

# RCP2-SRGD4R

ROBO Cylinder Short-Length Rod Type with Double Guide 45mm Width  
Pulse Motor Side-Mounted Motor

■ Configuration: **RCP2** — **SRGD4R** — **I** — **35P** —  —  —  —  —

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

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

35P: Pulse motor  
35 □ size

5 : 5mm  
2.5 : 2.5mm

20: 20mm  
200: 200mm  
(10mm pitch increments)  
\* Set in 50mm increments over 100mm

P1: PCON  
RPCON  
PSEL  
P3: PMEC  
PSEP

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

See Options below

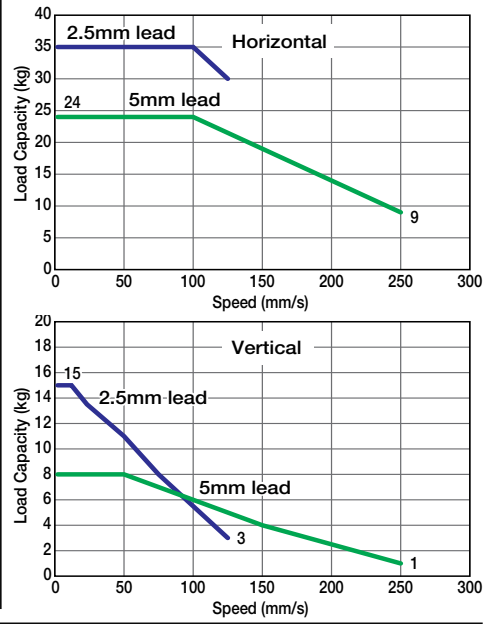
\* See page Pre-35 for an explanation of the naming convention.



Technical References P. A-5

- POINT** Notes on Selection
- Since the RCP2 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.
  - 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). This is the upper limit of the acceleration.
  - The horizontal load capacity is based on the use of an external guide. See the technical resources (page A-83) for the allowable weight using the supplied guide alone.

■ Speed vs. Load Capacity  
Due to the characteristics of the pulse motor, the RCP2 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				■ Stroke and Maximum Speed	
(Note 1) Please note that the maximum load capacity decreases as the speed increases.					
Model	Lead (mm)	Max. Load Capacity (Note 1)		Maximum Push Force (N)(Note 2)	Stroke (mm)
RCP2-SRGD4R-I-35P-5-①-②-③-④	5	Horizontal (kg)	Vertical (kg)	90	20~200 (10mm increments) (Note 3)
RCP2-SRGD4R-I-35P-2.5-①-②-③-④	2.5	~ 35	~ 15	170	
Legend: ① Stroke ② Compatible controller ③ Cable length ④ Options (Unit: mm/s)					

① Stroke List

Stroke (mm)	Standard Price
20~50	-
60~100	-
150	-
200	-

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 cable is a motor-encoder integrated cable, and is provided as a robot cable.  
\* See page A-39 for cables for maintenance.

④ Option List

Name	Option Code	See Page	Standard Price
Brake	B	→ A-25	-
Foot bracket 1 (base mounting)	FT	→ A-29	-
Reversed-home	NM	→ A-33	-

\* The brake can be used for strokes of 70mm or more.  
\* The foot bracket cannot be mounted on the side.

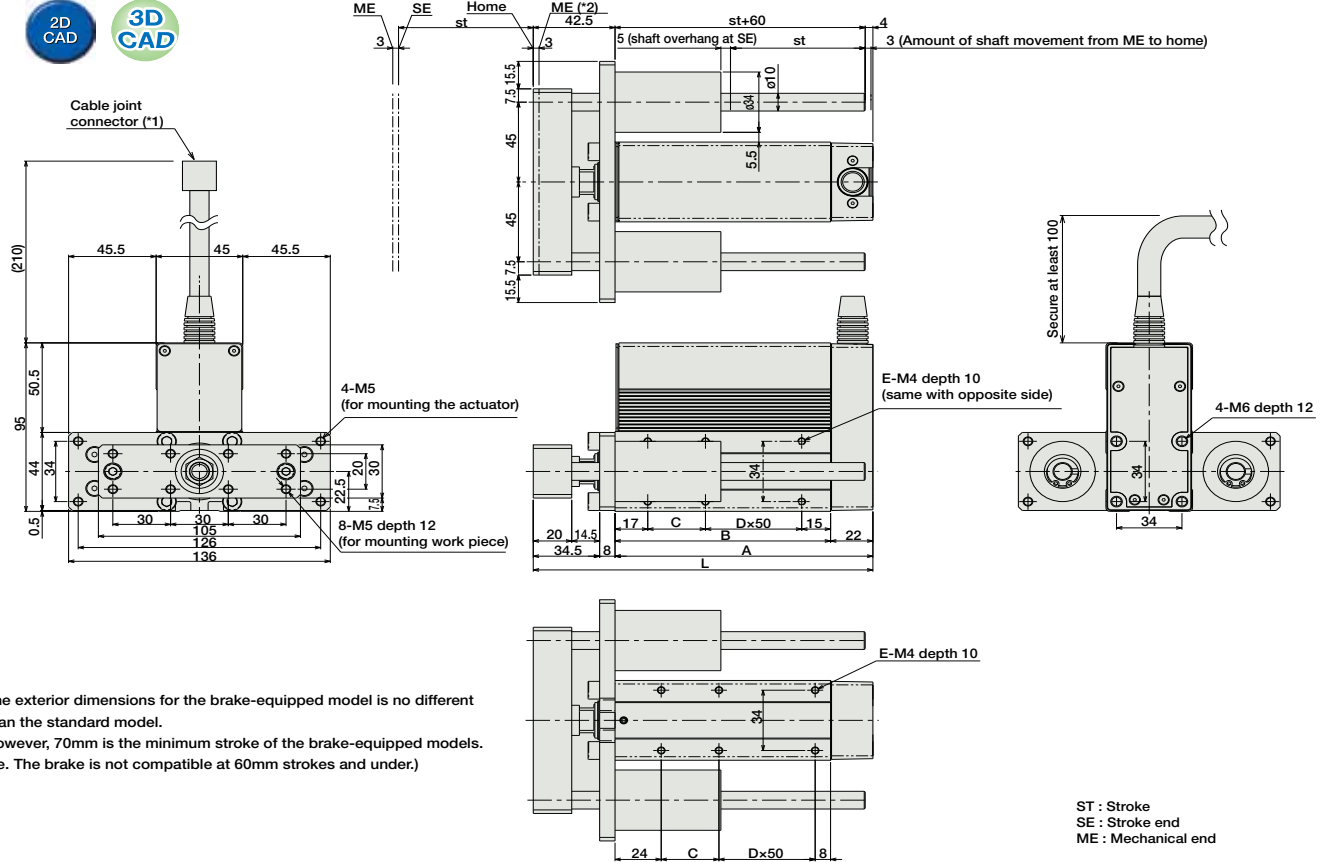
Actuator Specifications

Item	Description
Drive System	Ball screw ø8mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Rod Diameter	ø22mm
Non-rotating accuracy of rod	±0.05 deg
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](http://www.intelligentactuator.com)

For Special Orders P. A-9



\* The exterior dimensions for the brake-equipped model is no different than the standard model. However, 70mm is the minimum stroke of the brake-equipped models. (i.e. The brake is not compatible at 60mm strokes and under.)

■ Dimensions/Weight by Stroke (+0.2kg with brake)

Stroke	20	30	40	50	60	70	80	90	100	150	200
L	126.5	136.5	146.5	156.5	166.5	176.5	186.5	196.5	206.5	256.5	306.5
A	84	94	104	114	124	134	144	154	164	214	264
B	62	72	82	92	102	112	122	132	142	192	242
C	30	40	50	60	70	30	40	50	60	60	60
D	0	0	0	0	0	1	1	1	1	2	3
E	4	4	4	4	4	6	6	6	6	8	10
Weight (kg)	1.47	1.55	1.62	1.7	1.77	1.84	1.92	1.99	2.07	2.44	2.81

(\*1) The motor-encoder cable is connected here. See page A-39 for details on cables.

(\*2) When homing, the rod moves to the mechanical end position; therefore, please watch for any interference with the surrounding objects.

② Compatible Controllers

The RCP2 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
Splash-Proof Solenoid Valve Type		PSEP-C-35PI-NP-2-0 PSEP-CW-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.				-	→ 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	DC24V	2A max.	-	→ P503
Field Network Type		RPCON-35P	Dedicated to field network	768 points			-	
Program Control Type		PSEL-C-1-35PI-NP-2-0	Programmed operation is possible. Operation is possible on 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, or 2: 100~240V).

- 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