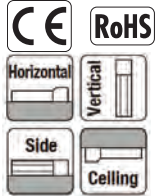


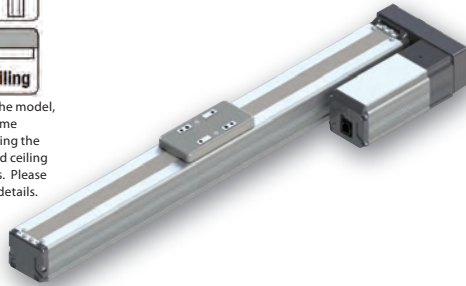
# RCP5-SA6R ROBO Cylinder, Slider Type, Side-mounted Motor Type, Actuator Width 58mm, 24V Pulse Motor

Model	RCP5	SA6R	WA	42P			P3		
Specification Items	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controllers	Cable length	Options
			WA: Battery-less absolute specification	42P: Pulse motor, size 42□	20: 20mm 12: 12mm 6: 6mm 3: 3mm	50: 50mm 800: 800mm (Every 50mm)	P3: PCON-CA MSEP MSEL	N: No cable P: 1m S: 3m M: 5m X□: Specified length R□: Robot cable	Please refer to the options table below.

\*Controller is not included.



\* Depending on the model, there may be some limitations to using the vertical, side, and ceiling mount positions. Please refer to P.59 for details.

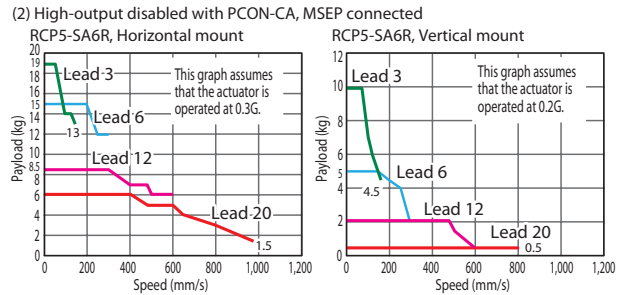
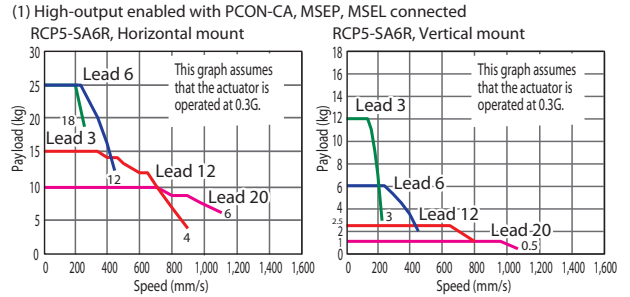


The figure above is the motor side-mounted to the left (ML).

**POINT**  
Note on selection

- The actuator specification displays the payload's maximum value, but it will vary depending on the acceleration. Please refer to the "Selection Guidelines" (RCP5 Payload by Speed/Acceleration Table) on P. 61.
- Please refer to P. 59 for push-motion operation.

### Correlation Diagrams of Speed and Payload



### Actuator Specifications

#### Lead and Payload

Model number	Lead (mm)	Connected controller	Maximum payload		Stroke (mm)
			Horizontal (kg)	Vertical (kg)	
RCP5-SA6R-WA-42P-20-①-P3-②-③	20	High-output enabled	10	1	50~800 (Every 50mm)
		High-output disabled	6	0.5	
RCP5-SA6R-WA-42P-12-①-P3-②-③	12	High-output enabled	15	2.5	
		High-output disabled	8.5	2	
RCP5-SA6R-WA-42P-6-①-P3-②-③	6	High-output enabled	25	6	
		High-output disabled	16	5	
RCP5-SA6R-WA-42P-3-①-P3-②-③	3	High-output enabled	25	12	
		High-output disabled	19	10	

Legend: ① Stroke ② Cable length ③ Options \*Please refer to P.59 for push-motion operation.

#### Stroke and Maximum Speed

Values in brackets <> are for vertical use. (Unit: mm/s)

Lead (mm)	Connected controller	Maximum speed (mm/s)								
		50~400 (Every 50mm)	450 (mm)	500 (mm)	550 (mm)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
20	High-output enabled	1,280		1,130	970	840	735	650	575	
	High-output disabled	960				840	735	650	575	
12	High-output enabled	900 (<800)	885 (<800)	735	620	535	460	405	355	315
	High-output disabled	600				535	460	405	355	315
6	High-output enabled	450	435	365	305	265	230	200	175	155
	High-output disabled	300				265	230	200	175	155
3	High-output enabled	225	215	180	150	130	115	100	85	75
	High-output disabled	150				130	115	100	85	75

#### 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 code	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)	-

\*Please refer to P.89 for maintenance cables.

#### ③ Options

Name	Option code	Reference page	Standard price
Brake	B	→P. 11	-
Cable exit direction (Top)	CJT	→P. 11	-
Cable exit direction (Outside)	CJO	→P. 11	-
Cable exit direction (Bottom)	CJB	→P. 11	-
Motor side-mounted to the left (Standard)	ML	→P. 11	-
Motor side-mounted to the right	MR	→P. 11	-
Slider roller specification	SR	→P. 11	-
Non-motor end specification	NM	→P. 11	-

#### Actuator Specifications

Item	Description
Drive system	Ball screw Ø10mm, rolled C10
Positioning repeatability (*1)	±0.02mm (±0.03mm)
Lost motion	0.1mm or less
Base	Material: Aluminum with white alumite treatment
Dynamic allowable moment (*2)	Ma: 11.6N·m, Mb: 16.6N·m, Mc: 24.6N·m
Static allowable moment	Ma: 38.3N·m, Mb: 54.7N·m, Mc: 81N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

\*Reference for overhang load length/Ma: 150mm or less, Mb, Mc: 150mm or less

(\*1) The values in brackets [ ] are for Lead 20.

(\*2) Assumes a standard rated life of 5,000km.

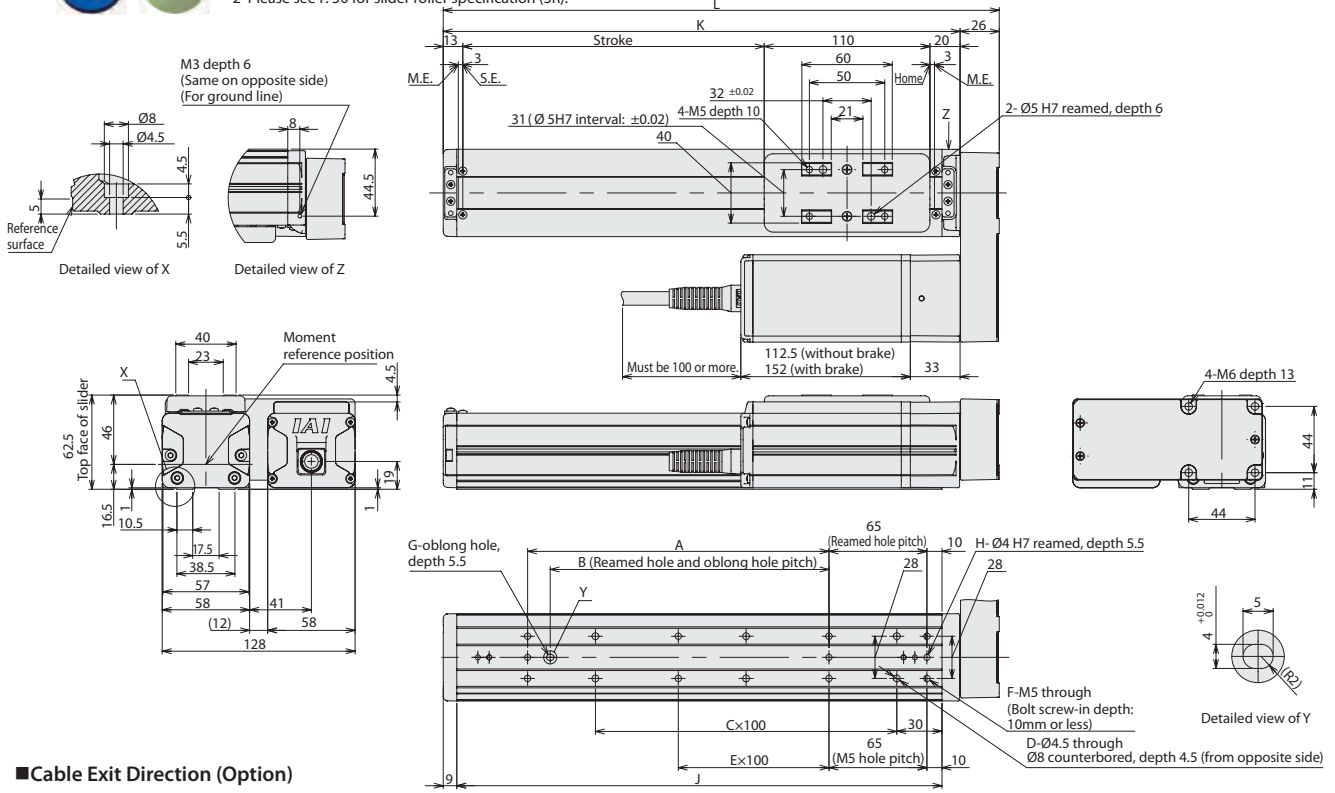
(\*) The operational life will vary depending on operation and installation conditions. Please refer to the general catalog for details on operational life, allowable moment direction, and overhang load length.

Dimensions

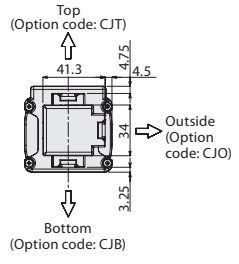
CAD drawings can be downloaded from our website. [www.intelligentactuator.com](http://www.intelligentactuator.com)



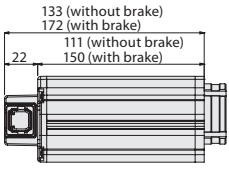
- \*1 When the slider is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the ME.
- ME: Mechanical end
- SE: Stroke end
- \*2 Please see P.50 for slider roller specification (SR).



■ Cable Exit Direction (Option)



\*The figure above is for the motor side-mounted to the left (ML).



■ Dimensions and Mass by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	219	269	319	369	419	469	519	569	619	669	719	769	819	869	919	969
A	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
B	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
C	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
D	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18
E	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
F	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
G	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
H	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
J	172	222	272	322	372	422	472	522	572	622	672	722	772	822	872	922
K	193	243	293	343	393	443	493	543	593	643	693	743	793	843	893	943
Mass (kg)	Without brake	2.1	2.2	2.4	2.6	2.8	2.9	3.1	3.3	3.5	3.6	3.8	4.0	4.2	4.3	4.5
	With brake	2.3	2.4	2.6	2.8	3.0	3.1	3.3	3.5	3.7	3.8	4.0	4.2	4.4	4.5	4.7

Applicable Controllers

The RCP5 series actuators can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Model number	Max. number of controlled axes	Maximum number of positioning points	Input power	Standard price	Reference page
Positioner type (High-output specification)		PCON-CA-42PWAI-①-2-0	1	512 points	DC24V	-	→P.69
Pulse train type (High-output specification)		PCON-CA-42PWAI-PL②-2-0				-	
Network type (High-output specification)		PCON-CA-42PWAI-③-0-0				-	
Solenoid valve multi-axis type (PIO specification)		MSEP-④-⑤-⑥-⑦-⑧-⑨-⑩-2-0	4 (4 when high-output enabled) LC: 6 (3 when high-output enabled)	3 points	Single-phase AC 100V~230V	-	→P.77
Solenoid valve multi-axis type (Network specification)		MSEP-④-⑤-⑥-⑦-⑧-⑨-⑩-0-0				256 points	
Program control multi-axis type		MSEL-PC-1-42PWAI-⑪-2-4	4	30,000 points	Single-phase AC 100V~230V	-	→P.87
Program control multi-axis type (w/network board)		MSEL-PC-1-42PWAI-⑫-0-4					
Program control multi-axis type (Safety category compliant spec.)		MSEL-PG-1-42PWAI-⑬-2-4					
Program control multi-axis type (Safety category compliant spec. w/network board)		MSEL-PG-1-42PWAI-⑭-0-4					

\*Above MSEL models are for single-axis specification  
 \*① I/O type (NP/PN)  
 \*② Field network specification code  
 \*③ Number of axes  
 \*④ C or LC  
 \*⑤ N (NPN specification) or P (PNP specification) code  
 \*The high output enabled operation is only available when the "High-output setting specs" is selected in the MSEP-C/LC.

