

RCS2-SA7C

ROBO Cylinder, Slider Type, Actuator Width 73mm, 200-V Servo Motor, Coupled

Model Specification Items	RCS2	SA7C		60					
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
			I: Incremental A: Absolute	60: Servo motor, 60W	24: 24mm 16: 16mm 8: 8mm 4: 4mm	50: 50mm ? 800: 800mm (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□: Custom length R□: Robot cable	See Options below.

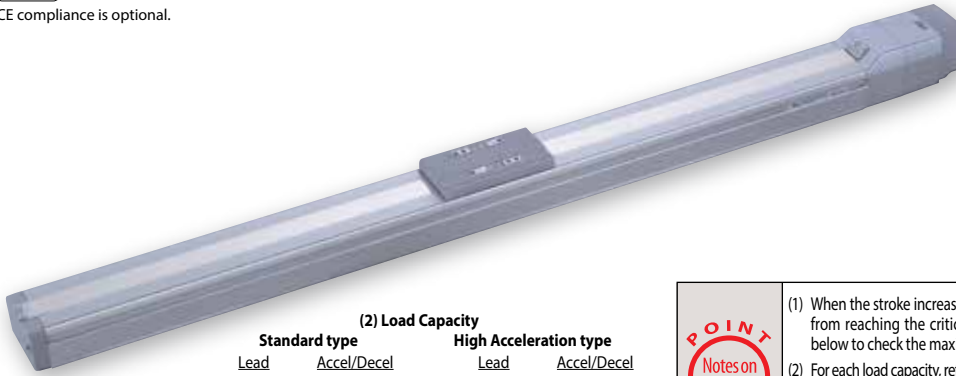
* See page Pre-47 for details on the model descriptions.



*CE compliance is optional.

For High Acceleration/Deceleration

(excluding the 4-mm lead model)



Technical References Appendix P.5

(2) Load Capacity

Standard type		High Acceleration type	
Lead	Accel/Decel	Lead	Accel/Decel
24mm	0.3G	24mm	0.8G
16mm	0.3G	16mm	1.0G
8mm	0.3G	8mm	0.8G
4mm	0.2G	(No HA option for the 4mm lead)	

- POINT**
Notes on selection
- When the stroke increases, the maximum speed 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.
 - For each load capacity, refer to the tables on the left. (Even when the acceleration/deceleration is dropped, the maximum load capacity values shown in the table below are the upper limits.)
 - See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCS2-SA7C-①-60-24-②-③-④-⑤	60	24	8	1.4	42.4	50 to 800 (every 50mm)
RCS2-SA7C-①-60-16-②-③-④-⑤		16	12	3	63.8	
RCS2-SA7C-①-60-8-②-③-④-⑤		8	25	6	127.5	
RCS2-SA7C-①-60-4-②-③-④-⑤		4	40	12	255.0	

Stroke and Maximum Speed

Stroke Lead	50 ~ 600 (every 50mm)	~ 700 (mm)	~ 800 (mm)
	24	1200	960
16	800	640	480
8	400	320	240
4	200	160	120

Code explanation ① Encoder type 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	Absolute
	I	A
50/100	—	—
150/200	—	—
250/300	—	—
350/400	—	—
450/500	—	—
550/600	—	—
650/700	—	—
750/800	—	—

④ Cable Length

Type	Cable symbol	Standard price
Standard type	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)	—
	—	—

* See page A-59 for cables for maintenance.

⑤ Options

Name	Option code	Page	Standard Price
Brake (Cable exiting end)	BE	→ A-42	—
Brake (Cable exiting left)	BL	→ A-42	—
Brake (Cable exiting right)	BR	→ A-42	—
CE compliance	CE	→ A-42	—
For High Acceleration/Deceleration	HA	→ A-50	—
Non-motor end specification	NM	→ A-52	—
Slider roller specification	SR	→ A-55	—

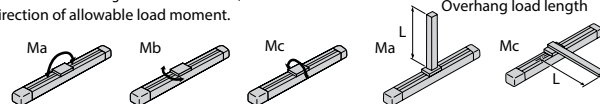
* The high-acceleration/deceleration option and the slider roller option cannot be used together.
* The high-acceleration/deceleration option cannot be used on the 4mm-lead model.

Actuator Specifications

Item	Description
Drive method	Ball screw, ø12mm, rolled C10
Positioning repeatability	±0.02mm
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treatment
Allowable static moment	Ma: 50.4 N·m, Mb: 71.9 N·m, Mc: 138.0 N·m
Allowable dynamic moment (*)	Ma: 13.9 N·m, Mb: 19.9 N·m, Mc: 38.3 N·m
Overhang load length	Ma direction: 230mm or less, Mb/Mc directions: 230mm or less
Ambient operating temperature/humidity	0 to 40°C, 85% RH max. (Non-condensing)

(*) When the traveling life is assumed as 5,000km.

Direction of allowable load moment.



Dimensional Drawings

CAD drawings can be downloaded from the website.

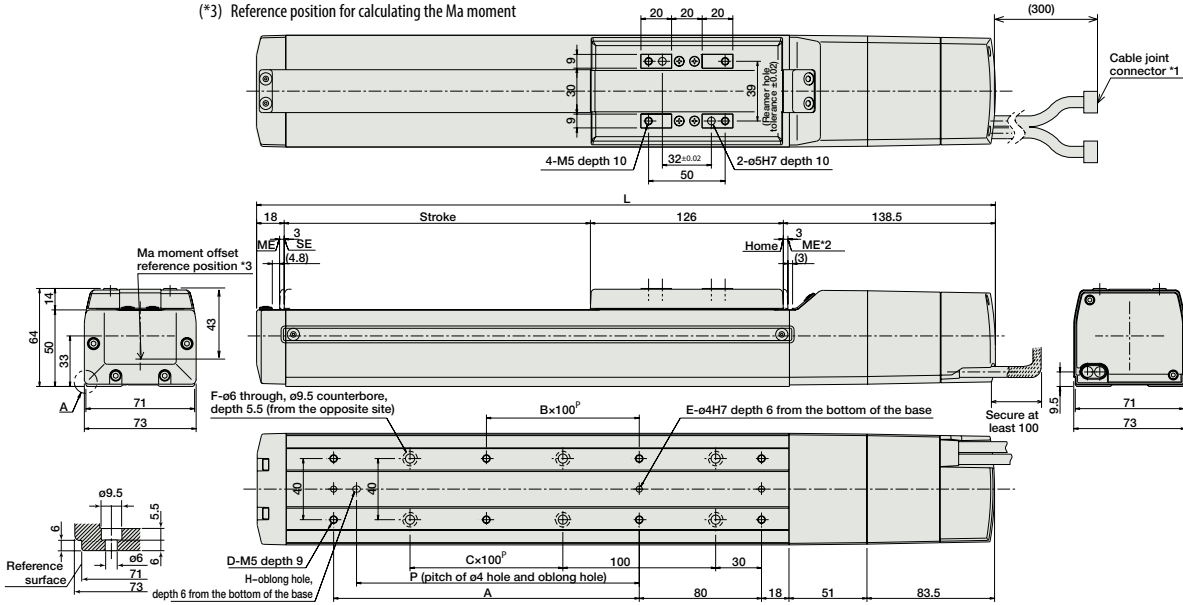
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For Special Orders

Appendix P.15

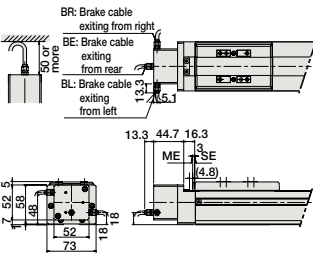


- (*1) Connect the motor and encoder cables here. See page A-59 for details on cables.
- (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
ME : Mechanical end
SE : Stroke end
- (*3) Reference position for calculating the Ma moment



Dimensions of the Brake Section

* Adding a brake will increase the actuator's overall length by 43mm (56.3mm with the cable coming out the end), and its weight by 0.6kg.



Dimensions and Weights by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	332.5	382.5	432.5	482.5	532.5	582.5	632.5	682.5	732.5	782.5	832.5	882.5	932.5	982.5	1032.5	1082.5
A	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
B	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
C	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
D	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
E	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
F	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18
H	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
P	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	2.4	2.6	2.8	3.0	3.3	3.5	3.7	3.9	4.2	4.4	4.6	4.8	5.1	5.3	5.5	5.7

Applicable Controllers

RCS2-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-60①②-NP-2-③④	Up to 512 positioning points are supported.	512 points	Single-phase 100VAC Single-phase 200VAC 3-phase 200VAC (XSEL-P/Q/R/S ONLY)	218 VA max. *Power supply capacity will vary depending on the controller, so please refer to the instruction manual for details.	—	→ 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-1-60①②-⑤⑥-0-⑦⑧	Up to 6 axes can be operated. Movement by numerical specification is supported.	256 points	—	—	→ P655		
Program control type, 1 to 2 axes		SSEL-CS-1-60①②-NP-2-③④	Program operation is supported. Up to 2 axes can be operated.	20,000 points				—	→ P685
Program control type, 1 to 8 axes		XSEL-⑨-1-60①②-N1-EEE-2-⑩	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 encoder type (I: Incremental / A: Absolute). * Enter the code "HA" in ⑤ when the high-acceleration/deceleration option is specified.
 * ② indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V). * ③ indicates the XSEL type (J / K / P / Q / R / S).
 * ④ indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V / 3: Three-phase 200V). * ⑥ 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