

RCACR-SA5D

Cleanroom ROBO Cylinder Slider Built-In Type 52mm Width 24V Servo Motor Aluminum Base

■ Configuration: **RCACR-SA5D** — ☐ — **20** — ☐ — ☐ — ☐ — ☐ — ☐ — ☐ — ☐ — ☐

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

I : Incremental 20 : 20W servo motor 12: 12mm 50: 50mm A1: ACON A3: AMEC ASEL ASEP N : None P : 1m S : 3m M : 5m X ☐ : Custom R ☐ : Robot cable

* The absolute model can only use ASEL. The simple absolute type is considered an incremental model.

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

See Options below

Power-saving



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 is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model). This is the upper limit of the acceleration.
 - (3) 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.

Actuator Specifications

Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg) Vertical (kg)	Rated Thrust (N)	Stroke (mm)
RCACR-SA5D-①-20-12-②-③-④-⑤	20	12	4 1	16.7	50 ~ 500 (50mm increments)
RCACR-SA5D-①-20-6-②-③-④-⑤		6	8 2	33.3	
RCACR-SA5D-①-20-3-②-③-④-⑤		3	12 4	65.7	

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

Stroke, Max. Speed/Suction Volume

Stroke Lead	50 ~ 450 (50mm increments)	500 (mm)	Suction Volume (N/min)
12	800	760	50
6	400	380	30
3	200	190	15

(Unit: mm/s)

① Encoder & Stroke List

Stroke (mm)	Standard Price	
	Encoder Type	
	Incremental	Absolute
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—
350	—	—
400	—	—
450	—	—
500	—	—

⑤ 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	—
Power-saving	LA	→ A-32	—
Reversed-home	NM	→ A-33	—
Intake port mounted on opposite side	VR	→ A-38	—

④ 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)	—
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.

Actuator Specifications

Item	Description
Drive System	Ball screw ϕ 10mm C10 grade
Positioning Repeatability	± 0.02 mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (white alumite treated)
Allowable Static Moment	Ma: 18.6N·m Mb: 26.6N·m Mc: 47.5N·m
Allowable Dynamic Moment (*)	Ma: 4.9N·m Mb: 6.8N·m Mc: 11.7N·m
Overhang Load Length	Ma direction: 150mm or less; Mb, Mc direction: 150mm or less
Grease Type	Low dust generation grease (both ball screw and guide)
Cleanliness	Class 10 (0.1 μ m)
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

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

Directions of Allowable Load Moments



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