

RCS2-SS7R

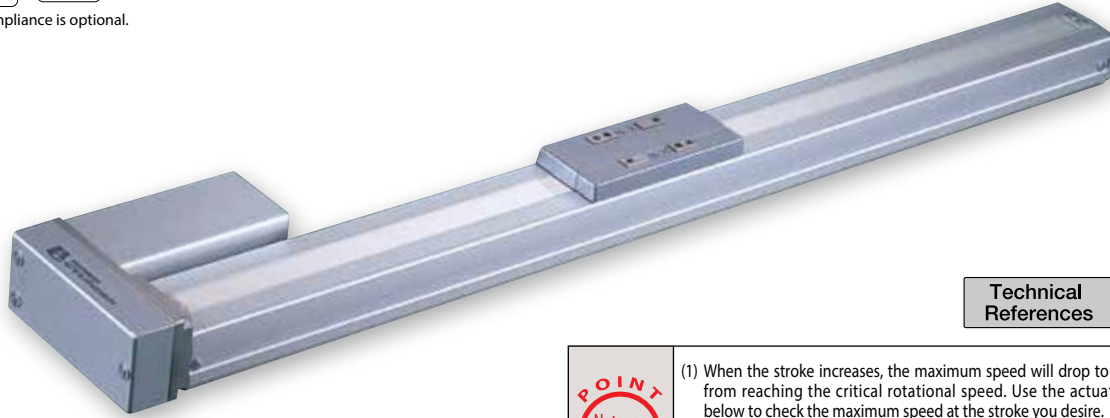
ROBO Cylinder, Slider Type, Actuator Width 60mm, 200-V Servo Motor, Side-mounted Motor, Steel Base

Model Specification Items	RCS2	SS7R	<input type="checkbox"/>	60	<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	60: 60W Servo motor	12: 12mm 6: 6mm	50: 50mm ? 600: 600mm (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. * Be sure to specify either "ML" or "MR" as the motor side-mounted direction.

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



*CE compliance is optional.



Pictured: Left-mounted motor model (ML).

Technical References Appendix P.5

- POINT**
Notes on selection
- (1) 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.
 - (2) The load capacity is based on operation at an acceleration of 0.3G. This value is the upper limit for the acceleration.
 - (3) 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-SS7R-①-60-12-②-③-④-⑤	60	12	15	4	85	50 to 600
RCS2-SS7R-①-60-6-②-③-④-⑤		6	30	8	170	(every 50mm)

Stroke and Maximum Speed

Stroke / Lead	50-500 (every 50mm)	~600 (50mm)
	12	600
6	300	230

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	—	—

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

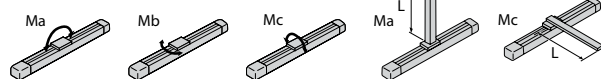
Name	Option code	Page	Standard Price
Brake	B	→ A-42	—
CE compliance	CE	→ A-42	—
Non-motor end specification	NM	→ A-52	—
Left-mounted motor (standard)	ML	→ A-52	—
Right-mounted motor	MR	→ A-52	—
Slider roller specification	SR	→ A-55	—

Actuator Specifications

Item	Description
Drive method	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
Overhang load length	Ma direction: 300mm or less, Mb/Mc directions: 300mm or less
Ambient operating temperature/humidity	0 to 40°C, 85% RH max. (No condensation)

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

Direction of allowable load moment.



Dimensional Drawings

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

For Special Orders Appendix P.15

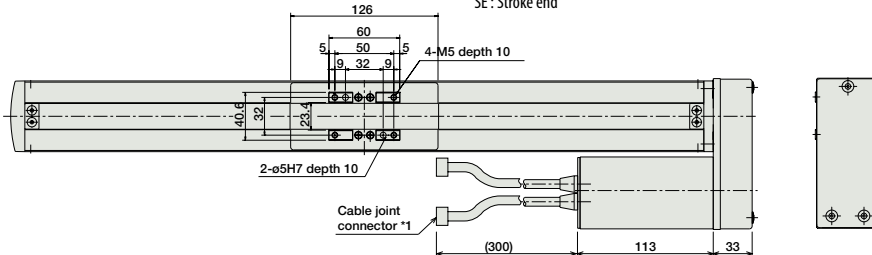
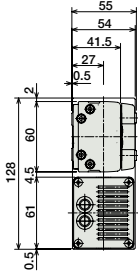


*The reference surface is the same as the SS7C type. (See page 128)
 *The offset reference position for the Ma moment is the same as the SS7C type. (See page 128)

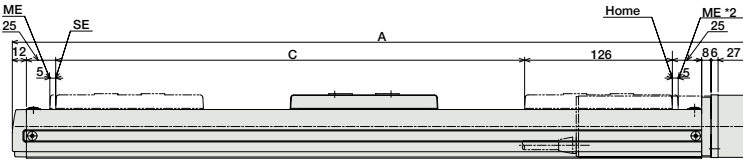
(*1) Connect the motor and encoder cables here. See page A-59 for details on cables.

* The bend radius R of the cable is the same as other models.

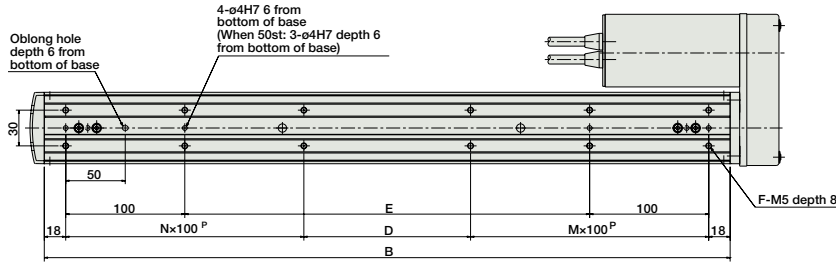
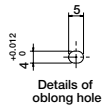
(*2) When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.
 ME : Mechanical end
 SE : Stroke end



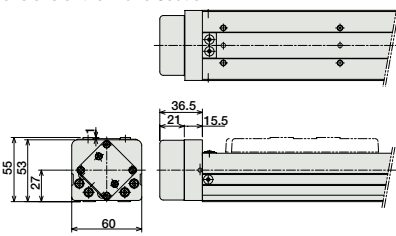
* Note that in order to change the home orientation, arrangements must be made to send in the product to IAI.
 * For the Non-motor end model, the dimensions (distance from the ME to home) on the motor-side and that on the opposite side are flipped.



* Adding a brake increases the actuator's overall length by 24.5mm and its weight by 0.3kg.



Dimensions of the Brake Section



Dimensions and Weights by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600
A	279	329	379	429	479	529	579	629	679	729	779	829
B	226	276	326	376	426	476	526	576	626	676	726	776
C	50	100	150	200	250	300	350	400	450	500	550	600
D	90	40	90	140	190	40	90	140	190	40	90	140
E	0	40	90	140	190	240	290	340	390	440	490	540
F	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	8	1	1	2	2	2	2	3	3	3
Weight (kg)	3.7	4.0	4.3	4.6	4.9	5.2	5.5	5.8	6.1	6.4	6.7	7.0

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-60 ①-NP-2-②	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 ①-④-0-②	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 ①-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-③-1-60 ①-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