

RCP3-SA4C

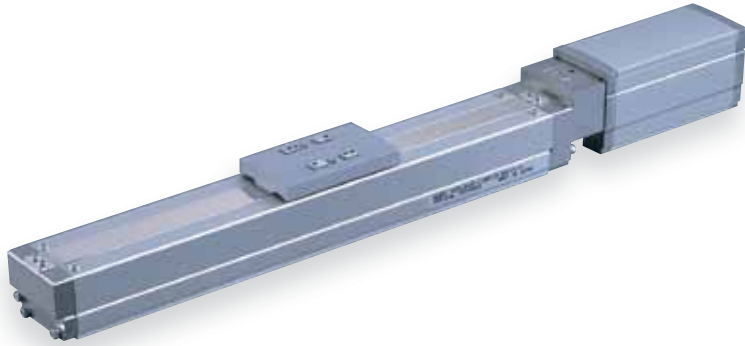
ROBO Cylinder Slider Type 40mm Width Pulse Motor Coupled

■ Configuration: **RCP3** — **SA4C** — **I** — **35P** — [] — [] — [] — [] — []

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

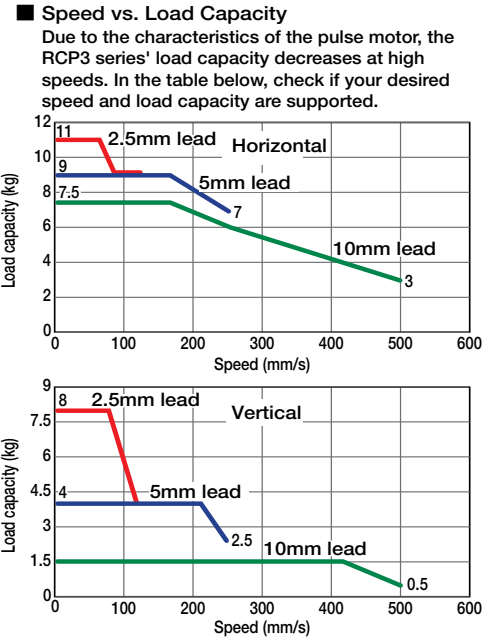
I: Incremental 35P: Pulse motor 10: 10mm 50: 50mm P1: PCON N: None See Options below
 * The Simple absolute encoder models are labeled as "I". 35 □ size 5: 5mm 2.5: 2.5mm 500: 500mm (50mm pitch increments) PCON RPCON PSEL P3: PMEC PSEP P: 1m S: 3m M: 5m X □ □: Custom Length

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



Technical References A-5

- POINT** Notes on Selection
- (1) Since the RCP3 series use a pulse motor, a load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
 - (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for 2.5 mm-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-50.



Actuator Specifications					Stroke and Maximum Speed	
■ Lead and Load Capacity					50 ~ 500 (50mm increments)	
Model	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Maximum Push Force (N)	Stroke (mm)	Stroke / Lead
RCP3-SA4C-I-35P-10-①-②-③-④	10	~ 7.5	~ 1.5	34	50 ~ 500 (50mm increments)	10
RCP3-SA4C-I-35P-5-①-②-③-④	5	~ 9	~ 4	68	50 ~ 500 (50mm increments)	5
RCP3-SA4C-I-35P-2.5-①-②-③-④	2.5	~ 11	~ 8	136	50 ~ 500 (50mm increments)	2.5

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options (Unit: mm/s)

① Stroke List

Stroke (mm)	Standard Price	
	With cover (standard)	No cover (Option)
50	-	-
100	-	-
150	-	-
200	-	-
250	-	-
300	-	-
350	-	-
400	-	-
450	-	-
500	-	-

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)	-

* See page A-39 for cables for maintenance.

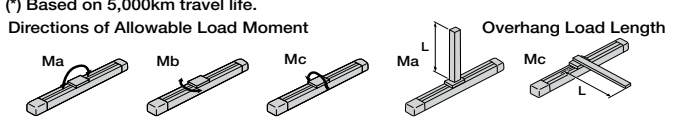
④ Option List

Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	-
Cable Exit Direction (Top)	CJT	→ A-25	-
Cable Exit Direction (Right)	CJR	→ A-25	-
Cable Exit Direction (Left)	CJL	→ A-25	-
Cable Exit Direction (Bottom)	CJB	→ A-25	-
No Cover	NCO	→ A-33	-
Reversed-home	NM	→ A-33	-

Actuator Specifications

Item	Description
Drive System	Ball screw Ø8mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 6.8N·m Mb: 9.7N·m Mc: 13.3 N·m
Allowable Dynamic Moment(*)	Ma: 3.04N·m Mb: 4.31N·m Mc: 5.00N·m
Overhang Load Length	120mm or less
Ambient Operating Temp./Humidity	0~40°C, 85%RH or less (Non-condensing)

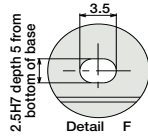
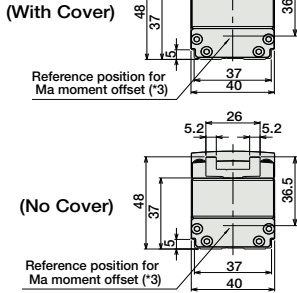
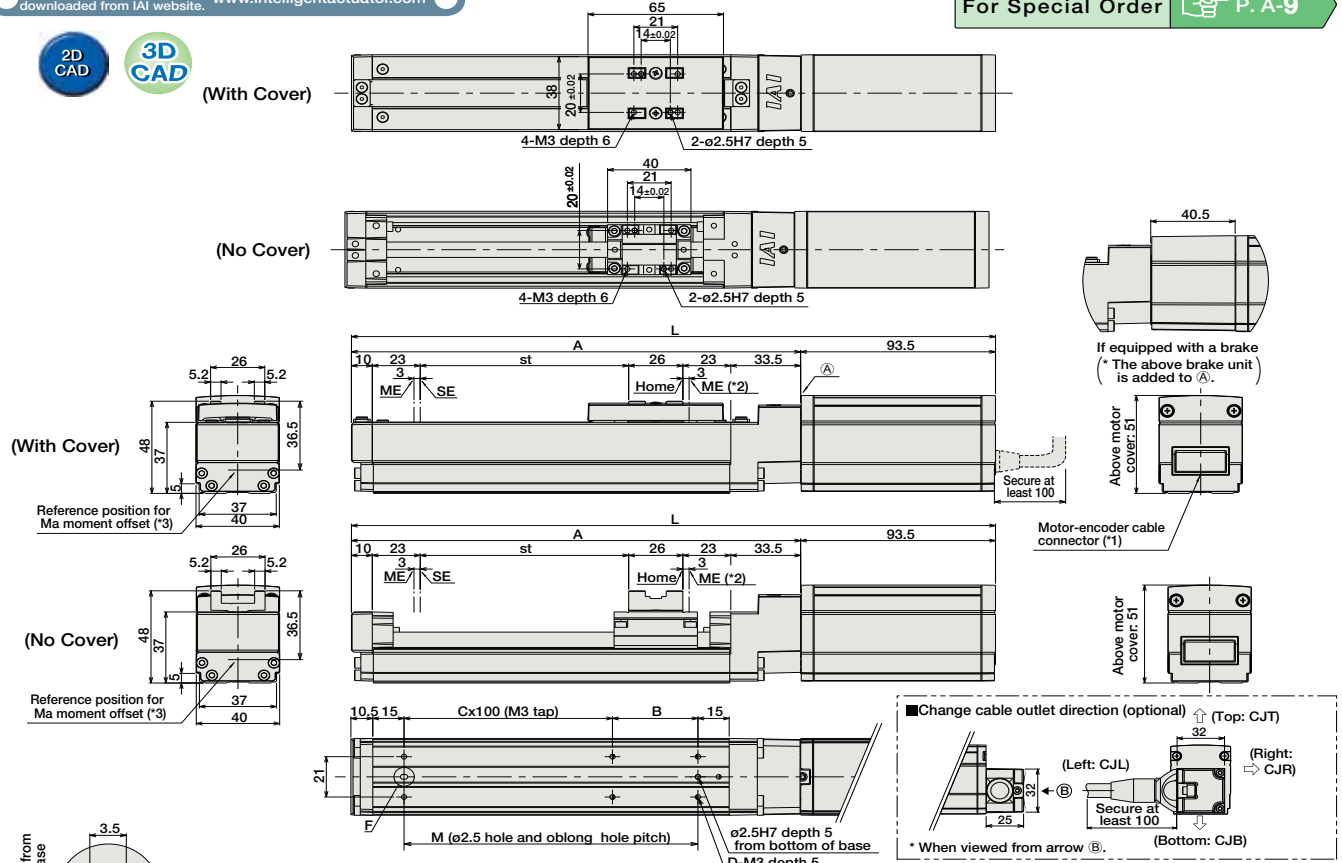
(*) Based on 5,000km travel life.



Dimensions

CAD drawings can be downloaded from IAI website. www.intelligentactuator.com

For Special Order P. A-9



- (*1) A Motor-encoder cable (integrated) is connected here. (See page A-39 for details on cables.)
- (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
ME : Mechanical end
SE : Stroke end
- (*3) Reference position for calculating the moment Ma.

■ Dimensions/Weight by Stroke

* Brake-equipped models are heavier by 0.3kg.

Stroke	Stroke										
	50	100	150	200	250	300	350	400	450	500	
L	No Brake	259	309	359	409	459	509	559	609	659	709
	Brake-Equipped	299.5	349.5	399.5	449.5	499.5	549.5	599.5	649.5	699.5	749.5
A	165.5	215.5	265.5	315.5	365.5	415.5	465.5	515.5	565.5	615.5	
B	91	41	91	41	91	41	91	41	91	41	
C	0	1	1	2	2	3	3	4	4	5	
D	4	6	6	8	8	10	10	12	12	14	
M	91	141	191	241	291	341	391	441	491	541	
Weight (kg)	With Cover	0.9	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
	No Cover	0.9	0.9	1	1.1	1.2	1.2	1.3	1.4	1.5	1.5

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-35PI-NP-2-①	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	See P481	-	→ P477
		PSEP-C-35PI-NP-2-0-H	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-35PI-NP-2-0-H						→ P487
Positioner Type		PCON-C-35PI-NP-2-0-H	Positioning is possible for up to 512 points	512 points	DC24V	2A Max.	-	→ P525
Safety-Compliant Positioner Type		PCON-CG-35PI-NP-2-0-H						
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-NP-2-0-H	Pulse train input type with differential line driver support	(-)	DC24V	2A Max.	-	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0-H	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-35PI-N-0-0-H	Dedicated to serial communication	64 points				
Field Network Type		RPCON-35P-H	Dedicated to field network	768 points				→ P503
Program Control Type		PSEL-C-1-35PI-NP-2-0-H	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).