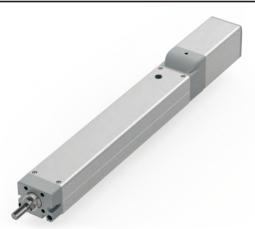


■ Model Specification Applicable Controller/I/O Type Туре Encoder Type — Stroke Cable Length Options Items [RCP6] P3: PCON N : None P : 1m Please refer to the options table below. RCP6: Separate Controller WA: Battery-less 56P: Stepper 24: 24mm 70: 70mm RCP6S: Built-in Controller Absolute 16: 16mm MCON MSEL [RCP6S] SE: SIO Type S : 3m M: 5m 56□ Size 8: 8mm 520: 520mm (50mm increments) 4: 4mm * RCP6 does not include a controller. RCP6S includes a built-in controller. $X\square\square$: Specified Length $R\square\square$: Robot Cable

Radial Load OK RoHS Horizontal Side Ceiling

*Depending on the model, there may be some limitations to using the vertical, side, and ceiling mount positions. Please contact IAI for more information regarding mounting positions.



(1) The maximum acceleration/deceleration is 1G for horizontal, and 0.5G for vertical use.

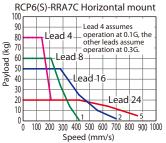
- (2) The actuator specification displays the payload's maximum value, but it will vary depending on the acceleration and speed. Please refer to the "Selection Guidelines" (RCP6 Tables of Payload by Speed/Acceleration) on P.115 for more details.
- (3) The radial cylinder is equipped with a built-in guide. Please refer to the graphs shown in P.127 and after for the allowable load mass.
- (4) When performing push-motion operation, please confirm the push force of each model by checking the "Correlation diagram of push force and current limit" on P.113.
- (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.

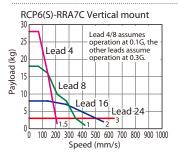
■ Correlation Diagrams of Speed and Payload High-output enabled with PCON/MCON/MSEL connected.

Coupled Motor Body Width

70 mm **24**_v

Steppe Motor





Actuator Specifications ■ Lead and Payload (Note 1) The payload assumes that there is an external guide Max. Payload Stroke Connected Lead **Model Number** Controller Horizontal (kg) (Note 1) | Vertical (kg (mm) High-output RCP6(S)-RRA7C-WA-56P-24-①--②--③--④ 20 3 Enabled High-output RCP6(S)-RRA7C-WA-56P-16-①-②-③-④ 50 8 70~520 Enabled The increment of stroke is 50mm) High-output RCP6(S)-RRA7C-WA-56P-8-①-②-③-④ 60 18 Fnabled High-output RCP6(S)-RRA7C-WA-56P-4-①-②-③-④ Enabled

 $\label{lem:lemma$

2.	■ Str	oke and Ma	ax. Speed	(Unit: mm/s)
	Lead (mm)	Connected Controller	70~520 (Every 50mm)	
	24	High-output Enabled	860 <640>	
t	16	High-output Enabled	700 <560>	
	8	High-output Enabled	420	
	4	High-output Enabled	210	
_			Values in brackets < > are fo	ar vertical use

 $\label{eq:Values} \mbox{Values in brackets} < \mbox{$>$$ are for vertical use.}$

U 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-CJB-NM)

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

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

Actuator Specifications	
ltem	Description
Drive system	Ball screw φ12mm, 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.

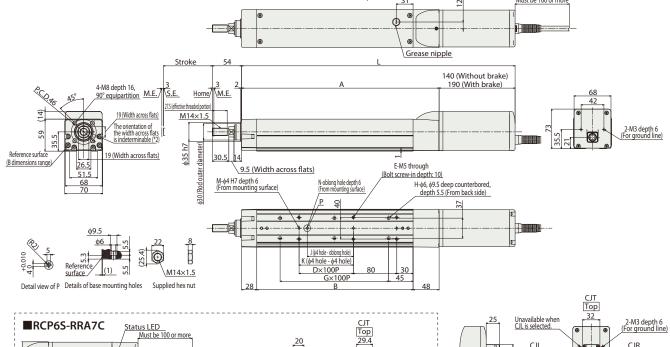
Dimensions

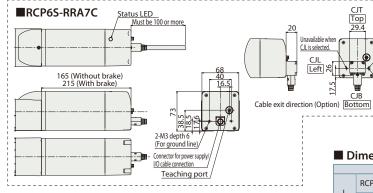
CAD drawings can be downloaded from our website www.intelligentactuator.com

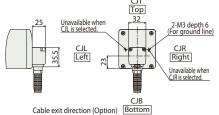


- *1 When the rod is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the M.E. M.E. Mechanical end *2 The direction of width across flats varies depending on the product. S.E: Stroke end
- *3 When fixing the actuator using a front bracket or flange, please make sure that there is no external force applied to the main body.

 31 Must be 100 or more Must be 100 or more 31







■ Dimensions and Mass by Stroke

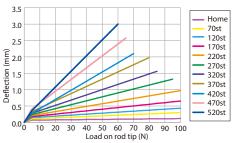
2-M3 depth 6 (For ground line)

Unavailable when

Right

Stroke			70	120	170	220	270	320	370	420	470	520
	RCP6	w/o brake	404	454	504	554	604	654	704	754	804	854
L		w/ brake	454	504	554	604	654	704	754	804	854	904
L	RCP6S	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	614	664	714
		В	188	238	288	338	388	438	488	538	588	638
		D	0	1	1	2	2	3	3	4	4	5
		E	4	6	6	8	8	10	10	12	12	14
		G	1	1	2	2	3	3	4	4	5	5
		4	4	6	6	8	8	10	10	12	12	
		0	85	85	185	185	285	285	385	385	485	
		0	0	100	200	200	300	300	400	400	500	
		M	2	2	3	3	3	3	3	3	3	3
	N			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
		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	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 to	rque 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
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
	RCP6	w/o brake	4.0	4.3	4.6	4.8	5.1	5.4	5.7	5.9	6.2	6.5
Mass	nCP6	w/ brake	4.4	4.7	5.0	5.3	5.5	5.8	6.1	6.4	6.7	6.9
(kg)	RCP6S	w/o brake	4.2	4.5	4.7	5.0	5.3	5.6	5.8	6.1	6.4	6.7
	nCP03	w/ brake	4.6	4.9	5.2	5.5	5.7	6.0	6.3	6.6	6.8	7.1

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



② Applicable (he RCP6 series actuators ca		the controller	rs indicated below.	Please select th	e type dependir	g on your inten	ded use. * Please re	fer to P.147 for more	information about the built-in	n controller of RCP6S series.
Name	External view	Max. number of controlled axes	Input nower	Positioner					Maximum number of positioning points	Reference page
PCON-CB/CGB		1	DCMV	● *Option	• *Option	-	DeviceNet	Ether Net / IP	512 (768 for network spec.)	Please see P.131
MCON-C/CG	m	4	DC24V	This model is network-compatible only.		CompoNet Note: - The type of compatible networks	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.