

RCS2CR-SA4C

Cleanroom Robo Cylinder, Slider Type, Coupled, Actuator Width 40mm, 200V Servo Motor, Aluminum Base

Model Specification Items	RCS2CR-SA4C	<input type="checkbox"/>	20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Series — Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
		I: Incremental A: Absolute	20: 20W Servo motor	10: 10mm 5: 5mm 2.5: 2.5mm	50: 50mm ? 400: 400mm (50mm pitch increments)	T1: XSEL-J/K T2: SCON MSCON SSEL XSEL-P/Q XSEL-R/S	N: None P: 1m S: 3m M: 5m X <input type="checkbox"/> : Custom length R <input type="checkbox"/> : Robot cable	See options below.

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



*CE compliance is optional.



Technical References Appendix P.5

- POINT** Notes on selection
- (1) When the stroke increases, the maximum 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.
 - (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model). These values are the upper limits for the acceleration.
 - (3) See page A-71 for details on push motion.

*This product is equipped with a position adjusting screw at the A area shown above. (See dimensional drawing on the page to the right.)

Actuator Specifications

Lead and Payload

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCS2CR-SA4C-①-20-10-②-③-④-⑤	20	10	4	1	19.6	50~400 (every 50mm)
RCS2CR-SA4C-①-20-5-②-③-④-⑤		5	6	2.5	39.2	
RCS2CR-SA4C-①-20-2.5-②-③-④-⑤		2.5	8	4.5	78.4	

Stroke and Max. Speed/Suction Volume by Lead

Stroke Lead	50~400 (every 50mm)	Suction Volume (Nℓ/min)
10	665	50
5	330	30
2.5	165	15

Code explanation ① Encoder ② Stroke ③ Applicable Controller ④ Cable length ⑤ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Encoder type/② Stroke

② Stroke (mm)	Standard price	
	① Encoder Type	
	Incremental I	Absolute A
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—
350	—	—
400	—	—

④ Cable Length

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

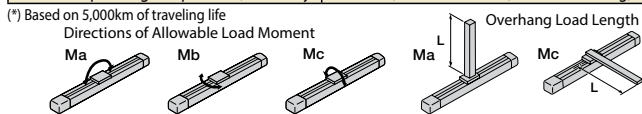
* See page A-59 for cables for maintenance.

⑤ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
CE compliance	CE	→ A-42	—
Foot bracket	FT	→ A-48	—
Home sensor	HS	→ A-50	—
Non-motor end specification	NM	→ A-52	—
Slider spacer	SS	→ A-55	—
Vacuum port on opposite side	VR	→ A-58	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Positioning repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Allowable static moment	Ma: 6.9 N·m, Mb: 9.9 N·m, Mc: 17.0 N·m
Allowable dynamic moment (*)	Ma: 2.7 N·m, Mb: 3.9 N·m, Mc: 6.8 N·m
Allowable overhang	120mm or less in Ma, Mb and Mc directions
Grease Type	Low dust generation grease (both ball screw and guide)
Cleanliness	Class 10 (0.1µm)
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

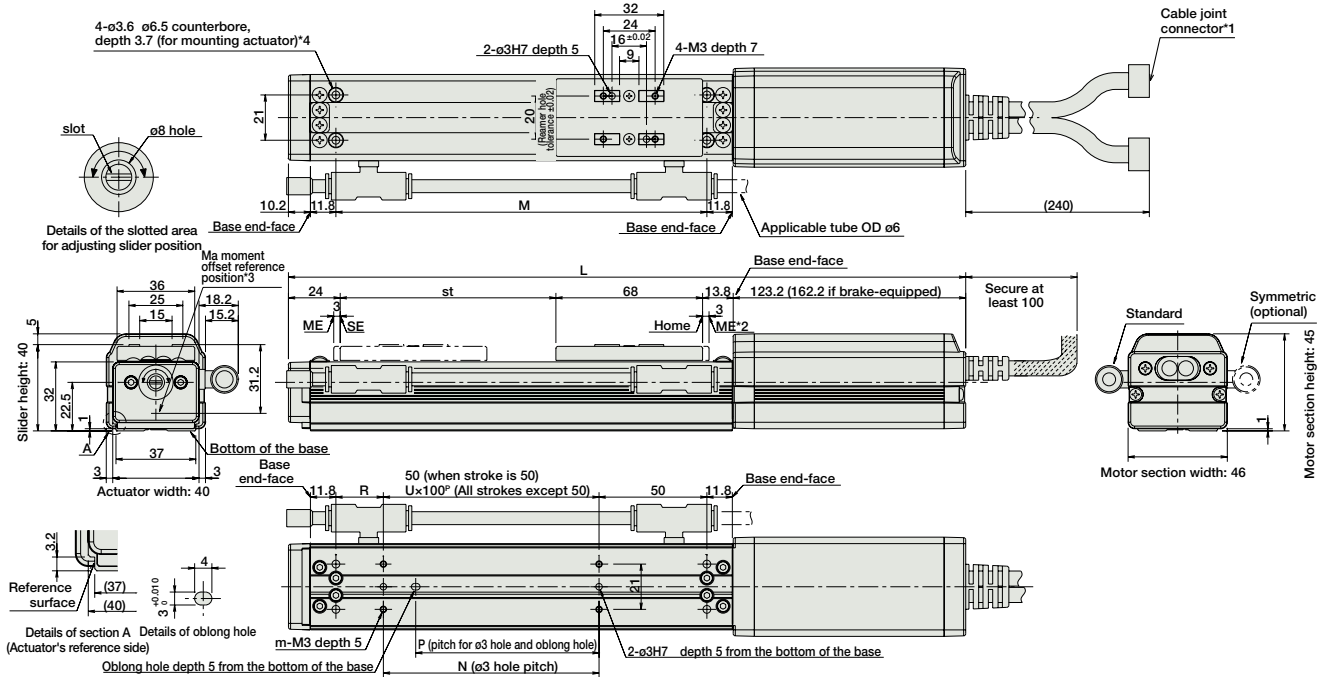
For Special Orders

Appendix P.15



- (*1) Connect the motor and encoder cables 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.
ME: Mechanical end SE: Stroke end
- (*3) Reference position for calculating the moment Ma.

- (*4) If the actuator is secured using only the mounting holes provided on the top surface of the base, the base may twist to cause abnormal sliding of the slider, or may produce abnormal noise. Therefore, when using the mounting holes on the top surface of the base, keep the stroke at 200mm or less.



Dimensions and Weight by Stroke

*Brake-equipped models are heavier by 0.3kg.

	Stroke	50	100	150	200	250	300	350	400
L	Without brake	279	329	379	429	479	529	579	629
	With brake	318	368	418	468	518	568	618	668
M		122	172	222	272	322	372	422	472
N		50	100	100	200	200	300	300	400
P		35	85	85	185	185	285	285	385
R		22	22	72	22	72	22	72	22
U		-	1	1	2	2	3	3	4
m		4	4	4	6	6	8	8	10
Weight (kg)		0.7	0.8	0.9	1	1.1	1.2	1.3	1.4

Applicable Controllers

RCS2CR-series actuators can be operated with the following controllers. Select an appropriate controller type according to your application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power supply capacity	Standard price	Reference page	
Positioner mode		SCON-CA-20①-NP-2-②	Up to 512 positioning points are supported.	512 points	Single-phase 100VAC	106 VA max.	—	→ P643	
Solenoid valve mode			Actuators can be operated through the same control used for solenoid valves.	7 points					
Field network type			Movement by numerical specification is supported.	768 points					
Pulse-train input control type			Dedicated pulse-train input type	(—)					
Positioner multi-axis, network type		MSCON-C-1-20①-V-0-②	Up to 6 axes can be operated. Movement by numerical specification is supported.	256 points	3-phase 200VAC (XSEL-P/Q/R/S ONLY)	*Power supply capacity will vary depending on the controller, so please refer to the instruction manual for details.	—	→ P655	
Program control type, 1 to 2 axes		SSEL-CS-1-20①-NP-2-②	Program operation is supported. Up to 2 axes can be operated.	20,000 points	—				→ P685
Program control type, 1 to 8 axes		XSEL-③-1-20①-N1-EEE-2-④	Program operation is supported. Up to 8 axes can be operated.	Varies depending on the number of axes connected					

* This is for the single-axis MSCON, SSEL, and XSEL.

* ① indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V).

* ② indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V / 3: Three-phase 200V).

* ③ indicates the encoder type (I: Incremental / A: Absolute).

* ④ indicates the XSEL type (J / K / P / Q / R / S).

* ⑤ indicates field network specification symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/ Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor