

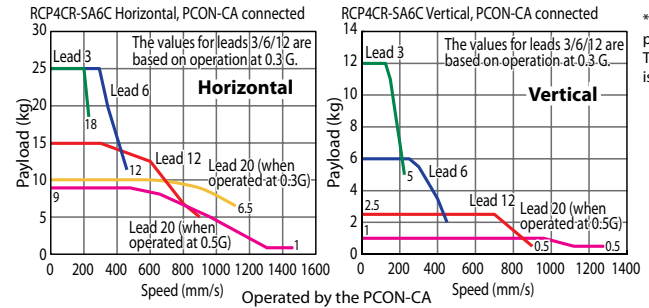
# RCP4CR-SA6C

Cleanroom ROBO Cylinder, Slider Type, Motor Unit Coupled, Actuator Width 58mm, 24-V Pulse Motor

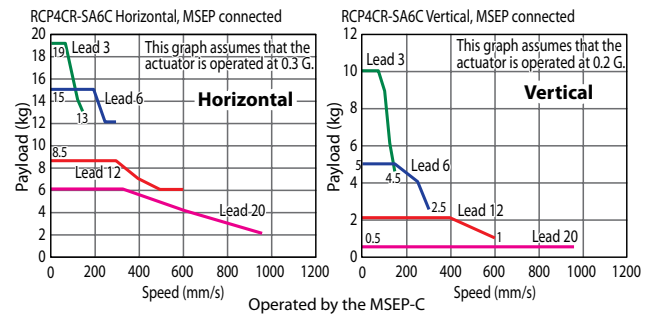
Model Specification Items	<b>RCP4CR</b>	<b>SA6C</b>	<b>I</b>	<b>42P</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
	I: Incremental specification	42P: Pulse motor, size 42□	20: 20mm 12: 12mm 6: 6mm 3: 3mm	50: 50mm 800: 800mm (every 50mm)	P3: PCON / MSEL P5: RCON / RSEL	N: None P: 1 m S: 3 m M: 5 m X□□: Specified length R□□: Robot cable	Refer to the options table below.		



## Correlation Diagrams of Speed and Payload



\* PCON-CA is a previous model. The current model is PCON-CB.



- The maximum payload is the value when operated at 0.3G (0.2G with some models) acceleration. The upper limit of acceleration is 1 G (\*). Note that raising the acceleration causes the payload to drop.
- The specific value varies depending on the connected controller and actuator lead. For details, refer to "Selection References" on P. 37 to 40.
- Take note that the maximum payload and maximum speed vary depending on the controller connected to the RCP4. (Refer to the actuator specifications below.)

## Actuator Specifications

\* PCON-CA is a previous model. The current model is PCON-CB.

### Leads and Payloads

Model number	Lead (mm)	Connected controller	Maximum payload		Stroke (mm)
			Horizontal (kg)	Vertical (kg)	
RCP4CR-SA6C-I-42P-20-①-P3-②-③	20	PCON-CA	10	1	50~800 (every 50mm)
		MSEP-C	6	0.5 (*)	
RCP4CR-SA6C-I-42P-12-①-P3-②-③	12	PCON-CA	15	2.5	
		MSEP-C	8.5	2	
RCP4CR-SA6C-I-42P-6-①-P3-②-③	6	PCON-CA	25	6	
		MSEP-C	15	5	
RCP4CR-SA6C-I-42P-3-①-P3-②-③	3	PCON-CA	25	12	
		MSEP-C	19	10	

Code explanation ① Stroke ② Cable length ③ Options (\*) When operated at 0.2 G

### Stroke and Maximum Speed

Lead (mm)	Connected controller	Stroke (mm)								Suction amount (Nl/min)
		50~450 (every 50mm)	500	550	600	650	700	750	800	
20	PCON-CA	1440<1280>	1230	1045	905	785	690	615	80	
	MSEP-C	960						905		785
12	PCON-CA	900	795	670	570	490	430	375	50	
	MSEP-C	600		570	490	430	375	335		
6	PCON-CA	450	395	335	285	245	215	185	30	
	MSEP-C	300		285	245	215	185	165		
3	PCON-CA	225	195	165	140	120	105	90	15	
	MSEP-C	150		140	120	105	90	80		

The values in < > apply when the actuator is used vertically. (unit: mm/s)

### ① Stroke

Stroke (mm)	Standard price	Stroke (mm)	Standard price
50	—	450	—
100	—	500	—
150	—	550	—
200	—	600	—
250	—	650	—
300	—	700	—
350	—	750	—
400	—	800	—

### 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)	—
Robot cable	R01 (1m) ~R03 (3m)	—
	R04 (4m) ~R05 (5m)	—
	R06 (6m) ~R10 (10m)	—
	R11 (11m) ~R15 (15m)	—
	R16 (16m) ~R20 (20m)	—

### ③ Options \*

Name	Option code	See page	Standard price
Brake	B	P8	—
Optional cable exit direction (top)	CJT	P8	—
Optional cable exit direction (right)	CJR	P8	—
Optional cable exit direction (left)	CJL	P8	—
Optional cable exit direction (bottom)	CJB	P8	—
Non-motor end specification	NM	P8	—
Vacuum joint on opposite side	VR	P8	—

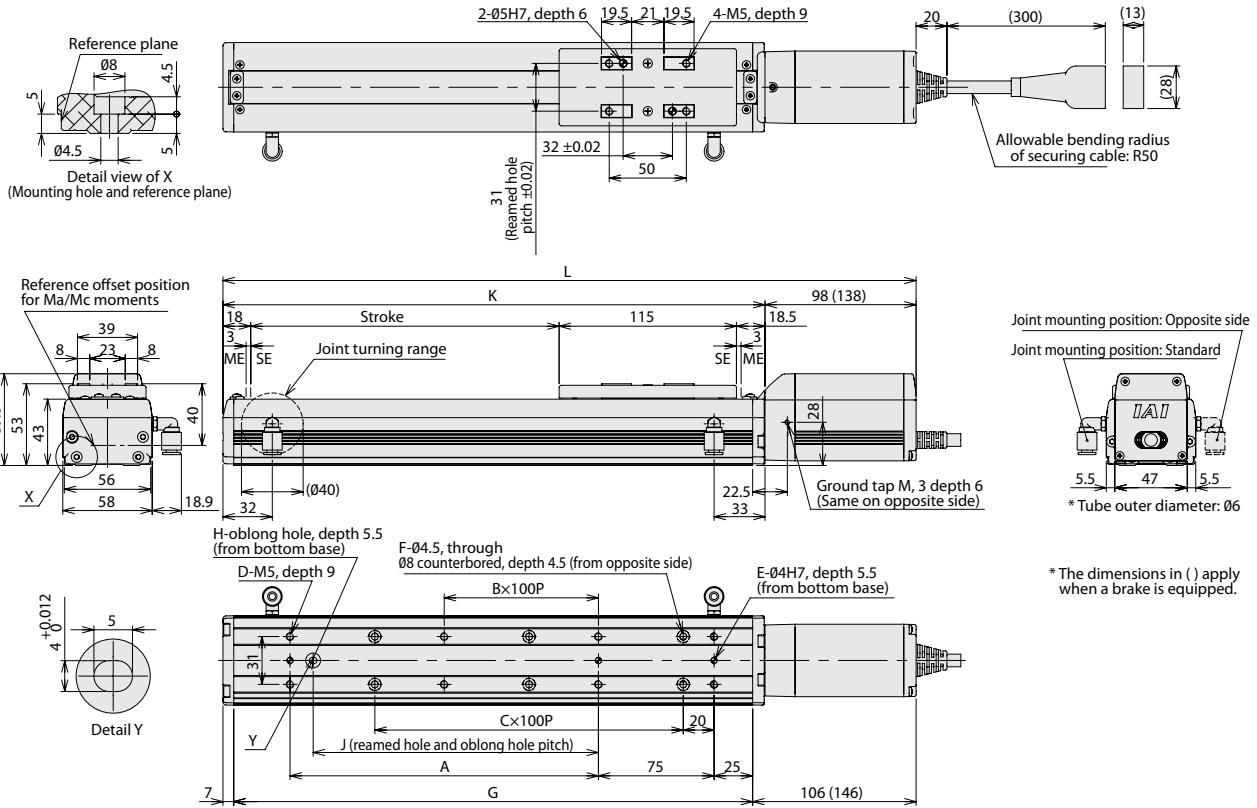
### Actuator Specifications

Item	Description
Drive system	Ball screw $\phi$ 10 mm, rolled C10
Positioning repeatability (*1)	$\pm$ 0.02mm [ $\pm$ 0.03mm]
Lost motion	0.1 mm or less
Base	Material: Aluminum with white alumite treatment
Dynamic allowable moment (*2)	Ma: 8.9 N·m, Mb: 12.7 N·m, Mc: 18.6 N·m
Allowable overhang	220 mm or less in Ma, Mb and Mc directions
Grease	Low dust generation grease (urea grease) is used for both ball screws and guides.
Cleanness	Class 10 (0.1 $\mu$ m)
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(\*1) The value at lead 20 is shown in []. (\*2) Based on 5,000 km of traveling life.



- \*1 Connect the motor and encoder cables.
- \*2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.



■ Dimensions and Mass by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
L	Without brake	299.5	349.5	399.5	449.5	499.5	549.5	599.5	649.5	699.5	749.5	799.5	849.5	899.5	949.5	999.5	1049.5
	With brake	339.5	389.5	439.5	489.5	539.5	589.5	639.5	689.5	739.5	789.5	839.5	889.5	939.5	989.5	1039.5	1089.5
A	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800	800
B	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
C	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	8
D	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
E	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
F	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	18
G	186.5	236.5	286.5	336.5	386.5	436.5	486.5	536.5	586.5	636.5	686.5	736.5	786.5	836.5	886.5	936.5	
H	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
J	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785	
K	201.5	251.5	301.5	351.5	401.5	451.5	501.5	551.5	601.5	651.5	701.5	751.5	801.5	851.5	901.5	951.5	
Mass (kg)	Without brake	2.0	2.1	2.3	2.4	2.6	2.7	2.9	3.0	3.2	3.4	3.5	3.7	3.8	4.0	4.1	4.3
	With brake	2.2	2.3	2.5	2.6	2.8	3.0	3.1	3.3	3.4	3.6	3.7	3.9	4.1	4.2	4.4	4.5

Applicable Controller

\* Controller for RCP4 series is PCON, MSEL, RCON or RSEL.  
Please refer our Controller General Catalog and/or contact IAI.