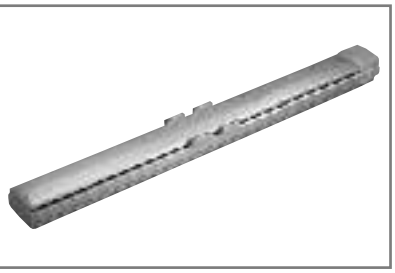
ISA-LXUWX-400

Single-Axis Robot: Large X-Axis Mid-Support, Double Slider Type, Actuator Width 150mm, 400W, Straight Shape

ISPA-LXUWX-400

Single-Axis Robot: Large X-Axis Mid-Support, Double Slider Type, Actuator Width 150mm, 400W, Straight Shape High-Precision Specification



Type	Stroke	Load capacity
Large X-axis (150-mm wide) mid-support, double slider type	1000 ~ 2500mm	80kg (horizontal)

■ Model specification items

Series	Type	Encoder type	Motor output	Lead	Stroke	Applicable controller	Cable length	Options
ISA[ISPA]	LXUWX	A	400	40	2500	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 100mm	Speed (Note 1) (mm/s)	Acceleration (Note 2) Horizontal (G) Rated	Acceleration (Note 2) Horizontal (G) Maximum	Acceleration (Note 2) Vertical (G) Rated	Acceleration (Note 2) Vertical (G) Maximum	Load capacity (Note 2) Horizontal (kg) Rated acceleration	Load capacity (Note 2) Horizontal (kg) Maximum acceleration	Load capacity (Note 2) Vertical (kg) Rated acceleration	Load capacity (Note 2) Vertical (kg) Maximum acceleration	Rated thrust (N)
ISA [ISPA] -LXUWX-A-400-40-✻✻✻-T1-△-□	Absolute	400	40	1000 ~ 2500	1 ~ 2000	0.3	Horizontal application only			40	Horizontal application only			170.0
ISA [ISPA] -LXUWX-A-400-20-✻✻✻-T1-△-□			20		1 ~ 1000	0.3				80				340.1
ISA [ISPA] -LXUWX-I-400-40-✻✻✻-T1-△-□	Incremental		40		1 ~ 2000	0.3				40				170.0
ISA [ISPA] -LXUWX-I-400-20-✻✻✻-T1-△-□			20		1 ~ 1000	0.3				80				340.1

* 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			

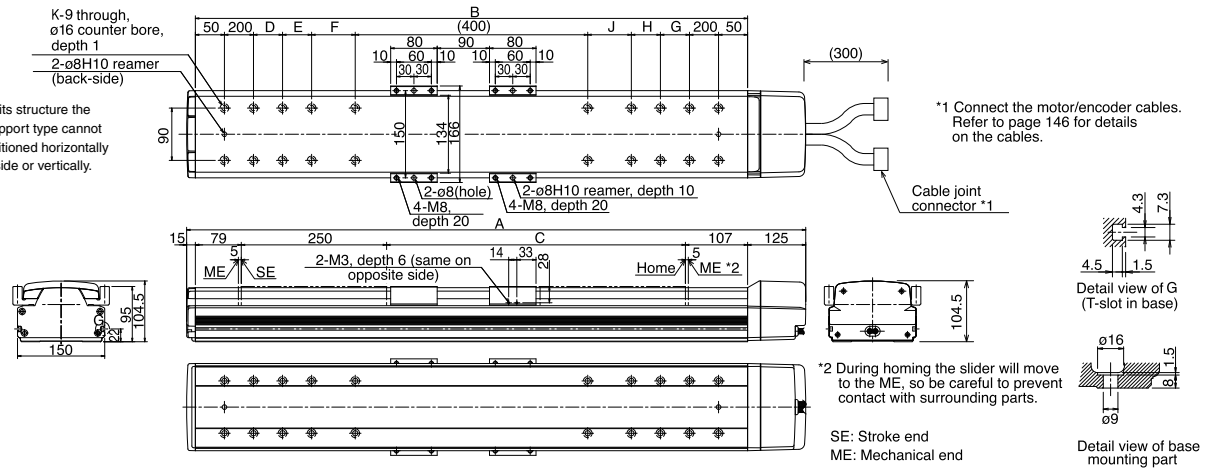
Common Specifications

* 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 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: 179.3N • m Mb: 254.8N • m Mc: 247.0N • m
Overhung load length	Ma direction: 1250mm or less, Mb/Mc directions: 1250mm or less
Base	Material: Aluminum with white alumite treatment
Cable length (Note 6)	N: No cable, S: 3m, M: 5m, X□□ : Length specification

Dimensions

* Note that changing the home direction will require the actuator to bereturned to IAI for adjustment.



■ Dimensions, Weight and Maximum Speed by Stroke

Stroke	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
A	1590	1690	1790	1890	1990	2090	2190	2290	2390	2490	2590	2690	2790	2890	2990	3090
B	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950
C	1014	1114	1214	1314	1414	1514	1614	1714	1814	1914	2014	2114	2214	2314	2414	2514
D	275	325	375	425	475	525	575	200	200	200	200	200	200	200	200	200
E	0	0	0	0	0	0	0	425	475	525	575	200	200	200	200	200
F	0	0	0	0	0	0	0	0	0	0	0	425	475	525	575	625
G	275	325	375	425	475	525	575	200	200	200	200	200	200	200	200	200
H	0	0	0	0	0	0	0	425	475	525	575	200	200	200	200	200
J	0	0	0	0	0	0	0	0	0	0	0	425	475	525	575	625
K	12	12	12	12	12	12	12	16	16	16	16	20	20	20	20	20
Weight (kg)	30.0	31.5	33.0	34.5	36.0	37.5	39.0	40.5	42.0	43.5	45.0	46.5	48.0	49.5	51.0	52.5
Maximum speed (mm/s) Lead 40	2000					1900	1660	1480	1300	1180	1080	980	880	820	740	680
Maximum speed (mm/s) Lead 20	1000					950	830	740	650	590	540	490	440	410	370	340

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	➔ P241
E-Con	1 axis	Absolute/incremental	×	○	×	AC100/200V	➔ P227
P-Driver	1 axis	Incremental	×	×	○	AC100/200V	➔ P234

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.