

# RCP4-SA7R

ROBO Cylinder, Slider Type, Side-mounted Motor Type, Actuator Width 73mm, 24-V Pulse Motor

Model Specification Items	<b>RCP4</b> — <b>SA7R</b> — <b>I</b> — <b>56P</b> — □ — □ — <b>P3</b> — □ — □
Series — Type — Encoder type — Motor type — Lead — Stroke — Applicable controller — Cable length — Options	I: Incremental specification    56P: Pulse motor, size 56□    24: 24mm    16: 16mm    8: 8mm    4: 4mm    50: 50mm    800: 800mm (every 50mm)    P3: PCON-CA    MSEP-C    N: None    P: 1m    S: 3m    M: 5m    X□□: Custom lengthh    R□□: Robot cable    See Options below.    * Be sure to specify either "ML" or "MR" as the motor side-mounted direction.

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

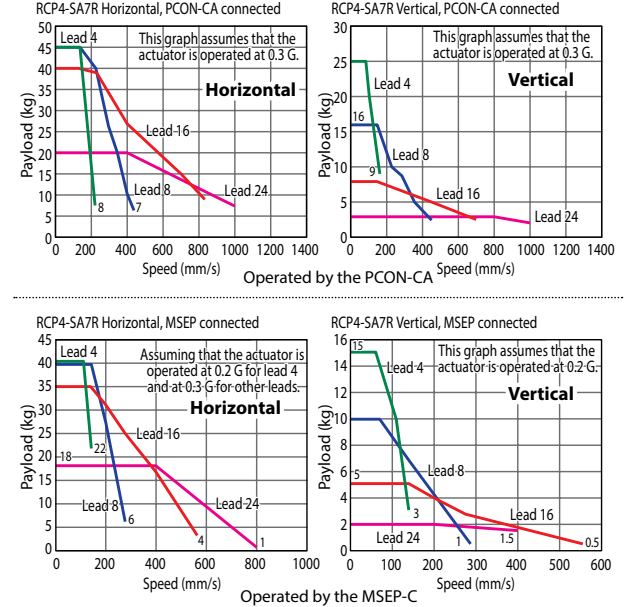


The "Motor side-mounted to the left (ML)" option is selected for the actuator shown above.

Technical References Appendix P.5

- POINT** Notes on selection
- 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 page A-104 and A-106.
  - Take note that the maximum payload and maximum speed vary depending on the controller connected to the RCP4. (Refer to the actuator specifications below.)
  - See page A-71 for details on push motion.

### Correlation Diagrams of Speed and Payload



### Actuator Specifications

#### Leads and Payloads

(\* ) When operated at 0.2 G

Model number	Lead (mm)	Connected controller	Maximum payload		Stroke (mm)
			Horizontal (kg)	Vertical (kg)	
RCP4-SA7R-I-56P-24-①-P3-②-③	24	PCON-CA	20	3	50~800 (every 50mm)
		MSEP-C	18	2 (*)	
RCP4-SA7R-I-56P-16-①-P3-②-③	16	PCON-CA	40	8	
		MSEP-C	35	5 (*)	
RCP4-SA7R-I-56P-8-①-P3-②-③	8	PCON-CA	45	16	
		MSEP-C	40	10 (*)	
RCP4-SA7R-I-56P-4-①-P3-②-③	4	PCON-CA	45	25	
		MSEP-C	40 (*)	15 (*)	

Code explanation ① Stroke ② Cable length ③ Options

\* See page A-71 for details on push motion.

#### Stroke and Maximum Speed

The values in < > apply when the actuator is used vertically.

Lead (mm)	Connected controller	50~450 (every 50mm)	500 (mm)	550 (mm)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)	
24	PCON-CA	1000							890	790
	MSEP-C	800<600>								790<600>
16	PCON-CA	840<700>			750<700>		655	580	515	
	MSEP-C	560								515
8	PCON-CA	490		430	375	325	290	255		
	MSEP-C	280								255
4	PCON-CA	210		185	160	145	125	125		
	MSEP-C	140								125

\* The values of lead 8 and lead 4 apply when acceleration is at 0.1G. (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)	—

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

#### ③ Options

Name	Option code	See page	Standard price
Brake	B	→ A-42	—
Optional cable exit direction (top)	CJT	→ A-42	—
Optional cable exit direction (outside)	CJO	→ A-42	—
Optional cable exit direction (bottom)	CJB	→ A-42	—
Motor side-mounted to the left (standard)	ML	→ A-52	—
Motor side-mounted to the right	MR	→ A-52	—
Non-motor end specification	NM	→ A-52	—
Slider roller specification	SR	→ A-52	—

#### Actuator Specifications

Item	Description
Drive system	Ball screw ø12mm, rolled C10
Positioning repeatability (*1)	±0.02mm [±0.03mm]
Lost motion	0.1mm or less
Base	Material: Aluminum, white alumite treated
Guide	Linear guide
Allowable dynamic moment (*2)	Ma: 13.9 N·m, Mb: 19.9 N·m, Mc: 38.3 N·m
Allowable overhang	230mm or less in Ma, Mb and Mc directions
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

(\*1) The value at lead 24 is shown in [ ].

(\*2) Based on 5,000km of traveling life

