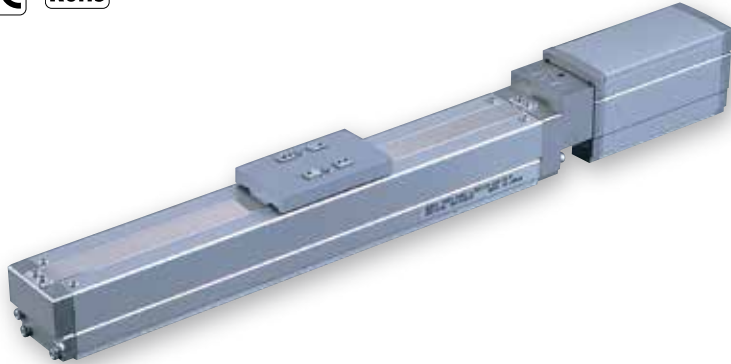


RCP3-SA4C

ROBO Cylinder, Slider Type, 40mm Width, Pulse Motor, Coupled

Model Specification Items	RCP3 — SA4C — I — 35P — □ — □ — □ — □ — □
Series	Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
	I: Incremental * The Simple absolute encoder is also considered type "I". 35P: Pulse motor, 35□ size 10 : 10mm 5 : 5mm 2.5: 2.5mm 50: 50mm ? 500: 500mm (50mm pitch increments) P1: PCON-PL/PO/SE PSEL P3: PCON-CA PMEC/PSEP MSEP N: None P: 1m S: 3m M: 5m X□: Custom length See Options below.

* See page Pre-47 for details on the model descriptions.



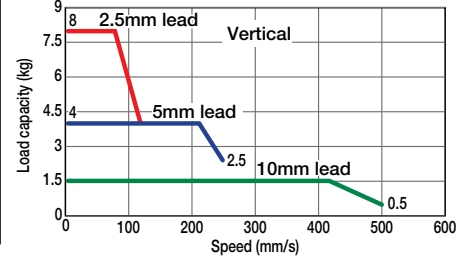
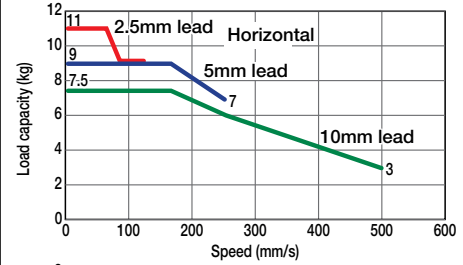
Technical References Appendix P.5



- (1) Since the RCP3 series use a pulse motor, the 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-108.
- (3) See page A-71 for details on push motion.

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

Leads and Payloads

Model number	Lead (mm)	Max. Load Capacity		Stroke (mm)
		Horizontal (kg)	Vertical (kg)	
RCP3-SA4C-I-35P-10-①-②-③-④	10	~ 7.5	~ 1.5	50~500 (every 50mm)
RCP3-SA4C-I-35P-5-①-②-③-④	5	~ 9	~ 4	
RCP3-SA4C-I-35P-2.5-①-②-③-④	2.5	~11	~ 8	

Stroke and Maximum Speed

Lead	Stroke	50~500 (every 50mm)
		10
5	250	
2.5	125	

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Stroke

① Stroke (mm)	Standard price	
	With cover	Without cover
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—
350	—	—
400	—	—
450	—	—
500	—	—

④ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Optional cable exit direction (top)	CJT	→ A-42	—
Optional cable exit direction (right)	CJR	→ A-42	—
Optional cable exit direction (left)	CJL	→ A-42	—
Optional cable exit direction (bottom)	CJB	→ A-42	—
No cover	NCO	→ A-52	—
Non-motor end specification	NM	→ A-52	—

③ Cable Length

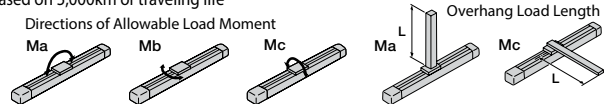
Type	Cable symbol	Standard price
Standard (Robot Cables)	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) ~ X10 (10m)	—
	X11 (11m) ~ X15 (15m)	—
	X16 (16m) ~ X20 (20m)	—

* See page A-59 for cables for maintenance.

Actuator Specifications

Item	Description
Drive System	Ball screw, ø8mm, rolled C10
Positioning repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum, special alumite treated
Allowable static moment	Ma: 6.8 N·m, Mb: 9.7 N·m, Mc: 13.3 N·m
Allowable dynamic moment (*)	Ma: 3.04 N·m, Mb: 4.31 N·m, Mc: 5.00 N·m
Allowable overhang	120mm or less in Ma, Mb and Mc directions
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km of traveling life



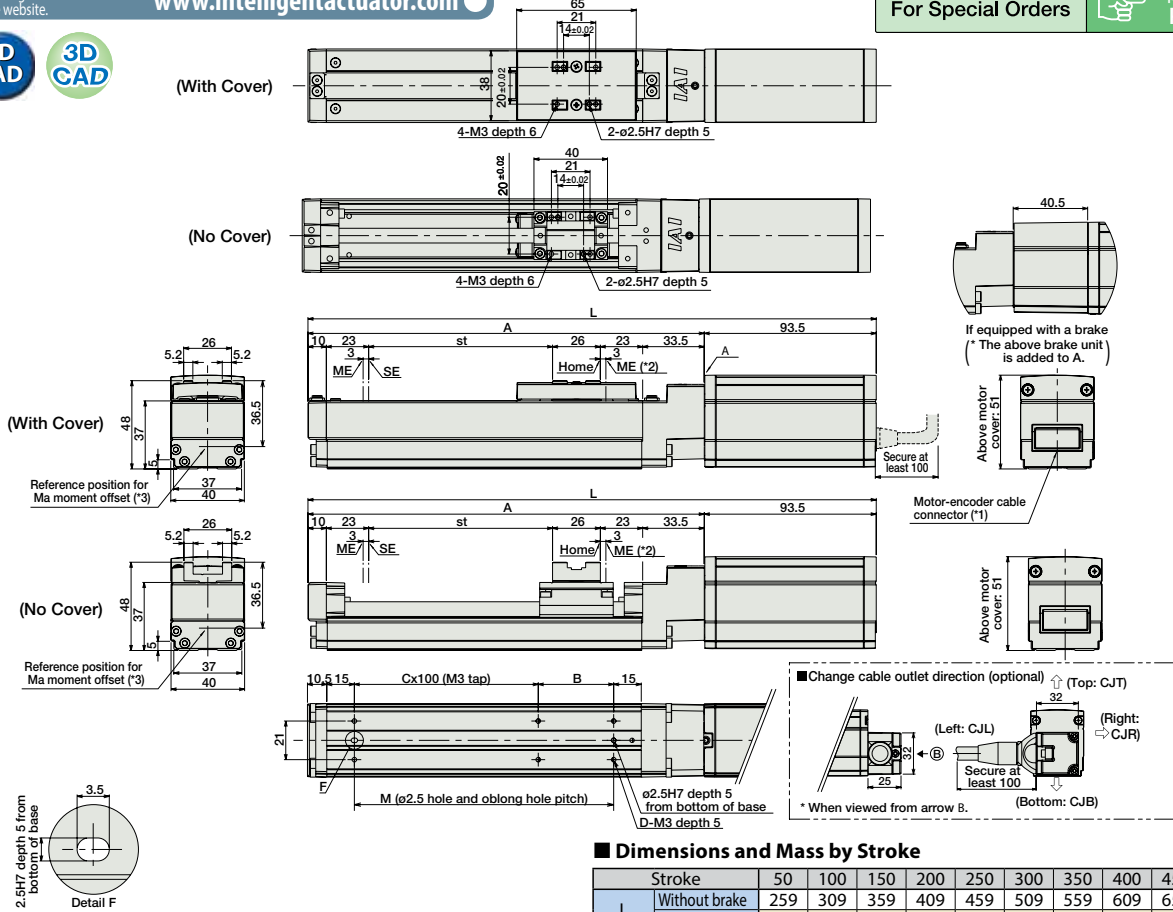
Dimensional Drawings

CAD drawings can be downloaded from the website.

www.intelligentactuator.com

For Special Orders

Appendix P.15



(*1) Connect the motor-encoder integrated cable here. See page A-59 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 Ma moment

Dimensions and Mass by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	
L	Without brake	259	309	359	409	459	509	559	609	659	709
	With brake	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
	Without cover	0.9	0.9	1	1.1	1.2	1.2	1.3	1.4	1.5	1.5

Applicable Controllers

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

Name	External view	Model number	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	Reference page
Solenoid Valve Type		PMEC-C-35PI-①-2-②	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537
		PSEP-C-35PI-①-2-0	Simple controller operable with the same signal as a solenoid valve					
Solenoid valve multi-axis type PIO specification		MSEP-C-③④⑤⑥⑦⑧-①-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	256 points	DC24V	Refer to P572	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-③④⑤⑥⑦⑧-④⑤-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected					
Positioner type High-output specification		PCON-CA-35PI-①-2-0	Equipped with a high-output driver	512 points	DC24V	Refer to P618	—	→ P607
Pulse-train type High-output specification		PCON-CA-35PI-PL□-2-0	Equipped with a high-output driver Pulse-train input type	(—)				
Field network type High-output specification		PCON-CA-35PI-④⑤-0-0	Equipped with a high-output driver Supporting 7 major field networks	768 points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-①-2-0	Pulse train input type with differential line driver support	(—)	DC24V	Refer to P628	—	→ P623
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-①-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated Serial Communication	64 points	DC24V	Refer to P671	—	→ P665
Program Control Type		PSEL-CS-1-35PI-①-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points	DC24V	Refer to P671	—	→ P665

* This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ② indicates power supply voltage (1: 100V / 2: 100~240V). * ③④⑤⑥⑦⑧ indicates number of axes (1 to 8). * ④⑤ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

Slider Type

Mini

Standard

Controllers Integrated

Rod Type

Mini

Standard

Controllers Integrated

Table/ Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Clean-room Type

Splash-Proof Type

Pulse Motor

Servo Motor (24V)

Servo Motor (200V)

Linear Servo Motor