RCS2-SRA7BD

Robo Cylinder, Rod Type, Actuator Width 75mm, 200V Servo Motor, Short-Length Type

Model Specification Items: **RCS2** — **SRA7BD** — **I** — □ — □ — □ — □ — □ — □ — □

- Series: RCS2
- Type: SRA7BD
- Encoder type: I : Incremental
- Motor type: 60 : 60W Servo motor; 100 : 100W Servo motor; 150 : 150W Servo Motor
- Lead: 16 : 16mm; 8 : 8mm; 4 : 4mm
- Stroke: 50 : 50mm ~ 300 : 300mm (50mm pitch increments)
- Applicable controller: T1 : XSEL-J/K; T2 : SCON, SSEL, XSEL-P/Q
- 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.

RoHS

Technical References → Appendix P.5

POINT Notes on selection

(1) When operated at the rated acceleration, the maximum load capacity is the load capacity at the rated acceleration.
(2) When operated at the maximum acceleration, the maximum load capacity is the load capacity at the maximum acceleration.
(3) If positioning repeatability and/or lost motion is required, the rotation of the rod must be restricted. In this case, select a model with a guide, or add a separate guide.
(4) The standard model may exhibit vibration of the rod at long strokes. If this is an issue, select a model with a guide, or add a separate guide.
(5) The values for the horizontal load capacity reflect the use of an external guide.
(6) See page A-71 for details on push motion.

Actuator Specifications

■ Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Rated Acceleration (G)	Load Capacity at Rated Acceleration		Max Acceleration (G)	Load Capacity at Max. Acceleration		Rated thrust (N)	Stroke (mm)
				Horizontal (kg)	Vertical (kg)		Horizontal (kg)	Vertical (kg)		
RCS2-SRA7BD-I-60-16-①-②-③-④	60	16	0.25	5	2	0.35	2.5	1	63	50~300 (every 50mm)
RCS2-SRA7BD-I-60-8-①-②-③-④		8	0.15	10	5	0.25	5	2.5	127	
RCS2-SRA7BD-I-60-4-①-②-③-④		4	0.05	20	10	0.15	10	5	254	
RCS2-SRA7BD-I-100-16-①-②-③-④	100	16	0.3	10	3.5	0.4	5	1.5	103	
RCS2-SRA7BD-I-100-8-①-②-③-④		8	0.2	22	9	0.3	10	4.5	207	
RCS2-SRA7BD-I-100-4-①-②-③-④		4	0.1	40	19.5	0.2	20	9	414	
RCS2-SRA7BD-I-150-16-①-②-③-④	150	16	0.3	15	6.5	0.4	7.5	3	157	
RCS2-SRA7BD-I-150-8-①-②-③-④		8	0.2	35	14.5	0.3	17.5	7	314	
RCS2-SRA7BD-I-150-4-①-②-③-④		4	0.1	55	22.5	0.2	27.5	11	628	

■ Stroke and Maximum Speed

Lead \ Stroke	50~300 (every 50mm)
16	800
8	400
4	200

(Unit: mm/s)

Code explanation ① Stroke ② Applicable controller ③ Cable length ④ Options *The values for the horizontal load capacity reflect the use of an external guide. *See page A-71 for details on push motion.

① Stroke

①Stroke (mm)	Standard price Motor Output (W)		
	60W	100W	150W
50	—	—	—
100	—	—	—
150	—	—	—
200	—	—	—
250	—	—	—
300	—	—	—

③ Cable 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.

④ Options

Name	Option code	See page	Standard price
Connector cable exit direction	**A1~A3**	→ A-41	—
Brake	**B**	→ A-42	—
Flange	**FL**	→ A-45	—
Foot bracket	**FT**	→ A-49	—
Extended rod tip	**RE**	→ A-54	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø12mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Rod diameter	ø35mm
Non-rotating accuracy of rod	—
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

Dimensional Drawings

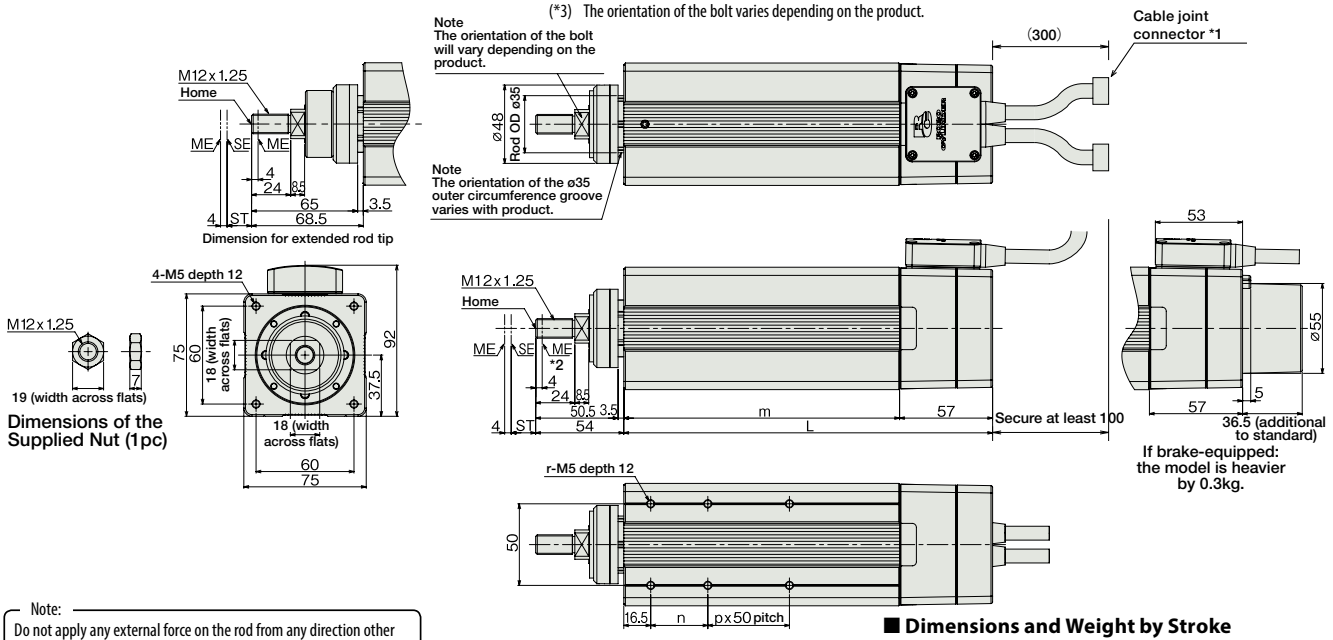
CAD drawings can be downloaded from the website. www.intelligentactuator.com

For Special Orders Appendix P.15

2D CAD

*The SRA7BD is not available in non-motor end configuration, due to its construction.

(*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.
ST: Stroke
SE : Stroke end
ME : Mechanical end
(*3) The orientation of the bolt varies depending on the product.



Note:
Do not apply any external force on the rod from any direction other than the direction of the rod's motion. If a force is exerted on the rod in a perpendicular or rotational direction,the detent may become damaged.

Note:
A slit is provided in the side of the actuator body to prevent pauses due to forward/backward operation.
Please be careful when operating in the dusty environment. The dust may enter inside from the slit.

■ Dimensions and Weight by Stroke

Stroke		50	100	150	200	250	300
L	60W	126	176	226	276	326	376
	100W	133	176	226	276	326	376
	150W	145	176	226	276	326	376
m	60W	69	119	169	219	269	319
	100W	76	119	169	219	269	319
	150W	88	119	169	219	269	319
n		25	35	35	35	35	35
p		0	0	1	2	3	4
r		4	4	6	8	10	12
Weight (kg)	60W	2.4	2.9	3.5	4.1	4.6	5.2
	100W	2.6	3.1	3.7	4.2	4.8	5.4
	150W	2.9	3.3	3.9	4.4	5	5.6

②Applicable Controllers

RCS2 series actuators can be operated with the controllers indicated below. Select the type according to your intended 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-Ⓘ-NP-2-Ⓘ	Up to 512 positioning points are supported.	512 points	Single-phase 100VAC Single-phase 200VAC 3-phase 200VAC (XSEL-P/Q only)	408 VA max. * Varies depending on the controller. Refer to the operation 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	(—)			—	
Program control type 1 or 2 axes		SSEL-CS-1-Ⓘ-NP-2-Ⓘ	Program operation is supported Up to two axes can be operated	20,000 points			—	→ P685
Program control type 1 or 6 axes		XSEL-Ⓙ-1-Ⓘ-N1-EEE-2-Ⓥ	Program operation is supported Up to six axes can be operated	20,000 points			—	→ P695

* This is for the single-axis SSEL, and XSEL.
* Ⓘ Indicates the wattage (60/100/150).
* Ⓙ Indicates the power-supply voltage type (1: 100 V / 2: Single-phase 200 V).
* Ⓙ Indicates the XSEL type (J / K / P / Q).
* Ⓥ Indicates the power-supply voltage type (1: 100 V / 2: Single-phase 200 V / 3: Three-phase 200 V).

Please note that this model cannot be connected to the XSEL-P/Q type (5-axis/6-axis), XSEL-R/S type, or MSCON.