

# RCS2-SS8R

ROBO Cylinder Slider Type 80mm Width 200V Servo Motor  
Side Mounted Motor Steel Base

■ Configuration: **RCS2** — **SS8R** —  —  —  —  —  —  —  —  —

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

I : Incremental  
A : Absolute

100: 100W Servo motor  
150: 150W Servo motor

20: 20mm  
10: 10mm

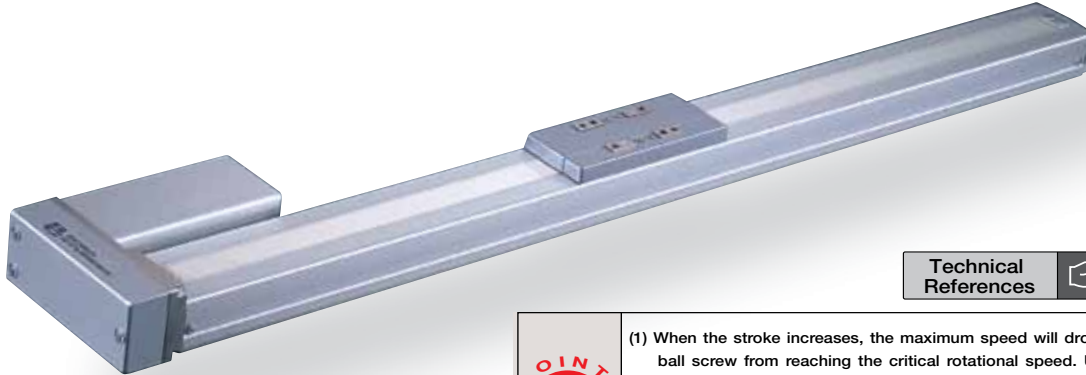
50: 50mm  
1000: 1000mm (50mm pitch increments)

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.



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. These values are the upper limits for the acceleration.

Pictured: Left-mounted motor model (ML).

### Actuator Specifications

#### Lead and Load Capacity

Model	Motor Output	Lead (mm)	Max. Load Capacity		Rated Thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCS2-SS8R-①-100-20-②-③-④-⑤	100	20	20	4	84.9	50 ~ 1000 (50mm increments)
RCS2-SS8R-①-100-10-②-③-④-⑤		10	40	8	169	
RCS2-SS8R-①-150-20-②-③-④-⑤	150	20	30	6	128	
RCS2-SS8R-①-150-10-②-③-④-⑤		10	60	12	256	

#### Stroke and Maximum Speed

Stroke Lead	50 ~ 600 (50mm increments)	~ 700 (mm)	~ 800 (mm)	~ 900 (mm)	~ 1000 (mm)
	20	1000	960	765	625
10	500	480	380	310	255

(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	
	Motor power output		Motor power output	
	100W	150W	100W	150W
50/100	-	-	-	-
150/200	-	-	-	-
250/300	-	-	-	-
350/400	-	-	-	-
450/500	-	-	-	-
550/600	-	-	-	-
650/700	-	-	-	-
750/800	-	-	-	-
850/900	-	-	-	-
950/1000	-	-	-	-

#### 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.

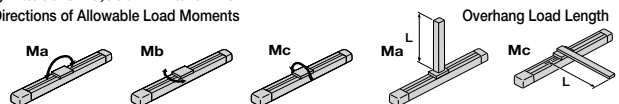
#### ⑤ Option List

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 ø16mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Special alloy steel
Allowable Static Moment	Ma: 198.9N·m Mb: 198.9N·m Mc: 416.7N·m
Allowable Dynamic Moment (*)	Ma: 36.3N·m Mb: 36.3N·m Mc: 77.4N·m
Overhang Load Length	Ma direction: 450mm or less Mb-Mc direction: 450mm 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



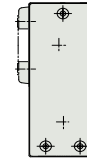
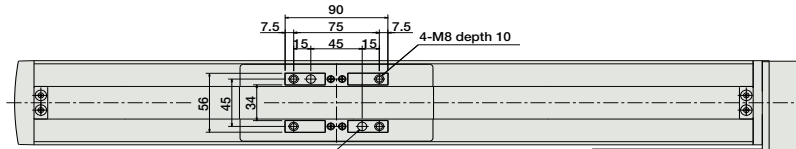
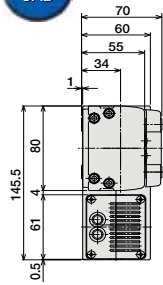
Dimensions

CAD drawings can be downloaded from IAI website. [www.intelligentactuator.com](http://www.intelligentactuator.com)

For Special Orders P. A-9

2D CAD

\*The reference surface is the same as the SS8C type. (See P110)



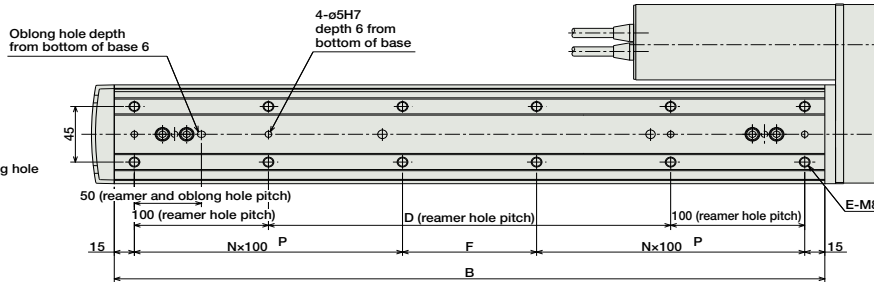
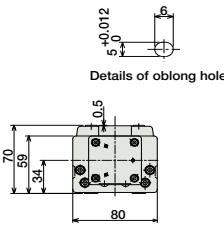
\*1 The motor-encoder cable is connected here. See page A-39 for details on cables.  
\* The bend radius R of the cable is the same as other models.



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

Dimensions of the Brake Section

\* Adding a brake increases the actuator's overall length by 26mm and its weight by 0.5kg.



\* The offset reference position for the moment Ma is the same as the SS8C type. (See P110)  
\* Note that in order to change the home orientation, arrangements must be made to send in the product to IAI.  
\* For the reversed-home model, the dimensions (distance from the ME to home) on the motor-side and that on the opposite side are flipped.

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
A	340	390	440	490	540	590	640	690	740	790	840	890	940	990	1040	1090	1140	1190	1240	1290
B	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
C	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
D	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
E	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	24	24	24	26
F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
Weight (kg)	6.7	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2	12.7	13.2	13.7	14.2	14.7	15.2	15.7	16.2

③ 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-100①-NP-2-② SCON-C-150①-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-1-100①-NP-2-② SSEL-C-1-150-NP①-2-②	Programmed operation is possible Can operate up to 2 axes	20000 points			-	→P577
Program Control 1-6 Axis Type		XSEL-③-1-100①-N1-EEE-2-④ XSEL-③-1-150①-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).