RCS2-SA6C

ROBO Cylinder, Slider Type, Actuator Width 58mm, 200-V Servo Motor, Coupled

Model Specification Items: **RCS2** — **SA6C** — ☐ — **30** — ☐ — ☐ — ☐ — ☐ — ☐

Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
RCS2	SA6C	I: Incremental A: Absolute	30: Servo motor, 30W	20: 20mm 12: 12mm 6: 6mm 3: 3mm	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☐☐: Custom length R☐☐: Robot cable	See Options below.

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

CE RoHS

*CE compliance is optional.

For High Acceleration/Deceleration

(excluding the 3-mm lead model)

*This product is equipped with a position adjusting screw at the A area shown above. (See dimensional drawing on the page to the right.)

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 of standard model at 0.3G (0.2G for 3mm-lead), and operation of the high acceleration/deceleration model at 1G (excluding the 3mm-lead model). (Even when the acceleration/deceleration is dropped, the maximum load capacity values shown in the table below are the upper limits.)

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

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Maximum payload Horizontal (kg)	Maximum payload Vertical (kg)	Rated thrust (N)	Stroke (mm)
RCS2-SA6C-①-30-20-②-③-④-⑤	30	20	3	0.5	15.8	50 to 600 (every 50mm)
RCS2-SA6C-①-30-12-②-③-④-⑤		12	6	1.5	24.2	
RCS2-SA6C-①-30-6-②-③-④-⑤		6	12	3	48.4	
RCS2-SA6C-①-30-3-②-③-④-⑤		3	18	6	96.8	

Stroke and Maximum Speed

(Unit: mm/s)

Lead \ Stroke	50~450 (every 50mm)	500 (mm)	550 (mm)	600 (mm)
20	1300 <800>		1160 <800>	890 <800>
12	800	760	640	540
6	400	380	320	270
3	200	190	160	135

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

* The values enclosed in < > apply to vertical settings.

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 type	**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

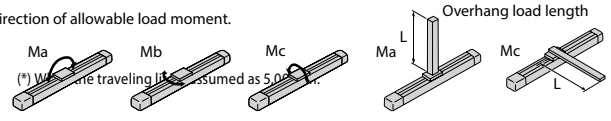
Name	Option code	Page	Standard Price
Brake	**B**	→ A-42	—
CE compliance	**CE**	→ A-42	—
Foot bracket	**FT**	→ A-47	—
For High Acceleration/Deceleration	**HA**	→ A-50	—
Home sensor	**HS**	→ A-50	—
Non-motor end specification	**NM**	→ A-52	—
Slider roller specification	**SR**	→ A-55	—

* The high-acceleration/deceleration option and the slider roller option cannot be used together.
* The high-acceleration/deceleration option cannot be used on the 3mm-lead model.

Actuator Specifications

Item	Description
Drive method	Ball screw, ø10mm, rolled C10
Positioning repeatability	±0.02mm
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treatment
Allowable static moment	Ma: 38.3 N•m,, Mb: 54.7 N•m, Mc: 81.0 N•m
Allowable dynamic moment (*)	Ma: 8.9 N•m, Mb: 12.7 N•m, Mc: 18.6 N•m
Overhang load length	Ma direction: 220mm or less, Mb/Mc directions: 120mm or less
Ambient operating temperature/humidity	0 to 40°C, 85% RH max. (Non-condensing)

Direction of allowable load moment.



(*) When the traveling life is assumed as 5,0[illegible]

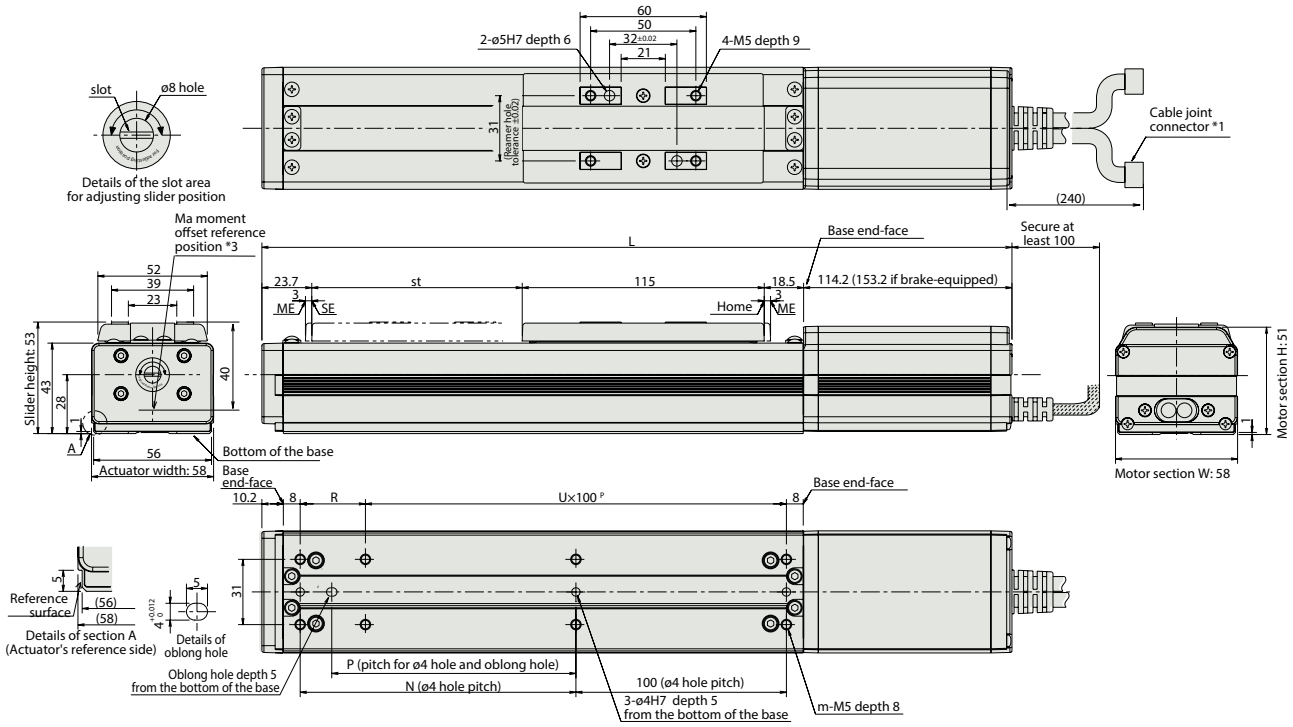
Dimensional Drawings

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

2D CAD 3D CAD

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 and Weights by Stroke

* Brake-equipped models are heavier by 0.3kg.

Stroke		50	100	150	200	250	300	350	400	450	500	550	600
L	without brake	321.4	371.4	421.4	471.4	521.4	571.4	621.4	671.4	721.4	771.4	821.4	871.4
	with brake	360.4	410.4	460.4	510.4	560.4	610.4	660.4	710.4	760.4	810.4	860.4	910.4
N		81	131	181	231	281	331	381	431	481	531	481	631
P		66	116	166	216	266	316	366	416	466	516	566	616
R		81	31	81	31	81	31	81	31	81	31	81	31
U		1	2	2	3	3	4	4	5	5	6	6	7
m		6	8	8	10	10	12	12	14	14	16	16	18
Weight (kg)		1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6

③Applicable 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-30DⒾⒾ-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)	126 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-1-30DⒾⒾ-Ⓥ-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-1-30DⒾⒾ-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-Ⓥ-1-30DⒾⒾ-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). * Enter the code "HA" in Ⓘⓘ when the high-acceleration/deceleration option is specified.
* Ⓘⓘ indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V).
* Ⓥ indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V / 3: Three-phase 200V).
* Ⓥⓘ indicates the XSEL type (J / K / P / Q / R / S).
* Ⓥⓘ indicates field network specification symbol.