

# RCP2CR-SA6C

Cleanroom ROBO Cylinder Slider Coupling Type 58mm Width Pulse motor Aluminum Base

■ Configuration: **RCP2CR-SA6C-I-42P** —  —  —  —  —

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

I: Incremental  
\* The simple absolute encoder is also considered type "I".

42P: Pulse motor 42 size

12: 12mm  
6: 6mm  
3: 3mm

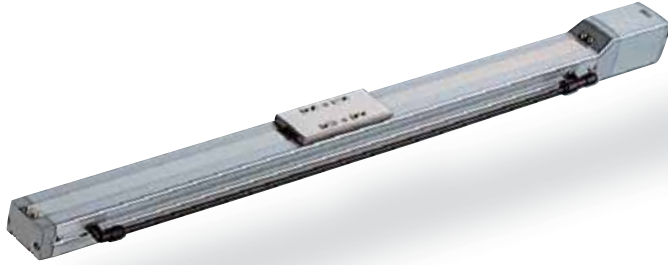
50: 50mm  
800: 800mm (50mm pitch increments)

P1: PCON  
RCON  
PSEL  
P3: PMEC  
PSEP

N: None  
P: 1m  
S: 3m  
M: 5m  
X  : Custom  
R  : Robot cable

BE: Brake (Cable exiting from end)  
BL: Brake (Cable exiting from left)  
BR: Brake (Cable exiting from right)  
NM: Reversed-home  
VR: Intake port on opposite side

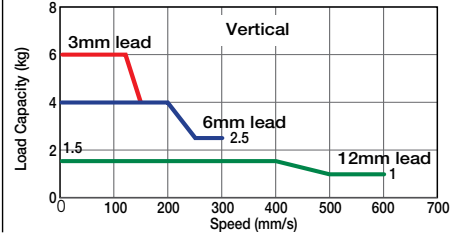
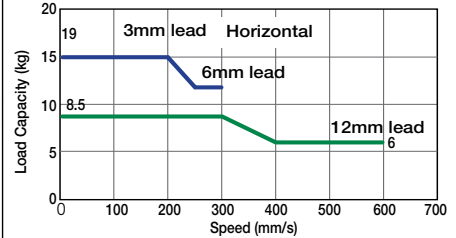
\* See page Pre-35 for an explanation of the naming convention.



Technical References P. A-5

- POINT** Notes on Selection
- 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.
  - Since the RCP2 series use the pulse motor, the load capacity decreases at high speeds. In the Speed vs. Load Capacity graph on the right, see if your desired speed and load capacity are supported.
  - The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-53.
  - The cleanliness class 10 is for horizontal usage. Please note that the actuator may not support C10 when used on its side or in vertical orientation.

■ Speed vs. Load Capacity  
Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



**Actuator Specifications**

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead (mm)	Max. Load Capacity (Note 1)		Stroke (mm)
		Horizontal (kg)	Vertical (kg)	
RCP2CR-SA6C-I-42P-12-①-②-③-④	12	~ 8.5	~ 1.5	50 ~ 800 (50mm increments)
RCP2CR-SA6C-I-42P-6-①-②-③-④	6	~ 15	~ 4	
RCP2CR-SA6C-I-42P-3-①-②-③-④	3	~ 19	~ 6	

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

■ Stroke, Max. Speed, and Suction Volume

Stroke (mm)	Max. Speed (mm/s)						Suction Volume (Nl/min)
	50 ~ 550 (50mm increments)	600	650	700	750	800	
12	600	540	460	400	360	300	50
6	300	270	230	200	180	150	30
3	150	135	115	100	90	75	15

(Unit: mm/s)

① Stroke List

Stroke (mm)	Standard Price
50	-
100	-
150	-
200	-
250	-
300	-
350	-
400	-
450	-
500	-
550	-
600	-
650	-
700	-
750	-
800	-

③ Cable List

Type	Cable Symbol	Standard Price
Standard Type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
	R01 (1m) ~ R03 (3m)	-
Robot Cable	R04 (4m) ~ R05 (5m)	-
	R06 (6m) ~ R10 (10m)	-
	R11 (11m) ~ R15 (15m)	-
	R16 (16m) ~ R20 (20m)	-

\* See page A-39 for cables for maintenance.

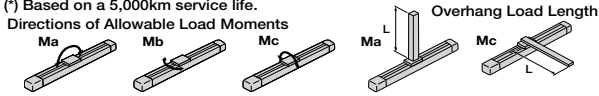
④ Option List

Name	Option Code	See Page	Standard Price
Brake (Cable exiting from end)	BE	→ A-25	-
Brake (Cable exiting from left)	BL	→ A-25	-
Brake (Cable exiting from right)	BR	→ A-25	-
Reversed-home	NM	→ A-33	-
Intake port on opposite side	VR	→ A-38	-

Actuator Specifications

Item	Description
Drive System	Ball screw ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Allowable Static Moment	Ma: 38.3N-m Mb: 54.7N-m Mc: 81.0N-m
Allowable Dynamic Moment (*)	Ma: 8.9N-m Mb: 12.7N-m Mc: 18.6N-m
Overhang Load Length	Ma direction: 220mm or less Mb, Mc direction: 220mm or less
Grease Type	Low dust generation grease (both ball screw and guide)
Cleanliness	Class 10 (0.1µm)
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)

(\*) Based on a 5,000km service life.



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