

RCA2-SA2AR

ROBO Cylinder, Mini Slider Type, Side-mounted Motor Type, Actuator Width 20mm, 24V Servo Motor, Ball Screw Specification

Model Specification Items	RCA2-SA2AR	I	5	<input type="checkbox"/>	<input type="checkbox"/>	A3	<input type="checkbox"/>	<input type="checkbox"/>
	Series — Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
		I: Incremental * The Simple absolute encoder is also considered type "I".	5: Servo motor 5W	4: 4mm 2: 2mm 1: 1mm	25: 25mm 100: 100mm (25mm pitch increments)	A3: ASEP MSEP	N: None P: 1m S: 3m M: 5m X <input type="checkbox"/> : Custom length	See Options below. * Be sure to specify which side the motor is to be mounted (ML/MR).

* See page Pre-47 for details on the model descriptions.



Photo above shows specification with motor side-mounted to the left (ML Option).

Technical References Appendix P.5

- POINT** Notes on selection
- (1) The load capacity is based on operation at an acceleration of 0.3G. This value is the upper limit for the acceleration.
 - (2) Take note that, since there is no brake, the slider may come down when the power is turned off if the actuator is used vertically.
 - (3) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)			
RCA2-SA2AR-I-5-4- <input type="checkbox"/> -A3- <input type="checkbox"/> - <input type="checkbox"/>	5	Ball screw	4	0.5	0.25	21.4	±0.02	25~100 (every 25mm)
RCA2-SA2AR-I-5-2- <input type="checkbox"/> -A3- <input type="checkbox"/> - <input type="checkbox"/>			2	1	0.5	42.3		
RCA2-SA2AR-I-5-1- <input type="checkbox"/> -A3- <input type="checkbox"/> - <input type="checkbox"/>			1	2	1	85.5		

Stroke and Maximum Speed

Lead	Stroke	25 (mm)	50~100 (mm)
		Ball screw	4
	2	100	
	1	50	

Code explanation Stroke Cable length Options *See page A-71 for details on push motion.

(Unit: mm/s)

① Stroke

① Stroke (mm)	Standard price
25	—
50	—
75	—
100	—

② Cable Length

Type	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) ~ X10 (10m)	—
	X11 (11m) ~ X15 (15m)	—
	X16 (16m) ~ X20 (20m)	—

* The standard cable for the RCA2 is the robot cable.
* See page A-59 for cables for maintenance.

③ Options

Name	Option code	See page	Standard price
Non-motor end specification	NM	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Left-mounted motor (standard)	ML	→ A-52	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø4mm, rolled C10
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Guide	Linear guide
Allowable dynamic moment (*)	Ma: 0.22 N·m, Mb: 0.31 N·m, Mc: 0.28 N·m
Allowable overhang	40mm or less in Ma, Mb and Mc directions
Ambient Operating Temp./Humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service Life	5,000km

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

Dimensional Drawings

CAD drawings can be downloaded from the website.

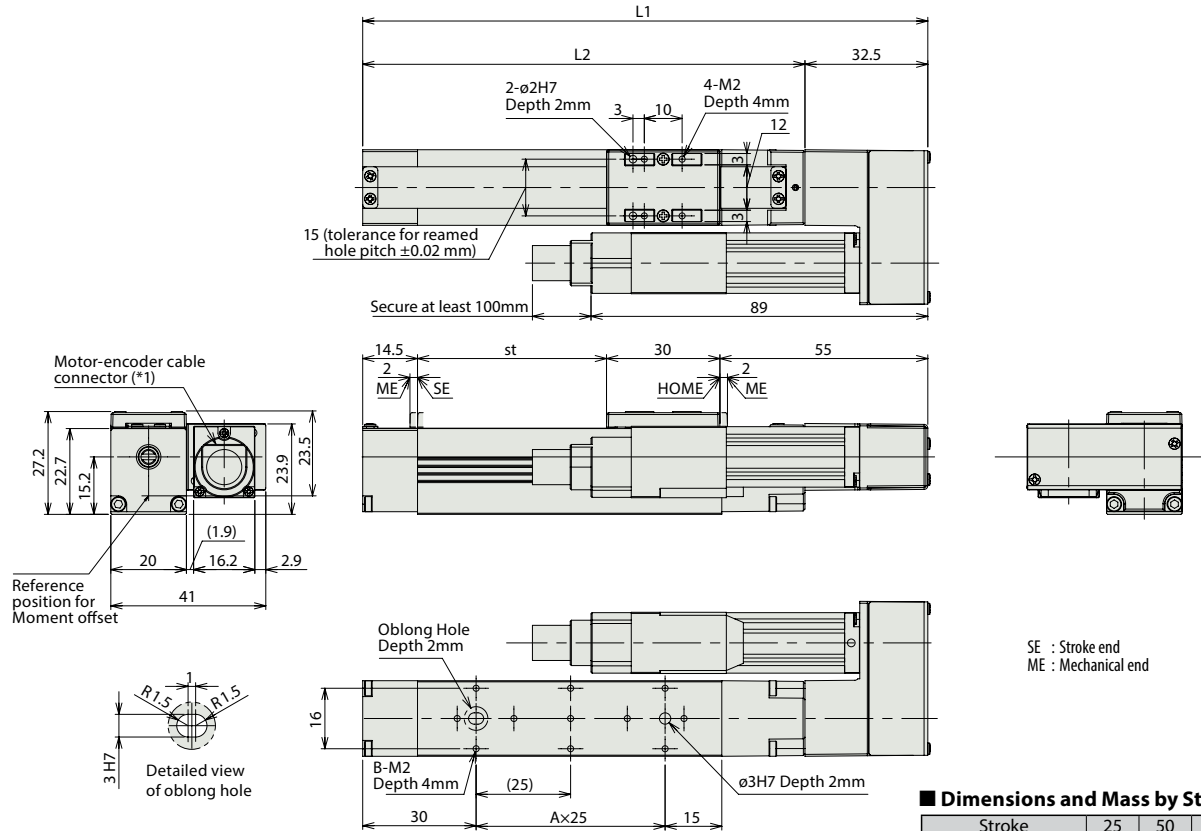
www.intelligentactuator.com

For Special Orders

Appendix P.15



- (*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
 - (*2) During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.
- *The drawing below shows the specification of the motor side-mounted to the left.



SE : Stroke end
ME : Mechanical end

■ Dimensions and Mass by Stroke

Stroke	25	50	75	100
L1	124.5	149.5	174.5	199.5
L2	92	117	142	167
A	1	2	3	4
B	4	6	8	10
Weight (kg)	0.23	0.25	0.26	0.28

Applicable Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power supply capacity	Standard price	Reference page
Solenoid valve type		ASEP-C-5SI-①-2-0	Simple controller operable with the same signal as a solenoid valve	3 points	DC24V	1A rated 2A max.	—	→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-①-①-①-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected					→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-①-①-①-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points				

*① indicates I/O type (NP/PN). *①① indicates number of axes (1 to 8). *①①① indicates field network specification symbol.