RCS2-RGS5C

Robo Cylinder, Rod Type with Single Guide, Actuator Width 55mm, 200V Servo Motor, Coupled

Model Specification Items

RCS2	—	RGS5C	—	☐	—	☐	—	☐	—	☐	—	☐	—	☐	—	☐
Series		Type		Encoder type		Motor type		Lead		Stroke		Applicable controller		Cable length		Options
				I: Incremental A: Absolute		60: 60W Servo motor 100: 100W Servo motor		16: 16mm 8: 8mm 4: 4mm		50: 50mm 〜 300: 300mm (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 (*1)

(*1) Except all 60W models and 100W 4mm lead models

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 operating the standard and power-saving models at 0.3G (0.2G for 4mm-lead), and 1G acceleration for the high-acceleration models (4mm-lead model excluded). (The values in the table below are the upper limits, even if the acceleration/deceleration is decreased.)

(3) The values for the horizontal load capacity assume the use of an external guide, so that there is no external force from any direction other than the forward/backward direction of the rod. See the technical resources (page A-111) for the allowable weight using the supplied guide alone.

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

Actuator Specifications

■ Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated thrust (N)	Stroke (mm)
RCS2-RGS5C-①-60-16-②-③-④-⑤	60	16	12.0	1.3	63.8	50~300 (every 50mm)
RCS2-RGS5C-①-60-8-②-③-④-⑤		8	25.0	4.3	127.5	
RCS2-RGS5C-①-60-4-②-③-④-⑤		4	50.0	10.8	255.1	
RCS2-RGS5C-①-100-16-②-③-④-⑤	100	16	15.0	2.8	105.8	
RCS2-RGS5C-①-100-8-②-③-④-⑤		8	30.0	8.3	212.7	
RCS2-RGS5C-①-100-4-②-③-④-⑤		4	60.0	17.3	424.3	

■ Stroke and Maximum Speed

Lead \ Stroke	50~250 (every 50mm)	300 (mm)
16	800	755
8	400	377
4	200	188

(Unit: mm/s)

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

①Encoder Type/②Stroke

②Stroke (mm)	Standard price ①Encoder Type Incremental Motor Output (W) 60W	Incremental Motor Output (W) 100W	Absolute Motor Output (W) 60W	Absolute Motor Output (W) 100W
50	—	—	—	—
100	—	—	—	—
150	—	—	—	—
200	—	—	—	—
250	—	—	—	—
300	—	—	—	—

④Cable 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.

⑤Options

Name	Option code	See page	Standard price
Connector cable exit direction	**A2**	→ A-41	—
Brake	**B**	→ A-42	—
CE compliance	**CE**	→ A-42	—
Foot bracket	**FT**	→ A-49	—
Guide mounting direction	**GS2~GS4**	→ A-50	—
High acceleration/deceleration (*1)	**HA**	→ A-50	—

(*1) The high-acceleration/deceleration option is not available for all 60W models and 100W model with 4mm lead.

Actuator Specifications

Item	Description
Drive System	Ball screw, ø12mm, rolled C10
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Guide	Single guide (guide rod diameter ø10mm, ball bush type)
Rod diameter	ø30mm
Non-rotating accuracy of rod	±0.1 deg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

Dimensional Drawings

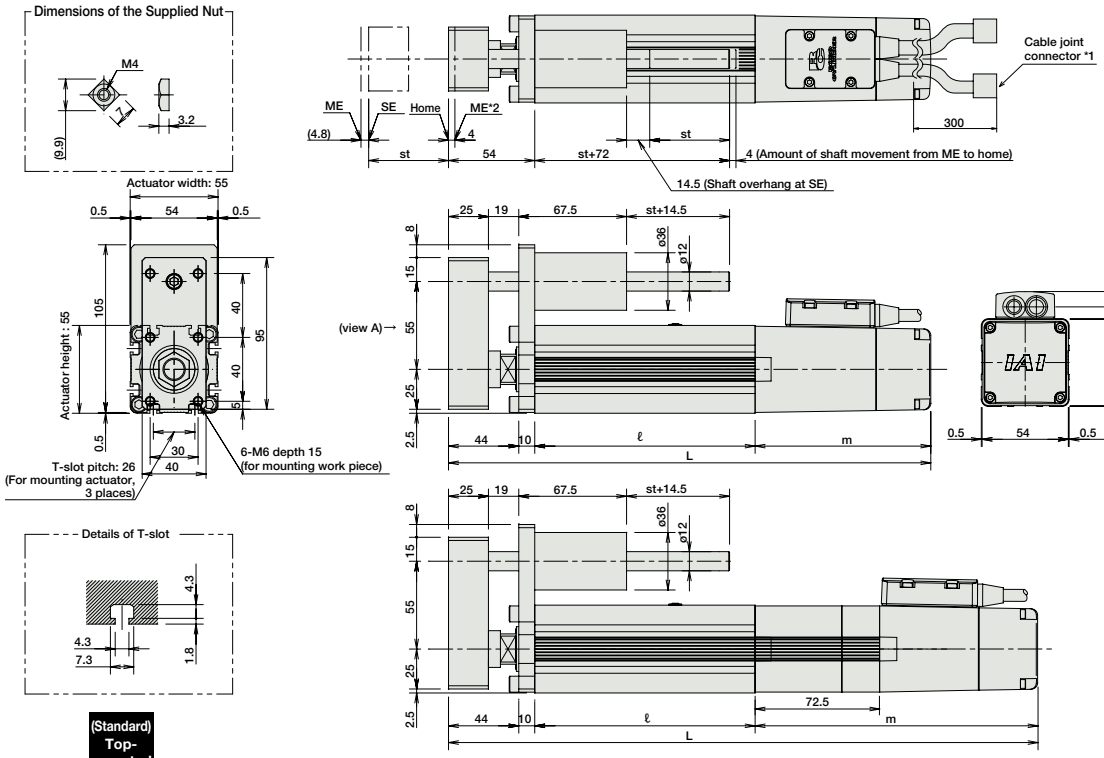
CAD drawings can be downloaded from the website. www.intelligentactuator.com

For Special Orders Appendix P.15

2D CAD 3D CAD

*The RGS5C 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.
ME : Mechanical end SE : Stroke end



(Standard) Top-mounted
GS4 Left-mounted
Actuator
GS2 Right-mounted
GS3 Bottom-mounted

Guide mounting direction (as viewed from view A)

■ Dimensions and Weight by Stroke

RCS2-RGS5C (without brake)

Stroke		50	100	150	200	250	300
L	60W	284	334	384	434	484	534
	100W	302	352	402	452	502	552
ℓ		138	188	238	288	338	388
m	60W	92					
	100W	110					
Weight (kg)		2.5	2.8	3.2	3.6	3.9	4.3

RCS2-RGS5C (with brake)

Stroke		50	100	150	200	250	300
L	60W	356.5	406.5	456	506.5	556.5	606.5
	100W	374.5	424.5	474.5	524.5	574.5	624.5
ℓ		138	188	238	288	338	388
m	60W	164.5					
	100W	182.5					
Weight (kg)		2.8	3.1	3.5	3.9	4.2	4.6

③ 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Ⓘ-NP-2-Ⓘ SCON-CA-100Ⓘ-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)	314 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Ⓘ-Ⓥ-0-Ⓘ MSCON-C-1-100Ⓘ-Ⓥ-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-1-60Ⓘ-NP-2-Ⓘ SSEL-CS-1-100Ⓘ-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-Ⓙ-1-60Ⓘ-N1-EEE-2-Ⓥ XSEL-Ⓙ-1-100Ⓘ-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).
* Ⓙ indicates the power-supply voltage type (1: 100V / 2: Single-phase 200V).
* Ⓙ indicates the XSEL type (J / K / P / Q / R / S).
* Ⓥ indicates the power-supply voltage type (1: 100 V / 2: Single-phase 200V / 3: Three-phase 200V).
* Ⓥ indicates field network specification symbol.