

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- 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-SA2BC ROBO Cylinder Mini Slider Type Coupled Motor 28mm Width Pulse Motor Lead Screw

■ Configuration: **RCP3** — **SA2BC** — **I** — **20P** — — — — —

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

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

20P: Pulse motor
20 size
4S: 4mm lead screw
2S: 2mm lead screw

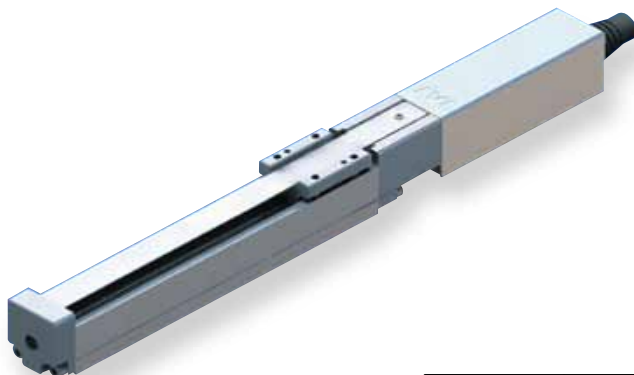
6S: 6mm lead screw
25: 25mm
150: 150mm (25mm pitch increments)

P1: PCON
RPCON
PSEL
P3: PMEC
PSEP

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

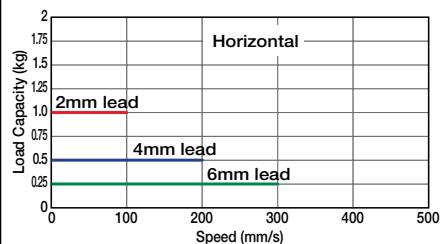
NM: Reversed-home

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



Technical References A-5

■ 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.



- POINT** Notes on Selection
- (1) The load capacity is based on operation at an acceleration of 0.2G. This is 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.)

Actuator Specifications							Stroke and Maximum Speed				
■ Lead and Load Capacity							■ Stroke and Maximum Speed				
Model	Feed Screw	Lead (mm)	Max. Load Capacity		Positioning Repeatability (mm)	Stroke (mm)	Lead	Stroke	25 (mm)	50 (mm)	75~150 (mm)
			Horizontal (kg)	Vertical (kg)				Lead	25 (mm)	50 (mm)	75~150 (mm)
RCP3-SA2BC-I-20P-6S-①-②-③-④	Lead screw	6	0.25	-	±0.05	25~150 (25 increments)	6	180	280	300	
RCP3-SA2BC-I-20P-4S-①-②-③-④		4	0.5	-			4	180	200		
RCP3-SA2BC-I-20P-2S-①-②-③-④		2	1	-			2	100			

Legend ① Stroke ② Compatible Controller ③ Cable Length ④ Options (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
Reversed-home	NM	→ A-33	-

Actuator Specifications

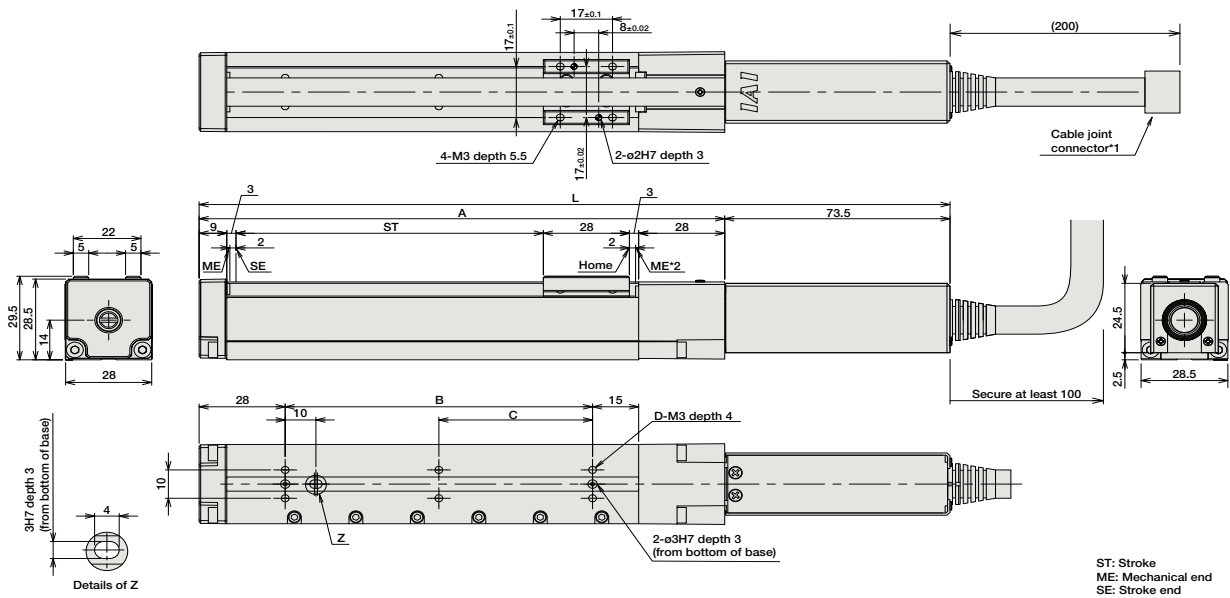
Item	Description
Drive System	Lead screw Ø6mm C10 grade
Lost Motion	0.3mm or less (initial value)
Base	Material: Aluminum (white alumite treated)
Guide	Slide guide
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)
Service Life	10 million cycles

5 RCP3-SA2BC

Dimensions

For Special Orders A-9

*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, and then reverses. Therefore, watch for any interference with its surroundings.



■ Dimensions/Weight by Stroke

Stroke	25	50	75	100	125	150
L	169.5	194.5	219.5	244.5	269.5	294.5
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)	0.3	0.32	0.35	0.37	0.4	0.42

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
Splash-Proof Solenoid Valve Type		PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.					
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	DC24V	2A Max.	-	-
Field Network Type		RPCON-20P	Dedicated to field network	768 points	DC24V	2A Max.	-	→ P503
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points	DC24V	2A Max.	-	→ 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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