

RCP2-RA8C

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

Model Specification Items	RCP2 — RA8C — I — 60P — <input type="checkbox"/> — <input type="checkbox"/> — P4 — <input type="checkbox"/> — <input type="checkbox"/>
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.

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

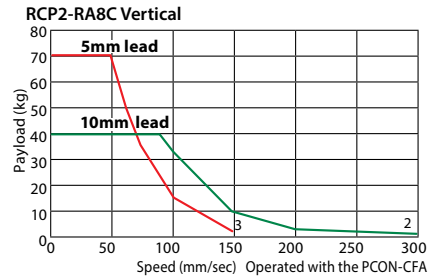
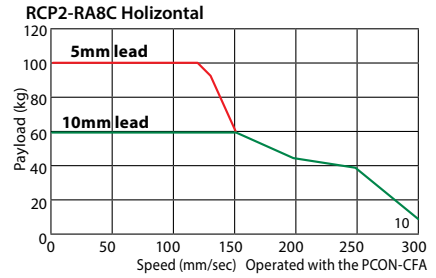


Technical References Appendix P.5



- (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 RA8C 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.

Speed vs. Load Capacity



Actuator Specifications

Leads and Payloads

Model number	Lead (mm)	Connection cable	Maximum payload		Maximum pushing force (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCP2-RA8C-I-60P-10-①-P4-②-③	10	PCON-CFA	60	40	1,000	50 to 300 (every 50mm)
RCP2-RA8C-I-60P-5-①-P4-②-③	5	PCON-CFA	100	70	2,000	50 to 300 (every 50mm)

Stroke and Maximum Speed

Lead	Stroke	50~300 (every 50mm)
	10	300
5	150	150

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)	—

* 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	—

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

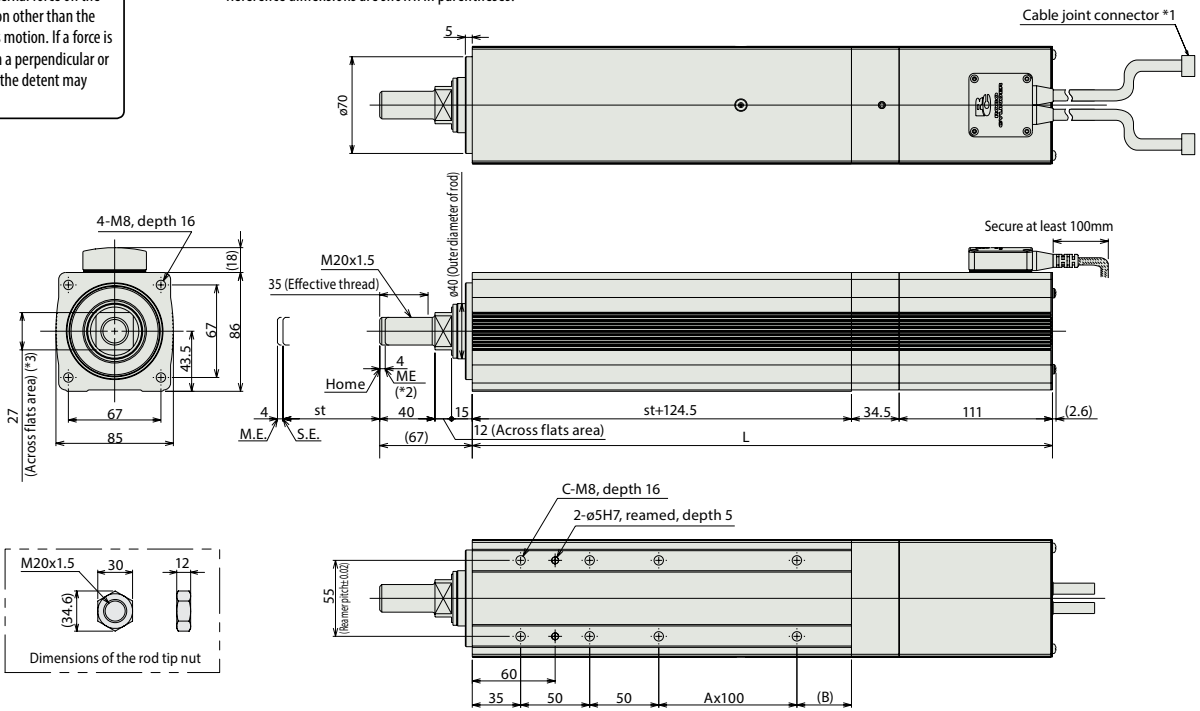
For Special Orders Appendix P.15



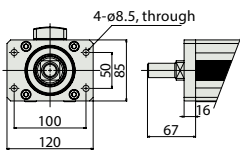
(*1) Connect the motor and encoder cables here.
 (*2) During home return, the rod will move all the way to the ME. Accordingly, pay attention to prevent possible contact between the rod and surrounding parts during home return.
 ME: Mechanical End SE: Stroke End
 Reference dimensions are shown in parentheses.

(*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

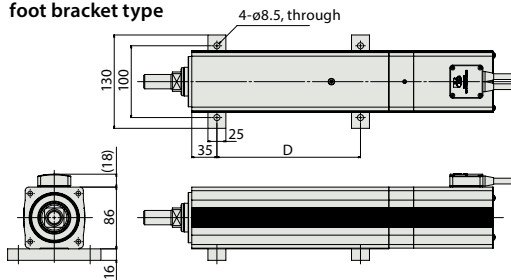
Note:
 Do not apply any external force on the rod from any direction other than the direction of the rod's motion. If a force is exerted on the rod in a perpendicular or rotational direction, the detent may become damaged.



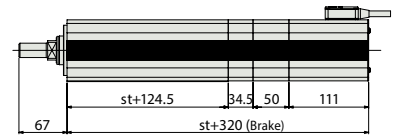
Dimensions of the flange type



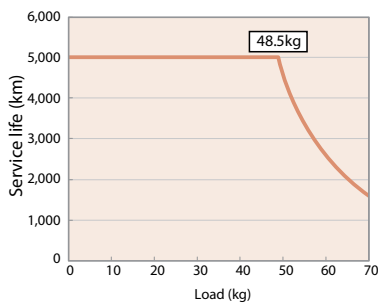
Dimensions of the foot bracket type



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	320	370	420	470	520	570
A	0	0	1	1	2	2
B	39.5	89.5	39.5	89.5	39.5	89.5
C	6	6	8	8	10	10
D	100	100	200	200	300	300
Weight (kg)	without brake	6.5	7.4	8.2	9.1	9.9
	with brake	7.5	8.4	9.2	10.1	10.9

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

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