

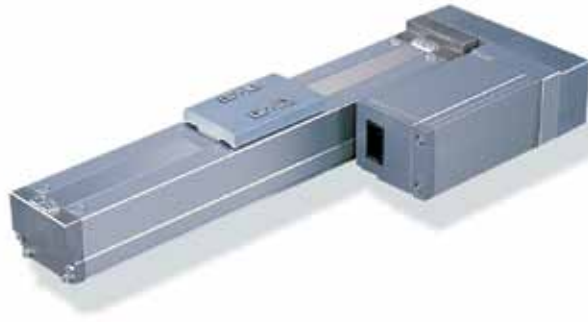
RCP3-SA4R

ROBO Cylinder Slider Type 40mm Width Pulse Motor Side-Mounted Motor

■ Configuration: **RCP3** — **SA4R** — **I** — **35P** — [] — [] — [] — [] — []

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
RCP3	SA4R	I: Incremental * The Simple absolute encoder models are labeled as "I".	35P: Pulse motor 35 □ size	10 : 10mm 5 : 5mm 2.5 : 2.5mm	50: 50mm 500: 500mm (50mm 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.

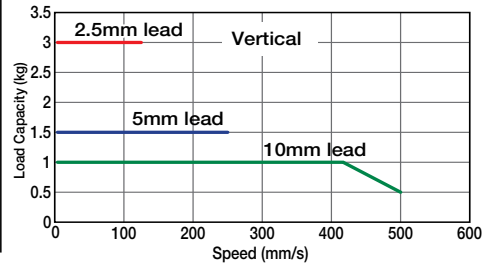
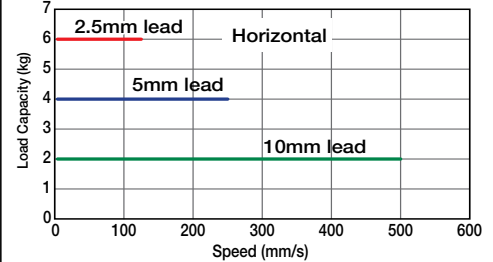


Technical References A-5



- (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 the 2.5mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

■ 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	Lead (mm)	Max. Load Capacity		Maximum Push Force (N)	Stroke (mm)
		Horizontal (kg)	Vertical (kg)		
RCP3-SA4R-I-35P-10-①-②-③-④	10	2	~ 1	34	50~500 (50mm increments)
RCP3-SA4R-I-35P-5-①-②-③-④	5	4	1.5	68	
RCP3-SA4R-I-35P-2.5-①-②-③-④	2.5	6	3	136	

Stroke and Maximum Speed

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

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)	-

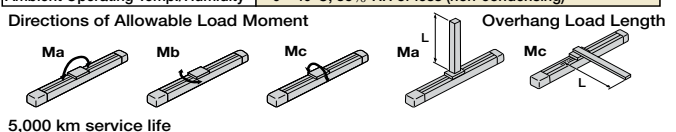
* The standard cable is the motor-encoder integrated robot cable.
* See page A-39 for cables for maintenance.

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 (Outside)	CJO	→ A-25	-
Cable Exit Direction (Bottom)	CJB	→ A-25	-
Left-Mounted Motor (Standard)	ML	→ A-33	-
Right-Mounted Motor	MR	→ A-33	-
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 Load Moment	Ma: 6.8N·m Mb: 9.7N·m Mc: 13.3N·m
Allowable Dynamic Load 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)

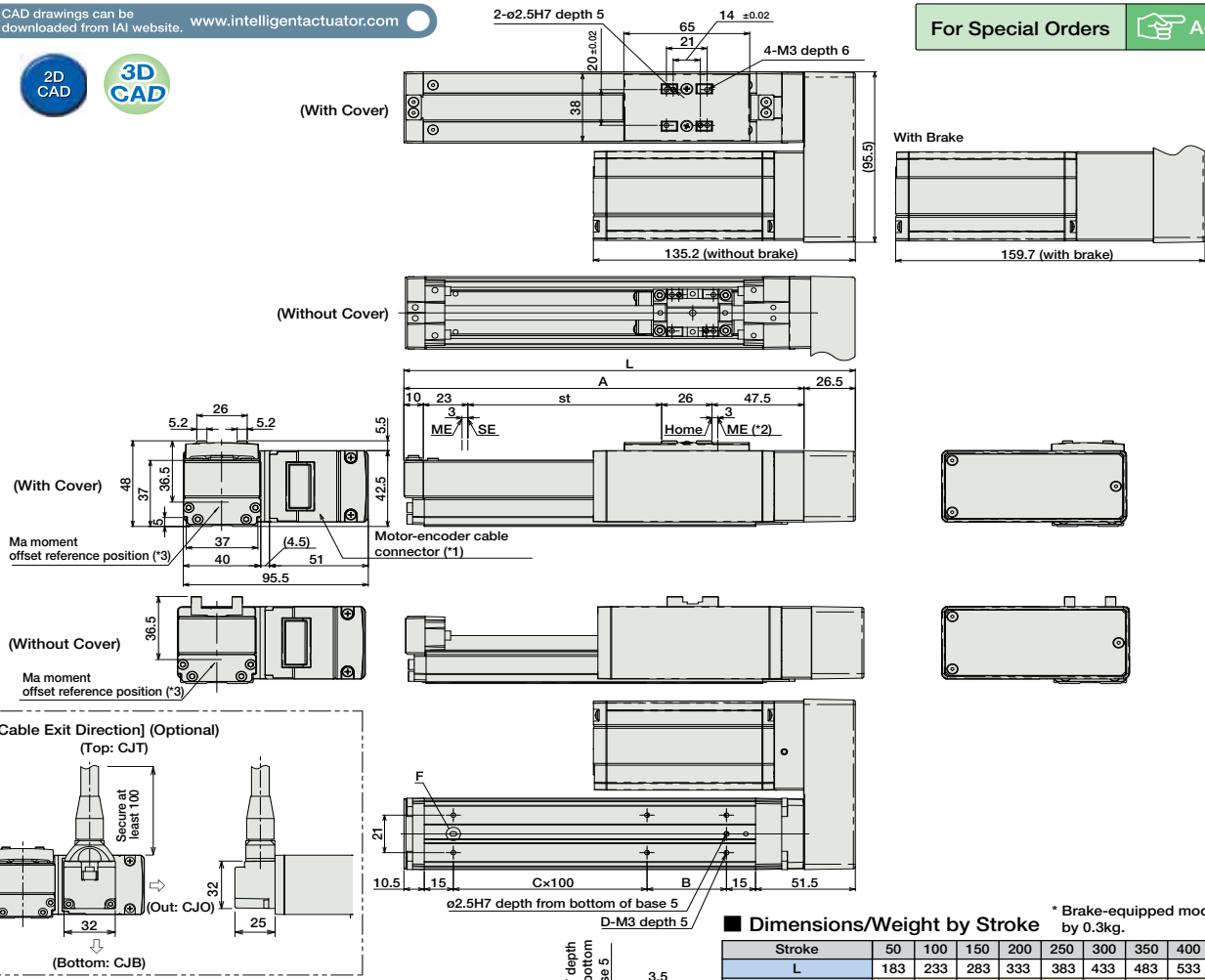


Dimensions

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



For Special Orders A-9



(*1) The motor-encoder cable provided is an integrated cable. (See page A-39)
 (*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 model is heavier by 0.3kg.

Stroke	50	100	150	200	250	300	350	400	450	500
L	183	233	283	333	383	433	483	533	583	633
A	156.5	206.5	256.5	306.5	356.5	406.5	456.5	506.5	556.5	606.5
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
Weight (kg)	With Cover	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9
	No Cover	1.1	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7

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	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						→ P487
Positioner Type		PCON-C-35PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	2A Max.	-	→ P525
Safety-Compliant Positioner Type		PCON-CG-35PI-NP-2-0						
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-NP-2-0	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	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-35P	Dedicated to field network	768 points				→ P503
Program Control Type		PSEL-C-1-35PI-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).