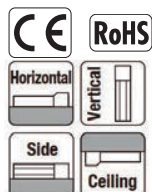


# RCA-SA5C

ROBO Cylinder, Slider Type, Actuator Width 52mm,  
24V Servo Motor, Coupled Motor Specification

Model Specification Items	RCA	SA5C	Encoder type	20	Lead	Stroke	Applicable controller	Cable length	Options
	Series	Type	WA: Battery-less absolute	20: Servo motor 20W	20: 20mm 12: 12mm 6: 6mm 3: 3mm	50: 50mm 500: 500mm (Can be set in 50mm increments)	A5: ACON-CB	N: No cable P: 1m S: 3m M: 5m X□□: Specified length R□□: Robot cable	Please refer to the options table below.

\*Controller is not included.



\* Depending on the model, there may be some limitations to using the vertical, side, and ceiling mount positions. Please contact for more information regarding mounting positions.

High Accel./Decel. Option

(Excludes lead 3)

Energy Saving Option



\* This product is equipped with a slot for slider position adjustment (refer to the dimensional drawing on the right page) shown as A in the figure above.



- (1) When the stroke is increased, the maximum speed will drop to prevent reaching a critical rotational speed of the ball screw. Please confirm the maximum speed for the desired stroke in the actuator specifications table below.
- (2) The payload assumes operation at an acceleration of 0.3G (0.2G for lead 3) for standard and energy saving specifications, and 0.8G for high accel./decel. specification (excludes lead 3). (The values shown in the table below are the upper limit for the maximum payload even if acceleration/deceleration is decreased.)
- (3) Please refer to our website for more information about push-motion operation.

## Actuator Specifications

### Lead and Payload

Model number	Motor (W)	Lead (mm)	Maximum payload	Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)	
RCA-SA5C-①-20-20-②-③-④-⑤	20	20	2	0.5	10.7
RCA-SA5C-①-20-12-②-③-④-⑤		12	4	1	16.7
RCA-SA5C-①-20-6-②-③-④-⑤		6	8	2	33.3
RCA-SA5C-①-20-3-②-③-④-⑤		3	12	4	65.7

Legend: ① Encoder type ② Stroke ③ Applicable controller ④ Cable length ⑤ Options

### Stroke and Maximum Speed

Stroke	50~450 (Every 50mm)	500 (mm)
Lead		
20	1300 <800>	1300 <800>
12	800	760
6	400	380
3	200	190

\*Values in brackets < > are for vertical use. (Unit: mm/s)

### ① Encoder Type / ② Stroke

Stroke (mm)	Standard price
	Encoder type
	Battery-less absolute
	WA
50	-
100	-
150	-
200	-
250	-
300	-
350	-
400	-
450	-
500	-

### ⑤ Options

Name	Option code	Reference page	Standard price
Brake	B	Please refer to our website for the details of the options.	-
Foot bracket	FT		-
High acceleration/deceleration	HA		-
Home check sensor	HS		-
Energy saving	LA		-
Non-motor end specification	NM		-
Slider roller specification	SR		-

\* High acceleration/deceleration option and slider roller option cannot be combined together.

\* High acceleration/deceleration option cannot be chosen for lead 3

\* High acceleration/deceleration option and energy saving option cannot be combined together.

### ④ Cable Length

Type	Cable code	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) ~X10 (10m)	-
	X11 (11m) ~X15 (15m)	-
	X16 (16m) ~X20 (20m)	-
Robot cable	R01 (1m) ~R03 (3m)	-
	R04 (4m) ~R05 (5m)	-
	R06 (6m) ~R10 (10m)	-
	R11 (11m) ~R15 (15m)	-
	R16 (16m) ~R20 (20m)	-
		-

\*Please refer to P. 73 for maintenance cables.

## Actuator Specifications

Item	Description
Drive system	Ball screw Ø10mm, rolled C10
Positioning repeatability (*1)	±0.02mm [±0.03mm]
Lost motion	0.1mm or less
Base	Material: Aluminum with white alumite treatment
Static allowable moment	Ma: 18.6N·m, Mb: 26.6N·m, Mc: 47.5N·m
Dynamic allowable moment (*2)	Ma: 5.81N·m, Mb: 8.30N·m, Mc: 14.8N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

\*Reference for overhang load length/Ma: 150mm or less, Mb, Mc: 150mm or less

(\*1) The value in [ ] applies when the lead is 20mm.

(\*2) Assumes a standard rated life of 5,000km. The operational life will vary depending on operation and installation conditions.

Please refer to our website for more information regarding the service life of the products, directions of the allowable moment, and overhang load length.

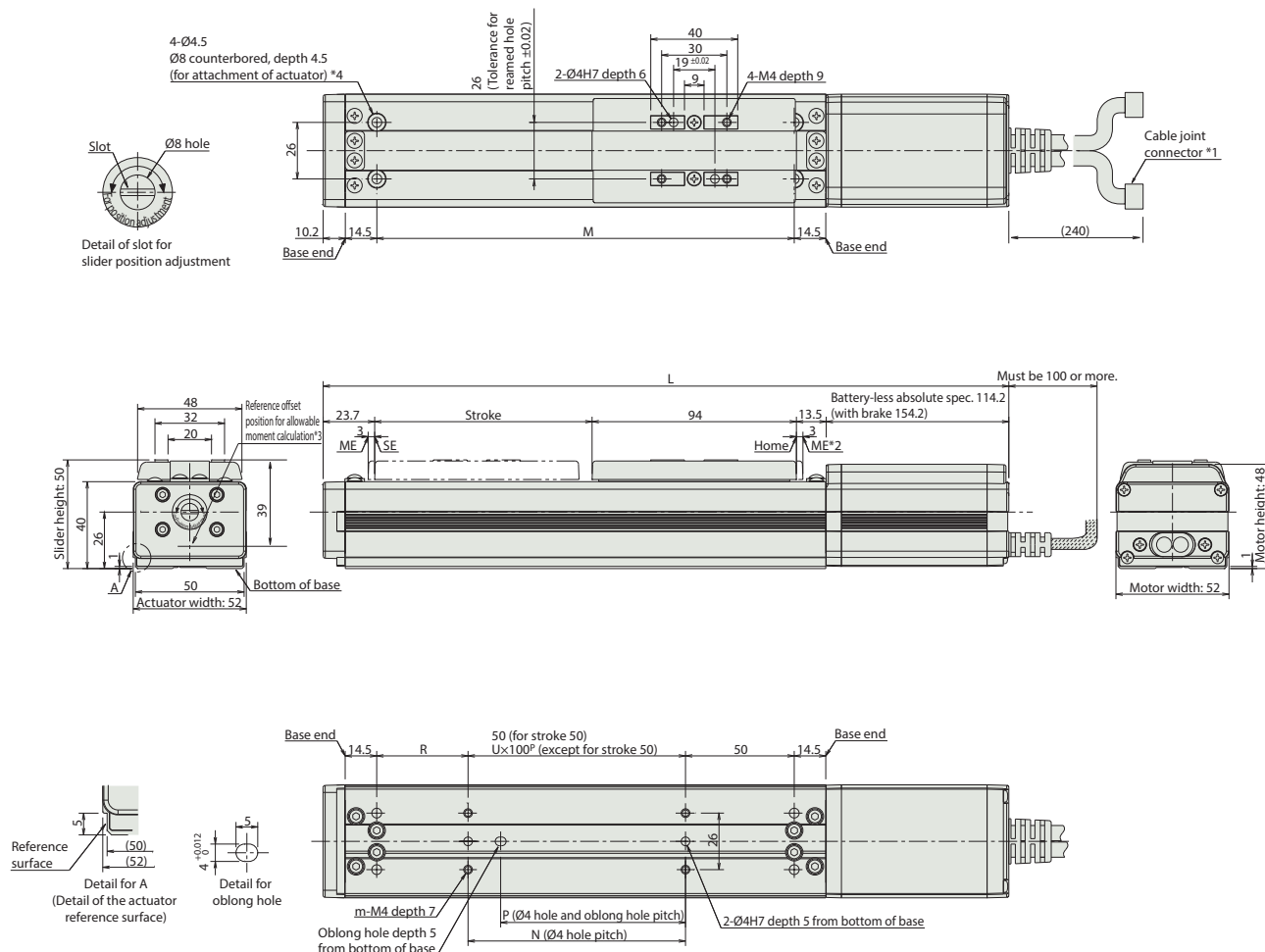
## Dimensions

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



- \*1 Connects the motor-encoder cable. Please refer to P. 73 for the details of the cables.
- \*2 When the slider is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the ME.
- ME: Mechanical end SE: Stroke end
- \*3 Reference position used when calculating the Ma moment.

- \*4 When the actuator is mounted only using the mounting holes on the top of the base, the base can be distorted, which could cause sliding error or abnormal noise. When using the mounting holes on the top of the base, please keep the stroke length less than 300mm.



## Dimensions and Mass by Stroke \*Brake equipped types are 0.3kg heavier.

Stroke	50	100	150	200	250	300	350	400	450	500
L	Battery-less absolute	295.4	345.4	395.4	445.4	495.4	545.4	595.4	645.4	695.4
	Without brake	335.4	385.4	435.4	485.4	535.4	585.4	635.4	685.4	735.4
M		142	192	242	292	342	392	442	492	542
N		50	100	100	200	200	300	300	400	400
P		35	85	85	185	185	285	285	385	385
R		42	42	92	42	92	42	92	42	92
U		—	1	1	2	2	3	3	4	4
m		4	4	4	6	6	8	8	10	10
Mass (kg)		1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1