

RCS2-SA7R

ROBO Cylinder Slider Type 73mm Width 200V Servo Motor Side Mounted Motor

■ Configuration: **RCS2** — **SA7R** — — **60** — — — — —

Series — Type — Encoder — Motor — Lead — Stroke — Compatible Controllers — Cable Length — Option

I : Incremental
A : Absolute

60: 60W Servo motor

16: 16mm
8: 8mm
4: 4mm

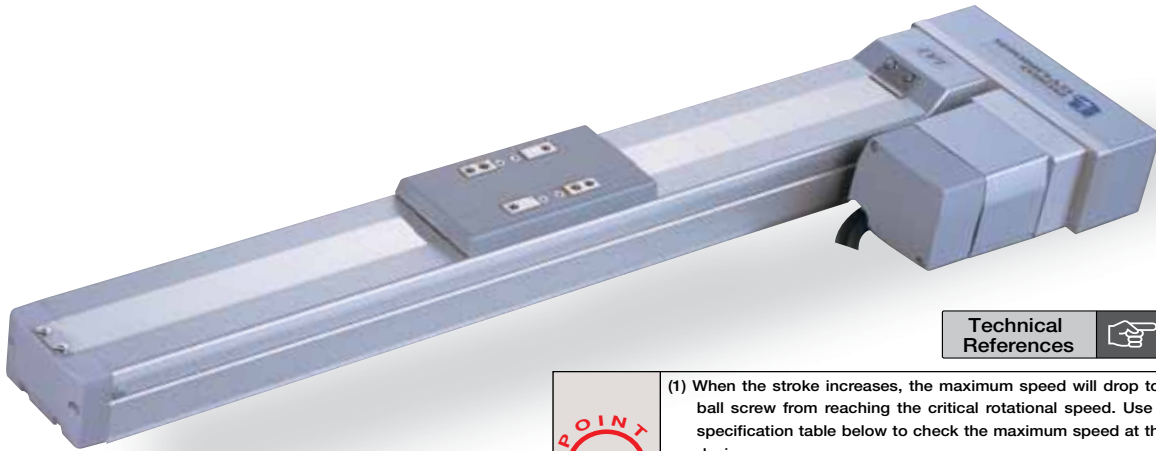
50: 50mm
800: 800mm (50mm pitch increments)

T1: XSEL-J/K
T2: SCON
SSEL
XSEL-P/Q

N : None
P : 1m
S : 3m
M : 5m
X : Custom Length
R : Robot Cable

See Options below
* Be sure to specify which side the motor is to be mounted (ML/MR).

* See page Pre-35 for explanation of each code that makes up the configuration name.



Pictured: Left-mounted motor model (ML).

Technical References P. A-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 (0.2G for 4mm-lead). These values are the upper limits for the acceleration.

Actuator Specifications

Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity		Rated Thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCS2-SA7R-①-60-16-②-③-④-⑤	60	16	12	3	63.8	50 ~ 800 (50mm increments)
RCS2-SA7R-①-60-8-②-③-④-⑤		8	25	6	127.5	
RCS2-SA7R-①-60-4-②-③-④-⑤		4	40	12	255.0	

Stroke and Maximum Speed

Stroke Lead	50 ~ 600 (50mm increments)	~ 700 (mm)	~ 800 (mm)
	16	800	640
8	400	320	240
4	200	160	120

(Unit: mm/s)

Legend ① Encoder ② Stroke ③ Compatible controller ④ Cable length ⑤ Options

Encoder & Stroke List

② Stroke (mm)	Standard Price	
	① Encoder Type	
	Incremental	Absolute
50/100	I	A
150/200	-	-
250/300	-	-
350/400	-	-
450/500	-	-
550/600	-	-
650/700	-	-
750/800	-	-

④ Cable List

Type	Cable Symbol	Standard Price
Standard	P (1m)	—
	S (3m)	—
	M (5m)	—
Special Lengths	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)	—

* For cables for maintenance, see page A-39.

⑤ Option List

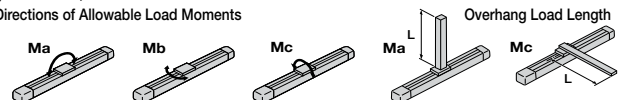
Name	Option Code	See Page	Standard Price
Brake	B	→ A-25	—
Reversed-home	NM	→ A-33	—
Left-Mounted Motor (Standard)	ML	→ A-33	—
Right-Mounted Motor	MR	→ A-33	—
Slider Roller	SR	→ A-36	—

Actuator Specifications

Item	Description
Drive System	Ball screw ø12mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (white alumite treated)
Allowable Static Moment	Ma: 50.4N·m Mb: 71.9N·m Mc: 138.0N·m
Allowable Dynamic Moment (*)	Ma: 13.9N·m Mb: 19.9N·m Mc: 38.3N·m
Overhang Load Length	Ma direction: 230mm or less Mb-Mc direction: 230mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km travel life.

Directions of Allowable Load Moments



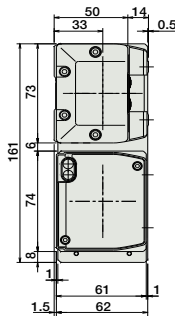
Dimensions

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

For Special Orders P. A-9



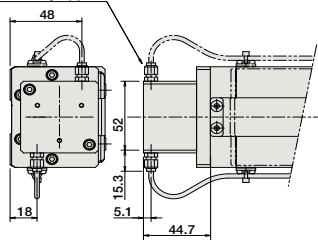
* The reference surface is the same as the SA7C type. (See P106)
 * The offset reference position for the moment Ma is the same as the SA7C type. (See P106)



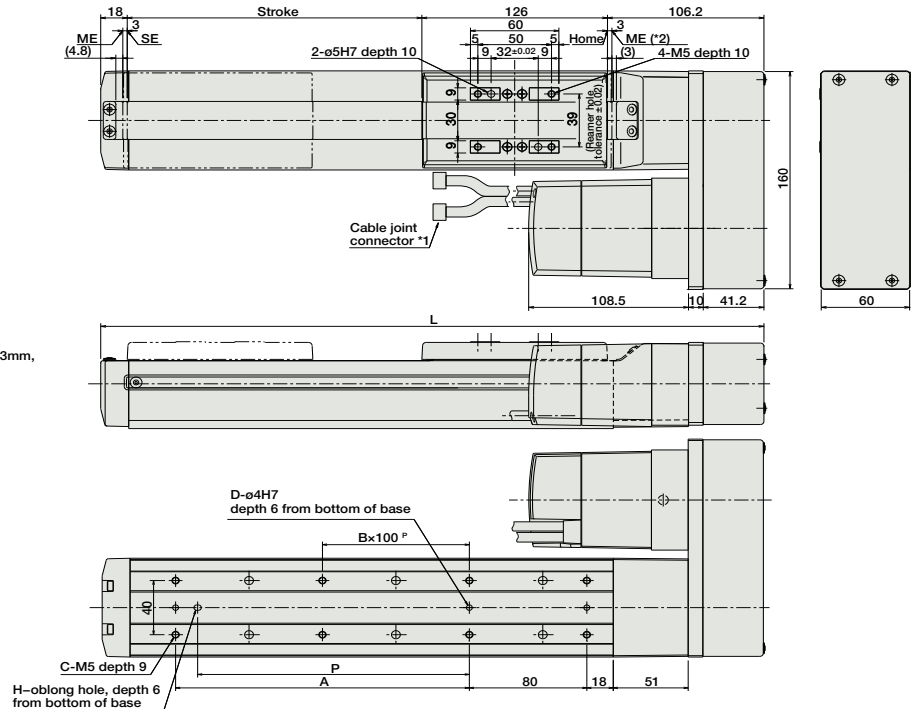
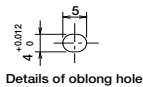
Dimensions of the Brake Section

* Adding a brake will increase the actuator's overall length by 43mm, and its weight by 0.6kg.

Mounting direction: symmetrically opposite



* For brake cable exiting from the side, it can only exit from the motor side.



Memo: ME: Mechanical end, SE: Stroke end

Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	300.2	350.2	400.2	450.2	500.2	550.2	600.2	650.2	700.2	750.2	800.2	850.2	900.2	950.2	1000.2	1050.2
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	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
D	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
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)	4.0	4.2	4.4	4.6	4.9	5.1	5.3	5.5	5.8	6.0	6.2	6.4	6.7	6.9	7.1	7.3

*1 A motor-encoder cable is connected here. See page A-39 for details on cables.
 *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

Compatible Controllers

The RCS2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Positioner Mode		SCON-C-60①-NP-2-②	Positioning is possible for up to 512 points	512 points	Single-Phase AC 100V Single-Phase AC 200V 3-Phase AC 200V (XSEL-P/Q only)	360VA max. * When operating a 150W single-axis model	-	→ P547
Solenoid Valve Mode			Operable with same controls as solenoid valve.	7 points				
Serial Communication Type			Dedicated to serial communication	64 points				
Pulse Train Input Control Type			Dedicated to Pulse Train Input	(-)				
Program Control 1-2 Axis Type		SSEL-C-1-60①-NP-2-①	Programmed operation is possible Can operate up to 2 axes	20000 points			-	→ P577
Program Control 1-6 Axis Type		XSEL-③-1-60①-N1-EEE-2-④	Programmed operation is possible Can operate up to 6 axes	20000 points			-	→ P587

* For SSEL and XSEL, only applicable to the single-axis model.
 * ① is a placeholder for the encoder type (I: incremental, A: absolute).
 * ② is a placeholder for the power supply voltage (1: 100V, 2: single-phase 200V, 3: 3-phase 200V).
 * ③ is a placeholder for the XSEL type name (J, K, P, or Q).
 * ④ is a placeholder for the power supply voltage (1: 100V, 2: single-phase 200V, 3: 3-phase 200V).

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/Arm/Flat Type
- Mini
- Standard
- Gripper/Rotary Type
- Linear Servo Type
- Cleanroom Type
- Splash-Proof
- Controllers
- PMEC/AMEC
- PSEP/ASEP
- ROBO NET
- ERC2
- PCON
- ACON
- SCON
- PSEL
- ASEL
- SSEL
- XSEL
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor