

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
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- 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

# RCP3-SA2BR

ROBO Cylinder Mini Slider Type Side-Mounted Motor Unit 28mm Width  
Pulse Motor Lead Screw

■ Configuration: **RCP3** — **SA2BR** — **I** — **20P** —  —  —  —  —

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

I: Incremental  
\* The Simple absolute encoder models are labeled as "I".

20P: Pulse motor  
20  size

6S: 6mm lead screw  
4S: 4mm lead screw  
2S: 2mm lead screw

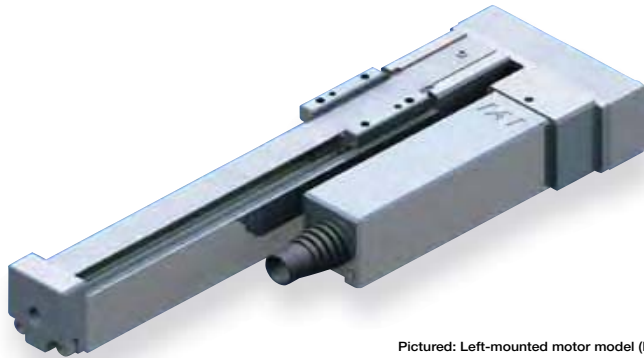
25: 25mm  
150: 150mm (25mm pitch increments)

P1: PCON  
RPCON  
PSEL  
P3: PMEC  
PSEP

N: None  
P: 1m  
S: 3m  
M: 5m  
X : Custom Length

See Options below  
\* Be sure to specify which side the motor is to be mounted (ML/MR).

\* See page Pre-35 for explanation of each code that make up the configuration name.

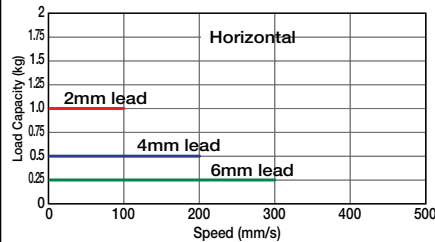


Pictured: Left-mounted motor model (ML).

Technical References A-5

- POINT** Notes on Selection
- (1) The load capacity is based on operation at an acceleration of 0.2G. This the upper limit for the acceleration.
  - (2) The actuator cannot be used on its side or in a vertical orientation.
  - (3) If used in a dusty environment, the service life will decrease significantly.
  - (4) This model uses a lead screw, therefore please ensure that your usage is appropriate for its characteristics. (See page Pre-42.)

■ Speed vs. Load Capacity  
Due to the characteristics of the pulse motor, the RCP3 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

Model	Feed Screw	Lead (mm)	Max. Load Capacity		Positioning Repeatability (mm)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCP3-SA2BR-I-20P-6S-①-②-③-④	Lead screw	6	0.25	-	±0.05	25~150 (25mm increments)
RCP3-SA2BR-I-20P-4S-①-②-③-④		4	0.5	-		
RCP3-SA2BR-I-20P-2S-①-②-③-④		2	1	-		

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

■ Stroke and Maximum Speed

Lead	Stroke	25 (mm)	50 (mm)	75~150 (mm)
		Lead screw	6	180
	4	180	200	
	2	100		

(Unit: mm/s)

① Stroke List

Stroke (mm)	Standard Price
25	-
50	-
75	-
100	-
125	-
150	-

③ Cable List

Type	Cable Symbol	Standard Price
Standard (Robot Cables)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
		-

\* The standard cable for the RCP3 is the robot cable.  
\* See page A-39 for cables for maintenance.

④ Option List

Name	Option Code	See Page	Standard Price
Left-Mounted Motor (Standard)	ML	→ A-33	-
Right-Mounted Motor	MR	→ A-33	-
Reversed-home	NM	→ A-33	-

Actuator Specifications

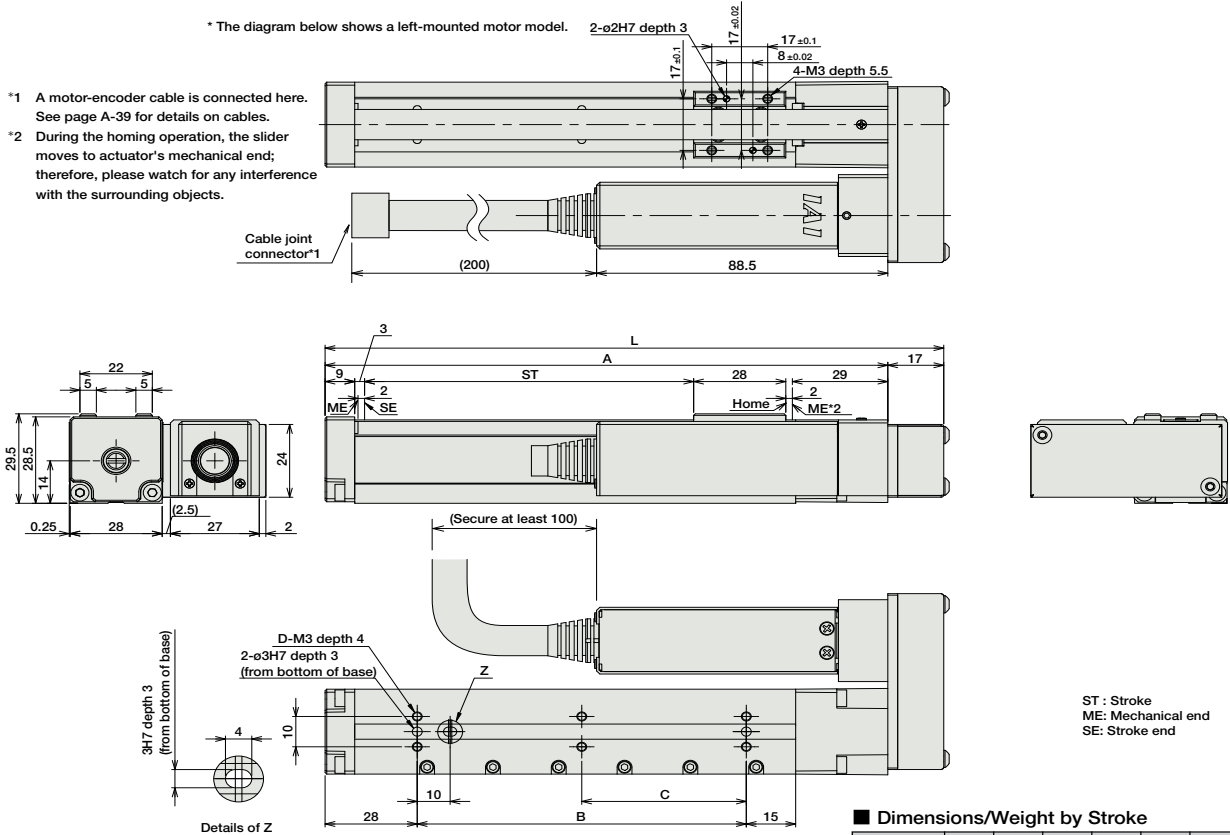
Item	Description
Drive System	Lead screw ø6mm C10 grade
Lost Motion	0.3mm or less (initial value)
Base	Material: Aluminum (white alumite treated)
Guide	Slide guide
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)
Service Life	10 million cycles

Dimensions

For Special Orders A-9

\* The diagram below shows a left-mounted motor model.

- \*1 A motor-encoder cable is connected here. See page A-39 for details on cables.
- \*2 During the homing operation, the slider moves to actuator's mechanical end; therefore, please watch for any interference with the surrounding objects.



■ Dimensions/Weight by Stroke

Stroke	25	50	75	100	125	150
L	113	138	163	188	213	238
A	96	121	146	171	196	221
B	25	50	75	100	125	150
C	0	0	0	50	62.5	75
D	4	4	4	6	6	6
Weight (kg)	0.32	0.34	0.37	0.39	0.42	0.46

② Compatible Controllers

The RCP3 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
Solenoid Valve Type		PMEC-C-20PI-NP-2-①	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	See P481	-	→ P477
		PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.					
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0						
Positioner Type		PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	2A Max.	-	→ P525
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0						
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A Max.	-	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-20P	Dedicated to field network	768 points				→ P503
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points				→ P557

\* This is for the single-axis PSEL.  
\* ① is a placeholder for the power supply voltage (1: 100V / 2: 100-240V).

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