RCP2-SRA4R

ROBO Cylinder, Short-length Rod Type, Actuator Width 45mm, Pulse Motor, Side-mounted Motor

Model Specification Items	RCP2	SRA4R	I	35P	☐	☐	☐	☐	☐
	Series	Type	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, size 35☐	5: 5mm 2.5: 2.5mm	20: 20mm ~ 200: 200mm (10mm pitch increments) * 50mm increments over 100mm	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

POINT Notes on Selection

(1) 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.

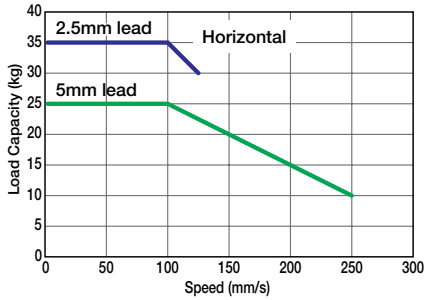
(2) The load capacity is based on operation at an acceleration of 0.3G (0.2G is for the 2.5mm-lead model, or when used vertically). This is the upper limit of the acceleration.

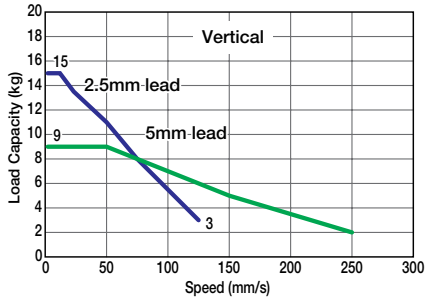
(3) The horizontal load capacity is based on the use of an external guide. If an external force is exerted on the rod from a direction other than the motion of the rod, the detent may become damaged.

(4) See page A-71 for details on push motion.

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

Leads and Payloads

(Note 1) Please note that the maximum load capacity decreases as the speed increases. (Note 2) 50mm increments over 100mm.

Model number	Lead (mm)	Maximum payload (Note 1) Horizontal (kg)	Maximum payload (Note 1) Vertical (kg)	Positioning repeatability (mm)	Stroke (mm)
RCP2-SRA4R-1-35P-5-①-②-③-④	5	~25	~9	112	20 to 200 (every 10mm) (Note 2)
RCP2-SRA4R-1-35P-2.5-①-②-③-④	2.5	~35	~15	224	

Stroke and Maximum Speed

Lead \ Stroke	20~200 (every 10mm)
5	250
2.5	125

(Unit: mm/s)

Legend ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion.

①Stroke

①Stroke (mm)	Standard price
25 ~ 50	—
60 ~ 100	—
150	—
200	—

③Cable Length

Type	Cable symbol	Standard price
Standard type (Robot cable)	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	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-59 for cables for maintenance.

④Options

Name	Option code	Page	Standard Price
Brake	B	→ A-42	—
Flange bracket (front)	FL	→ A-44	—
Flange bracket (rear)	FLR	→ A-46	—
Foot bracket 1 (base mounting)	FT	→ A-48	—
Foot bracket 2 (right/left side mounting)	FT2/FT4	→ A-48	—
Non-motor end specification	NM	→ A-52	—

* The brake is available for strokes of 70mm or more.

Actuator Specifications

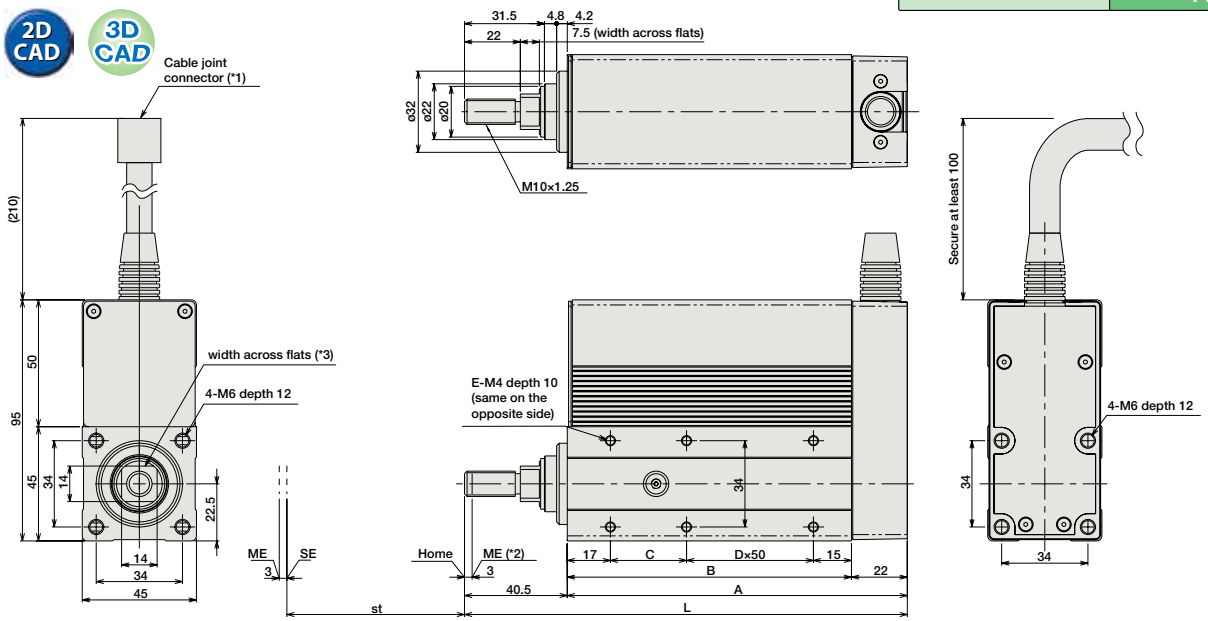
Item	Description
Drive method	Ball screw, ø8mm, rolled C10
Positioning repeatability	±0.02mm
Lost motion	0.1mm or less
Rod diameter	ø22mm
Rod non-rotation precision	—
Ambient operating temperature/humidity	0 to 40°C, 85% RH max. (Non-condensing)

Dimensional Drawings

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

For Special Orders Appendix P.15

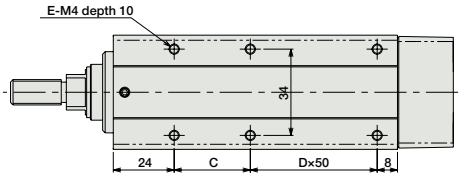
2D CAD 3D CAD

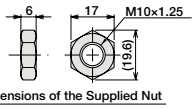


* The exterior dimensions for the brake-equipped model is no different than the standard model. However, 70mm is the minimum stroke of the brake-equipped models.
(i.e. The brake is not compatible at 60mm strokes and under.)

Note:
Do not apply any external force on the rod from any direction other than the direction of the rod's motion. If a force is exerted on the rod in a perpendicular or rotational direction, the detent may become damaged.

(*1) Connect the motor-encoder integrated cable here. (See page A-59 for details on cables.)
(*2) During home return, be careful to avoid interference from peripheral objects because the rod moves until the mechanical end.
(*3) The orientation of the bolt varies depending on the product.





Dimensions of the Supplied Nut

ST : Stroke
SE : Stroke end
ME: Mechanical end

■ Dimensions and Weights by Stroke (Add 0.2kg for brake equipped)

Stroke	20	30	40	50	60	70	80	90	100	150	200
L	124.5	134.5	144.5	154.5	164.5	174.5	184.5	194.5	204.5	254.5	304.5
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)	0.83	0.89	0.96	1.02	1.08	1.14	1.21	1.27	1.33	1.64	1.95

②Applicable Controllers

RCP2 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-Ⓘ-2-Ⅱ	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	Refer to P541	—	→ P537
		PSEP-C-35PI-Ⓘ-2-0	Simple controller operable with the same signal as a solenoid valve		DC24V	Refer to P555	—	→ P547
Solenoid valve multi-axis type PIO specification		MSEP-C-ⒾⅡ-~-Ⓘ-2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected			Refer to P572	—	→ P563
Solenoid valve multi-axis type Network specification		MSEP-C-ⒾⅡ-~-Ⓥ-0-0	Field network-ready positioner type, allowing up to 8 axes to be connected	256 points				
Positioner type High-output specification		PCON-CA-35PI-Ⓘ-2-0	Equipped with a high-output driver Positioner type based on PIO control	512 points		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-Ⓥ-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-Ⓘ-2-0	Pulse train input type with differential line driver support	(—)		Refer to P628	—	→ P623
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-Ⓘ-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated Serial Communication	64 points			—	
Program Control Type		PSEL-CS-1-35PI-Ⓘ-2-0	Programmed operation is possible. Can operate up to 2 axes	1,500 points		Refer to P671	—	→ P665

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