

RCP2-RSA

ROBO Cylinder Rod Type: Unit Width 45mm, Pulse Motor, Standard Specification



Type Rod (45mm wide), standard Stroke 50~300mm Load capacity 40kg (horizontal)/19kg (vertical)

Model Specification Items Series Type Encoder type Motor Lead Stroke Applicable controller Cable length Options
 (Example) RCP2 - RSA - I - PM - 5 - 300 - P1 - S - B

* Refer to page 37 for the details of the model specification items.

* The maximum speed limit of the RCP2 Series will vary according to the weight of the load on the slider (rod). Refer to Correlation Diagrams of Speed and Load Capacity on page 28.

Model/Specifications

Model	Encoder type	Motor	Lead (mm)	Stroke 50mm increments (mm)	Speed (Note 1) (mm/s)	Load capacity (Note 2)		Maximum push force (N)
						Horizontal (kg)	Vertical (kg)	
RCP2-RSA-○-PM-10-***-P1-△-□	Absolute Incremental	Pulse motor	10	50~300	10~458	25~5	4.5~0.5	150
RCP2-RSA-○-PM-5-***-P1-△-□			5		5~250	40~10	12~2	284
RCP2-RSA-○-PM-2.5-***-P1-△-□			2.5		1~125 <110>	40	19~2.5	358

* In the above model names, ○ indicates the encoder type, *** the stroke, △ the cable length, and □ the applicable options.

Options

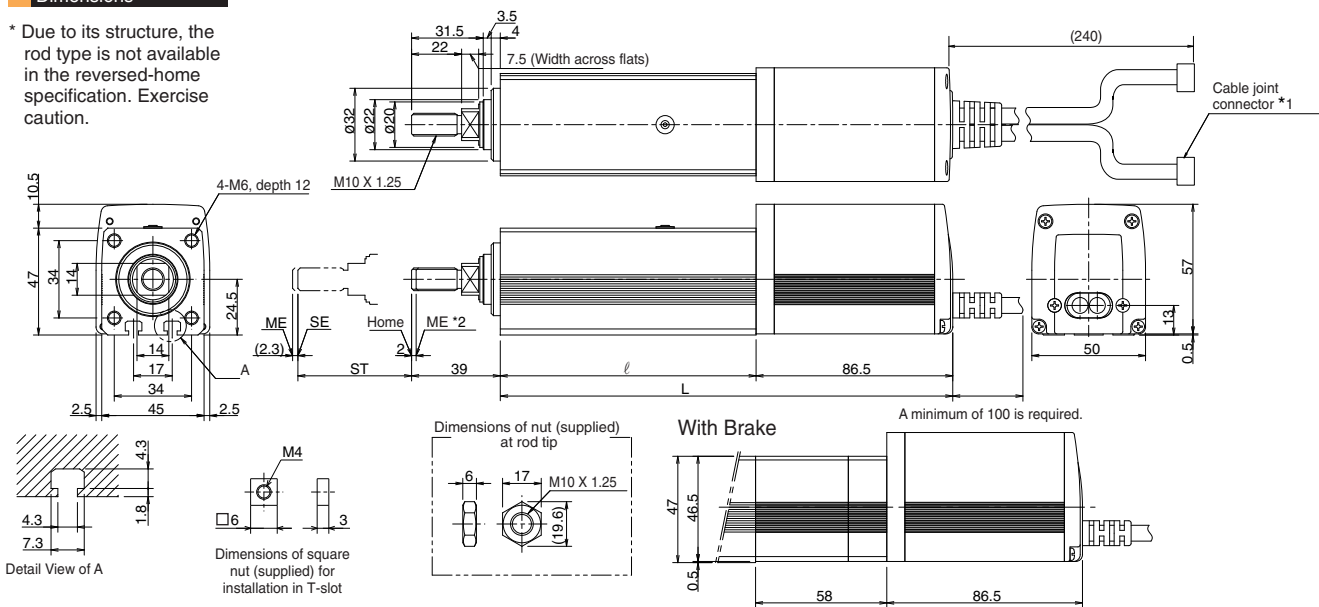
Name	Model	Page
Brake	B	→P137
With flange	FL	→P138
With foot bracket	FT	→P139

Common Specifications

Drive system	Ball screw ø8mm, rolled C10
Positioning repeatability	±0.02mm
Backlash	0.05mm or less
Guide	—
Rod diameter	ø22mm
Rod non-rotative accuracy	±1.5°
Base	Material: Aluminum with white alumite treatment
Cable length (Note 3)	N: No cable, P: 1m, S: 3m, M: 5m, X□□: Length specification, R□□: Robot cable

Dimensions

* Due to its structure, the rod type is not available in the reversed-home specification. Exercise caution.



*1. Connect the motor/encoder cables. Refer to page 160 for details on the cables.

*2. During home return the rod will move to the ME, so be careful to prevent contact with surrounding parts. ME: Mechanical end SE: Stroke end Reference dimensions are shown in parentheses.

* The figures in parentheses apply to the brake type, while those in < > apply to a vertical application.

Dimensions, Weight and Maximum Speed by Stroke

Stroke	50	100	150	200	250	300
ℓ	112.5	162.5	212.5	262.5	312.5	362.5
L	199(257)	249(307)	299(357)	349(407)	399(457)	449(507)
Weight (kg)	1.35 (1.75)	1.6 (2)	1.85 (2.25)	2.1 (2.5)	2.35 (2.75)	2.6 (3)
Maximum speed (mm/s)	Lead 10	458			458	350
	Lead 5	250			237	175
	Lead 2.5	125 <110>			118	87

Applicable Controller Specifications

Applicable Controller	Maximum number of controlled axes	Compatible encoder type	Program operation	Positioner operation	Pulse-train control	Power-supply voltage	Page
RCP2-C	1 axis	Absolute	X	O	X	24VDC	→P151
RCP2-CG	1 axis	Incremental	X	O	X		→P151



(Note 1) A longer stroke will result in a lower maximum speed to prevent the ball screw from reaching a dangerous speed. (Refer to the above table for the maximum speed at a given stroke.) The figures in parentheses apply to a vertical application.
 (Note 2) The load capacity is based on operation at an acceleration of 0.2 G.
 (Note 3) The maximum cable length is 15 m for the absolute type and 20 m for the incremental type. Specify the desired length in meters (e.g., X08 = 8 m).

* Refer to page 23 for other points to note.

ERC Actuators
 RCP2 Actuators
 RCS Actuators
 Information on Guide Types
 Actuator Options
 How to Install Actuator
 ERC Controllers
 RCP2 Controllers
 RCS Controllers