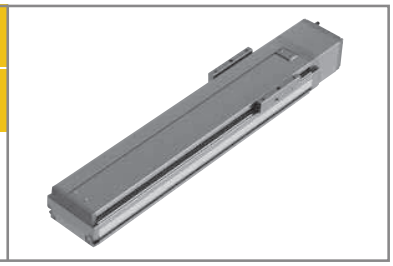
ISB-SXL

Single-axis robot/Small, X-axis, long slider type/Actuator width: 90mm/60W
Straight shape

ISPB-SXL

Single-axis robot/Small, X-axis, long slider type/Actuator width: 90mm/60W
Straight shape **High precision specification**



Model Specification Items

Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
ISB: Standard specification ISPB: High precision specification	SXL	A: Absolute specification I: Incremental specification	60: 60W	16: 16mm 8: 8mm 4: 4mm	130: 130mm ~ 880: 880mm (in 50 mm 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

*1.0G=9800mm/sec²

Model number	Encoder type	Motor output (W)	Lead (mm)	Stroke in 50mm increments (mm)	Speed (mm/s)	Acceleration (Note 1) Horizontal (G) Rated	Acceleration (Note 1) Horizontal (G) Maximum	Acceleration (Note 1) Vertical (G) Rated	Acceleration (Note 1) Vertical (G) Maximum	Payload (Note 1) Horizontal (kg) Rated acceleration	Payload (Note 1) Horizontal (kg) Maximum acceleration	Payload (Note 1) Vertical (kg) Rated acceleration	Payload (Note 1) Vertical (kg) Maximum acceleration	Rated thrust (N)
ISB[ISPB]-SXL-①-60-16-②-③-④-⑤	Absolute Incremental	60	16	130~880	1~960	0.4	1.2	0.4	0.8	13	3.5	3.5	2	53.1
ISB[ISPB]-SXL-①-60-8-②-③-④-⑤			8		1~480	0.4	0.7	0.4	0.6	27	12	7	5	106.1
ISB[ISPB]-SXL-①-60-4-②-③-④-⑤			4		1~240	0.2	0.5	0.2	0.4	55	30	14	12	212.3

*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	Slave axis specification	S	➔P12
Creep sensor	C	➔P11	High straightness, precision specification	ST	➔P13
Creep sensor on the opposite side	CL	➔P11			

Common Specifications

Positioning repeatability (Note 2)	±0.01mm [±0.005mm]
Drive method (Note 3)	Ball screw Ø12mm, rolled C10 [equivalent to rolled C5]
Lost Motion (Note 4)	0.05mm [0.02mm] max.
Dynamic allowable load moment (Note 5)	Ma: 39.7N•m Mb: 56.7N•m Mc: 76.3N•m
Overhang load length	Ma direction: 550mm max. Mb, Mc directions: 550mm 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
Ambient operating temperature/humidity	0 to 40°C, 85%RH max. (non-condensing)

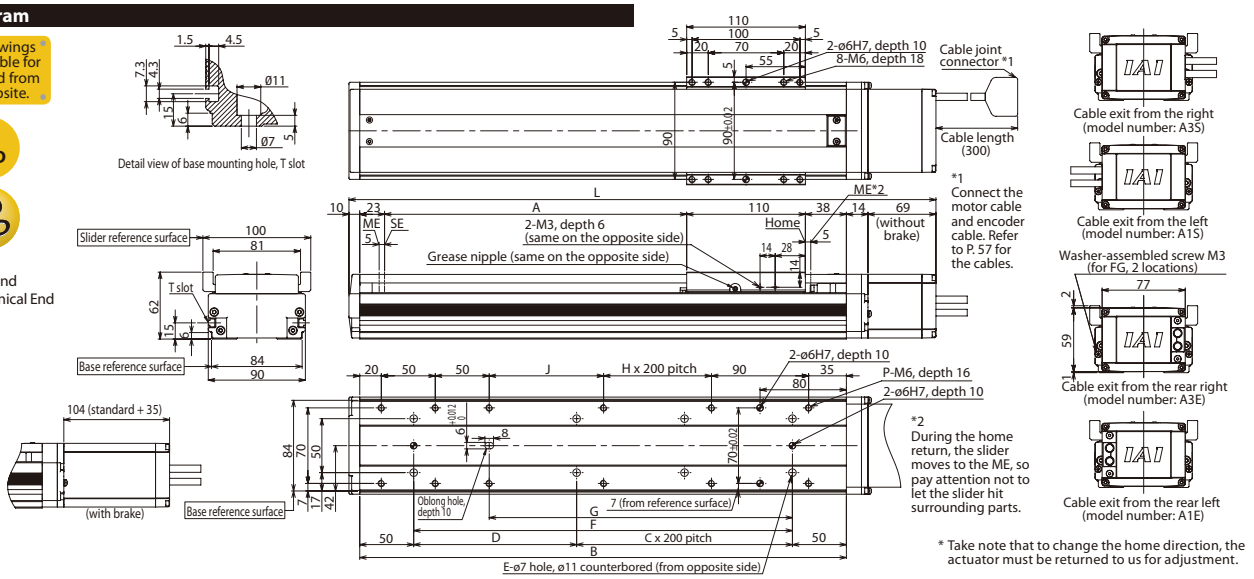
Diagram

* CAD drawings are available for download from our website.

2D CAD

3D CAD

SE: Stroke End
ME: Mechanical End



* Take note that to change the home direction, the actuator must be returned to us for adjustment.

■ Dimensions, Mass and Maximum Speed by Stroke

*If the brake is equipped, the mass increases by 0.3 kg. *The maximum speed (mm/s) varies depending on the stroke.

Stroke		130	180	230	280	330	380	430	480	530	580	630	680	730	780	830	880
L	without brake	394	444	494	544	594	644	694	744	794	844	894	944	994	1044	1094	1144
	with brake	429	479	529	579	629	679	729	779	829	879	929	979	1029	1079	1129	1179
A		130	180	230	280	330	380	430	480	530	580	630	680	730	780	830	880
B		301	351	401	451	501	551	601	651	701	751	801	851	901	951	1001	1051
C		0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4
D		201	251	101	151	201	251	101	151	201	251	101	151	201	251	101	151
E		4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12
F		201	251	301	351	401	451	501	551	601	651	701	751	801	851	901	951
G		131	181	231	281	331	381	431	481	531	581	631	681	731	781	831	881
H		0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3
J		56	106	156	206	256	106	156	206	256	106	156	206	256	106	156	206
P		10	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16
Mass (kg)		3.1	3.5	3.9	4.3	4.6	5.0	5.3	5.7	6.0	6.4	6.7	7.1	7.4	7.8	8.1	8.5
Maximum speed (mm/s)	Lead 16	960										655		515		415	
	Lead 8	480										330		260		210	
	Lead 4	240										165		130		100	

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				➔P56
SCON	1 axis		Positioner pulse train control		➔P56

CAUTION

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