RCS2-RP5N

Robo Cylinder, Mini Rod Type, Short-Length Tapped-Hole Mounting Type, Actuator Width 46mm, 200V Servo Motor, Ball Screw Specification

Model Specification Items

RCS2	RP5N	I	60	□	□	T2	□	□
Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
		I:Incremental specification	60:60W Servo motor	10 : 10mm 5 : 5mm 2.5:2.5mm	50: 50mm 75: 75mm	T2: SCON-CA SSEL XSEL-P/Q	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.

Technical References Appendix P.5

POINT Notes on selection

(1) The lead screw is not equipped with an anti-rotation device, so please attach a guide or similar locking device to the tip of the lead screw prior to use. (If there is no anti-rotation device attached, the lead screw cannot extend or retract.) When connecting the anti-rotation device and rod, do not use a floating joint. Please refer to page A-11 for the instruction details.
(2) The horizontal payload is the value when the actuator uses an external guide.
(3) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2G for 2.5mm-lead) horizontally and 0.2G vertically. The acceleration limit is the value indicated above.
(4) Do not apply an external force on the rod in any direction other than the direction the rodis moving in.
(5) If the actuator is used vertically, pay attention to rod contact because the rod will come down when the power is turned off.
(6) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Feed screw	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
RCS2-RP5N-I-60-10-①-T2-②-③	60	Ball screw	10	5	1.5	89	±0.02	50 75
RCS2-RP5N-I-60-5-①-T2-②-③			5	10	3	178		
RCS2-RP5N-I-60-2.5-①-T2-②-③			2.5	20	6	356		

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

Stroke and Maximum Speed

Lead \ Stroke	50 (mm)	75 (mm)
10	280 <230>	380 <330>
5	250 <230>	250
2.5	125	

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

(Unit: mm/s)

①Stroke

Stroke (mm)	Standard price
50	—
75	—

②Cable 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.

③Options

Name	Option code	See page	Standard price
Brake	**B**	→ A-42	—
CE compliance	**CE**	→ A-42	—
Connector cable exits (left)	**K1**	→ A-51	—
Connector cable exits (front)	**K2**	→ A-51	—
Connector cable exits (right)	**K3**	→ A-51	—

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Lost Motion	0.1mm or less
Frame	Material: Aluminum, white alumite treated
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)
Service life	5,000km or 50 million cycles

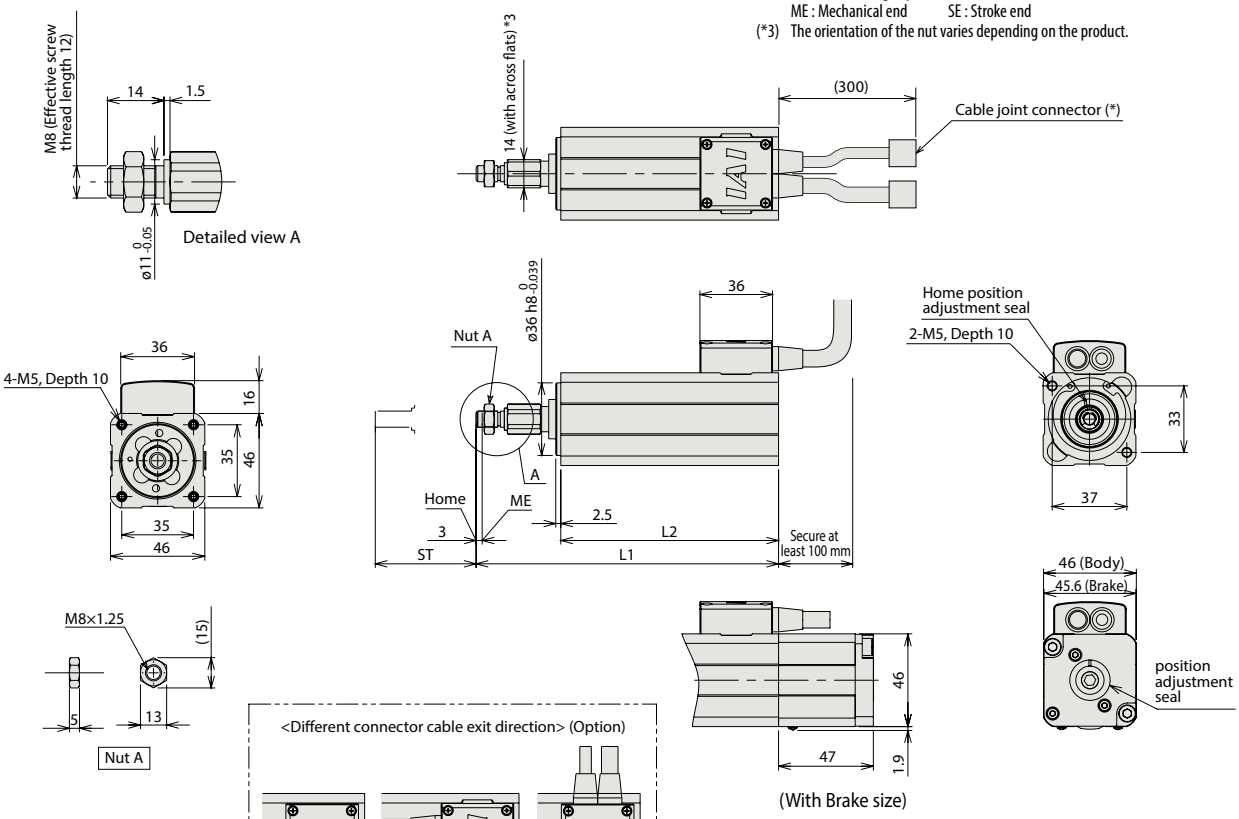
Dimensional Drawings

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

For Special Orders Appendix P.15

2D CAD 3D CAD

(*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) The orientation of the nut varies depending on the product.



* Brake-equipped models are heavier by 0.26kg.

■ Dimensions and Weight by Stroke

Stroke	50	75
L1	150	175
L2	108	133
Weight (kg)	0.85	1.0

Applicable 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 Type		SCON-CA-60I-NP-2-①	Up to 512 positioning points are supported	512 points	Single-phase 100 VAC Single-phase 200 VAC 3-phase 200 VAC (XSEL-P/Q only)	218 VA max. * Varies depending on the controller. Refer to the operation manual for details.	—	→ P643
Solenoid mode			Can be operated with the same controls used for solenoid valves	7 points				
Network mode			Can be moved by direct numerical specification	768 points				
Pulse-train input control mode			Can be controlled using pulse trains	(—)			—	
Program control type 1 or 2 axes		SSEL-CS-1-60I-NP-2-①	Program operation is supported Up to two axes can be operated	20,000 points			—	→ P685
Program control type 1 or 6 axes		XSEL-Ⅱ-1-60I-N1-EEE-2-3	Program operation is supported Up to six axes can be operated	20,000 points			—	→ P695

* The values of SSEL and XSEL assume a 1-axis specification. * ① indicates the type of power-supply voltage (1: 100 V/2: Single-phase 200 V). * Ⅱ indicates the XSEL type (P/Q).

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