ISDB-S-100

±10μm Standard | Battery-less absolute | Simple Dust Proof | Small type | Actuator width 90 mm | 100 W

Model Specification Items

ISDB	—	S	—	WA	—	100	—	36	—	□	—	T2	—	□	—	□
Series		Type		Encoder type		Motor type		Lead		Stroke		Applicable controller		Cable length		Options*
				WA: Battery-less absolute		100: 100W		36: 36mm		100: 100mm ~ 800: 800mm (Every 50mm)		T2: SCON MSCON SSEL XSEL-P/Q XSEL-RA/SA		N : None S : 3m M : 5m X□□: Specified length		Refer to the optionsptions table below.

- Please refer to P. 9 for more information about the model specification items.
- Controller is not included.

Please be sure to include the AQ seal (AQ) and one of the symbols for cable exit direction.

Actuator Specifications

Model number	Motor output (W)	Lead (mm)	Payload (Note 1) Horizontal (kg)	Payload (Note 1) Vertical (kg)	Rated thrust (N)	Stroke (mm)
ISDB-S-WA-100-36-①-T2-②-③	100	36	10	2	47.2	100~800 (Every 50mm)

- Legend: ① Stroke ② Cable length ③ Options
- If the guide with ball retention mechanism (RT) is used, the vertical payload decreases by 0.5kg.

CAUTION

(Note 1) The value of payload is when operating at an acceleration of 0.4G. When the acceleration is increased, the payload will be reduced. Please contact IAI for more Information.

(Note 2) The value of dynamic straightness is when the high straightness, precision specification option is specified.

Option

Name	Model number	Reference page
Cable exit from the left	A1S	→P10
Cable exit from the rear left	A1E	→P10
Cable exit from the right	A3S	→P10
Cable exit from the rear right	A3E	→P10
AQ seal (standard feature)	AQ	→P10
Brake	B	→P10
Creep sensor	C	→P10
Creep sensor on the opposite side	CL	→P10
Home limit switch	L	→P10
Home limit switch on the opposite side	LL	→P10

Name	Model number	Reference page
Master axis specification	LM	→P11
Master axis specification (sensor on the opposite side)	LLM	→P11
Non-motor end specification	NM	→P11
Guide with ball retention mechanism	RT	→P11
Slave axis specification	S	→P11
Slider roller specification	SR	→P10
High straightness, precision specification (stroke 100~600)	ST	→P12
High straightness, precision specification (stroke 650~800)	ST	→P12
Double slider specification	W	→P11

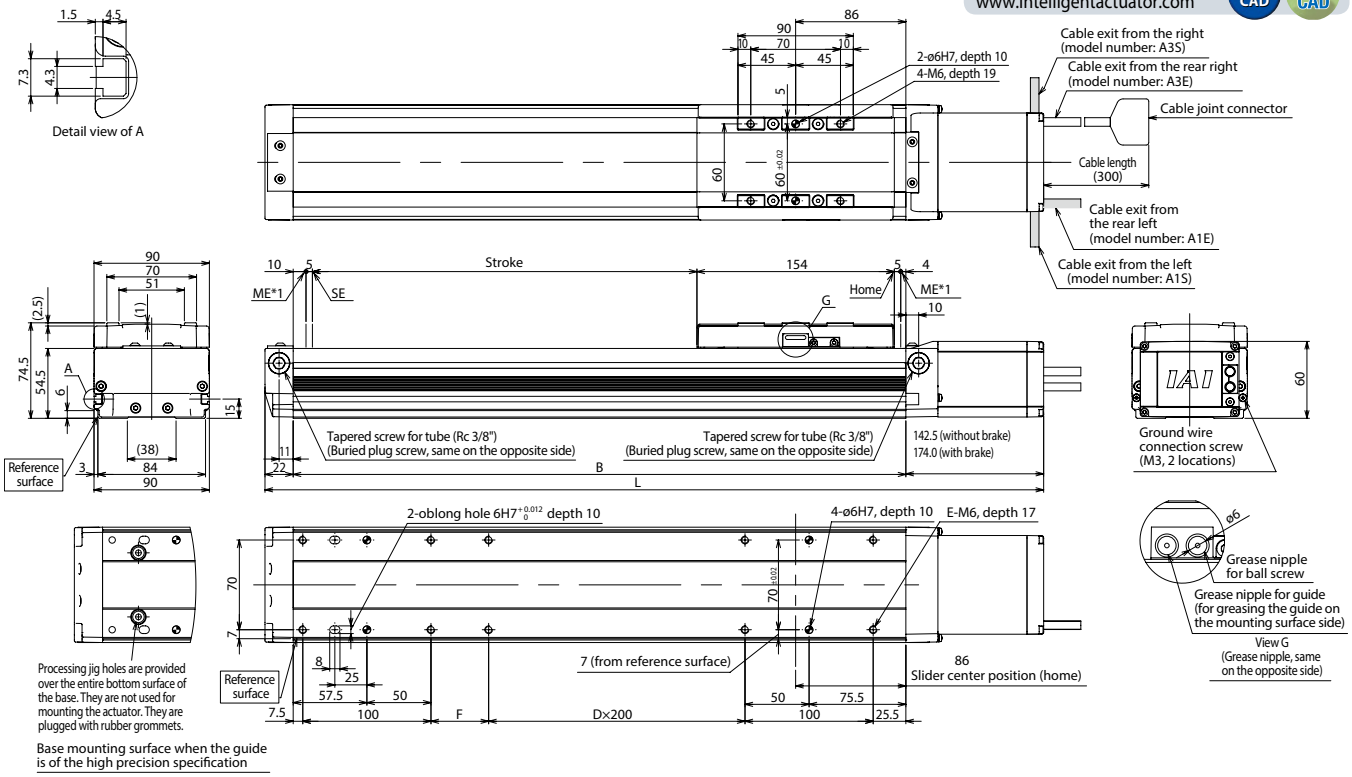
Actuator Specifications

Positioning repeatability	±0.01mm
Drive method	Ball screw φ12mm, rolled C10
Lost motion	0.05mm max.
Dynamic allowable load moment (*)(**)	Ma: 32.9N·m Mb: 47.0N·m Mc: 76.8N·m
Overhang load length(**)	Ma direction: 450mm max. Mb, Mc directions: 450mm max
Dynamic straightness (Note 2)	0.02mm/m max.
Base	Material: Aluminum, with white alumite treatment
Protection structure	IP30
Ambient operating temperature/humidity	0 to 40°C, 85%RH max. (non-condensing)

* Assumes a standard rated life of 10,000km. The operational life will vary depending on operation and installation conditions. Please refer to P16 for details on operational life.
** Please refer to P13 for the dynamic allowable load moment and overhang load length for the double slider option.

Diagram

CAD drawings can be downloaded from our website. www.intelligentactuator.com 2D CAD 3D CAD



Dimensions and Mass by Stroke

Stroke		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	without brake	442.5	492.5	542.5	592.5	642.5	692.5	742.5	792.5	842.5	892.5	942.5	992.5	1042.5	1092.5	1142.5
	with brake	474	524	574	624	674	724	774	824	874	924	974	1024	1074	1124	1174
B		278	328	378	428	478	528	578	628	678	728	778	828	878	928	978
D		0	0	0	0	1	1	1	1	2	2	2	2	3	3	3
E		8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
F		45	95	145	195	45	95	145	195	45	95	145	195	45	95	145
Mass (kg)	without brake	4.3	4.6	5.0	5.4	5.7	6.1	6.4	6.8	7.2	7.5	7.9	8.2	8.6	9.0	9.3
	with brake	4.6	4.9	5.3	5.7	6	6.4	6.7	7.1	7.5	7.8	8.2	8.5	8.9	9.3	9.6
Maximum speed (mm/s)	Lead 36	1075	1370	1620	1830	1940	1980	2000	2000	2000	2000	1825	1590	1400	1240	1105

*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 ME.
ME: Mechanical End SE: Stroke End

* Please return the actuator to us if a home direction change is necessary after purchase.
* The allowable moment offset reference position is 42.5mm from the slider work mounting position.

Applicable Controllers

Applicable Controller	Maximum number of controlled axes	Operating method: Positioner	Operating method: pulse train control	Operating method: program	Power-supply voltage	Maximum number of positioning points	Reference page
SCON-CB/CGB	1 axes	●	●	-	Single-phase AC100/200 V	512 (768 for network spec.)	Please contact IAI for more information.
SCON-LC/LCG	1 axes	-	-	●		512 (768 for network spec.)	
SCON-CAL/CGAL	1 axes	●	-	-		512 (768 for network spec.)	
MSCON-C	6 axes	This model is network-compatible only.				256	
SSEL-CS	2 axes	●	-	●		20000	
XSEL-P/Q/RA/SA	8 axes	-	-	●	Single-phase AC200V / three-phase AC200V	55,000 (depend on type)	

●The type of compatible networks will vary depending on controller. Please contact IAI for more information.

CE RoHS Horizontal Vertical Side Ceiling

* Some limitations may apply to Vertical/ side/ceiling mountings depending on the model. Please contact IAI for more information.