

RCA2-SA5R

ROBO Cylinder Slider Type 50mm Width Servo Motor Side-Mounted Motor

■ Configuration: **RCA2** — **SA5R** — **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".

12: 12mm 50: 50mm
 6: 6mm 800: 800mm (50mm pitch increments)
 3: 3mm

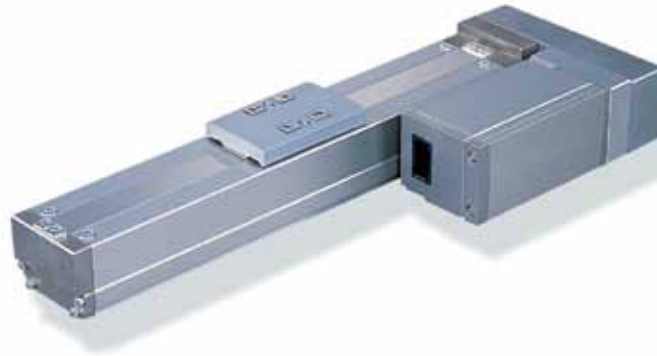
A1: ACON
 RACON
 ASEL
 A3: AMEC
 ASEP

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 3mm-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-SA5R-I-20-12-①-②-③-④	20	12	3	1	17	50~800 (50mm increments)
RCA2-SA5R-I-20-6-①-②-③-④		6	6	1.5	34	
RCA2-SA5R-I-20-3-①-②-③-④		3	9	3	68	

■ Stroke and Maximum Speed

Stroke / Lead	50 ~ 550 (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	570	490	425	370	330
6	300	285	245	210	185	165
3	150	140	120	105	90	80

(Unit: mm/s)

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

① Stroke List

Stroke (mm)	Standard Price	
	With cover (standard)	No cover (Option)
50	-	-
100	-	-
150	-	-
200	-	-
250	-	-
300	-	-
350	-	-
400	-	-
450	-	-
500	-	-
550	-	-
600	-	-
650	-	-
700	-	-
750	-	-
800	-	-

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.

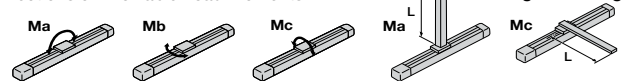
④ Option List

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 Ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Load Moment	Ma: 10.2N·m Mb: 14.6N·m Mc: 8.53N·m
Allowable Dynamic Load Moment	Ma: 3.92N·m Mb: 5.58N·m Mc: 8.53N·m
Overhang Load Length	130mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

Directions of Allowable Load Moments



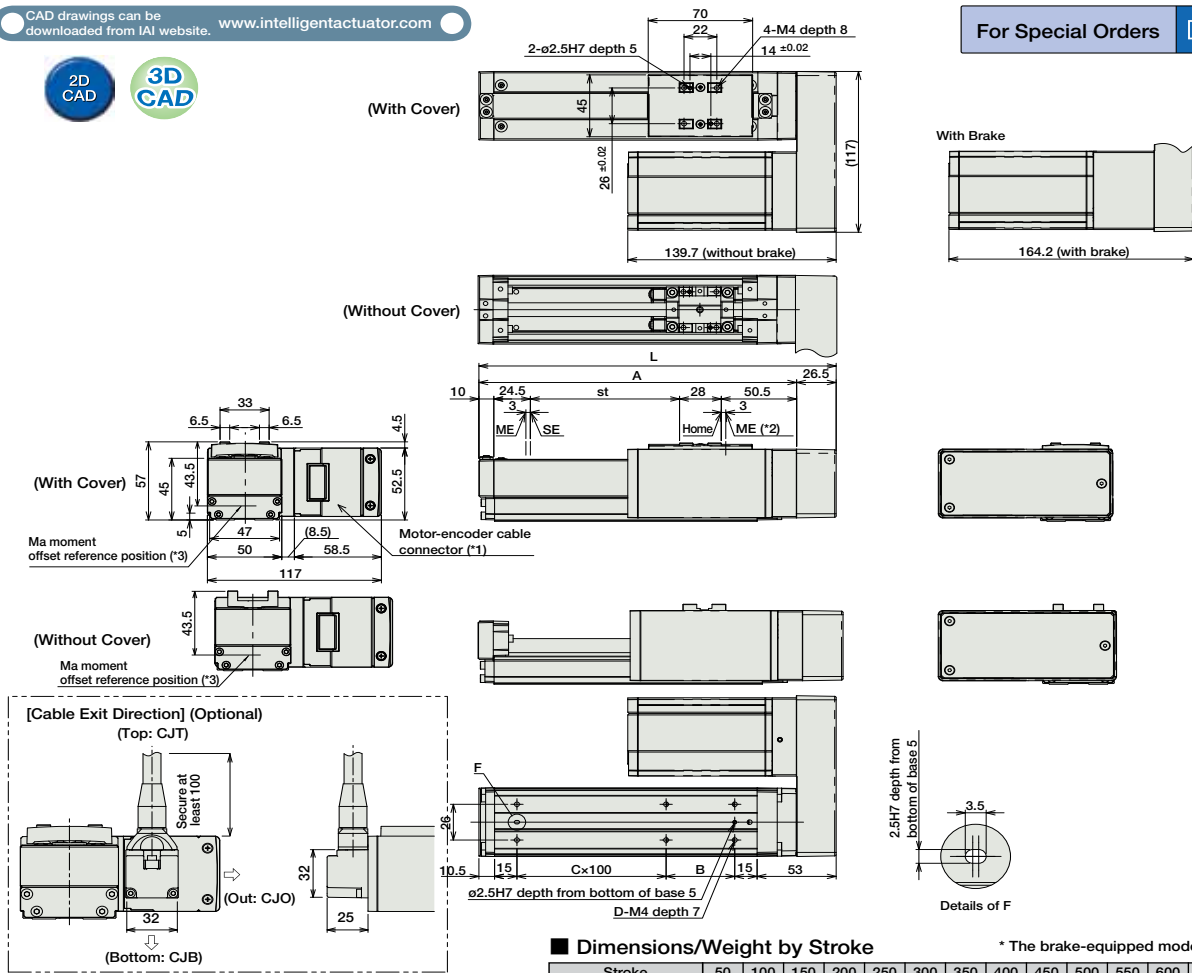
5,000 km service life

Dimensions

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



For Special Orders P. A-9



■ Dimensions/Weight by Stroke

* The brake-equipped model is heavier by 0.4kg.

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	189.5	239.5	289.5	339.5	389.5	439.5	489.5	539.5	589.5	639.5	689.5	739.5	789.5	839.5	889.5	939.5
A	163	213	263	313	363	413	463	513	563	613	663	713	763	813	863	913
B	96	46	96	46	96	46	96	46	96	46	96	46	96	46	96	46
C	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
D	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
Weight (kg)	With Cover	1.5	1.7	1.8	1.9	2.1	2.2	2.3	2.5	2.6	2.7	2.9	3.0	3.1	3.3	3.4
	No Cover	1.4	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9

- (*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-20①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P477
		ASEP-C-20①-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-20①-NP-2-0					—	→ P487
Positioner Type		ACON-C-20①-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max.	—	→ P535
Safety-Compliant Positioner Type		ACON-CG-20①-NP-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20①-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	(Power-saving) 1.3A rated 2.5A max.	—	→ P535
Pulse Train Input Type (Open Collector)		ACON-PO-20①-NP-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-20①-N-0-0	Dedicated to serial communication	64 points			—	
Field Network Type		RACON-20①	Dedicated to field network	768 points			—	→ P503
Program Control Type		ASEL-C-1-20①-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