

RCA2-SA4C ROBO Cylinder Slider Type 40mm Width Servo Motor Coupled

■ Configuration: **RCA2** — **SA4C** — **I** — **20** — — — — —

Series — Type — Encoder — Motor — Lead — Stroke — Compatible Controllers — Cable Length — Option

I: Incremental
* The Simple absolute encoder models are labeled as "I".

20P: 20W Servo motor

10: 6mm
5: 4mm
2.5: 2mm

50: 50mm
500: 500mm (50mm pitch increments)

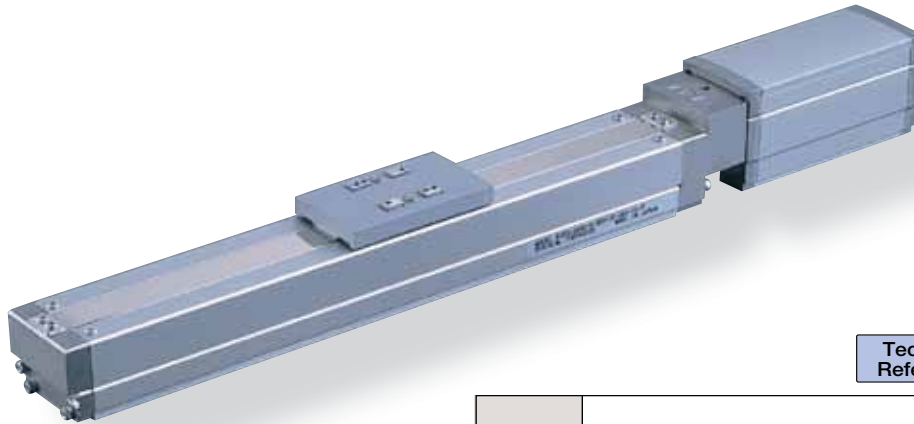
A1: ACON
RACON
ASEL
A3: AMEC
ASEP

N: None
P: 1m
S: 3m
M: 5m
X : Custom Length

See Options below

* See page Pre-35 for explanation of each code that makes up the configuration name.

Power-saving



Technical References P. A-5

POINT
Notes on Selection

(1) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

Actuator Specifications

■ Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity		Rated Thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCA2-SA4C-I-20-10- <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>	20	10	2	1	34	50 ~ 500 (50mm increments)
RCA2-SA4C-I-20-5- <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>		5	4	1.5	68	
RCA2-SA4C-I-20-2.5- <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>		2.5	6	3	136	

■ Stroke and Maximum Speed

Stroke Lead	50 ~ 500 (50mm increments)	
	Stroke	50 ~ 500 (50mm increments)
10	500	
5	250	
2.5	125	

Legend Stroke Compatible controller Cable length Options

(Unit: mm/s)

① Stroke List

Stroke (mm)	Standard Price	
	With cover (standard)	No cover (Option)
50	-	-
100	-	-
150	-	-
200	-	-
250	-	-
300	-	-
350	-	-
400	-	-
450	-	-
500	-	-

③ Cable List

Type	Cable Symbol	Standard Price
Standard (Robot Cables)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
		-

* The standard cable for the RCA2 is the robot cable.

* For cables for maintenance, see page A-39.

④ Option List

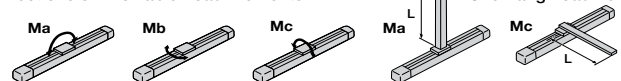
Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	-
Cable Exit Direction (Top)	CJT	→ A-25	-
Cable Exit Direction (Right)	CJR	→ A-25	-
Cable Exit Direction (Left)	CJL	→ A-25	-
Cable Exit Direction (Bottom)	CJB	→ A-25	-
Power-saving	LA	→ A-32	-
No Cover	NCO	→ A-33	-
Reversed-home	NM	→ A-33	-

Actuator Specifications

Item	Description
Drive System	Ball screw Ø8mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 6.8N·m Mb: 9.7N·m Mc: 13.3N·m
Allowable Dynamic Moment(*)	Ma: 3.04N·m Mb: 4.31N·m Mc: 5.00N·m
Overhang Load Length	120mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

(*) Based on 5,000km travel life.

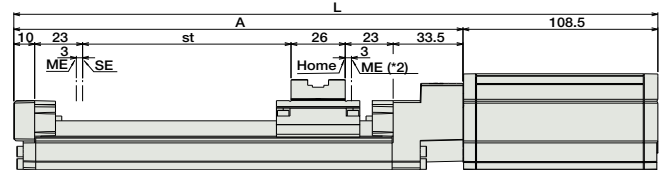
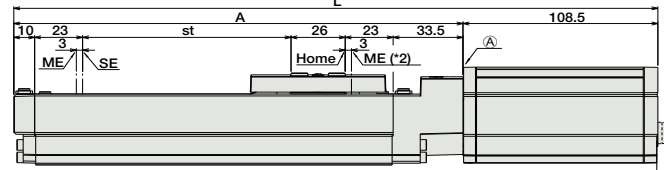
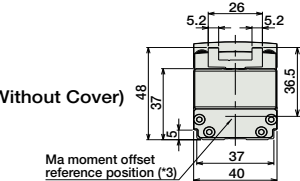
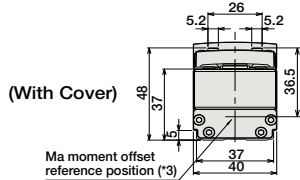
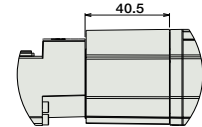
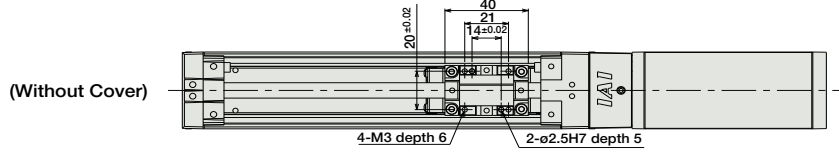
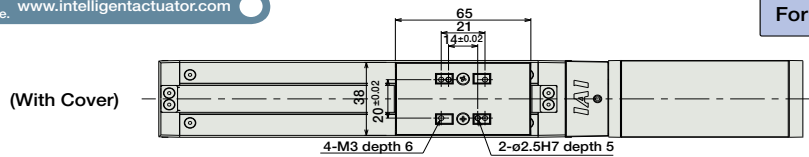
Directions of Allowable Load Moments



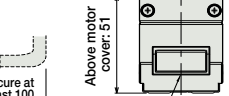
Dimensions

CAD drawings can be downloaded from IAI website. www.intelligentactuator.com

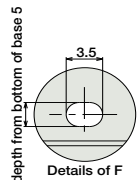
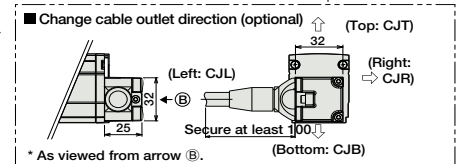
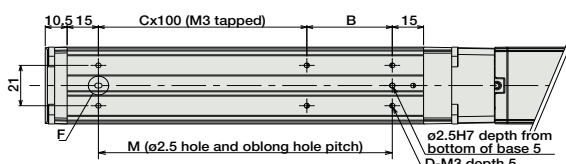
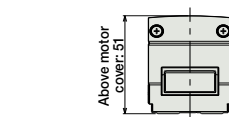
For Special Orders P. A-9



If equipped with a brake (* The above brake unit is added to section A).



Motor-encoder cable connector (*1)



- Details of F
- (*1) A motor-encoder cable (integrated) is connected here. (See page A-39 for details on cables)
 - (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
ME : Mechanical end
SE : Stroke end
 - (*3) Reference position for calculating the moment Ma

■ Dimensions/Weight by Stroke * Brake-equipped models are heavier by 0.3kg.

Stroke	Stroke										
	50	100	150	200	250	300	350	400	450	500	
L	No Brake	274	324	374	424	474	524	574	624	674	724
	Brake-Equipped	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5	714.5	764.5
A	165.5	215.5	265.5	315.5	365.5	415.5	465.5	515.5	565.5	615.5	615.5
B	91	41	91	41	91	41	91	41	91	41	41
C	0	1	1	2	2	3	3	4	4	5	5
D	4	6	6	8	8	10	10	12	12	14	14
M	91	141	191	241	291	341	391	441	491	541	541
Weight (kg)	With Cover	0.9	1	1.1	1.1	1.2	1.3	1.4	1.5	1.5	1.6
	No Cover	0.8	0.9	1	1	1.1	1.2	1.3	1.3	1.4	1.5

② Compatible Controllers

The RCA2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type		AMEC-C-20Si①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P477
		ASEP-C-20Si①-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.					
Splash-Proof Solenoid Valve Type		ASEP-CW-20Si①-NP-2-0						→ P487
Positioner Type		ACON-C-20Si①-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.7A rated 5.1A max.	—	→ P535
Safety-Compliant Positioner Type		ACON-CG-20Si①-NP-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20Si①-NP-2-0	Pulse train input type with differential line driver support	—	DC24V	(Power-saving) 1.7A rated 3.4A max.	—	→ P535
Pulse Train Input Type (Open Collector)		ACON-PO-20Si①-NP-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-20Si①-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RACON-20S①	Dedicated to field network	768 points				→ P503
Program Control Type		ASEL-C-1-20Si①-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points				→ P567

* This is for the single-axis ASEL.
* ① is replaced with the code "LA" when support for power-saving is specified.