IF-SA-60

Single-Axis Robot, Compact Belt Type, Actuator Width 90mm, 60W

Model Designation IF — ☐ — ☐ — 60 — ☐ — ☐ — ☐ — ☐

Series	Type	Encoder Model	Motor Type	Stroke	Applicable Controller	Cable Length	Option
IF	SA1L: Standard SA2L: Motor on Side SA3L: Motor on Bottom SA1R: Motor, Reversed SA2R: Horizontal Motor, Reversed SA3R: Motor on Bottom, Reversed	A: Absolute I: Incremental	60:60W	200:200mm ~ 2000:2000mm (In 100mm steps)	T1:XSEL-J/K T2: SCON SSEL XSEL-P/Q	N: No Cable S: 3m M: 5m X☐☐ : Specified Length	Refer to the options table below

Models/Specifications

Model	Encoder Type	Motor Output (W)	Motor Mounting Position (Note 1)	Stroke 100mm Unit (mm)	Speed (mm/s)	Load Capacity (Note 2) Horizontal (kg)	Load Capacity (Note 2) Vertical (kg)	Rated Thrust (N)
IF-SA1 ①-②-60-③-④-⑤-⑥	Absolute Incremental	60	Standard	200~2000	1~1750	5	Horizontal Only	25.8
IF-SA2 ①-②-60-③-④-⑤-⑥			Motor on Side					
IF-SA3 ①-②-60-③-④-⑤-⑥			Motor on Bottom					

* ①: Motor mounting direction (L: Standard, R: Reversed), ②: Encoder Type, ③: Stroke, ④: Applicable Controller, ⑤: Cable Length, and ⑥: Option.

Options

Name	Model	Remarks
AQ Seal	AQ	
Creep Sensor (Note 3)	C	(CL: Reversed Mounting Side)
Home Limit Switch (Note 3)	L	(LL: Reversed Mounting Side)
Reversed Home Specification	NM	
Guide with Ball Retention Mechanism	RT	
Double Slider	W	

Common Specifications

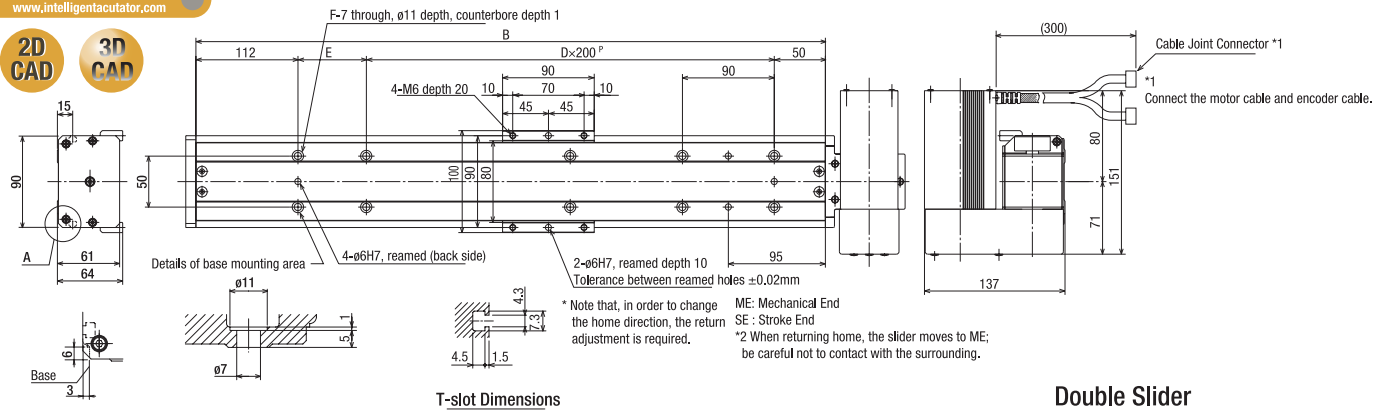
Positioning Repeatabilty	±0.08mm
Drive Method	Timing Belt
Lost Motion	0.1mm max.
Static Allowable Moment	Please refer to page 1
Dynamic Allowable Moment (Note 4)	Please refer to page 1
Overhang Length	Please refer to page 1
Base	Material: Aluminum with white alumite treatment
Applicable Controller	T1: XSEL-J/K T2: XSEL-P/Q, SSEL, SCON
Cable Length (Note 5)	N: No Cable, S: 3m, M: 5m, X☐☐: Specified Length
Surrounding Air Temp/Humidity	0 to 40°C, 85% RH (non-condensing)

Dimensions

Download CAD drawings
www.intelligentacutator.com

2D CAD 3D CAD

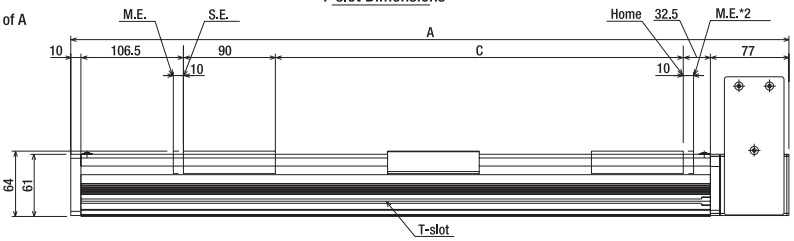
Single Slider



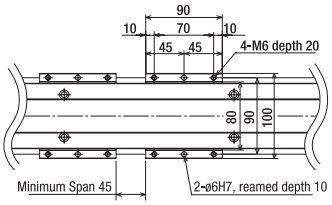
* Note that, in order to change the home direction, the return adjustment is required.

ME: Mechanical End
SE : Stroke End
*2 When returning home, the slider moves to ME; be careful not to contact with the surrounding.

T-slot Dimensions



Double Slider



* In the case of the double sliders, the stroke becomes shorter by the length of slider plus the span between sliders.

Stroke	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
A	516	616	716	816	916	1016	1116	1216	1316	1416	1516	1616	1716	1816	1916	2016	2116	2216	2316
B	429	529	629	729	829	929	1029	1129	1229	1329	1429	1529	1629	1729	1829	1929	2029	2129	2229
C	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
D	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10
E	67	167	67	167	67	167	67	167	67	167	67	167	67	167	67	167	67	167	67
F	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26
Mass (kg)	4.4	4.9	5.4	5.9	6.4	6.8	7.3	7.8	8.3	8.8	9.2	9.7	10.2	10.7	11.2	11.6	12.1	12.6	13.1
Max Speed (mm/s)	1750																		

Applicable Controller Specifications

Applicable Controller	Max number of controlled axes	Connectable Encoder Type	Operating Method	Power Supply Voltage
X-SEL-P/Q	6 axes	Absolute Incremental	Program	Single-Phase 3-phase 200 VAC
X-SEL-J/K	4 axes			Single-Phase 100/200 VAC
SSEL	2 axes			
SCON	1 axis		Positioner Pulse Train	

Caution

(Note 1) Refer to page 2 for the detailed explanation on the motor mounting positions.
(Note 2) The load capacity is the value obtained when the robot is operated at the acceleration of 0.3G.
(Note 3) Note that if creep sensor and home limit switch are to be added, the sensor mounting side is determined by the motor mounting direction due to its configuration (See page 2 for details)
(Note 4) In case the traveling life is 10,000km.
(Note 5) The maximum cable length is 30m. Specify the length in the unit of m. (Example: X08 = 8m)