ISB-MXMX-400

±10μm Standard | Battery-less Absolute | Medium X-axis Type | Intermediate Support Type | Body Width 120 mm | 400 W

■ Model Specification Items

ISB	—	MXMX	—	WA	—	400	—	48	—	□	—	T2	—	□	—	□
Series	—	Type	—	Encoder Type	—	Motor Type	—	Lead	—	Stroke	—	Applicable Controllers	—	Cable Length	—	Options
				WA: Battery-less absolute		400 : 400W		48 : 48mm		800 : 800mm ~ 2000 : 2000mm (50mm increments)		T2 : SCON SSEL XSEL-P/Q		N : None S : 3m M : 5m X□□ : Specified Length		Please refer to the option table below

* Does not include a controller.
* Please contact IAI for more information about the model specification items.

* Be sure to specify the AQ seal (AQ) option. Be sure to select a symbol for the cable outlet direction.

CE RoHS

Horizontal | Vertical | Side | Ceiling

* Depending on the model, there may be some limitations to using the ceiling mount positions. Please contact IAI for more information regarding mounting positions. Please contact IAI for more details.

POINT Selection Notes

(Note 1) The value of payload is when operating at an acceleration of 0.4G. Please refer to P.21 for more information.

(Note 2) The value of straightness of straight line motion is when specifying the straightness high precision specifications (optional).

Model/Specifications

■ Lead and Payload

Model	Motor wattage (W)	Lead (mm)	Max. payload (*1) Horizontal (kg)	Max. payload (*1) Vertical (kg)	Rated thrust (N)	Stroke (mm)
ISB-MXMX-WA-400-48-①-T2-②-③	400	48	20	–	141.3	800~2000 (Every 50mm)

Legend: ① Stroke ② Cable length ③ Option

(*1) Refer to P. 21 for the relationship of acceleration and payload.

■ Stroke and Max. Speed

Stroke	800	850	900	950	1000	1050	1100
Max. Speed	1700	1750	1800	1850	1900	1950	2000

Stroke	1150	1200	1250	1300	1350	1400	1450
Max. Speed	2050	2100	2150	2200	2065	1925	1805

Stroke	1500	1550	1600	1650	1700	1750	1800
Max. Speed	1690	1590	1495	1410	1335	1265	1195

Stroke	1850	1900	1950	2000
Max. Speed	1135	1080	1025	980

(Unit: mm/s)

Cable Length

Type	Cable code	Standard	With LS
Standard type	**S** (3m)	○	
	M (5m)	○	
Specified length	**X06** (6m) ~**X10** (10m)	○	○
	X11 (11m) ~**X20** (20m)	○	○

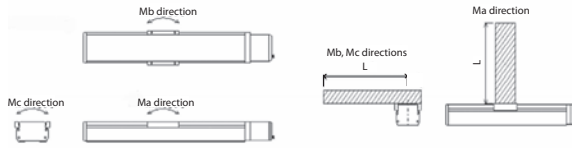
* Only the robot cable is available for this model.
* Please contact IAI for more information regarding the maintenance cables.
* When using a cable of 21 to 30m, specify "N" for the cable length of the actuator model, and separately purchase the motor cable [CB-X(EU)-MA□□□], encoder cable [CB-X(EU)1-PA□□□-AWG24] or encoder cable with LS [CB-X(EU)1-PLA□□□-AWG24]. (Please contact IAI for more details on the cable.)

Actuator Specifications

Item	Description
Positioning repeatability	±0.01mm
Drive system	Ball screw ϕ16mm, rolled C10
Lost motion	0.05mm or less
Static allowable moment	Ma: 341.5N·m Mb: 487.0N·m Mc: 796.5N·m
Dynamic allowable moment (*1)	Ma: 81.0N·m Mb: 116.0N·m Mc: 189.0N·m
Dyn. straightness of straight line motion (*2)	0.02mm/m or less
Base	Material: Aluminum with white alumite treatment
Ambient operating temp. & humidity	0~40°C, 85% RH or less (Non-condensing)

(*1) Assumes a standard rated life of 10000km. The service life will vary depending on operation and installation conditions. Please contact IAI for the running life.
(*2) The value is when the straightness high precision specification (option) is specified.

· Reference for overhang load length: Ma: 600mm or less, Mb, Mc: 600mm or less



Direction of the dynamic allowable moment | Direction of the allowable overhang load length

Please refer to the ISB/ISDB basic catalogue for more information regarding the directions of the allowable moment and overhang load length.

Options

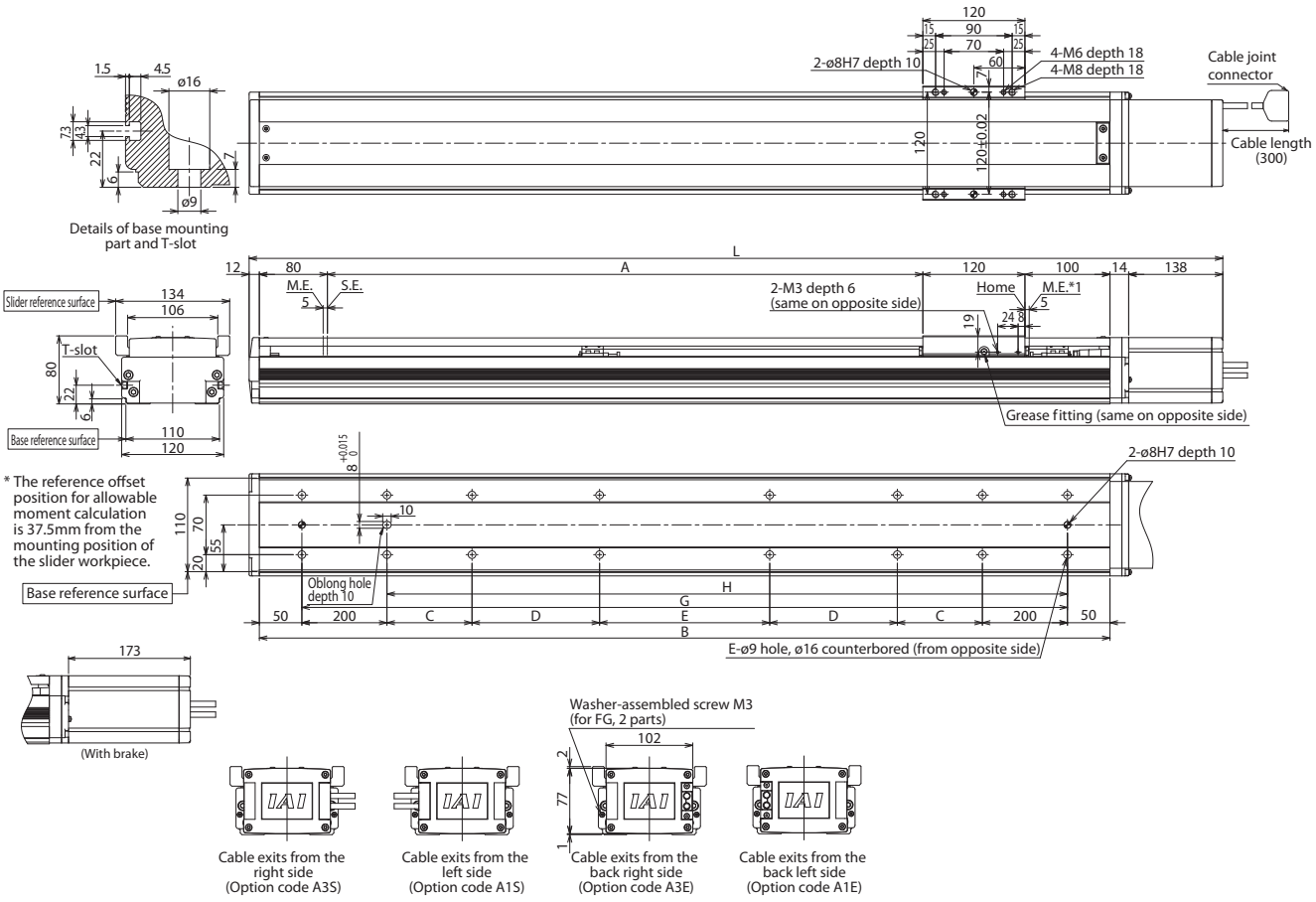
Type	Model	Ref. Page	Type	Model	Ref. Page
Cable exits from the left side	**A1S**	See P.19	Home limit switch symmetrically opposite	**LL**	See P.19
Cable exits from the back left side	**A1E**	See P.19	Master axis specified	**LM**	See P.19
Cable exits from the right side	**A3S**	See P.19	Master axis spec. (sensor symmetrically opposite)	**LLM**	See P.19
Cable exits from the back right side	**A3E**	See P.19	Non-motor end spec.	**NM**	See P.19
AQ seal (standard feature)	**AQ**	See P.19	Guide with ball retention mechanism	**RT**	See P.20
Brake	**B**	See P.19	Slave axis specified	**S**	See P.19
Creep sensor	**C**	See P.19	Straightness high precision specification	**ST**	See P.20
Creep sensor symmetrically opposite	**CL**	See P.19	-	**-**	-
Home limit switch	**L**	See P.19	Round cable joint connector with screw locking	**EU**	See P.19

Dimensions

CAD drawings can be downloaded from our website.
www.intelligentactuator.de

*1 When the slider is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the M.E.
M.E: Mechanical end
S.E: Stroke end

*2 If the home direction needs to be changed after purchase, the actuator must be returned to IAI for adjustment.



Dimensions and Mass by Stroke

Stroke		800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000
L	w/o brake	1264	1314	1364	1414	1464	1514	1564	1614	1664	1714	1764	1814	1864	1914	1964	2014	2064	2114	2164	2214	2264	2314	2364	2414	2464
	w/brake	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999	2049	2099	2149	2199	2249	2299	2349	2399	2449	2499
A		800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000
B		1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300
C		200	200	200	200	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	200	200	200	200	200
D		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	425	450	475	500
E		200	250	300	350	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
F		12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	16	16	16	16	16
G		1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200
H		800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000
Mass (kg)	w/o brake	17.1	17.7	18.4	19.0	19.6	20.3	20.9	21.5	22.2	22.8	23.4	24.1	24.7	25.4	26.0	26.6	27.3	27.9	28.5	29.2	29.8	30.4	31.1	31.7	32.3
	w/brake	17.7	18.3	19.0	19.6	20.2	20.9	21.5	22.1	22.8	23.4	24.0	24.7	25.3	25.9	26.6	27.2	27.8	28.5	29.1	29.8	30.4	31.0	31.7	32.3	32.9

Applicable Controllers

The ISB series actuators can be operated by the controllers indicated below. Please select the type depending on your intended use.

Type	External view	Max. number of controlled axes	Power supply voltage	Control method: Positioner	Pulse-train	Program	Network *Option	Maximum number of positioning points	Ref. page
SCON-CB/CGB		1	Single-phase 230VAC	●	●	–	DeviceNet, CC-Link, PROFIBUS, CompoNet, EtherCAT, EtherNet/IP, PROFINET	512 points (768 for network spec.)	Please contact IAI for more details
SCON-LC/LCG		1		–	–	●		512 points (768 for network spec.)	
SSEL-CS		2	Single-phase 115/230VAC	●	–	●		20000	
XSEL-P/Q		6	Single-phase 230VAC Three-phase 230VAC	–	–	●		20000	

Note:
The type of compatible networks will vary depending on the controller.
Please contact IAI for more details.