RCP6 ROBO Cylinder®



(5) Depending on the ambient operational temperature, duty control is necessary for the RCP6S (built-in controller type) with lead 4/8/16. Please refer to P.130 for more information.

Actuator Specifications										
Lead and Payload (Note 1) The payload assumes that there is an external guide. Stroke and Max. Speed (Unit: m									(Unit: mm/s)	
Model Number	Lead (mm)	Connected Controller	Max. Pay Horizontal (kg) (Note 1)	/load Vertical (kg)	Stroke (mm)		Lead (mm)	Connected Controller	70~520 (Every 50mm)	
RCP6(S)-RRA7C-WA-56P-24-①-②-③-④	24	High-output Enabled	20	3			24	High-output Enabled	860 <640>	
RCP6(S)-RRA7C-WA-56P-16-0-2-3-4	16	High-output Enabled	50	8	70~520		16	High-output Enabled	700 <560>	
RCP6(S)-RRA7C-WA-56P-8-①-②-③-④	8	High-output Enabled	60	18	of stroke is 50mm)		8	High-output Enabled	420	
RCP6(S)-RRA7C-WA-56P-4-①-②-③-④	4	High-output Enabled	80	28			4	High-output Enabled	210	
eagend: ① Stroke ② Applicable controller/I/O type ③ Cable length ④ Options Values in brackets < > are for vertical use										

Legend: ① Stroke ② Applicable controller/I/O type ③ Cable length ④ Options

① Stroke					
Stroke (mm)	RCP6	RCP6S	Stroke (mm)	RCP6	RCP6S
70	0	0	320	0	0
120	0	0	370	0	0
170	0	0	420	0	0
220	0	0	470	0	0
270	0	0	520	0	0

④ Options

Name	Option Code	Reference Page
Brake	В	See P.105
Cable exit direction (Top)	CJT	See P.105
Cable exit direction (Right)	CJR	See P.105
Cable exit direction (Left)	CJL	See P.105
Cable exit direction (Bottom)	CJB	See P.105
Flange	FL	See P.106
Tip adapter (Flange)	FFA	See P.105
Tip adapter (Internal thread)	NFA	See P.109
Tip adapter (Keyway)	KFA	See P.108
Non-motor end specification	NM	See P 110

When selecting multiple options, please list them in alphabetical order. (e.g. B-C IB-NM)

③ Cable Leng	gth		
Cable Type	Cable Code	RCP6	RCP6S
	P (1m)	0	0
Standard	S (3m)	0	0
	M (5m)	0	0
Specified Length	X06 (6m) ~X10 (10m)	0	0
	X11 (11m) ~X15 (15m)	0	0
	X16 (16m) ~X20 (20m)	0	0
	R01 (1m) ~R03 (3m)	0	0
Robot Cable	R04 (4m) ~R05 (5m)	0	0
	R06 (6m) ~R10 (10m)	0	0
	R11 (11m) ~R15 (15m)	0	0
	R16 (16m) ~R20 (20m)	0	0

Speed (mm/s)

* Please refer to P.144 for more information regarding the maintenance cables.

Actuator Specifications

ltem	Description
Drive system	Ball screw ø12mm, rolled C10
Positioning repeatability	±0.01mm
Lost motion	0.1mm or less
Rod	φ30mm Aluminum
Rod non-rotation precision*	0 deg.
Allowable load and torque on rod tip	See P. 127
Rod tip overhang distance	150mm
Ambient operating temp. & humidity	0~40°C, 85% RH or less (Non-condensing)

* Rod's angular displacement in rotational direction with no load applied to the rod.



Rod Deflection of RCP6(S)-RRA7C (Reference Values)



				-								
	Str	oke	70	120	170	220	270	320	370	420	520	
	DCD4	w/o brake	404	454	504	554	604	654	704	754	804	854
	nCr0	w/ brake	454	504	554	604	654	704	754	804	854	904
L	DCD4C	w/o brake	429	479	529	579	629	679	729	779	829	879
	nCP03	w/ brake	479	529	579	629	679	729	779	829	879	929
		A	264	314	364	414	464	514	564	64 614 664		
	В			238	288	338	388	438	488	538	588	638
		D	0	1	1	2	2	3	3	4	4	5
	E			6	6	8	8	10	10	12	12	14
	G			1	2	2	3	3	4	4	5	5
Н			4	4	6	6	8	8	10	10	12	12
J		0	85	85	185	185	285	285	385	385	485	
К			0	0	100	200	200	300	300	400	400	500
	M		2	2	3	3	3	3	3	3	3	3
		N	0	1	1	1	1	1	1	1	1	1
Allowa	ble static	load on rod tip (N)	175	147	126	111	98.6	88.7	80.6	73.8	68	63
Allowab	le dynamic	Load offset 0mm	7.7	6.4	5.4	4.7	4.1	3.7	3.3	3.0	2.7	2.5
load on	load on rod tip (kg) Load offset 100mm		5.1	4.6	4.1	3.7	3.4	3.1	2.8	2.6	2.4	2.2
Allowab	le static tor	que on rod tip (N•m)	17.6	14.7	12.7	11.2	9.9	9.0	8.2	7.5	6.94	6.45
Allowabl	Allowable dynamic torque on rod tip (N•m)		5.0	4.5	4.0	3.6	3.3	3.0	2.8	2.5	2.32	2.16
	DCDC	w/o brake	4.0	4.3	4.6	4.8	5.1	5.4	5.7	5.9	6.2	6.5
Mass	nCP0	w/ brake	4.4	4.7	5.0	5.3	5.5	5.8	6.1	6.4	6.7	6.9
(kg)	DCD45	w/o brake	4.2	4.5	4.7	5.0	5.3	5.6	5.8	6.1	6.4	6.7
	nCP05	w/ brake	4.6	4.9	5.2	5.5	5.7	6.0	6.3	6.6	6.8	7.1

© Applicable Controllers									
The RCP6 series actuators can be operated by the controllers indicated below. Please select the type depending on your intended use. * Please refer to P.147 for more information about the built-in controller of RCP6S series.									
Name	External Max. number o					Control me	Maximum number	Reference nage	
	view	controlled axes		Positioner	Pulse train	Program	Network *Option	of positioning points	neicicitée page
PCON-CB/CGB	Ĩ	1	DC24V	● *Option	● *Option	-		512 (768 for network spec.)	Please see P.131
MCON-C/CG		4	DC24V	ا networ	This model is k-compatib	s le only.	CompoNet	256	Please see the MCON catalog.
MSEL-PC/PG		4	Single-phase 100~230VAC	-	-	•	will vary depending on the controller. Please refer to reference page for more information.	30,000	Please see the MSEL- PC/PG catalog.

*Please select "high-output specification" as an option for the MCON. With the MCON, operation is possible only when the high-output specification is selected.

