RCS2CR-SS7C

Cleanroom Robo Cylinder, Slider Type, Coupled, Actuator Width 60mm, 200V Servo Motor, Steel Base

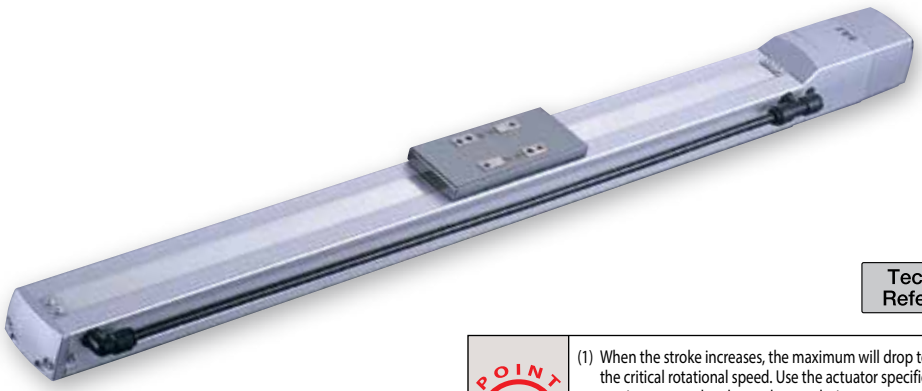
Model Specification Items: **RCS2CR** — **SS7C** — □ — **60** — □ — □ — □ — □ — □ — □

- Series: RCS2CR
- Type: SS7C
- Encoder type: I: Incremental; A: Absolute
- Motor type: 60: 60W Servo motor
- Lead: 12: 12mm; 6: 6mm
- Stroke: 50: 50mm ~ 600: 600mm (50mm pitch increments)
- Applicable controller: T1: XSEL-J/K; T2: SCON, MSCON, SSEL, XSEL-P/Q, XSEL-R/S
- Cable length: N: None; P: 1m; S: 3m; M: 5m; X□□: Custom length; R□□: Robot cable
- Options: See options below.

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

CE RoHS

*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 . This is the upper limit for the acceleration.

(3) See page A-71 for details on push motion.

Actuator Specifications

Lead and Payload

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated thrust (N)	Stroke (mm)
RCS2CR-SS7C-①-60-12-②-③-④-⑤	60	12	15	4	85	50~600 (every 50mm)
RCS2CR-SS7C-①-60-6-②-③-④-⑤		6	30	8	170	

Stroke and Max. Speed/Suction Volume by Lead

Lead \ Stroke	50~500 (every 50mm)	~600 (mm)	Suction Volume (Nℓ/min)
12	600	470	50
6	300	230	30

(Unit: mm/s)

Code explanation ① Encoder ② Stroke ③ Applicable Controller ④ Cable length ⑤ Options *See page A-71 for details on push motion.

①Encoder type/②Stroke

②Stroke (mm)	Standard price ①Encoder Type Incremental I	Standard price ①Encoder Type Absolute A
50/100	—	—
150/200	—	—
250/300	—	—
350/400	—	—
450/500	—	—
550/600	—	—

④Cable 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)	—
Robot Cable	**R01** (1m) ~ **R03** (3m)	—
	R04 (4m) ~ **R05** (5m)	—
	R06 (6m) ~ **R10** (10m)	—
	R11 (11m) ~ **R15** (15m)	—
	R16 (16m) ~ **R20** (20m)	—

* See page A-59 for cables for maintenance.

⑤Options

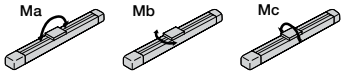
Name	Option code	See page	Standard price
Brake	**B**	→ A-42	—
CE compliance	**CE**	→ A-42	—
Non-motor end specification	**NM**	→ A-52	—
Vacuum port on opposite side	**VR**	→ A-58	—

Actuator Specifications

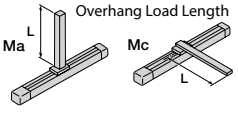
Item	Description
Drive System	Ball screw, ø10mm, rolled C10
Positioning repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Special alloy steel
Allowable static moment	Ma: 79.4 N·m, Mb: 79.4 N·m, Mc: 172.9 N·m
Allowable dynamic moment (*)	Ma: 14.7 N·m, Mb: 14.7 N·m, Mc: 33.3 N·m
Allowable overhang	300mm 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)

(*) Based on 10,000km of traveling life

Directions of Allowable Load Moment



Overhang Load Length

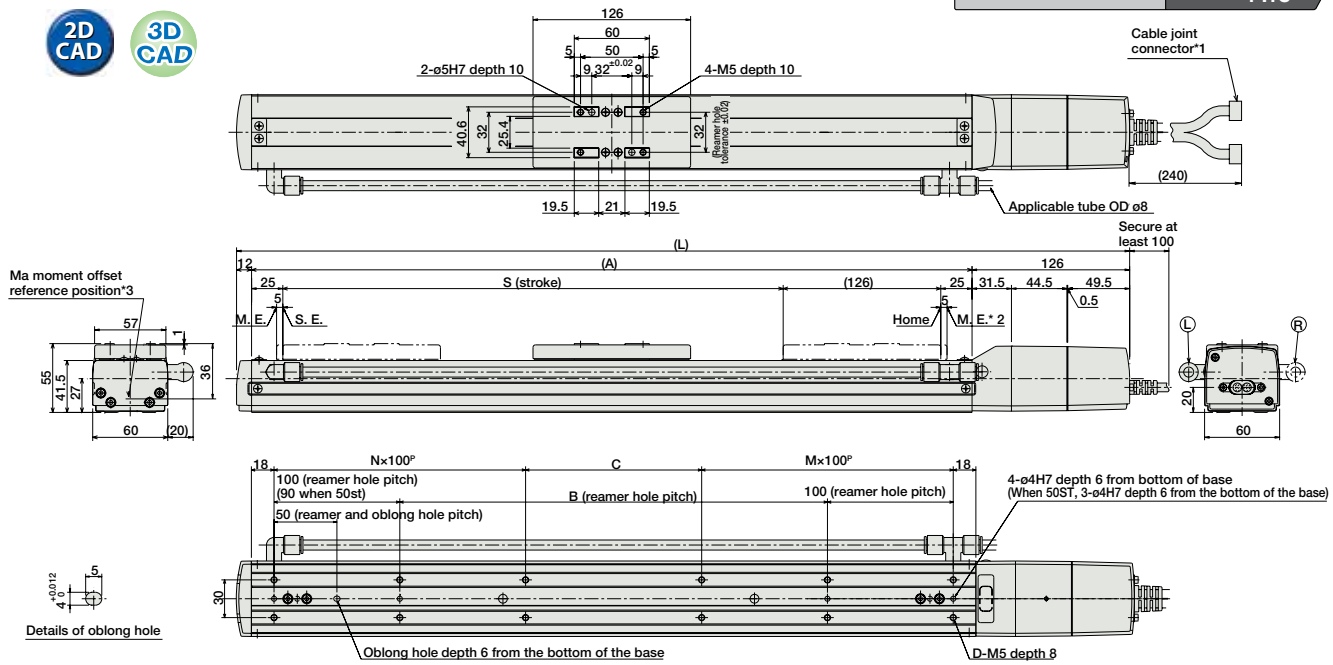


Dimensional Drawings

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

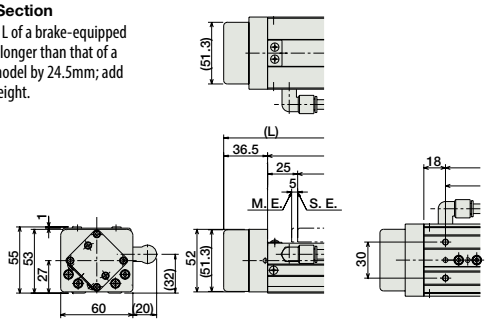
For Special Orders Appendix P.15

2D CAD 3D CAD



Dimensions of the Brake Section

*The length L of a brake-equipped actuator is longer than that of a standard model by 24.5mm; add 0.3kg to weight.



(*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
The values enclosed in "( )" are reference dimensions.
(*3) Reference position for calculating the moment Ma.

Dimensions and Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	364	414	464	514	564	614	664	714	764	814	864	914
A	226	276	326	376	426	476	526	576	626	676	726	776
B	0	40	90	140	190	240	290	340	390	440	490	540
C	90	40	90	140	190	40	90	140	190	40	90	140
D	6	8	8	8	8	12	12	12	12	16	16	16
M	1	1	1	1	1	2	2	2	2	3	3	3
N	0	1	1	1	1	2	2	2	2	3	3	3
Weight (kg)	3.1	3.4	3.7	4.0	4.4	4.7	5.0	5.3	5.7	6.0	6.3	6.6

③Applicable 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-60Ⓘ-NP-2-Ⓘ	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-1-60Ⓘ-Ⓥ-0-Ⓘ	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-1-60Ⓘ-NP-2-Ⓘ	Program operation is supported. Up to 2 axes can be operated.	20,000 points			—	→ P685
Program control type, 1 to 8 axes		XSEL-Ⓙ-1-60Ⓘ-N1-EEE-2-Ⓥ	Program operation is supported. Up to 8 axes can be operated.	Varies depending on the number of axes connected			—	→ P695

* This is for the single-axis MSCON, SSEL, and XSEL.
* Ⓘ indicates the encoder type (I: Incremental / A: Absolute).
* Ⓘ indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V).
* Ⓙ indicates the XSEL type (J / K / P / Q / R / S).
* Ⓥ indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V / 3: Three-phase 200V).
* Ⓥ indicates field network specification symbol.