350	1450	1550	1650	1750	1850	1950
D	4	5	5	6	6	7	7
E	16	18	18	20	20	22	22
F	173.5	73.5	173.5	73.5	173.5	73.5	173.5
Mass (kg)	30.1	31.8	33.6	35.4	37.1	38.9	40.6
Maximum speed (mm/s)	Lead 30	1800			1000	950	1660
	Lead 20	1200	1150	1000	950	830	

## Applicable Controller Specifications

Applicable Controller	Maximum number of controlled axes	Connectable encoder type	Operating method	Power-supply voltage	Reference page
X-SEL-P/Q	6 axes	Absolute/ incremental	Program	Single/three-phase 200 VAC	→P56
X-SEL-J/K	4 axes			Single-phase 100/200 VAC	→P56
SSEL	2 axes			Single-phase 200 VAC	→P56
SCON	1 axis			Positioner pulse train control	→P56



(Note 1) Refer to P. 9 for the relationship of acceleration and payload. (Notes 2, 3, 4) The values in [ ] apply to the ISPDB series. Other specification values apply commonly to the ISDB and ISPDB.

(Note 5) When the traveling life is 10,000km.

(Note 6) The value of dynamic straightness is when the high straightness, precision specification (option) is specified.

(Note 7) The maximum cable length is 30m. Specify a desired length in meters. (Example. X08 = 8m)