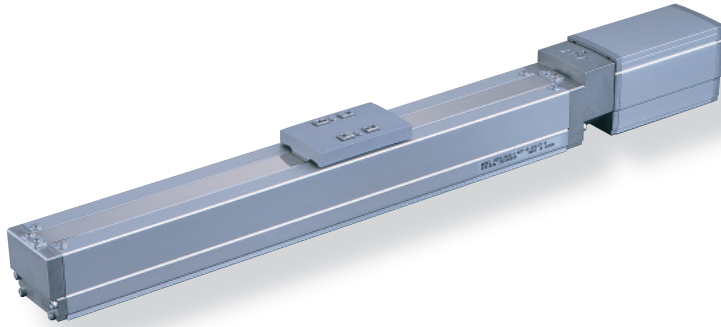


RCP3-SA5C

ROBO Cylinder, Slider Type, Actuator Dimensions 50mm, Pulse Motor, Coupling Specification

Model Description	RCP3 - SA5C - I - 42P - [] - [] - P1 - [] - []							
Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option
I: Incremental specification	42P: Pulse motor 42□Size	12: 12mm 6: 6mm 3: 3mm	50:50mm ~ 500:500mm (Set pitch every 50mm)	P1: PCON PSEL	N : None P : 1m S : 3m M : 5m X□□ : Length designation	B: Brake-equipped NCO: No cover specification NM: Reverse-home specification		

See preceding section for model descriptions.

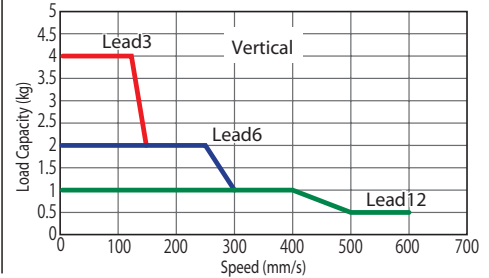
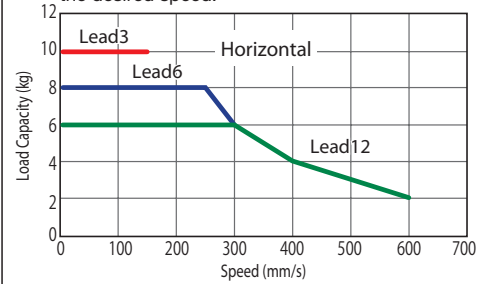


Technical Reference P.451

- POINT** Notes on selection
- (1) Since the RCP3 Series uses a pulse motor, the payload decreases at high speeds. Confirm the payload at the desired speed in the Speed vs. Payload graph at right.
 - (2) The payload is the value when operated at 0.3G acceleration (0.2G acceleration in vertical operation with lead 3). The above values are maximum acceleration.

Speed vs. Payload Graph

Since the RCP3 Series uses a pulse motor, the payload decreases at high speeds. Use the table below to confirm that there is sufficient payload at the desired speed.



Actuator Specification Table					
Leads and Payloads					
Model	Lead (mm)	Maximum payload		Maximum pushing force (N)	Stroke (mm)
		Horizontal (kg)	Vertical (kg)		
RCP3-SA5C-I-42P-12-①-P1-②-③	12	Up to 6	Up to 1	47	50 to 500 (every 50mm)
RCP3-SA5C-I-42P-6-①-P1-②-③	6	Up to 8	Up to 2	95	
RCP3-SA5C-I-42P-3-①-P1-②-③	3	10	Up to 4	189	

Legend ① Stroke ② Cable Length ③ Option (Unit = mm/s)

Stroke and Maximum Speed

Stroke / Lead	50 to 500 (every 50mm)	
	Stroke	Maximum Speed
12	600	
6	300	
3	150	

① Price List by Stroke (Standard Price)

① Stroke (mm)	Type code	
	SA5C	
	Encoder type	
	Incremental	
	Actuator Cover	
	With cover (Standard)	No cover (Option)
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—
350	—	—
400	—	—
450	—	—
500	—	—

③ Option Price List (Standard Price)

Title	Option code	See page	Standard price
Brake-equipped	B	P437	—
No cover	NCO	P26	See above
Reversed-home specification	NM	P442	No charge

② Cable Length Price List (Standard Price)

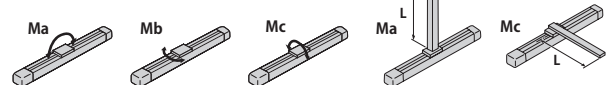
Type	Cable symbol	Standard price
Standard type (Robot cable)	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) - X10 (10m)	—
	X11 (11m) - X15 (15m)	—
	X16 (16m) - X20 (20m)	—

*See P374 about maintenance cables.

Actuator Specification

Item	Description
Drive System	Ball screw φ10mm rolled C10
Positioning Repeatability	±0.05mm
Backlash	0.1mm or less
Base	Material: Aluminum Special alumite treatment
Allowable load moment	Ma: 3.92N·m Mb: 5.58N·m Mc: 8.53N·m
Overhang load length	130mm or less
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km

Direction of allowable load moment

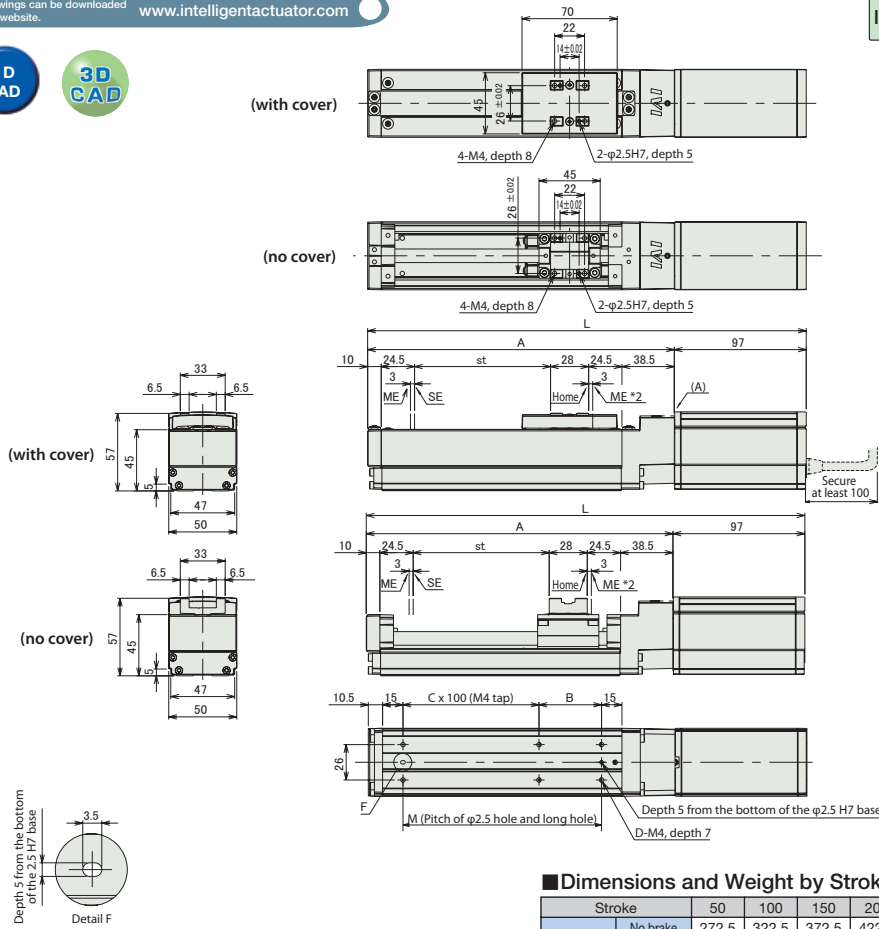


Dimensional Drawings

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



Information on special orders P.454



■ Dimensions and Weight by Stroke

*Adding a brake increases weight by 0.4kg.

Stroke	L	Stroke									
		50	100	150	200	250	300	350	400	450	500
No brake	272.5	322.5	372.5	422.5	472.5	522.5	572.5	622.5	672.5	722.5	
	312	362	412	462	512	562	612	662	712	762	
Brake-equipped	175.5	225.5	275.5	325.5	375.5	425.5	475.5	525.5	575.5	625.5	
A	96	46	96	46	96	46	96	46	96	46	
B	0	1	1	2	2	3	3	4	4	5	
C	4	6	6	8	8	10	10	12	12	14	
D	96	146	196	246	296	346	396	446	496	546	
M	96	146	196	246	296	346	396	446	496	546	
Weight (kg)	With cover	1.4	1.5	1.6	1.8	1.9	2	2.2	2.3	2.5	2.6
	No cover	1.3	1.4	1.5	1.6	1.7	1.8	2	2.1	2.2	2.3

(*1) Connect the motor-encoder cable (integrated).

(See P374 for cable details)

(*2) Watch out for interference with peripheral objects since the slider moves as far as the ME when returning home.

ME: mechanical end

SE: stroke end

Compatible Controllers

The RCP3 Series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	See page		
Positioner Type		PCON-C-42PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-	P365		
Safety category compatible Positioner type		PCON-CG-42PI-NP-2-0								
Solenoid valve type		PCON-CY-42PI-NP-2-0	Same as solenoid valve Controlled operation enabled	3 points						
Pulse series input type (Differential line driver specification)		PCON-PL-42PI-NP-2-0	Differential line driver compatible Pulse series input type	(-)						
Pulse series input type (Open collector specification)		PCON-PO-42PI-NP-2-0	Open collector compatible Pulse series input type							
Serial communication type		PCON-SE-42PI-N-0-0	Serial communications Special Type	64 points						
Field network type		RPCON-42P	field network Dedicated type	768 points					-	P343
Program control type		PSEL-C-1-42PI-NP-2-0	Programmable type capable of operating up to 2 axes	1500 points					-	P395

*PSEL is for single axis specification.