

# RCA2-SA4R

ROBO Cylinder Slider Type 40mm Width Servo Motor Side-Mounted Motor

■ Configuration: **RCA2** — **SA4R** — **I** — **20** —  —  —  —  —

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

I: Incremental      20: 20W Servo motor  
 \* Simple absolute encoder models are labeled as "I".

10: 10mm  
 5: 5mm  
 2.5: 2.5mm

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

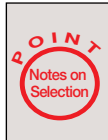
See Options below  
 \* Be sure to specify which side the motor is to be mounted (ML/MR).

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

Power-saving



Technical References P. A-5



(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-SA4R-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-SA4R-I-20-5- <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>		5	4	1.5	68	
RCA2-SA4R-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 is the motor-encoder integrated robot cable.  
 \* See page A-39 for cables for maintenance.

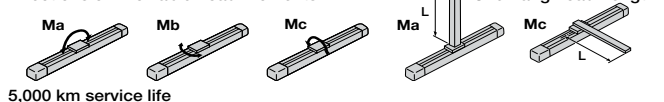
④ Option List

Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	—
Cable Exit Direction (Top)	CJT	→ A-25	—
Cable Exit Direction (Outside)	CJO	→ A-25	—
Cable Exit Direction (Bottom)	CJB	→ A-25	—
Power-saving	LA	→ A-32	—
Left-Mounted Motor (Standard)	ML	→ A-33	—
Right-Mounted Motor	MR	→ A-33	—
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 Load Moment	Ma: 6.8N·m Mb: 9.7N·m Mc: 13.3N·m
Allowable Dynamic Load 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)

Directions of Allowable Load Moments

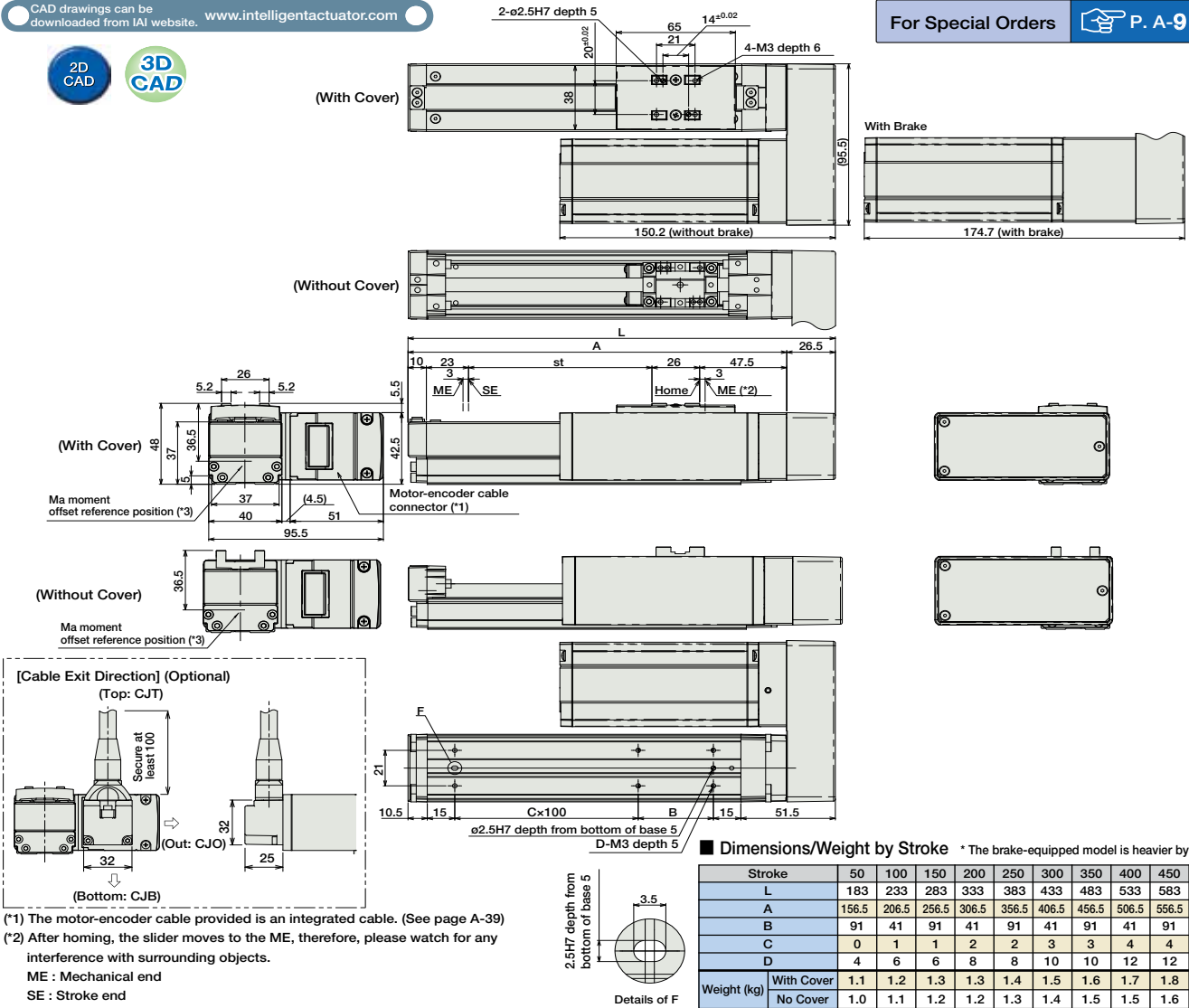


Dimensions

CAD drawings can be downloaded from IAI website. [www.intelligentactuator.com](http://www.intelligentactuator.com)



For Special Orders P. A-9



■ Dimensions/Weight by Stroke \* The brake-equipped model is heavier by 0.3kg.

Stroke	50	100	150	200	250	300	350	400	450	500
L	183	233	283	333	383	433	483	533	583	633
A	156.5	206.5	256.5	306.5	356.5	406.5	456.5	506.5	556.5	606.5
B	91	41	91	41	91	41	91	41	91	41
C	0	1	1	2	2	3	3	4	4	5
D	4	6	6	8	8	10	10	12	12	14
Weight (kg)	With Cover	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.7	1.8
	No Cover	1.0	1.1	1.2	1.2	1.3	1.4	1.5	1.6	1.7

(\*1) The motor-encoder cable provided is an integrated cable. (See page A-39)  
 (\*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

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	(-)		(Power-saving) 1.7A rated 3.4A max.	—	
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.

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/Arm/Flat Type
- Mini
- Standard
- Gripper/Rotary Type
- Linear Servo Type
- Cleanroom Type
- Splash-Proof
- Controllers
- PMEC /AMEC
- PSEP /ASEP
- ROBO NET
- ERC2
- PCON
- ACON
- SCON
- PSEL
- ASEL
- SSEL
- XSEL
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor