RCA2-RA2AC

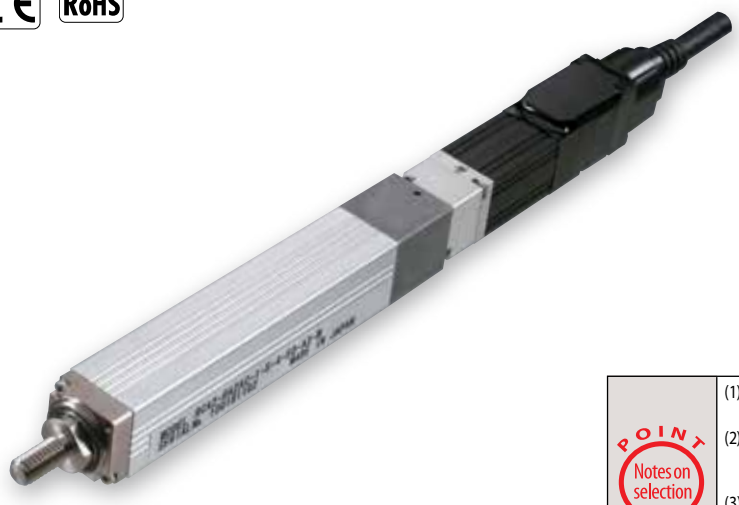
Robo Cylinder, Mini Rod Type, Motor Unit Coupled Type, Actuator Width 18mm, 24V Servo Motor, Ball Screw Specification

Model Specification Items

RCA2 — **RA2AC** — **I** — **5** — □ — □ — **A3** — □ — □

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: 5W Servo motor	4 : 4mm 2 : 2mm 1 : 1mm	25: 25mm 〜 100: 100mm (every 25mm)	A3: ASEP MSEP	N: None P: 1m S: 3m M: 5m X□□: Custom Length	See Options below.

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



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) The horizontal payload is the value when used in combination with an external guide. Please note that if an external force is applied to the rod in a direction other than the proper direction the rod travels, the detent may get damaged.
(3) 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.
(4) 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 Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
RCA2-RA2AC-I-5-4-①-A3-②-③	5	Ball screw	4	0.5	0.25	21.4	±0.02	25~100 (every 25mm)
RCA2-RA2AC-I-5-2-①-A3-②-③			2	1	0.5	42.3		
RCA2-RA2AC-I-5-1-①-A3-②-③			1	2	1	85.5		

Code explanation ① Stroke ② Cable length ③ Options *See page A-71 for details on push motion.

■ Stroke and Maximum Speed

Lead \ Stroke	25 (mm)	50~100 (mm)
4	180	200
2	100	
1	50	

Ball screw

(Unit: mm/s)

①Stroke

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

②Cable 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.

③Options

Name	Option code	See page	Standard price
Non-motor end specification	**NM**	→ 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
Rod non-rotation preciseness	±3.0 deg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000km

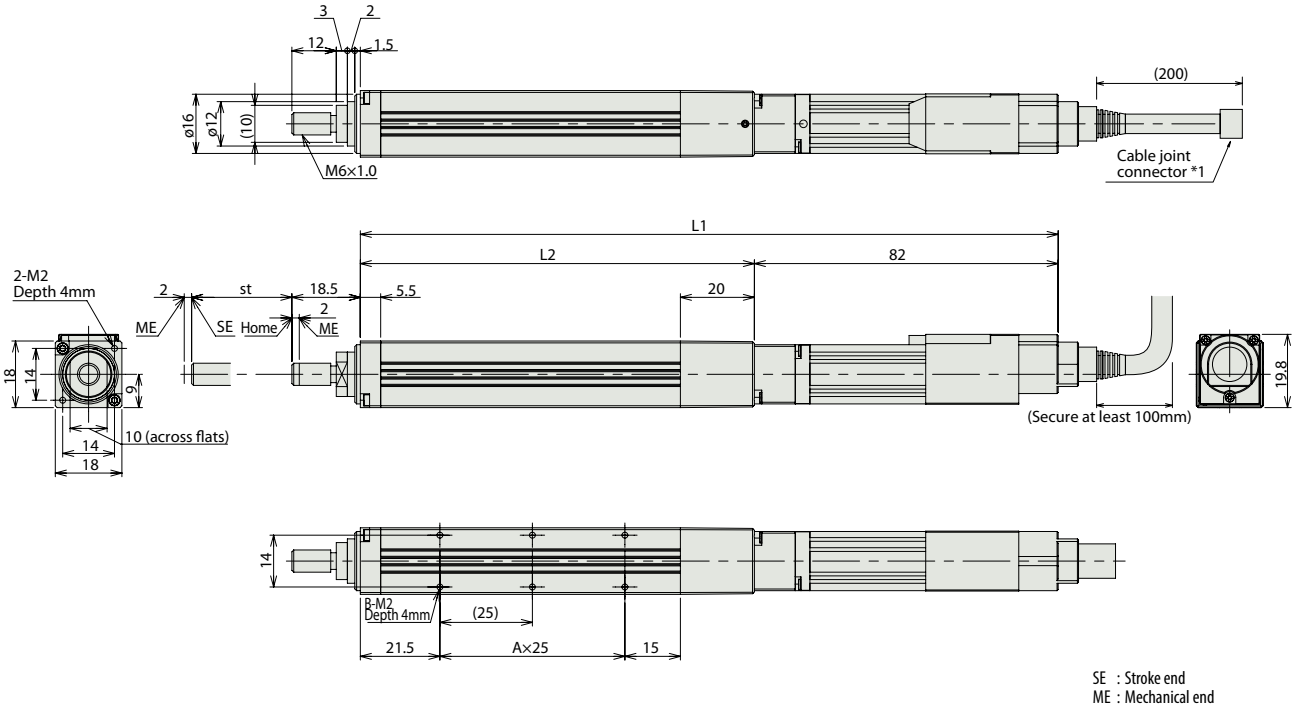
Dimensional Drawings

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

2D CAD 3D CAD

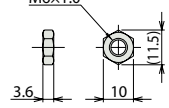
For Special Orders Appendix P.15

(*1) Connect the motor-encoder integrated cable here.
(*2) During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.
(*3) The orientation of the nut varies depending on the product.



SE : Stroke end
ME : Mechanical end

Dimensions of nut at tip of rod



Note:
Do not apply any external force on the rod from any direction other than the direction of the rod's motion. If a force is exerted on the rod in a perpendicular or rotational direction, the detent may become damaged.

Dimensions and Weight by Stroke

Stroke	25	50	75	100
L1	163.5	188.5	213.5	238.5
L2	81.5	106.5	131.5	156.5
A	1	2	3	4
B	4	6	8	10
Weight (kg)	0.17	0.19	0.2	0.22

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-Ⓘ-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-Ⓘⅈ-~-Ⓘ-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	3 points			—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-Ⓘⅈ-~-Ⓘⅉ-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points				

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