RCS2-RGS5C
ROBO Cylinder Rod Type with Single Guide ø55mm Diameter 200V Servo Motor Coupled

■ Configuration:

RCS2	—	RGS5C	—	☐	—	☐	☐	—	☐	—	☐	—	☐	—	☐
Series		Type		Encoder		Motor	Lead		Stroke		Compatible Controllers		Cable Length		Option

- Encoder
  - I : Incremental
  - A : Absolute
- Motor
  - 60 : 60W Servo Motor
  - 100 : 100W Servo Motor
- Lead
  - 16 : 16mm
  - 8 : 8mm
  - 4 : 4mm
- Stroke
  - 50 : 50mm
  - ∼
  - 300 : 300mm (50mm pitch increments)
- Compatible Controllers
  - T1 : XSEL-J/K
  - T2 : SCON
  - SSEL
  - XSEL-P/Q
- Cable Length
  - N : None
  - P : 1m
  - S : 3m
  - M : 5m
  - X☐☐ : Custom
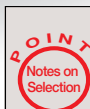 - R☐☐ : Robot cable
- Option
  - See Options below

* See page Pre-35 for an explanation of the naming convention.

For High Acceleration/Deceleration (*1)
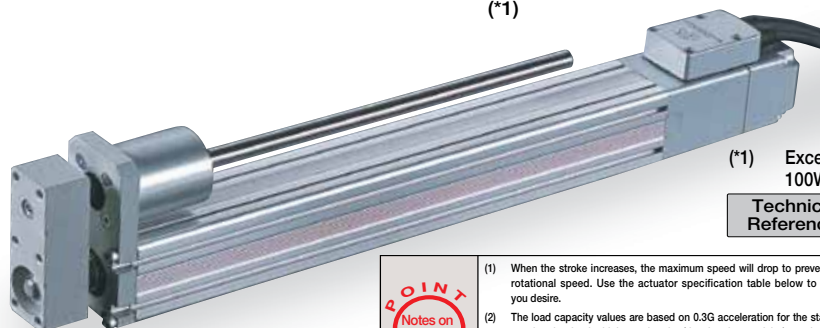
(*1) Except all 60W models and 100W 4mm lead models

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 values are based on 0.3G acceleration for the standard model (0.2G for 4mm-lead), and 1G acceleration for the high-acceleration/deceleration models (4mm-lead 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-82) for the allowable weight using the supplied guide alone.

Actuator Specifications

■ Lead and Load Capacity

Model	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 (50mm increments)
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	

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

■ Stroke and Maximum Speed

Stroke / Lead	50 ∼ 250 (50mm increments)	300 (mm)
16	800	755
8	400	377
4	200	188

(Unit: mm/s)

■ Encoder & Stroke List

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

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)	–

* See page A-39 for cables for maintenance.

⑤ Option List

Name	Option Code	See Page	Standard Price
Connector cable exit direction	A2	→ A-25	–
Brake	B	→ A-25	–
Foot bracket	FT	→ A-29	–
Guide mounting direction	GS2 ∼ GS4	→ P252	–
High-acceleration/deceleration (*1)	HA	→ A-32	–

(*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 C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Guide	Single guide (guide rod diameter ø12mm, Ball bush type)
Rod Diameter	ø30mm
Non-rotating accuracy of rod	±0.1 deg
Ambient Operating Temp./Humidity	0 ∼ 40°C, 85% RH or less (non-condensing)

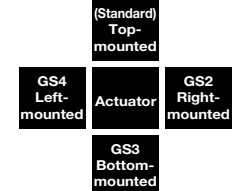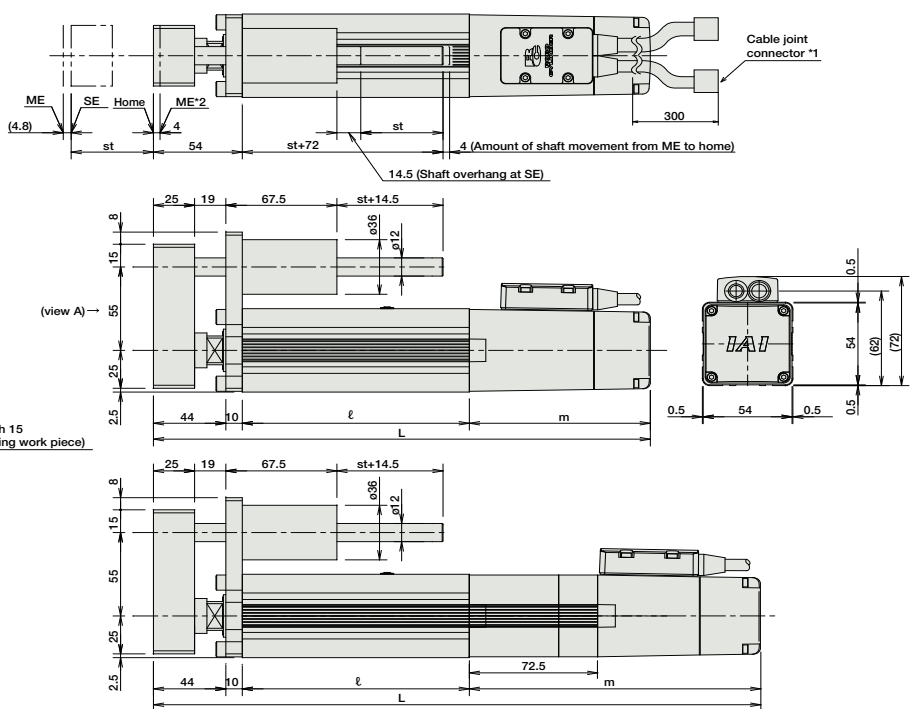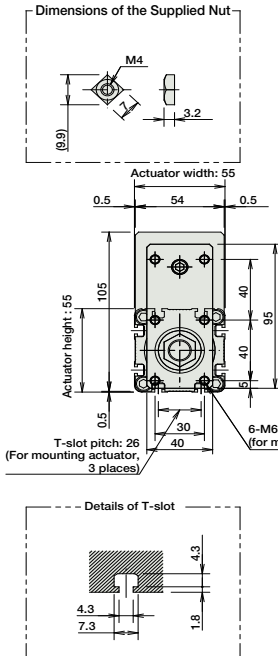**Dimensions**

For Special Orders ☞ P. A-9

* The RGS5C is not available in reversed-home configuration, due to its construction.

*1. The motor-encoder cable is connected here. See page A-39 for details on cables.
*2. When homing, the rod moves to the ME; therefore, please watch for any interference with the surrounding objects.
ME: Mechanical end   SE: Stroke end

Dimensions of the Supplied Nut

Actuator width: 55

Details of T-slot

(Standard) Top-mounted

| GS4 Left-mounted | Actuator | GS2 Right-mounted |

GS3 Bottom-mounted

Guide mounting direction (as viewed from view A)

Cable joint connector *1

4 (Amount of shaft movement from ME to home)
14.5 (Shaft overhang at SE)

(view A) →

6-M6 depth 15 (for mounting work piece)
T-slot pitch: 26 (For mounting actuator, 3 places)

■ Dimensions/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	456.5	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 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-2-③ SCON-C-100①②-NP-2-③	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)	Maximum 360VA * Single-axis model operated at 150W	-	→ P547
Solenoid Valve Mode			Operable with the same controls as the 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 Axes Type		SSEL-C-1-60①-NP-2-③ SSEL-C-1-100①②-NP-2-③	Programmed operation is possible Operation is possible on up to 2 axes	20000 points			-	→ P577
Program Control 1-6 Axes Type		XSEL-④-1-60①-N1-EEE-2-⑤ XSEL-④-1-100①②-N1-EEE-2-⑤	Programmed operation is possible Operation is possible on 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 code "HA" if the high-acceleration/deceleration option is specified.
* ③ is a placeholder for the power supply voltage (1: 100V, 2: single-phase 200V).
* ④ is a placeholder for the XSEL type name ("J", "K", "P", "Q").
* ⑤ is a placeholder for the power supply voltage (1: 100V, 2: single-phase 200V, or 3: three-phase 200V).

Sidebar navigation: 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

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RCS2-RGS5C **252**