

# RCA2-SA6C ROBO Cylinder Slider Type 60mm Width Servo Motor Coupled

■ Configuration: **RCA2** — **SA6C** — **I** — **30** —  —  —  —  —

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

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

30P: 30W Servo motor

12: 12mm  
6: 6mm  
3: 3mm

50: 50mm  
800: 800mm (50mm pitch increments)

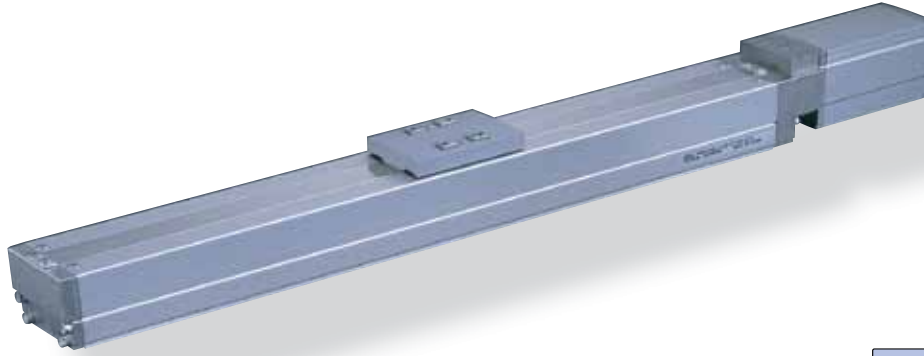
A1: ACON  
RACON  
ASEL  
A3: AMEC  
ASEP

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

- When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.
- 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-SA6C-I-30-12-①-②-③-④	30	12	4	1.5	26	50 ~ 800 (50mm increments)
RCA2-SA6C-I-30-6-①-②-③-④		6	7	2	53	
RCA2-SA6C-I-30-3-①-②-③-④		3	10	4	105	

■ 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

Legend ① Stroke ② Compatible controller ③ Cable length ④ 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	-	-
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 for the RCA2 is the robot cable.

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

④ Option List

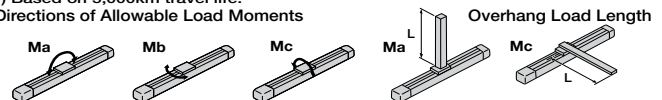
Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	-
Cable Exit Direction (Top)	CJT	→ A-25	-
Cable Exit Direction (Right)	CJR	→ A-25	-
Cable Exit Direction (Left)	CJL	→ A-25	-
Cable Exit Direction (Bottom)	CJB	→ A-25	-
Power-saving	LA	→ A-32	-
No Cover	NCO	→ A-33	-
Reversed-home	NM	→ A-33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

Actuator Specifications

Item	Description
Drive System	Ball screw Ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 17.6N·m Mb: 25.2N·m Mc: 44.5N·m
Allowable Dynamic Moment(*)	Ma: 4.31N·m Mb: 6.17N·m Mc: 10.98N·m
Overhang Load Length	150mm 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

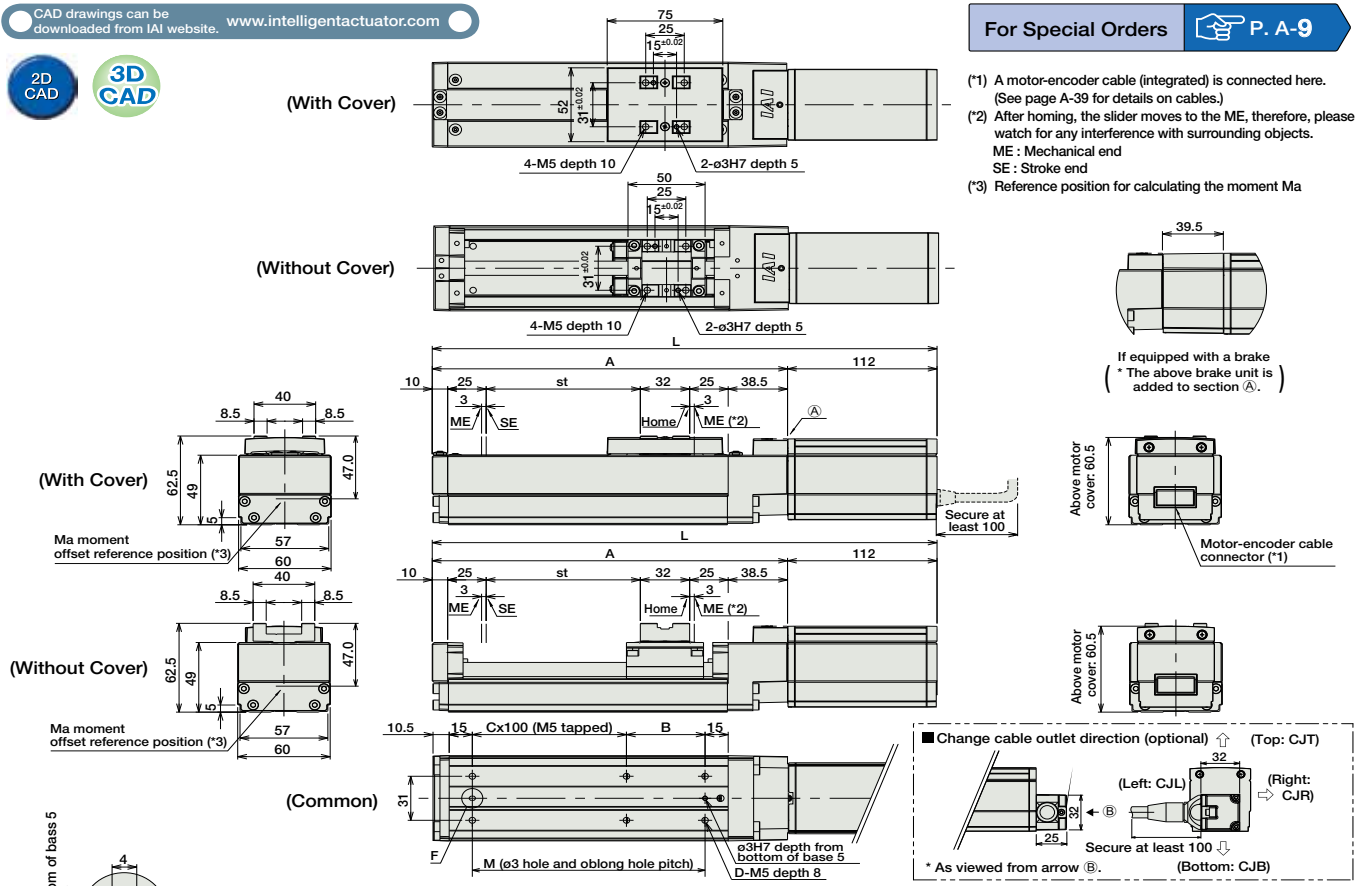


Dimensions

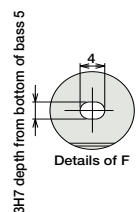
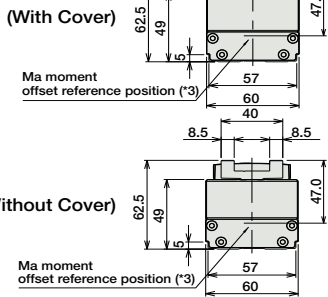
CAD drawings can be downloaded from IAI website. [www.intelligentactuator.com](http://www.intelligentactuator.com)



For Special Orders P. A-9



(\*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 0.4kg.

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
L	No Brake	292.5	342.5	392.5	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
	Brake-equipped	332	382	432	482	532	582	632	682	732	782	832	882	932	982	1032	1082
A	180.5	230.5	280.5	330.5	380.5	430.5	480.5	530.5	580.5	630.5	680.5	730.5	780.5	830.5	880.5	930.5	
B	101	51	101	51	101	51	101	51	101	51	101	51	101	51	101	51	
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	
M	101	151	201	251	301	351	401	451	501	551	601	651	701	751	801	851	
Weight (kg)	With Cover	1.6	1.7	1.9	2.1	2.3	2.4	2.6	2.8	2.9	3.1	3.3	3.5	3.6	3.8	4.0	4.1
	No Cover	1.5	1.6	1.8	1.9	2.1	2.2	2.3	2.5	2.6	2.8	2.9	3.1	3.2	3.4	3.5	3.7

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-30①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P477
		ASEP-C-30①-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-30①-NP-2-0						→ P487
Positioner Type		ACON-C-30①-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.0A max.	—	→ P535
Safety-Compliant Positioner Type		ACON-CG-30①-NP-2-0						
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30①-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	(Power-saving) 1.3A rated 2.2A max.	—	→ P535
Pulse Train Input Type (Open Collector)		ACON-PO-30①-NP-2-0	Pulse train input type with open collector support					
Serial Communication Type		ACON-SE-30①-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RACON-30①	Dedicated to field network	768 points				→ P503
Program Control Type		ASEL-C-1-30①-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.