RCA-SRGD4R

Robo Cylinder, Rod Type with Double Guide, Actuator Width 45mm, Servo Motor, Short-Length Model

Model Specification Items

RCA — **SRGD4R** — **I** — **20** — □ — □ — □ — □ — □ — □

- Series: RCA
- Type: SRGD4R
- Encoder type: I: Incremental; * The Simple absolute encoder is also considered type "I".
- Motor type: 20: 20W Servo motor
- Lead: 5: 5mm; 2.5: 2.5mm
- Stroke: 20: 20mm ~ 200: 200mm (10mm pitch increments); * Set in 50mm increments over 100mm
- Applicable controller: A1: ACON, ASEL, A3: AMEC, ASEP, MSEP
- Cable length: N: None; P: 1m; S: 3m; M: 5m; X□□: Custom Length
- Options: See Options below.

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

CE RoHS

Power-saving

Technical References → Appendix P.5

POINT Notes on selection

(1) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used vertically). This is the upper limit of the acceleration.
(2) The values for the horizontal load capacity reflect the use of an external guide. See the technical resources (page A-112) for the allowable weight using the supplied guide alone.
(3) See page A-71 for details on push motion.

Actuator Specifications

■ Leads and Payloads

(Note A) 50mm increments over 100mm.

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated thrust (N)	Stroke (mm)
RCA-SRGD4R-I-20-5-①-②-③-④	20	5	9 (Note1)	2	41	20~200 (every 10mm) (Note A)
RCA-SRGD4R-I-20-2.5-①-②-③-④		2.5	18 (Note1)	5.5	81	

■ Stroke and Maximum Speed

Lead \ Stroke	20~200 (every 10mm)
5	250
2.5	125

(Unit: mm/s)

Code explanation ① Stroke ② Applicable controller ③ Cable length ④ Options *See page A-71 for details on push motion.

① Stroke

①Stroke (mm)	Standard price
20~50	—
60~100	—
150	—
200	—

③ 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 is the motor-encoder integrated robot cable.
* See page A-59 for cables for maintenance.

④ Options

Name	Option code	See page	Standard price
Brake	**B**	→ A-42	—
Flange bracket (back)	**FLR**	→ A-46	—
Power-saving	**LA**	→ A-52	—
Non-motor end specification	**NM**	→ A-52	—

* The brake is available for strokes of 70mm or more.

Actuator Specifications

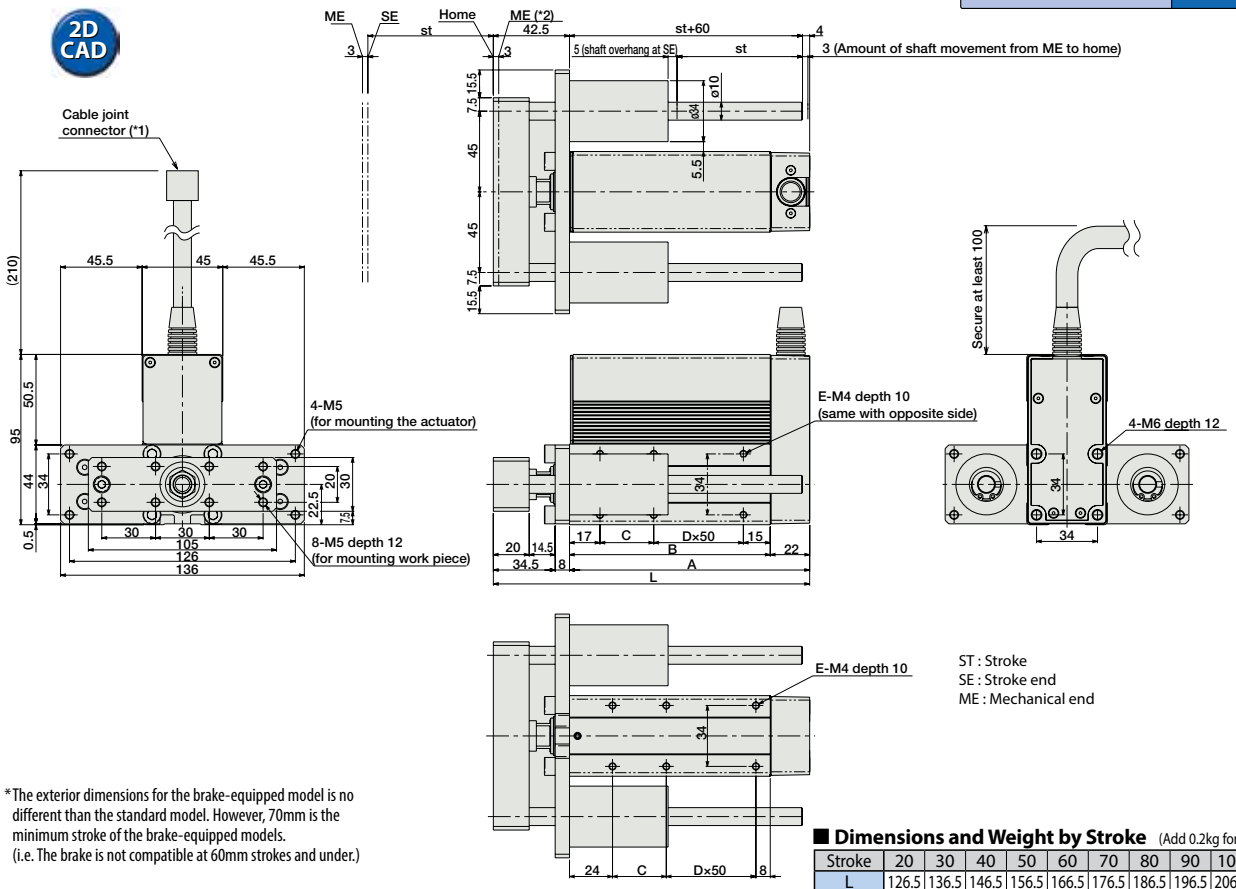
Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Rod diameter	ø22mm
Non-rotating accuracy of rod	±0.05 deg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

Dimensional Drawings

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

For Special Orders Appendix P.15

2D CAD



ST : Stroke
SE : Stroke end
ME : Mechanical end

*The exterior dimensions for the brake-equipped model is no different than the standard model. However, 70mm is the minimum stroke of the brake-equipped models. (i.e. The brake is not compatible at 60mm strokes and under.)

(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

■ Dimensions and Weight by Stroke (Add 0.2kg for brake equipped)

Stroke	20	30	40	50	60	70	80	90	100	150	200
L	126.5	136.5	146.5	156.5	166.5	176.5	186.5	196.5	206.5	256.5	306.5
A	84	94	104	114	124	134	144	154	164	214	264
B	62	72	82	92	102	112	122	132	142	192	242
C	30	40	50	60	70	30	40	50	60	60	60
D	0	0	0	0	0	1	1	1	1	2	3
E	4	4	4	4	4	6	6	6	6	8	10
Weight (kg)	1.42	1.49	1.56	1.64	1.71	1.79	1.86	1.94	2.01	2.38	2.75

②Applicable Controllers

RCA series actuators can be operated with the controllers indicated below. Select the type according to your intended application. * ACON-CY also can be used.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		AMEC-C-20I①-②-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P537
		ASEP-C-20I①-②-2-0	Simple controller operable with the same signal as a solenoid valve		DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-③-~~-②-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected				—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③-~~-Ⅳ-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points				
Positioner type		ACON-C-20I①-②-2-0	Positioning is possible for up to 512 points	512 points			—	→ P631
Safety-Compliant Positioner Type		ACON-CG-20I①-②-2-0					—	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I①-②-2-0	Pulse train input type with differential line driver support	(—)			—	
Pulse Train Input Type (Open Collector)		ACON-PO-20I①-②-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated Serial Communication	64 points			—	
Program Control Type		ASEL-CS-1-20I①-②-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points			—	→ P675

* This is for the single-axis ASEL. * Enter the code "LA" in ① when the power-saving specification is specified. * ② indicates I/O type (NP/PN).
* ③ indicates number of axes (1 to 8). * Ⅳ indicates field network specification symbol.