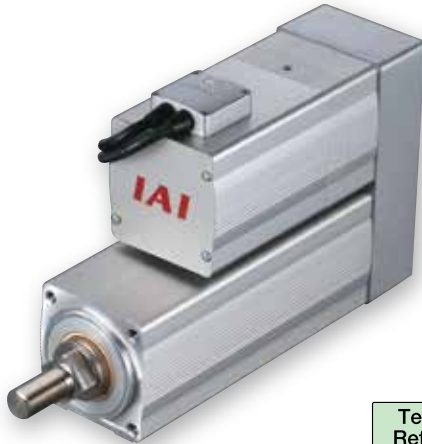


# RCP2-RA8R

ROBO Cylinder, High-Thrust Rod Type, Side-mounted Motor Type, Actuator Width 85mm, 24-V Pulse Motor

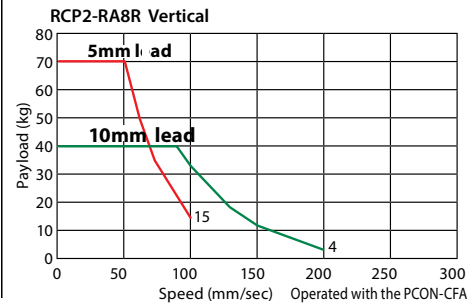
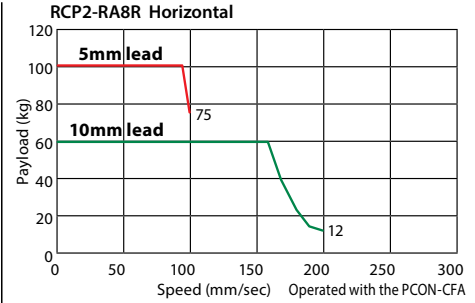
Model Specification Items	<b>RCP2</b> — <b>RA8R</b> — <b>I</b> — <b>60P</b> — <input type="checkbox"/> — <input type="checkbox"/> — <b>P4</b> — <input type="checkbox"/> — <input type="checkbox"/>
Series — Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options	Series — Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options
	I: Incremental 60P: Pulse motor, 60□size 10: 10mm 5: 5mm 50: 50mm 300: 300mm (every 50mm) P4: PCON-CFA N: None P: 1m S: 3m M: 5m X□□: Custom length X□□: Robot cable See Options below. * Please specify side-mounted motor direction by an option code.

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



Technical References Appendix P.5

- POINT** Notes on Selection
- (1) The load capacity is based on operation at an acceleration of 0.1G for 5mm-lead, and 0.2G for 10mm-lead. These values are the upper limits for the acceleration.
  - (2) Please note that the controller for the RA8R will be the PCON-CFA (for high-thrust motors).
  - (3) The horizontal load capacity is based on the use of an external guide.
  - (4) See page A-71 for details on push motion.



## Actuator Specifications

### Leads and Payloads

Model number	Lead (mm)	Connection cable	Maximum payload		Maximum pushing force (N)	Stroke (mm)	Stroke / Lead	
			Horizontal (kg)	Vertical (kg)			Stroke	50~300 (every 50mm)
RCP2-RA8R-I-60P-10-①-P4-②-③	10	PCON-CFA	60	40	1,000	50 to 300 (every 50mm)	10	200
RCP2-RA8R-I-60P-5-①-P4-②-③	5	PCON-CFA	100	70	2,000	50 to 300 (every 50mm)	5	100

Code explanation ① Stroke ② Cable length ③ Options \*See page A-71 for details on push motion.

(Unit: mm/s)

### ① Stroke

① Stroke (mm)	Standard price
50	—
100	—
150	—
200	—
250	—
300	—

### ② Cable Length

Type	Cable symbol	Standard price
Standard type	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) ~ X10 (10m)	—
	X11 (11m) ~ X15 (15m)	—
	X16 (16m) ~ X20 (20m)	—
	R01 (1m) ~ R03 (3m)	—
Robot cable	R04 (4m) ~ R05 (5m)	—
	R06 (6m) ~ R10 (10m)	—
	R11 (11m) ~ R15 (15m)	—
	R16 (16m) ~ R20 (20m)	—
	R16 (16m) ~ R20 (20m)	—

\* See page A-59 for cables for maintenance.

### ③ Options

Name	Option code	Page	Standard Prices
Connector cable exit direction	A1 ~ A3	→ A-41	—
Brake	B	→ A-42	—
Flange	FL	→ A-44	—
Foot bracket	FT	→ A-48	—
Non-motor end specification	NM	→ A-52	—
Side-mounted motor at the top	MT1/MT2/MT3	→ A-57	—
Side-mounted motor to the right	MR1/MR2	→ A-57	—
Side-mounted motor to the left	ML1/ML3	→ A-57	—

### Actuator Specifications

Item	Description
Drive method	Ball screw, ø16mm, rolled C10
Positioning repeatability	±0.02mm
Lost motion	0.1mm or less
Rod	ø40mm Stainless steel pipe
Rod non-rotation precision	±1.0 deg
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

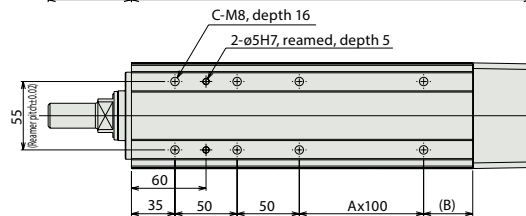
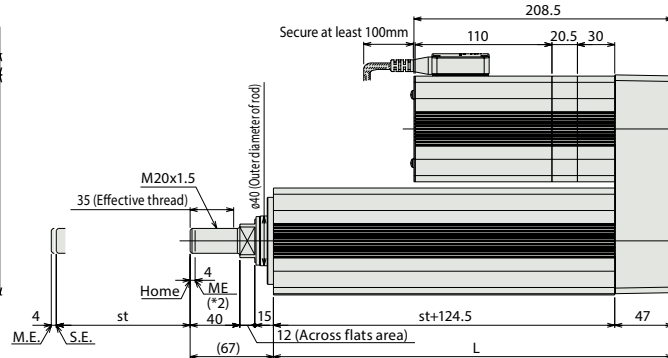
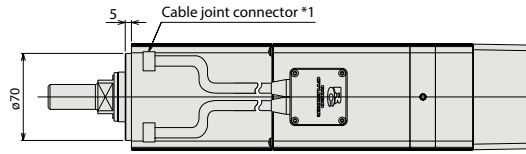
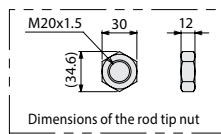
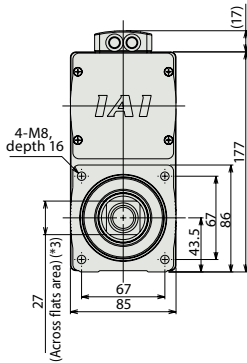
Appendix P.15



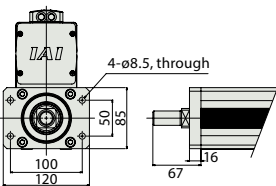
- (\*1) Connect the motor and encoder cables here.
- (\*2) When homing, the rod moves to the ME; therefore, please watch for any interference with the surrounding objects.
- (\*3) The orientation of the bolt will vary depending on the product.
- (\*4) When installing the actuator by using flange and front housing, be careful not to apply external force to the main body.

ME : Mechanical end  
SE : Stroke end

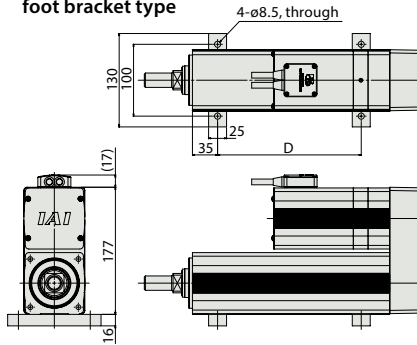
Note:  
Do not apply any external force on the rod from any direction other than the direction of the rod's motion. If a force is exerted on the rod in a perpendicular or rotational direction, the detent may become damaged.



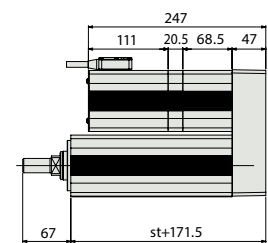
Dimensions of the flange type



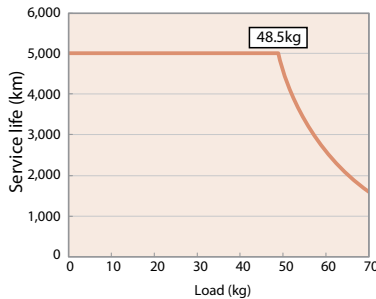
Dimensions of the foot bracket type



Dimensions of the brake type



Relationship of payload and service life (lead 5, used vertically)



Dimensions and Weights by Stroke (mm)

Stroke	50	100	150	200	250	300	
L	221.5	271.5	321.5	371.5	421.5	471.5	
A	0	0	1	1	2	2	
B	39.5	89.5	39.5	89.5	39.5	89.5	
C	6	7	8	8	10	10	
D	100	100	200	200	300	300	
Weight (kg)	without brake	7.7	8.6	9.4	10.3	11.1	12
	with brake	8.6	9.5	10.3	11.2	12.0	12.9

Applicable 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
Positioner type		PCON-CFA-60PI-NP-□-0-□ PCON-CFA-60PI-PN-□-0-□	Equipped with a high-output driver Positioner type based on PIO control	512 points	DC24V	Refer to P618	—	→ P607
Pulse-train type		PCON-CFA-60PI-PLN-□-0-□ PCON-CFA-60PI-PLP-□-0-□	Equipped with a high-output driver Pulse-train input type	(—)				
Field network type		PCON-CFA-60PI-①-0-0-□	Equipped with a high-output driver Supporting 7 major field networks	768 points				

\* ① indicates field network specification symbol (DV, CC, PR, CN, ML, EC, EP).