

Slider Type

RCP3 RCA2 RCP2 RCA ERC2 RCS2







	Coupled Type	Aluminum Base	22mm width	RCP3-SA2AC	3
			28mm width	RCP3-SA2BC	5
			32mm width	RCP3-SA3C	7
RCP3			40mm width	RCP3-SA4C	9
series			50mm width	RCP3-SA5C	11
series			60mm width	RCP3-SA6C	13
Pulse	Side-Mounted Motor Type	Aluminum Base	22mm width	RCP3-SA2AR	15
Motor			28mm width	RCP3-SA2BR	17
Туре			32mm width	RCP3-SA3R	19
· ·			40mm width	RCP3-SA4R	21
			50mm width	RCP3-SA5R	23
			60mm width	RCP3-SA6R	25

	Coupled Type	Aluminum Base	52mm width	RCP2-SA5C	27
		_	58mm width	RCP2-SA6C	29
		_	73mm width	RCP2-SA7C	31
	_	Steel Base	60mm width	RCP2-SS7C	33
RCP2		_	80mm width	RCP2-SS8C	35
	_	High-Speed Type	80mm width	RCP2-HS8C	37
series	Side-Mounted Motor Type	Aluminum Base	52mm width	RCP2-SA5R	39
		_	58mm width	RCP2-SA6R	41
Pulse		_	73mm width	RCP2-SA7R	43
Motor	_	Steel Base	60mm width	RCP2-SS7R	45
Туре		_	80mm width	RCP2-SS8R	47
	_	High-Speed Type	80mm width	RCP2-HS8R	49
	Belt Type		58mm width	RCP2-BA6/BA6U	51
	Zon Type	_	68mm width	RCP2-BA7/BA7U	53
			COMMIT WIGHT	TIOT E BITTIFE TO	33
FDC2	Slider Type	Straight Motor Type	58mm width	ERC2-SA6C	55
ERC2			68mm width	ERC2-SA7C	57
series					
	Coupled Type	Aluminum Base	32mm width	RCA2-SA3C	59
RCA2		-	40mm width	RCA2-SA4C	61
series		_	50mm width	RCA2-SA5C	63
301103		_	60mm width	RCA2-SA6C	65
24V	Side-Mounted Motor Type	Aluminum Base	30mm width	RCA2-SA3R	67
Servo	21	_	40mm width	RCA2-SA4R	69
Motor		-	50mm width	RCA2-SA5R	71
Туре		-	60mm width	RCA2-SA6R	73
	Coupled Type	Aluminum Base	40mm width	RCA-SA4C	75
	Coupled Type	Aluminum Base	40mm width 52mm width	RCA-SA4C RCA-SA5C	75 77
D.C.A.		Aluminum Base			
RCA	Coupled Type Built-in Type	Aluminum Base - Aluminum Base	52mm width	RCA-SA5C	77
		- -	52mm width 58mm width	RCA-SA5C RCA-SA6C	77 79
RCA series		- -	52mm width 58mm width 40mm width	RCA-SA5C RCA-SA6C RCA-SA4D	77 79 81 83
series		- -	52mm width 58mm width 40mm width 52mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D	77 79 81 83 85
		Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D	77 79 81 83 85 87
Series 24V Servo Motor		Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D	77 79 81 83 85
Series 24V Servo		Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D	77 79 81 83 85 87
Series 24V Servo Motor	Built-in Type	Aluminum Base Steel Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS6D	77 79 81 83 85 87 89
Series 24V Servo Motor	Built-in Type	Aluminum Base Steel Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 58mm width 40mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS6D RCA-SA4R	77 79 81 83 85 87 89 91
Series 24V Servo Motor	Built-in Type Side-Mounted Motor Type	Aluminum Base Steel Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 40mm width 58mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS5D RCA-SA6D RCA-SA6D	77 79 81 83 85 87 89 91
Series 24V Servo Motor	Built-in Type	Aluminum Base Steel Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 40mm width 58mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS5D RCA-SS6D RCA-SA6R RCA-SA6R	77 79 81 83 85 87 89 91
Series 24V Servo Motor	Built-in Type Side-Mounted Motor Type	Aluminum Base Steel Base Aluminum Base	52mm width 58mm width 40mm width 52mm width 40mm width 40mm width 52mm width 52mm width 58mm width 40mm width 58mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS6D RCA-SA4R RCA-SA4R RCA-SA6R	77 79 81 83 85 87 89 91 93 95
Series 24V Servo Motor	Built-in Type Side-Mounted Motor Type	Aluminum Base Steel Base Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 58mm width 40mm width 52mm width 52mm width 58mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS5D RCA-SS6D RCA-SA6R RCA-SA6R	77 79 81 83 85 87 89 91 93 95
Series 24V Servo Motor	Built-in Type Side-Mounted Motor Type	Aluminum Base Steel Base Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 40mm width 52mm width 52mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS5D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA6R RCA-SA6R	77 79 81 83 85 87 89 91 93 95 97
Series 24V Servo Motor Type	Built-in Type Side-Mounted Motor Type	Aluminum Base Steel Base Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 58mm width 40mm width 52mm width 52mm width 58mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS6D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA5R RCA-SA5R RCA-SA6R	77 79 81 83 85 87 89 91 93 95 97
Series 24V Servo Motor Type RCS2	Built-in Type Side-Mounted Motor Type	Aluminum Base Steel Base Aluminum Base Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 52mm width 52mm width 58mm width 58mm width 52mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS5D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA5R RCA-SA6R RCS2-SA6C RCS2-SA6C RCS2-SA7C	77 79 81 83 85 87 89 91 93 95 97
Series 24V Servo Motor Type	Built-in Type Side-Mounted Motor Type	Aluminum Base Steel Base Aluminum Base Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 58mm width 40mm width 52mm width 52mm width 58mm width 58mm width 58mm width 60mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS6D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA6R RCS2-SA4C RCS2-SA6C RCS2-SA7C RCS2-SS7C	77 79 81 83 85 87 89 91 93 95 97 99 101 103 105 107
series 24V Servo Motor Type RCS2 series	Built-in Type Side-Mounted Motor Type Coupled Type	Aluminum Base Steel Base Aluminum Base Aluminum Base Steel Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 58mm width 40mm width 52mm width 52mm width 52mm width 58mm width 58mm width 60mm width 80mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA5D RCA-SS4D RCA-SS5D RCA-SS5D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA5R RCA-SA6R RCS2-SA4C RCS2-SA5C RCS2-SA7C RCS2-SS7C RCS2-SS8C	77 79 81 83 85 87 89 91 93 95 97 99 101 103 105 107 109
Series 24V Servo Motor Type RCS2 Series 200V	Built-in Type Side-Mounted Motor Type Coupled Type	Aluminum Base Steel Base Aluminum Base Aluminum Base Steel Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 58mm width 40mm width 52mm width 52mm width 52mm width 58mm width 60mm width 80mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS6D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA6R RCS2-SA4C RCS2-SA6C RCS2-SA7C RCS2-SS7C RCS2-SS8C RCS2-SA4D	77 79 81 83 85 87 89 91 93 95 97 99 101 103 105 107 109 111
Series 24V Servo Motor Type RCS2 Series 200V Servo	Built-in Type Side-Mounted Motor Type Coupled Type	Aluminum Base Steel Base Aluminum Base Aluminum Base Steel Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 52mm width 52mm width 58mm width 52mm width 60mm width 60mm width 80mm width 40mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA5D RCA-SA6D RCA-SS5D RCA-SS6D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA6R RCS2-SA4C RCS2-SA5C RCS2-SA7C RCS2-SS7C RCS2-SS8C RCS2-SA4D RCS2-SA5D	77 79 81 83 85 87 89 91 93 95 97 99 101 103 105 107 109 111 113 115
Series 24V Servo Motor Type RCS2 Series 200V Servo Motor	Built-in Type Side-Mounted Motor Type Coupled Type Built-in Type	Aluminum Base Steel Base Aluminum Base Aluminum Base Steel Base Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 58mm width 40mm width 52mm width 52mm width 58mm width 58mm width 60mm width 80mm width 40mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS6D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA6R RCS2-SA4C RCS2-SA6C RCS2-SA7C RCS2-SS7C RCS2-SS7C RCS2-SA5D RCS2-SA4D RCS2-SA4D RCS2-SA6D	77 79 81 83 85 87 89 91 93 95 97 99 101 103 105 107 109 111 113 115
Series 24V Servo Motor Type RCS2 Series 200V Servo	Built-in Type Side-Mounted Motor Type Coupled Type Built-in Type	Aluminum Base Steel Base Aluminum Base Aluminum Base Steel Base Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 58mm width 40mm width 52mm width 52mm width 52mm width 58mm width 60mm width 60mm width 40mm width 40mm width 40mm width 52mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA5D RCA-SS4D RCA-SS5D RCA-SS5D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA6R RCS2-SA4C RCS2-SA5C RCS2-SA7C RCS2-SA7C RCS2-SS8C RCS2-SA5D RCS2-SA4D RCS2-SA5D RCS2-SA5D RCS2-SA5D RCS2-SA5D	77 79 81 83 85 87 89 91 93 95 97 99 101 103 105 107 109 111 113 115 117
Series 24V Servo Motor Type RCS2 Series 200V Servo Motor	Built-in Type Side-Mounted Motor Type Coupled Type Built-in Type	Aluminum Base Steel Base Aluminum Base Aluminum Base Steel Base Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 52mm width 52mm width 58mm width 52mm width 52mm width 52mm width 58mm width 40mm width 40mm width 52mm width 52mm width 52mm width 52mm width 52mm width 58mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS5D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA6R RCS2-SA4C RCS2-SA5C RCS2-SA7C RCS2-SA7C RCS2-SS7C RCS2-SA6D RCS2-SA4D RCS2-SA4D RCS2-SA5D RCS2-SA6D RCS2-SA6D RCS2-SA6D RCS2-SA6R	77 79 81 83 85 87 89 91 93 95 97 99 101 103 105 107 109 111 113 115 117 119
Series 24V Servo Motor Type RCS2 Series 200V Servo Motor	Built-in Type Side-Mounted Motor Type Coupled Type Built-in Type	Aluminum Base Steel Base Aluminum Base Aluminum Base Steel Base Aluminum Base Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 52mm width 52mm width 52mm width 53mm width 53mm width 53mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS5D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA6R RCS2-SA4C RCS2-SA5C RCS2-SA7C RCS2-SA7C RCS2-SA5C RCS2-SA5D RCS2-SA4D RCS2-SA5D RCS2-SA6D RCS2-SA6D RCS2-SA6D RCS2-SA6D RCS2-SA6R RCS2-SA6R RCS2-SA6R	77 79 81 83 85 87 89 91 93 95 97 99 101 103 105 107 109 111 113 115 117 119 121 123
Series 24V Servo Motor Type RCS2 Series 200V Servo Motor	Built-in Type Side-Mounted Motor Type Coupled Type Built-in Type	Aluminum Base Steel Base Aluminum Base Aluminum Base Steel Base Aluminum Base	52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 58mm width 40mm width 52mm width 52mm width 52mm width 52mm width 58mm width 52mm width 52mm width 52mm width 58mm width 40mm width 40mm width 52mm width 52mm width 52mm width 52mm width 52mm width 58mm width	RCA-SA5C RCA-SA6C RCA-SA4D RCA-SA5D RCA-SA6D RCA-SS4D RCA-SS5D RCA-SS5D RCA-SS6D RCA-SA6R RCA-SA5R RCA-SA6R RCS2-SA4C RCS2-SA5C RCS2-SA7C RCS2-SA7C RCS2-SS7C RCS2-SA6D RCS2-SA4D RCS2-SA4D RCS2-SA5D RCS2-SA6D RCS2-SA6D RCS2-SA6D RCS2-SA6R	77 79 81 83 85 87 89 91 93 95 97 99 101 103 105 107 109 111 113 115 117 119

Mini

rollers grated

Roc Type

andard trollers grated

ADIE/ARM Flat Type Mini

Gripper/ ary Type

eanroom Type

sh-Proof

PSEP /ASEP

ERC2
PCON

SCON

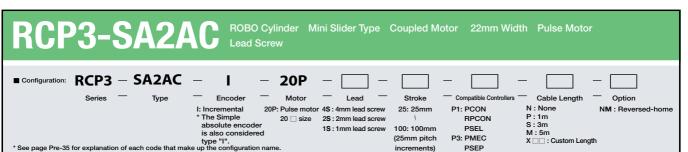
ASEL

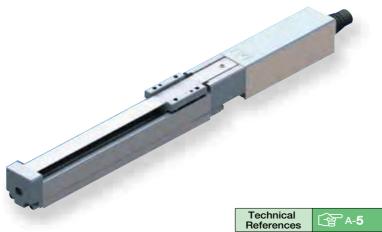
se Motor

vo Motor (24V)

Linear vo Motor

9





■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor,
the RCP3 series' load capacity decreases at
high speeds. In the table below, check if your
desired speed and load capacity are supported.



(1) The load capacity is based on operation at an acceleration of 0.2G.

(2) The actuator cannot be used on its side or in a vertical orientation.

This the upper limit for the acceleration.

- (3) If used in a dusty environment, the service life will decrease significantly.
- (4) This model uses a lead screw, therefore please ensure that your usage is appropriate for its characteristics. (See page Pre-42.)

Actuator Specifications										
■ Lead and Load Capacity ■ Stroke and Maximum Speed										
Model	Feed Screw	Lead (mm)	Max. Load Horizontal (kg)		Positioning Repeatability (mm)	Stroke (mm)	Lead	Stroke	25 (mm)	50 ~ 100 (mm)
RCP3-SA2AC-I-20P-4S-①-②-③-④		4	0.25	ı		05 400	ew	4	180	200
RCP3-SA2AC-I-20P-2S-①-②-③-④	Lead screw	2	0.5	-	±0.05	25~100 (25 increments)	ead screw	2	10	00
RCP3-SA2AC-I-20P-1S-①-②-③-④		1	1	-		increments)	Leg	1	5	0
Legend ① Stroke ② Compatible Controller ③ Cable Length ④ Options (Unit: mm/s)										

① Stroke List							
Standard Price							
-							
_							
_							
_							

ММ

© Cable List						
Туре	Cable Symbol	Standard Price				
Standard	P (1m)	_				
	S (3m)	_				
(Robot Cables)	M (5m)	_				
	X06 (6m) ~ X10 (10m)	_				
Special Lengths	X11 (11m) ~ X15 (15m)	_				
	X16 (16m) ~ X20 (20m)	_				

- * The standard cable for the RCP3 is the robot cable.
- * See page A-39 for cables for maintenance.

Actuator Specifications	
Item	Description
Drive System	Lead screw (Ø4mm, C10 grade)
Lost Motion	0.3mm or less (initial value)
Base	Material: Aluminum (white alumite treated)
Guide	Slide guide
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)
Service Life	10 million cycles

④ Option List

Reversed-home



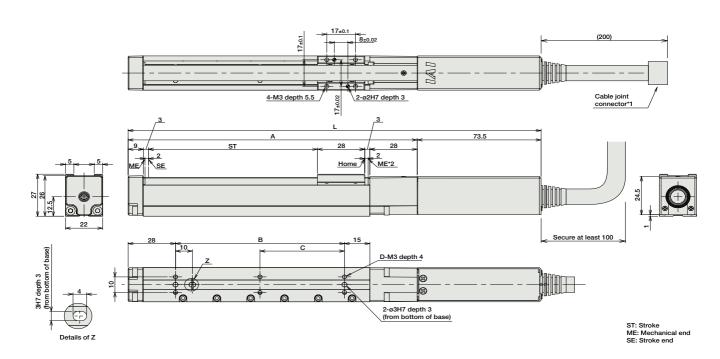
For Special Orders







- *1: A motor-encoder cable is connected here. See page A-39 for details on cables.
- *2: During the homing operation, the slider moves to actuator's mechanical end, and then reverses. Therefore, watch for any interference with its surroundings.



■ Dimensions/Weight by Stroke

Differsions/Weight by Stroke						
Stroke	25	50	75	100		
L	169.5	194.5	219.5	244.5		
Α	96	121	146	171		
В	25	50	75	100		
С	0	0	0	50		
D	4	4	4	6		
Weight (kg)	0.25	0.27	0.29	0.3		

(2)	Con	anati	blo	Contro	llore

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type	***	PMEC-C-20PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477
Soletioid valve type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double	3 points			-	
Splash-Proof Solenoid Valve Type	1	PSEP-CW-20PI-NP-2-0	solenoid types. No homing necessary with simple absolute type.				-	→ P487
Positioner Type	E	PCON-C-20PI-NP-2-0	Positioning is possible for up	512 points			-	
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	to 512 points 512 points			-		
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A Max.	-	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support		n input type with	(-)		-
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points			-	
Field Network Type		RPCON-20P	Dedicated to field network	768 points			-	→ P503
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points			-	→ P557

Slider Type

Mini

Standar

Control integral

Mini

Standar

Type

Mini

Standar

Table/Arra

Flat Type

Splash-ROBIO NET ERC2 PCON ACON SCON PSEL ASEL

^{*} This is for the single-axis PSEL. * \odot is a placeholder for the power supply voltage (1: 100V / 2: 100 \sim 240V).

Lead Screw \blacksquare Configuration: RCP3 - SA2BC **20P**

Encoder Type Lead I: Incremental
* The Simple
absolute encoder
is also considered 20P: Pulse motor 6S: 6mm lead screw 4S: 4mm lead screw 2S: 2mm lead screw type "I".

* See page Pre-35 for explanation of each code that make up the configuration name

Stroke 25: 25mm 150: 150mm (25mm pitch increments)

P1: PCON **RPCON PSEL** P3: PMEC

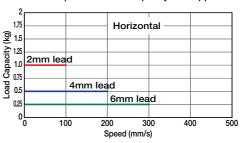
N: None P:1m S:3m M:5m NM : Reversed-home X 🗆 🗆 : Custom Length

Option

PSEP Speed vs. Load Capacity

Technical References

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



(1) The load capacity is based on operation at an acceleration of 0.2G. This the upper limit for the acceleration. (2) The actuator cannot be used on its side or in a vertical orientation.

(3) If used in a dusty environment, the service life will decrease significantly.

(4) This model uses a lead screw, therefore please ensure that your usage is appropriate for its characteristics. (See page Pre-42.)

Actuator Specifications ■ Lead and Load Capacity

Model	Feed Screw	Lead (mm)	Max. Load		Positioning Repeatability (mm)	Stroke (mm)
RCP3-SA2BC-I-20P-6S-①-②-③-④		6	0.25	_	(iiiii)	, ,
RCP3-SA2BC-I-20P-4S-①-②-③-④	Lead screw	4	0.5	-	±0.05	25~150 (25
RCP3-SA2BC-I-20P-2S-①-②-③-④		2	1	-		increments)
Legend ①Stroke ②Compatible Controller ③Cable Length ④Options						

Stroke and Maximum Speed 75~150 25 50 6 180 280 300 Lead screw 200 100

(Unit: mm/s)

① Stroke List						
Stroke (mm)	Standard Price					
25	-					
50	-					
75	-					
100	-					
125	-					
150	•					

© Cable List						
Туре	Cable Symbol	Standard Price				
Standard	P (1m)	-				
(Robot Cables)	S (3m)	-				
(Robot Cables)	M (5m)	-				
	X06 (6m) ~ X10 (10m)	-				
Special Lengths	X11 (11m) ~ X15 (15m)	-				
	X16 (16m) ~ X20 (20m)	_				

- * The standard cable for the RCP3 is the robot cable.
- * See page A-39 for cables for maintenance.

4 Option List			
Name	Option Code	See Page	Standard Price
Reversed-home	NM	ightarrow A-33	-

Actuator Specifications	
Item	Description
Drive System	Lead screw Ø6mm C10 grade
Lost Motion	0.3mm or less (initial value)
Base	Material: Aluminum (white alumite treated)
Guide	Slide guide
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)
Service Life	10 million cycles



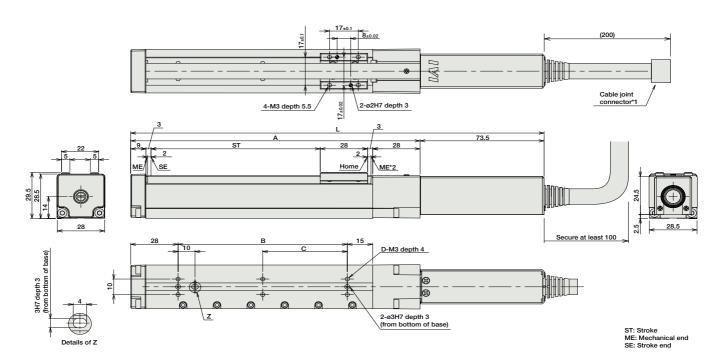
For Special Orders







- *1: A motor-encoder cable is connected here. See page A-39 for details on cables.
- *2: During the homing operation, the slider moves to actuator's mechanical end, and then reverses. Therefore, watch for any interference with its surroundings.



■ Dimensions/Weight by Stroke

Differsions/Weight by Stroke								
Stroke	25	50	75	100	125	150		
L	169.5	194.5	219.5	244.5	269.5	294.5		
Α	96	121	146	171	196	221		
В	25	50	75	100	125	150		
С	0	0	0	50	62.5	75		
D	4	4	4	6	6	6		
Weight (kg)	0.3	0.32	0.35	0.37	0.4	0.42		

2 Compatible Controllers

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page		
Solenoid Valve Type		PMEC-C-20PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477		
Colonold valve Type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double	3 points			-	. 5.40-		
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0	solenoid types. No homing necessary with simple absolute type.		y with			-	→ P487	
Positioner Type	E	PCON-C-20PI-NP-2-0	Positioning is possible for up	512 points			-			
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	to 512 points			-				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-) DC24V	DC24V	2A Max.	-	→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support		(=)	(-)			-	
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication				-			
Field Network Type		RPCON-20P	Dedicated to field network	768 points					→ P503	
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points				-	→ P557	

Slider Type

Mini

Standar

Rod Type

Mini

Standar

Control Integrat

Table/Arry/Flat Types

Splash-ROBIO NET ERC2 PCON ACON SCON PSEL ASEL SSEL

^{*} This is for the single-axis PSEL.

* ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).

* See page Pre-35 for explanation of each code that make up the configuration name

ROBO Cylinder Slider Type 32mm Width Pulse Motor Coupled

encoder models are labeled as "I".

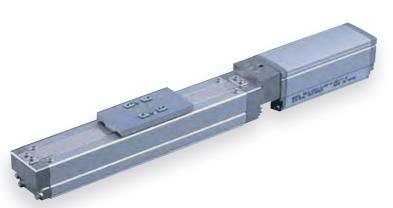
Stroke 4: 4mm 2: 2mm 300: 300mm

P1: PCON **RPCON PSEL** (50mm pitch P3: PMEC increments) **PSEP**

N : None P : 1m S : 3m M : 5m

Option

X 🗆 🗆 : Custom Length



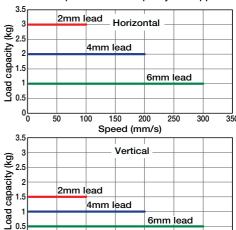
Technical References



- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity
- (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for 2mm-lead model, or when used vertically).
 These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)	Max. Load Horizontal (kg)		Maximum Push Force (N)	Stroke (mm)
RCP3-SA3C-I-28P-6-①-②-③-④	6	1	0.5	15	
RCP3-SA3C-I-28P-4-①-②-③-④	4	2	1	22	50~300 (50mm increments)
RCP3-SA3C-I-28P-2-①-②-③-④	2	3	1.5	44	increments
Legend Stroke Compatible controller Cable length	4 Option	ıs			

 $50\sim300$ (50mm incremen 6 300

Stroke and Maximum Speed

Speed (mm/s)

4 200 2 100 (Unit: mm/s)

1	Stroke	List

Stroke (mm)	Standard Price		
	With cover (standard)	No cover (Option)	
50	_	_	
100	_	_	
150	_	-	
200	-	-	
250	-	-	
300	_	_	

Туре	Cable Symbol	Standard Price
Standard	P (1m)	-
(Robot Cables)	S (3m)	-
	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	_
	X16 (16m) ~ X20 (20m)	_

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

④ Option List			
Name	Option Code	See Page	Standard Price
Brake-Equipped	В	→ A-25	_
Cable Exit Direction (Top)	CJT	→ A-25	_
Cable Exit Direction (Right)	CJR	→ A-25	_
Cable Exit Direction (Left)	CJL	→ A-25	_
Cable Exit Direction (Bottom)	CJB	→ A-25	_
No Cover	NCO	→ A-33	_
Reversed-home	NM	→ A-33	_

Actuator Specifications					
Item	Description				
Drive System	Ball screw Ø6mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Base	Material: Aluminum (special alumite treated)				
Allowable Static Moment	Ma: 5.0N·m Mb: 7.1N·m Mc: 7.9 N·m				
Allowable Dynamic Moment(*)	Ma: 1.96N·m Mb: 2.84N·m Mc: 3.14N·m				
Overhang Load Length	100mm or less				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)				

(*) Based on 5,000km travel life.

Directions of Allowable Load Moment









Standar

Standar

Standar

Standar

Standar

Rod
Type

Mini

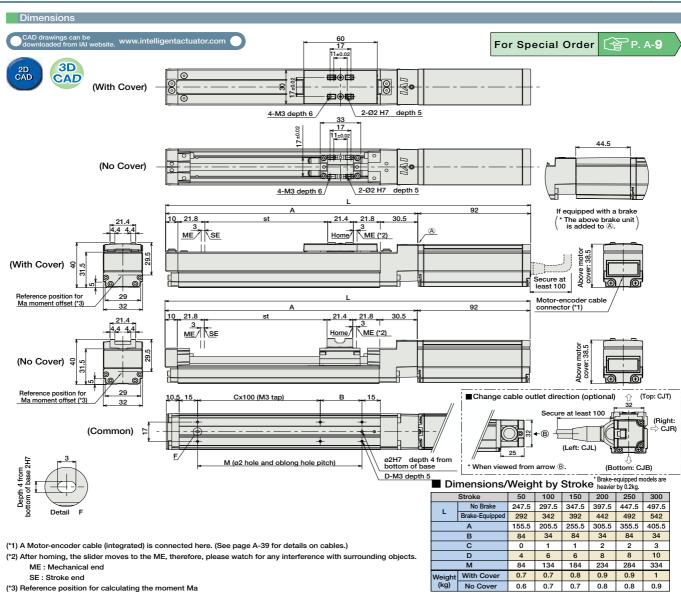
Standar

Standar

Table/Arr

//Flat Type

Splash-Fr
Controlle
PMEC
/AMEC
PSEP
ROBO
NET
ERC2
PCON
ACON
SCON
PSEL
ASEL
XSEL



		2	Compat	ible C	ontroll	ers
--	--	---	--------	--------	---------	-----

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page			
Solenoid Valve Type	113	PMEC-C-28PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477			
soletiola valve type	1	PSEP-C-28PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				-	→ P487		
Splash-Proof Solenoid Valve Type	1	PSEP-CW-28PI-NP-2-0	No homing necessary with simple absolute type.				-	7 1407			
Positioner Type	E	PCON-C-28PI-NP-2-0	Positioning is possible for up to	512 points	512 points	512 points	512 points			-	
Safety-Compliant Positioner Type		PCON-CG-28PI-NP-2-0	512 points	orz points		2A Max.	-				
ulse Train Input Type Differential Line Driver)		PCON-PL-28PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V		-	→ P525			
ulse Train Input Type (Open Collector)		PCON-PO-28PI-NP-2-0	Pulse train input type with open collector support	64 points	,		-				
Serial communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication				-				
Field Network Type		RPCON-28P	Dedicated to field network	768 points			-	→ P503			
rogram Control Type		PSEL-C-1-28PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points			-	→ P557			

 $^{^{\}star}$ (1) is a placeholder for the power supply voltage (1: 100V / 2: 100 $^{\sim}$ 240V).



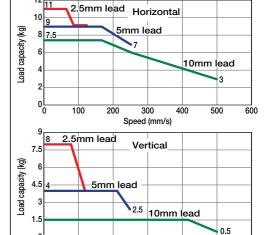
Technical References

- (1) Since the RCP3 series use a pulse motor, a load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for 2.5 mm-lead model, or when used vertically).

The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-50.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)		d Capacity Vertical (kg)	Maximum Push Force (N)	Stroke (mm)
RCP3-SA4C-I-35P-10-①-②-③-④	10	~ 7.5	∼ 1.5	34	
RCP3-SA4C-I-35P-5-①-②-③-④	5	~ 9	~ 4	68	50~500 (50mm increments)
RCP3-SA4C-I-35P-2.5-①-②-③-④	2.5	~ 11	~ 8	136	increments
Legend ① Stroke ② Compatible controller ③ Cable length	4 Option	ıs			

Stroke and Maximum Speed

Stroke	$50\sim 500$ (50mm increments)
10	500
5	250
2.5	125
	(Unit: mm/s)

300

Speed (mm/s)

600

① Stroke List

Stroke (mm)	Standard Price					
Stroke (IIIII)	With cover (standard)	No cover (Option)				
50	-	-				
100	_	_				
150	_	-				
200	-	-				
250	_	_				
300	-	-				
350	_	-				
400	-	-				
450	_	_				
500	_	_				

③ Cable List

Type	Cable Symbol	Standard Price
Standard (Patrice)	P (1m)	-
	S (3m)	-
(Robot Cables)	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	_

^{*} See page A-39 for cables for maintenance.

4 Option List Option Code | See Page | Standard Price Brake-Equipped В → A-25 Cable Exit Direction (Top) CJT → A-25 Cable Exit Direction (Right) CJR A-25 Cable Exit Direction (Left) CJL → A-25 Cable Exit Direction (Bottom) CJB → A-25 No Cover NCO → **A-33** NM Reversed-home → A-33

Actuator Specifications

Item	Description					
Drive System	Ball screw Ø8mm C10 grade					
Positioning Repeatability	±0.02mm					
Lost Motion	0.1mm or less					
Base	Material: Aluminum (special alumite treated)					
Allowable Static Moment	Ma: 6.8N·m Mb: 9.7N·m Mc: 13.3 N·m					
Allowable Dynamic Moment(*)	Ma: 3.04N·m Mb: 4.31N·m Mc: 5.00N·m					
Overhang Load Length	120mm or less					
Ambient Operating Temp./Humidity	0~40°C, 85%RH or less (Non-condensing)					

(*) Based on 5.000km travel life.

Directions of Allowable Load Moment





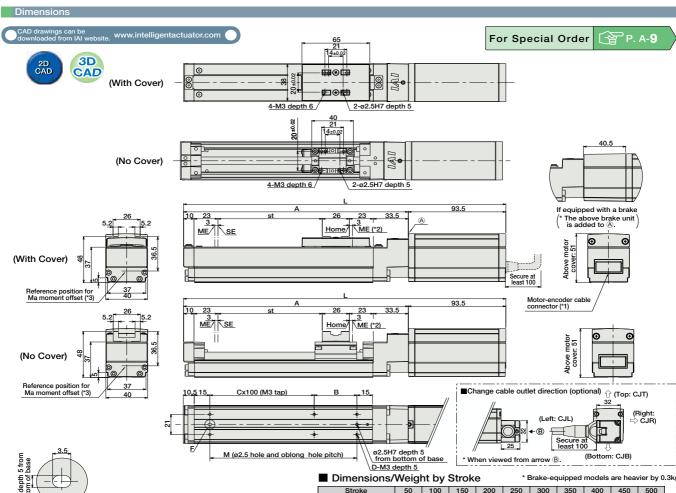


RCP3-SA4C

Stider Type

Mini
Standal
Control integral
Rod
Type
Mini
Standal
Table/Arra
Table/Arra
Mini
Mini

PMEC /AMEC PSEP /ASEP ROBO NET ERC2 PCON ACON SCON SCON SSEL SSEL



(*1) A Motor-encoder cable (integrated) is connected here. (See page A-39 for details on cables.)

(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

ME: Mechanical end

SE : Stroke end

2.5H7 a botton

(*3) Reference position for calculating the moment Ma.

■ Dir	■ Dimensions/Weight by Stroke						* Brake-equipped models are heavier by 0.3				
	Stroke	50	100	150	200	250	300	350	400	450	500
	No Brake	259	309	359	409	459	509	559	609	659	709
_	Brake-Equipped	299.5	349.5	399.5	449.5	499.5	549.5	599.5	649.5	699.5	749.5
	Α	165.5	215.5	265.5	315.5	365.5	415.5	465.5	515.5	565.5	615.5
	В	91	41	91	41	91	41	91	41	91	41
	С	0	1	1	2	2	3	3	4	4	5
	D	4	6	6	8	8	10	10	12	12	14
	М	91	141	191	241	291	341	391	441	491	541
Weight	With Cover	0.9	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
(kg)	No Cover	0.9	0.9	1	1.1	1.2	1.2	1.3	1.4	1.5	1.5

(2)	Com	natik	ole C	ontro	llere

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Pag
Solenoid Valve Type	-	PMEC-C-35PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477
Soleliold valve Type	1	PSEP-C-35PI-NP-2-0-H	Operable with same signal as solenoid valve. Supports both single and double solenoid types.				-	→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-35PI-NP-2-0-H	No homing necessary with simple absolute type.				-	7 P40
Positioner Type	E	PCON-C-35PI-NP-2-0-H	Positioning is possible for up to 512	512 points			-	
Safety-Compliant Positioner Type		PCON-CG-35PI-NP-2-0-H	points				-	
Pulse Train Input Type Differential Line Driver)		PCON-PL-35PI-NP-2-0-H	Pulse train input type with differential line driver support		DC24V	2A Max.	-	→ P52
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0-H	Pulse train input type with open collector support	(-)			-	
Serial Communication Type		PCON-SE-35PI-N-0-0-H	Dedicated to serial communication	64 points			-	
Field Network Type		RPCON-35P-H	Dedicated to field network	768 points			_	→ P50
Program Control Type		PSEL-C-1-35PI-NP-2-0-H	Programmed operation is possible. Can operate up to 2 axes	1500 points			_	→ P5

^{*} This is for the single-axis PSEL.
* ① is a placeholder for the power supply voltage (1: 100V / 2: 100 ~240V).

indard

Rod Type

andard trollers grated

Mini

ary Type ar Servo Type

eanroom Type

ontrollei

PSEF /ASEF

PCON

SCON

ASEL

se Moto

vo Moto (24V

(200V)

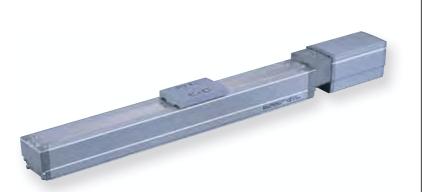
o Motor

RCP3-SA5C

ROBO Cylinder Slider Type 50mm Width Pulse Motor Coupled

 \blacksquare Configuration: RCP3 - SA5C **42P** Type Encoder Stroke Option N: None P:1m S:3m M:5m I: Incremental * The Simple 42P: Pulse motor 12 : 12mm 50: 50mm P1: PCON 42 🗌 size 6:6mm **RPCON** absolute encode 800: 800mm **PSEL** 3:3mm (50mm pitch P3: PMEC X 🗆 🗆 : Custom Length as "I".

* See page Pre-35 for explanation of each code that make up the configuration name increments) PSEP



Technical References



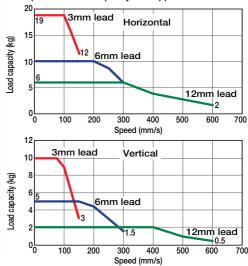
Notes on Selection

- Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for 3mm-lead model, or when used vertically).

The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-50.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)	Max. Loa Horizontal (kg)		Maximum Push Force (N)	Stroke (mm)
RCP3-SA5C-I-42P-12-①-②-③-④	12	~ 6	~ 2	47	
RCP3-SA5C-I-42P-6-①-②-③-④	6	~10	~ 5	95	50~800 (50mm increments)
RCP3-SA5C-I-42P-3-①-②-③-④	3	~ 19	~ 10	189	increments)
Legend	4 Opt	ions			

■ Stroke and Maximum Speed

Otroke and Maximum opeed									
Stroke	$50\sim550$ (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)			
12	600	570	490	425	370	330			
6	300	285	245	210	185	165			
3	150	140	120	105	90	80			
	(Unit: mm/s)								

Stro	ske	ist

Stroke (mm)	Standard Price				
Stroke (IIIII)	With cover (standard)	No cover (Option)			
50	-	-			
100	_	_			
150	_	_			
200	-	_			
250	_	_			
300	_	-			
350	_	_			
400	_	_			
450	_	_			
500	_	_			
550	_	_			
600	_	_			
650	_	_			
700	_	-			
750	_	-			
800	_	_			

	4	0	ption List
--	---	---	------------

3				
Name	Option Code	See Page	Standard Price	
Brake-Equipped	В	→ A-25	-	
Cable Exit Direction (Top)	CJT	→ A-25	-	
Cable Exit Direction (Right)	CJR	→ A-25	-	
Cable Exit Direction (Left)	CJL	→ A-25	-	
Cable Exit Direction (Bottom)	CJB	→ A-25	_	
No Cover	NCO	→ A-33	_	
Reversed-home	NM	→ A-33	_	

© 5ab.5 <u>1.</u> 5	•	
Туре	Cable Symbol	Standard Price
Standard (Robot Cables)	P (1m)	_
	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	=

^{*} See page A-39 for cables for maintenance.

Actuator Specifications

Item	Description	
Drive System	Ball screw Ø10mm C10 grade	
Positioning Repeatability	±0.02mm	
Lost Motion	0.1mm or less	
Base	Material: Aluminum (special alumite treated)	
Allowable Static Moment	Ma: 10.2N·m Mb: 14.6N·m Mc: 22.4N·m	
Allowable Dynamic Moment(*)	Ma: 3.92N·m Mb: 5.58N·m Mc: 8.53N·m	
Overhang Load Length	130mm or less	
Ambient Operating Temp./Humidity	ty 0~40°C, 85% RH or less (non-condensing)	

(*) Based on 5,000km travel life.

Directions of Allowable Load Moment











Mini

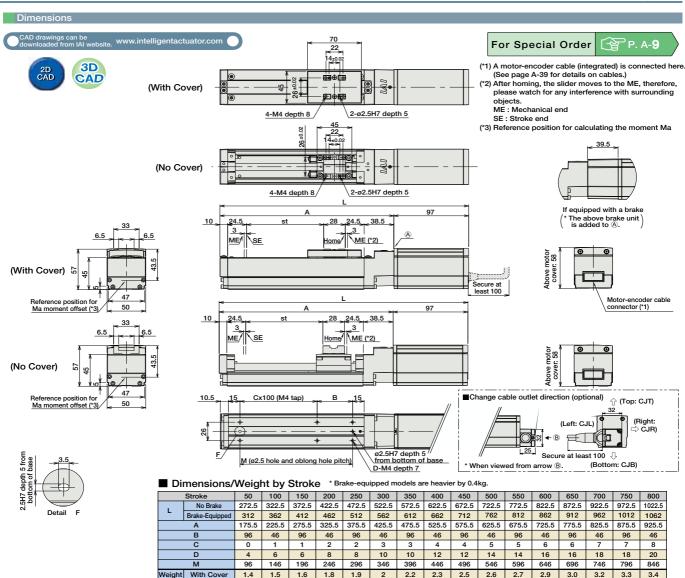
Mini Standar

Control Integra Table/Arr Flat Typ

Standa

PMEC /AMEC PSEP /ASEP ROBO NET ERC2 PCON

SCON PSEL



2 Compatible Controllers The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage AC100V PMEC-C-42PI-NP-2-① See P481 → P477 Solenoid Valve Type Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. i 3 points PSEP-C-42PI-NP-2-0-H → P487 PSEP-CW-42PI-NP-2-0-H Positioner Type PCON-C-42PI-NP-2-0-H Positioning is possible for up to 512 points 512 points Safety-Compliant Positioner Type PCON-CG-42PI-NP-2-0-H Pulse train input type with differential line driver support PCON-PL-42PI-NP-2-0-H DC24V 2A Max → P525 (-) Pulse Train Input Type (Open Collector) Pulse train input type with open collector support PCON-PO-42PI-NP-2-0-H Dedicated to serial communication Serial Communication Type PCON-SE-42PI-N-0-0-H 64 points Field Network Type RPCON-42P-H Dedicated to field network 768 points _ → P503 Program Control Type Programmed operation is possible Can operate up to 2 axes PSEL-C-1-42PI-NP-2-0-H 1500 points → P557 * This is for the single-axis PSEL.

1.6 1.7

1.8 2 2.1

2.2 2.3 2.4 2.5

2.6 2.8

2.9 3.0

(kg) No Cover

1.3 1.4 1.5

 * (1) is a placeholder for the power supply voltage (1: 100V / 2: 100 $^{\sim}$ 240V).

andard

Rod

andard trollers grated

Mini andard

ary Type ar Servo Type

anroon Typ

ntrollers

PSEP /ASEP ROBO NET

PCON

SCON

SSEL

se Moto

(24V

(200V)

o Motor

RCP3-SA6C

DBO Cylinder Slider Type 60mm Width Pulse Motor Coupled

 \blacksquare Configuration: RCP3 - SA6C **42P** Motor Type Encode Stroke Option N: None P:1m S:3m M:5m 42P: Pulse motor 12 : 12mm 50: 50mm P1: PCON I: Incremental
* The Simple 42 🗌 size 6:6mm **RPCON** absolute encode 800: 800mm **PSEL** 3:3mm (50mm pitch P3: PMEC X 🗆 🗆 : Custom Length * See page Pre-35 for explanation of each code that make up to increments) **PSEP**



Technical References



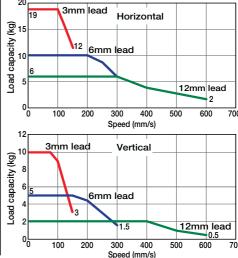
When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.
Use the actuator specification table below to check the maximum speed at the stroke you desire.
 Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for 3mm lead model and when using vertically). The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-50.

Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)	Max. Load Horizontal (kg)		Maximum Push Force (N)	Stroke (mm)
RCP3-SA6C-I-42P-12-①-②-③-④	12	~ 6	~ 2	47	
RCP3-SA6C-I-42P-6-①-②-③-④	6	~ 10	~ 5	95	50~800 (50mm increments)
RCP3-SA6C-I-42P-3-①-②-③-④	3	~ 19	~10	189	increments)
Legend ①Stroke ②Compatible controller ③Cable length ④Options					

■ Stroke and Maximum Speed

	- otroko ara maximam opeca					
Stroke Lead	$50\sim550$ (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	570	490	425	370	330
6	300	285	245	210	185	165
3	150	140	120	105	90	80
					(Unit:	mm/s)

Stro	ke	List	

Stroke (mm)	Standa	rd Price
Stroke (mm)	With cover (standard)	No cover (Option)
50	_	-
100	ı	-
150	ı	-
200	ı	ı
250	ı	1
300	ı	-
350	-	-
400	-	-
450	ı	-
500	-	-
550	-	-
600	-	_
650	-	-
700	-	-
750	_	-
800	- 1	_

④ Option List

Name	Option Code	See Page	Standard Price
Brake-Equipped	В	→ A-25	_
Cable Exit Direction (Top)	CJT	→ A-25	_
Cable Exit Direction (Right)	CJR	→ A-25	_
Cable Exit Direction (Left)	CJL	→ A-25	_
Cable Exit Direction (Bottom)	CJB	→ A-25	_
No Cover	NCO	→ A-33	_
Reversed-home	NM	→ A-33	_

③ Cable List

© 043.0 E.01		
Туре	Cable Symbol	Standard Price
Standard (Robot Cables)	P (1m)	_
	S (3m)	_
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-

^{*} See page A-39 for cables for maintenance.

Actuator Specifications

Item	Description		
Drive System	Ball screw Ø10mm C10 grade		
Positioning Repeatability	±0.02mm		
Lost Motion	0.1mm or less		
Base	Material: Aluminum (special alumite treated)		
Allowable Static Moment	Ma: 17.6N·m Mb: 25.2N·m Mc: 44.5N·m		
Allowable Dynamic Moment(*)	Ma: 4.31N·m Mb: 6.17N·m Mc: 10.98N·m		
Overhang Load Length	150mm or less		
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)		

(*) Based on 5,000km travel life.

Directions of Allowable Load Moment







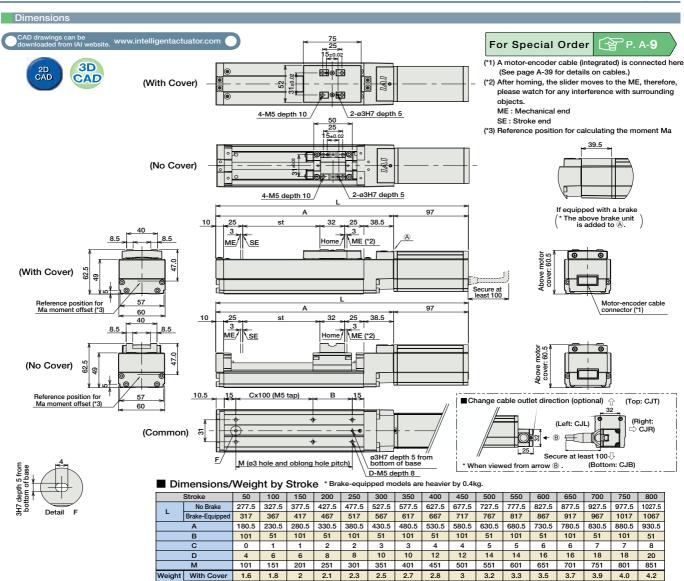
Mini

Standar
Control
Integrat
Rod
Type
Mini
Standar
Control
Integrat
Table/Arr
Flat Type

Mini

Standar Gripper/ Rotary Ty

PMEC /AMEC PSEP / ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL



Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Pag
Solenoid Valve Type		PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P47
Soleriold valve Type	1	PSEP-C-42PI-NP-2-0-H	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			-	→ P48
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0-H	No homing necessary with simple absolute type.				-	→ Р48
Positioner Type	E	PCON-C-42PI-NP-2-0-H	Positioning is possible for up to 512	512 points			-	
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0-H	points	orz points			-	
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0-H	Pulse train input type with differential line driver support	(-)	DC24V	2A Max.	_	→ P52
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0-H	Pulse train input type with open collector support	(=)			-	
Serial Communication Type		PCON-SE-42PI-N-0-0-H	Dedicated to serial communication	64 points			-	
Field Network Type		RPCON-42P-H	Dedicated to field network	768 points			_	→ P50

1.7

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

PSEL-C-1-42PI-NP-2-0-H

2 Compatible Controllers

Program Control Type

1.8

2.1

2.3 2.4

2.7

1500 points

Programmed operation is possible Can operate up to 2 axes

→ P557

3.3 3.4

^{*} This is for the single-axis PSEL.

* ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).

Type

lacktriangle Configuration: RCP3 - SA2AR -

* See page Pre-35 for explanation of each code that make up th

-SA2AR ROBO Cylinder Mini Slider Type Side-Mounted Motor Unit 22mm Width Pulse Motor Lead Screw

20P

Encoder Motor I: Incremental * The Simple absolute encode

20P: Pulse motor 4S: 4mm lead screw 20 🗌 size 2S: 2mm lead screw 1S:1mm lead screw

Lead

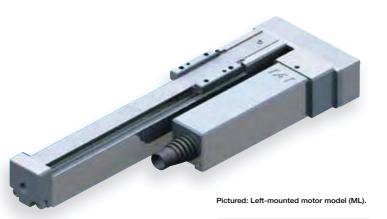
Stroke 25: 25mm 100: 100mm (25mm pitch

increments)

P1: PCON **RPCON PSEL** P3: PMEC

Cable Length N: None P:1m S:3m M:5m X 🗆 🗆 : Custom Length **PSEP**

Option See Options below Be sure to specify which side the motor is to be mounted (ML/MR).



Technical References

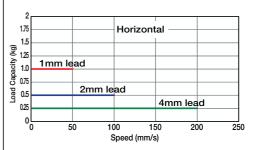




- (1) The load capacity is based on operation at an acceleration of 0.2G. This the upper limit for the acceleration.
- (2) The actuator cannot be used on its side or in a vertical orientation.
- (3) If used in a dusty environment, the service life will decrease significantly.
- (4) This model uses a lead screw, therefore please ensure that your usage is appropriate for its characteristics. (See page Pre-42.)

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model			Leau			Repeatability	SHOKE	
	iviodel		(mm)	Horizontal (kg)	Vertical (kg)	(mm)	(mm)	
	RCP3-SA2AR-I-20P-4S-①-②-③-④		4	0.25	-		05 100	
	RCP3-SA2AR-I-20P-2S-①-②-③-④	Lead screw	2	0.5	-	±0.05	25~100 (25mm increments)	
	RCP3-SA2AR-I-20P-1S-①-②-③-④		1	1	-		increments)	
	Legend ①Stroke ②Compatible controller ③Cable length ④Options							

Stroke and Maximum Speed								
Stroke Lead		25 (mm)	50 ~ 100 (mm)					
ew	4	180	200					
ead screw	2	10	00					
ĕ			_					

(Unit: mm/s)

① Stroke List

Stroke (mm)	Standard Price
25	=
50	=
75	=
100	_

③ Cable List

Туре	Cable Symbol	Standard Price
Standard	P (1m)	-
	S (3m)	-
(Robot Cables)	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-

- * The standard cable for the RCP3 is the robot cable.
- * See page A-39 for cables for maintenance.

\ \ \	$\overline{}$	- A1		п	- 4	
, ,	u	ОШ	on	13	ISι	

Name	Option Code	See Page	Standard Price
Left-mounted motor (Standard)	ML	→ A-33	_
Right-mounted motor	MR	→ A-33	_
Reversed-home	NM	→ A-33	_

Actuator Specifications

Item	Description
Drive System	Lead screw Ø4mm C10 grade
Lost Motion	0.3mm or less (initial value)
Base	Material: Aluminum (white alumite treated)
Guide	Slide guide
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)
Service Life	10 million cycles

Slider Type

Mini

Standar

Controlle
Integrate

Mini

Standar

Standar

Splash-P

Controlle

PMEC
/AMEC
/AME

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

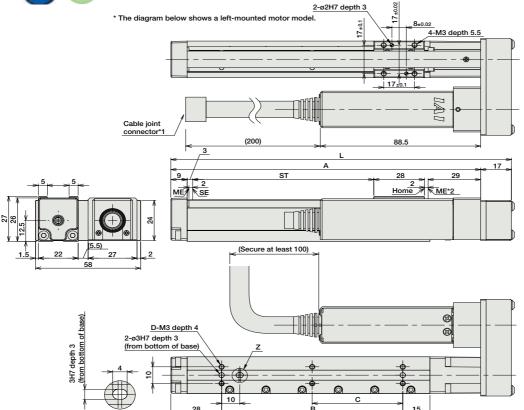
For Special Orders (译 A-9



Dimensions



- *1 A motor-encoder cable is connected here. See page A-39 for details on cables.
- *2 During the homing operation, the slider moves to actuator's mechanical end; therefore, please watch for any interference with the surrounding objects.





ST : Stroke ME: Mechanical end SE: Stroke end

■ Dimensions/Weight by Stroke

- Dillicitor	■ Difficusions/ Weight by Stroke						
Stroke	25	50	75	100			
L	113	138	163	188			
Α	96	121	146	171			
В	25	50	75	100			
С	0	0	0	50			
D	4	4	4	6			
Weight (kg)	0.28	0.3	0.32	0.33			

② Compatible Controllers

Details of Z

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page			
Solenoid Valve Type		PMEC-C-20PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477			
Solellold valve Type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			_	→ P487			
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.				_	→ P407			
Positioner Type	E	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512	512 points	512 points	512 points	512 points			_	
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0			-						
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	DC24V 2A Max.	_	→ P525			
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	. (-)			_				
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points			-				
Field Network Type		RPCON-20P	Dedicated to field network	768 points			_	→ P503			
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points			-	→ P557			

^{*} This is for the single-axis PSEL.

* ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).

* See page Pre-35 for explanation of each code that make up th

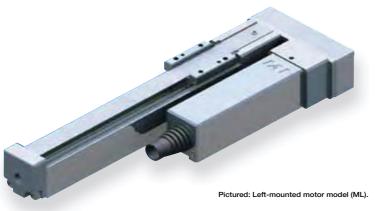
SA2BR ROBO Cylinder Mini Slider Type Side-Mounted Motor Unit 28mm Width Pulse Motor Lead Screw \blacksquare Configuration: RCP3 - SA2BR **20P** Motor Type Encoder Lead Stroke Option N: None P:1m S:3m M:5m P1: PCON 20P: Pulse motor 6S: 4mm lead screw 25: 25mm ee Options below I: Incremental * The Simple 4S: 4mm lead screw **RPCON** * Be sure to specify which side the motor absolute encode 2S: 2mm lead screw 150: 150mm **PSEL** is to be mounted (ML/MR).

(25mm pitch

increments)

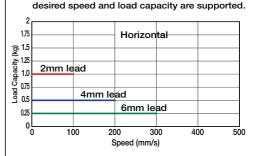
P3: PMEC

PSEP



Speed vs. Load Capacity Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your

X 🗆 🗆 : Custom Length



Technical References





- (1) The load capacity is based on operation at an acceleration of 0.2G. This the upper limit for the acceleration.
- (2) The actuator cannot be used on its side or in a vertical orientation.
- (3) If used in a dusty environment, the service life will decrease significantly.
- (4) This model uses a lead screw, therefore please ensure that your usage is appropriate for its characteristics. (See page Pre-42.)

Actuator Specifications						
■ Lead and Load Capacity						
Model	Feed Screw	Lead	Max. Load	d Capacity	Positioning	Stroke
Wiodei		(mm)	Horizontal (kg)	Vertical (kg)	Repeatability (mm)	(mm)
RCP3-SA2BR-I-20P-6S-1 - 2 - 3 - 4		6	0.25	-		
RCP3-SA2BR-I-20P-4S-1 - 2 - 3 - 4	Lead	4	0.5	-	±0.05	25~150 (25mm

- otrotto ana maximam opoca						
Stroke Lead		25 (mm)	50 (mm)	75~150 (mm)		
ew	6	180	280	300		
Lead screw	4	180	20	00		
Ľ	2		100			
(Unit: mm/s						

Stroke and Maximum Speed

① Stroke List		
Stroke (mm)	Standard Price	
25	-	
50	=	
75	-	
100	=	
125	=	
150	_	

Legend ①Stroke ②Compatible controller ③Cable length ④Options

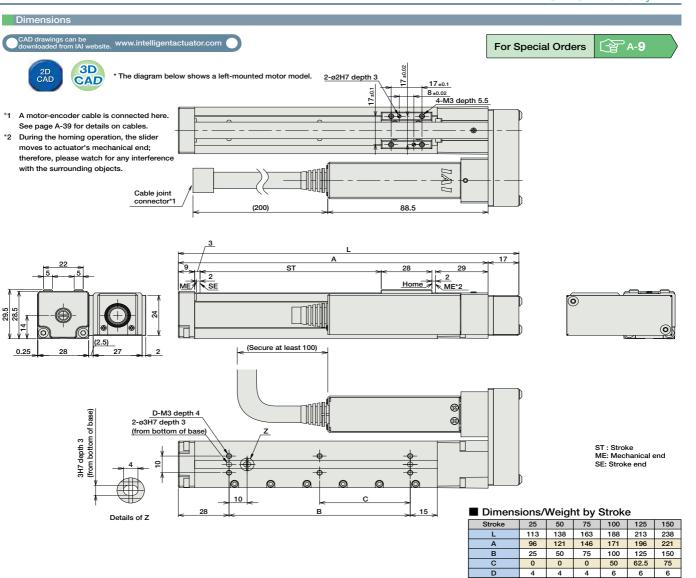
RCP3-SA2BR-I-20P-2S-1 - 2 - 3 - 4

© Cable List		
Туре	Cable Symbol	Standard Price
Standard (Robot Cables)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-

- * The standard cable for the RCP3 is the robot cable.
- * See page A-39 for cables for maintenance.

④ Option List			
Name	Option Code	See Page	Standard Price
Left-Mounted Motor (Standard)	ML	→ A-33	_
Right-Mounted Motor	MR	→ A-33	_
Reversed-home	NM	→ A-33	_

Actuator Specifications		
Item	Description	
Drive System	Lead screw ø6mm C10 grade	
Lost Motion	0.3mm or less (initial value)	
Base	Material: Aluminum (white alumite treated)	
Guide	Slide guide	
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)	
Service Life	10 million cycles	



		,	llers below. Select the controller ac					_
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	Se Pa
Solenoid Valve Type		PMEC-C-20PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P
Solenoid valve Type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			-	→ P
Splash-Proof Solenoid Valve Type	FI.	PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.				-	, r=0/
Positioner Type	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512	512 points			-		
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	points	312 points			-	
Pulse Train Input Type Differential Line Driver)	O)	PCON-PL-20PI-NP-2-0	0PI-NP-2-0 Pulse train input type with differential line driver support		DC24V	2A Max.	-	→ [
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(-)			-	
Serial Communication Type	1	PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points			_	
Field Network Type		RPCON-20P	Dedicated to field network	768 points			-	→ [
Program Control Type	8	PSEL-C-1-20PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points			-	→ [

Weight (kg) 0.32 0.34 0.37 0.39 0.42 0.46

Splash-P

Controlle

PMEC
/AMEC
PSEP
/ASEP
ROBO
NET

ERC2

PCON

ACON

SCON

PSEL

ASEL

XSEL

ROBO Cylinder Slider Type 32mm Width Pulse Motor Side-Mounted Moto

 \blacksquare Configuration: RCP3 - SA3R **28P** Motor Type Encode Stroke Cable Length Option N : None P : 1m S : 3m M : 5m See Options below : Pulse motor 6 : 4mm 50: 50mm P1: PCON I: Incremental * The Simple 4:4mm **RPCON** Be sure to specify which side the motor absolute encode 300: 300mm **PSEL** 2:2mm * See page Pre-35 for explanation of each code that make up the configura is to be mounted (ML/MR). (50mm pitch P3: PMEC X \square : Custom Length increments) PSEP



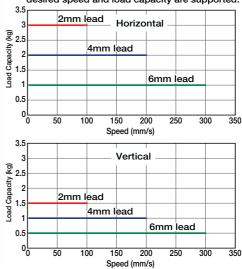
Technical References **△** A-**5**



- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

	Lead and Load Capacity					
	Model		Max. Load Capacity		Maximum	Stroke
			Horizontal (kg)	Vertical (kg)	Push Force (N)	(mm)
	RCP3-SA3R-I-28P-6-①-②-③-④	6	1	0.5	15	F0 200
	RCP3-SA3R-I-28P-4-①-②-③-④	4	2	1	22	50~300 (50mm increments)
	RCP3-SA3R-I-28P-2-1 - 2 - 3 - 4	2	3	1.5	44	increments)
i	Legend Stroke Compatible controller Cable length	4 Option	s			

Stroke and Maximum Speed

Stroke	$50\sim300$ (50mm increments)
6	300
4	200
2	100
	(Unit: mm/s)

1	Stro	ke	List

Stroke (mm)	Standard Price		
Stroke (IIIII)	With cover (standard)	No cover (Option)	
50	_	_	
100	-	-	
150	1	-	
200	-	-	
250	-	-	
300	_	_	

③ Cable List

Туре	Cable Symbol	Standard Price
Standard (Robot Cables)	P (1m)	-
	S (3m)	-
	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	Standard Price
Brake-Equipped	В	→ A-25	_
Cable Exit Direction (Top)	CJT	→ A-25	_
Cable Exit Direction (Outside)	CJO	→ A-25	_
Cable Exit Direction (Bottom)	CJB	→ A-25	_
Left-Mounted Motor (Standard)	ML	→ A-33	_
Right-Mounted Motor	MR	→ A-33	_
No Cover	NCO	→ A-33	_
Reversed-home	NM	→ A-33	ı

Actuator Specifications		
Item	Description	
Drive System	Ball screw Ø6mm C10 grade	
Positioning Repeatability	±0.02mm	
Lost Motion	0.1mm or less	
Base	Material: Aluminum (special alumite treated)	
Allowable Static Load Moment	Ma: 5.0N·m Mb: 7.1N·m Mc: 7.9N·m	
Allowable Dynamic Load Moment	Ma: 1.96N·m Mb: 2.84N·m Mc: 3.14N·m	
Overhang Load Length	100mm or less	
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)	





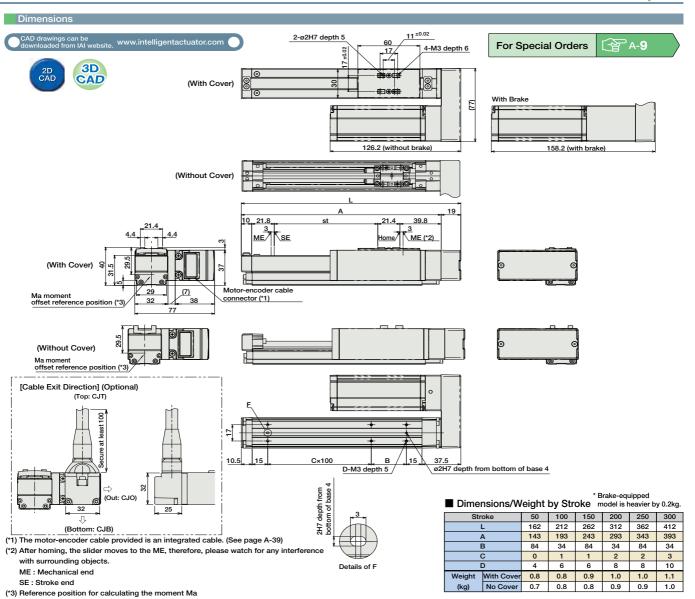


5,000 km service life

Stider Type

Mini
Standal
Control integral
Rod
Type
Mini
Standal
Table/Arra
Table/Arra
Mini
Mini

PMEC (AMEC PSEP / ASEP PROBA NET ERC2 PCON ACON PSEL ASEL XSEL XSEL



2 Compatible Controllers

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page			
Solenoid Valve Type		PMEC-C-28PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477			
odenoid valve type	1	PSEP-C-28PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	single and			-	→ P487			
Splash-Proof Solenoid Valve Type	1	PSEP-CW-28PI-NP-2-0	No homing necessary with simple absolute type.				-	→ P487			
Positioner Type	E	PCON-C-28PI-NP-2-0	Positioning is possible for up to 512	512 points					-		
Safety-Compliant Positioner Type		PCON-CG-28PI-NP-2-0	points	312 points			-				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-28PI-NP-2-0	Pulse train input type with differential line driver support	(-)	(-)	(-)	(-)	DC24V	2A Max.	-	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-NP-2-0	Pulse train input type with open collector support						-		
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication	64 points					-		
Field Network Type		RPCON-28P	Dedicated to field network	768 points			-	→ P503			
Program Control Type	ā	PSEL-C-1-28PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P557			

^{*} This is for the single-axis PSEL. * ① is a placeholder for the power supply voltage (1: 100V / 2: 100 \sim 240V).

ndard

Rod Type

andard trollers

Flat Type

Gripper tary Type

anroon Type

introllers

/AMEC PSEP /ASEP

ERC2

ACON

ASEL

se Motor

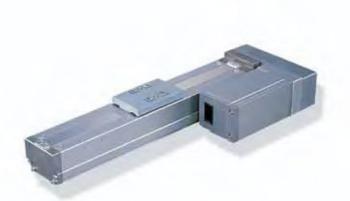
vo Motor

(200V)

o Motor

OBO Cylinder Slider Type 40mm Width Pulse Motor Side-Mounted Motor

 \blacksquare Configuration: RCP3 - SA4R 35P Motor Type Encode Stroke Cable Length Option N : None P : 1m S : 3m M : 5m See Options below : Pulse moto 10 : 10mm 50: 50mm P1: PCON I: Incremental * The Simple 35 □ size 5 : 5mm **RPCON** Be sure to specify which side the motor absolute encode 2.5 : 2.5mm 500: 500mm **PSEL** is to be mounted (ML/MR). (50mm pitch P3: PMEC X \square : Custom Length * See page Pre-35 for explanation of each code that make up th increments) PSEP



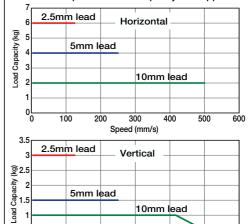
Technical References ② A-**5**

(1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds.
Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used vertically).
These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead	Max. Load		Maximum	Stroke
	(mm)	Horizontal (kg)	Vertical (kg)	Push Force (N)	(mm)
RCP3-SA4R-I-35P-10-①-②-③-④	10	2	~ 1	34	E0 E00
RCP3-SA4R-I-35P-5-①-②-③-④	5	4	1.5	68	50~500 (50mm increments)
RCP3-SA4R-I-35P-2.5-①-②-③-④	2.5	6	3	136	increments)
Legend ①Stroke ②Compatible controller ③Cable length	4 Option	ıs			

■ Stroke and Maximum Speed

200

Stroke	$50\sim500$ (50mm increments)
10	500
5	250
2.5	125
	(Unit: mm/s)

300 Speed (mm/s) 500

600

400

1	Stro	ke	List

a	Standard Price				
Stroke (mm)	With cover (standard)	No cover (Option)			
50	_	-			
100	-	-			
150	1	-			
200	-	-			
250	1	_			
300	1	_			
350	1	_			
400	ı	_			
450	ı	_			
500	_	_			

③ Cable List

0.5

100

Туре	Cable Symbol	Standard Price
Standard	P (1m)	-
	S (3m)	-
(Robot Cables)	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	_
	X16 (16m) ~ X20 (20m)	_

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

④ Option List			
Name	Option Code	See Page	Standard Price
Brake-Equipped	В	→ A-25	_
Cable Exit Direction (Top)	CJT	→ A-25	_
Cable Exit Direction (Outside)	CJO	→ A-25	_
Cable Exit Direction (Bottom)	CJB	→ A-25	_
Left-Mounted Motor (Standard)	ML	→ A-33	_
Right-Mounted Motor	MR	→ A-33	-
No Cover	NCO	→ A-33	_

Actuator Specifications	
Item	Description
Drive System	Ball screw Ø8mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Load Moment	Ma: 6.8N·m Mb: 9.7N·m Mc: 13.3N·m
Allowable Dynamic Load Moment	Ma: 3.04N·m Mb: 4.31N·m Mc: 5.00N·m
Overhang Load Length	120mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)







5,000 km service life

Stider Type

Mini

Standar

Control Integral

Mini

Standar

Type

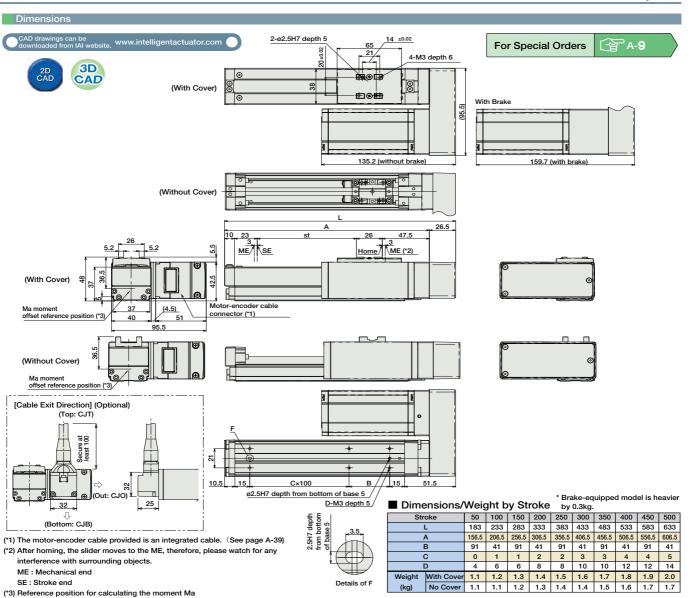
Mini

Standar

Table/Arra

Table/Ar

Splash-Fr
Controlle
PMEC
/AMEC
PSEP
/ASEP
ROBO
NET
ERC2
PCON
ACON
SCON
PSEL
ASEL



2 Compatible Controllers	
--------------------------	--

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page			
Solenoid Valve Type		PMEC-C-35PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477			
	1	PSEP-C-35PI-NP-2-0	Operable with same signal as solenoid valve.	3 points	3 points	3 points		-			
Splash-Proof Solenoid Valve Type	F	PSEP-CW-35PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.				-	→ P487			
Positioner Type	E	PCON-C-35PI-NP-2-0	Positioning is possible for up to 512 points	512 points			-				
Safety-Compliant Positioner Type		PCON-CG-35PI-NP-2-0	Positioning is possible for up to 512 points	312 points			-				
Pulse Train Input Type (Differential Line Driver)	œ.	PCON-PL-35PI-NP-2-0	Pulse train input type with differential line driver support	(-)	(-)	(-)	DC24V	DC24V	2A Max.	-	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0	Pulse train input type with open collector support							-	
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated to serial communication	64 points		-	-				
Field Network Type	EARN	RPCON-35P	Dedicated to field network	768 points			-	→ P503			
Program Control Type		PSEL-C-1-35PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P557			

^{*} This is for the single-axis PSEL.

* ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).

* See page Pre-35 for explanation of each code that make up to

■ Configuration: RCP3 — SA5R Type Encode

Motor 42P: Pulse motor I: Incremental
* The Simple 42 🗌 size absolute encode

Lead 12 :12mm 6: 6mm 3: 3mm

42P

Stroke 50: 50mm 800: 800mm (50mm pitch

increments)

P1: PCON **RPCON PSEL** P3: PMEC

PSEP

N : None P : 1m S : 3m M : 5m X 🗆 🗆 : Custom Length

Cable Length

Option See Options belo * Be sure to specify which side the motor is to be mounted (ML/MR).



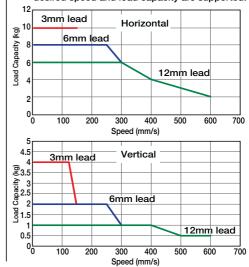
Technical References



- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically).
 These values are the upper limits for the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)	Max. Load Horizontal (kg)		Maximum Push Force (N)	Stroke (mm)
RCP3-SA5R-I-42P-12-①-②-③-④	12	~ 6	~ 1	47	50 000
RCP3-SA5R-I-42P-6-①-②-③-④	6	~ 8	~ 2	95	50~800 (50mm
RCP3-SA5R-I-42P-3-①-②-③-④	3	10	~ 4	189	increments)
Legend Stroke Compatible controller Cable length	4 Option	ıs			

- otrono ana maximam opeca						
Stroke	$50\sim550$ (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	570	490	425	370	330
6	300	285	245	210	185	165
3	150	140	120	105	90	80
					(Unit:	mm/s)

Stroke and Maximum Speed

1	Stroke	List

Stroke (mm)	Standard Price			
Stroke (IIIII)	With cover (standard)	No cover (Option)		
50	-	-		
100	-	_		
150	_	-		
200	-	_		
250	-	-		
300	-	-		
350	_	-		
400	_	-		
450	-	-		
500	-	-		
550	_	-		
600	_	-		
650	_	-		
700	_	-		
750	_	_		
800	_	_		

800 –		_	
Option List			
Name	Option Code	See Page	Standard Price
Brake-Equipped	В	→ A-25	_
Cable Exit Direction (Top)	CJT	→ A-25	_
Cable Exit Direction (Outside)	CJO	→ A-25	_
Cable Exit Direction (Bottom)	CJB	→ A-25	_
Left-Mounted Motor (Standard)	ML	→ A-33	_
Right-Mounted Motor	MR	→ A-33	_
No Cover	NCO	→ A-33	1
Reversed-home	NM	→ A-33	_

③ Cable List

Туре	Cable Symbol	Standard Price
Standard	P (1m)	-
(Robot Cables)	S (3m)	-
	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Actuator Specifications

Item	Description
Drive System	Ball screw Ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Load Moment	Ma: 10.2N·m Mb: 14.6N·m Mc: 8.53N·m
Allowable Dynamic Load Moment	Ma: 3.92N·m Mb: 5.58N·m Mc: 8.53N·m
Overhang Load Length	130mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

Directions of Allowable Load Moment







5,000 km service life

Stider Type

Mini

Standar

Controll Integrat

Mini

Standar

Controll Integrat

Tippe

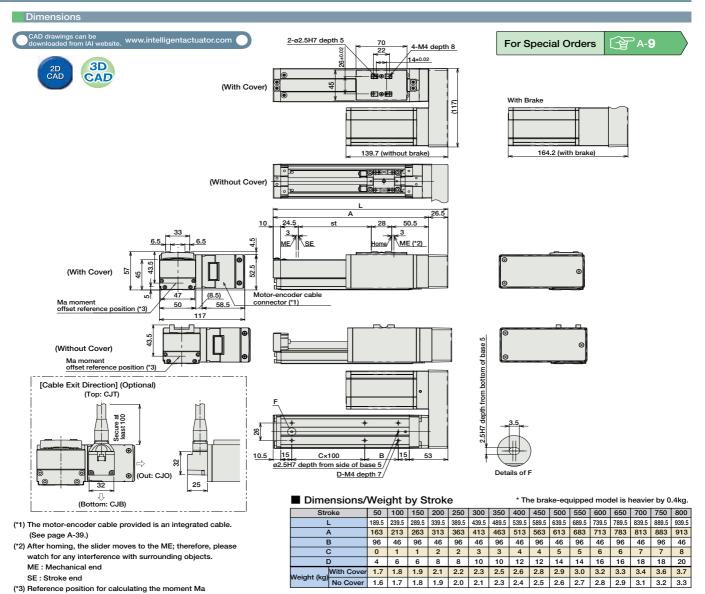
Mini

Standar

Table/Arr

Flat Types

PMEC /AMEC /AMEC /PSEP /ASEP /



2	Com	patible	Controllers	

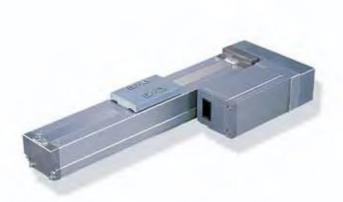
The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type	110	PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477
Sciencia valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			-	→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				ı	→ F467
Positioner Type		PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points			-	
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	r contoning is possible for up to 312 points	012 points			-	
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A Max.	1	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support				_	
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			1	
Field Network Type		RPCON-42P	Dedicated to field network	768 points			_	→ P503
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P557

^{*} This is for the single-axis PSEL.

* ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).





Technical References

Use the actuator specification table below to check the maximum speed at the stroke you desire

(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical

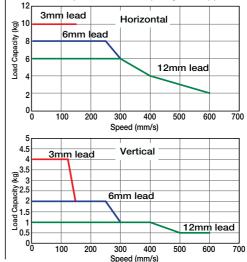
(2) Since the RCP3 series use the pulse motor, the load capacity decreases at high speeds.

Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications I ead and I oad Canacity

	Lead and Load Capacity					
	Model		Max. Load Capacity		Maximum	Stroke
			Horizontal (kg)	Vertical (kg)	Push Force (N)	(mm)
	RCP3-SA6R-I-42P-12-①-②-③-④	12	~ 6	~ 1	47	E0 000
	RCP3-SA6R-I-42P-6-①-②-③-④	6	~ 8	~ 2	95	50~800 (50mm increments)
	RCP3-SA6R-I-42P-3-①-②-③-④	3	10	~ 4	189	increments)
L	egend ① Stroke ② Compatible controller ③ Cable length	4 Option	s			

Stroke and Maximum Speed 50 ~ 550 | 600 | 650 700 | 750 | 800 (mm) 370 330 12 600 570 490 425 6 300 285 245 185 165 150 140 120 105 90 80 (Unit: mm/s)

① Stroke List				
Stroke (mm)	Standa	rd Price		
Stroke (IIIII)	With cover (standard)	No cover (Option)		
50	-	-		
100	-	-		
150	-	-		
200	1	-		
250	-	-		
300	-	-		
350	1	-		
400	-	-		
450	-	-		
500	-	-		
550	-	-		
600	-	-		
650	-	-		
700	_	_		
750	-	-		
800	ı	1		

④ Option List			
Name	Option Code	See Page	Standard Price
Brake-Equipped	В	→ A-25	_
Cable Exit Direction (Top)	CJT	→ A-25	_
Cable Exit Direction (Outside)	CJO	→ A-25	_
Cable Exit Direction (Bottom)	CJB	→ A-25	_
Left-Mounted Motor (Standard)	ML	→ A-33	_
Right-Mounted Motor	MR	→ A-33	_
No Cover	NCO	→ A-33	_
Reversed-home	NM	→ A-33	_

③ Cable List

Туре	Cable Symbol	Standard Price
Standard	P (1m)	-
	S (3m)	-
(Robot Cables)	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	_
	X16 (16m) ~ X20 (20m)	_

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Actuator Specifications

Item	Description
Drive System	Ball screw Ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Load Moment	Ma: 17.6N·m Mb: 25.2N·m Mc: 44.5N·m
Allowable Dynamic Load Moment	Ma: 4.31N·m Mb: 6.17N·m Mc: 10.98N·m
Overhang Load Length	150mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

Directions of Allowable Load Moment







5,000 km service life

Standar

Standar

Control Integral

Mini

Standar

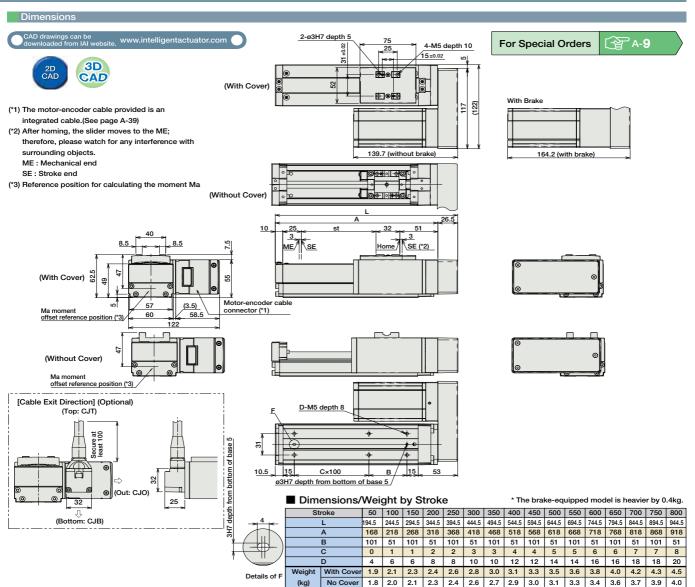
Control Integral

Mini

Standar

Type

Splash-F
Controlle
PMEC
AMEC
PSEP
ROBO
NET
ERC2
PCON
ACON
SCON
SCON
SSEL
XSEL



Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Pag	
Solenoid Valve Type		PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P47	
Solenoid valve lype	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.				-		
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0					-	→ P48	
Positioner Type	E	PCON-C-42PI-NP-2-0 Positioning is possible for up to 512				-			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	points 512 points				-		
Pulse Train Input Type Differential Line Driver)	G)	PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	.,	DC24V	2A Max.	-	→ P52	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support			(-)		-	
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			-		
Field Network Type		RPCON-42P	Dedicated to field network	to field network 768 points			-	→ P50	
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P55	

CP2-SA5C

■ Configuration: RCP2 — SA5C — **42P**

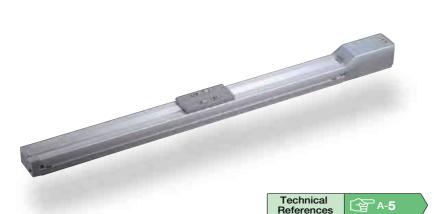
BE: Brake (Cable exiting end)
BL: Brake (Cable exiting left)
BR: Brake (Cable exiting right)
NM: Reversed-home 42P: Pulse motor 12:12mm 50: 50mm RPCON absolute encoder models are labeled as "I". PSEL 3: 3mm 800:800mm

(50mm pitch

increments)

P3:PMEC

PSEP



(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire

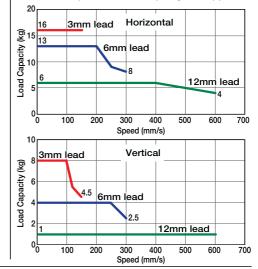
(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

3)The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-53.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

X : Custom Length
R : Robot cable



Actuator Specifications				
■ Lead and Load Capacity (Note 1) Please	note that the maxi	mum load capacity	decreases as the	speed increases
Model	Lead	Max. Load Ca	Stroke	
Model	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SA5C-I-42P-12-①-②-③-④	12	~ 6	1	
RCP2-SA5C-I-42P-6-①-②-③-④	6	~ 13	~ 4	50 ~ 800 (50mm increments)
RCP2-SA5C-I-42P-3-①-②-③-④	3	16	~8	inoromento,
Legend Stroke Compatible controller Cable length	4 Options			

Stroke and Maximum Speed						
Stroke Lead	$50\sim550$ (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	540	460	400	360	300
6	300	270	230	200	180	150
3	150	135	115	100	90	75
					(Unit:	mm/s)

① Stroke List

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

4 Option List			
Name	Option Code	See Page	Standard Price
Brake (Cable-exit end)	BE	→ A-25	_
Brake (Cable exiting left)	BL	→ A-25	_
Brake (Cable exiting right)	BR	→ A-25	_
Reversed-home	NM	→ A-33	_
Slider Roller	SR	→ A-36	_

③ Cable List

Туре	Cable Symbol	Standard Price
	P (1m)	_
Standard	S (3m)	-
	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
	R01 (1m) ~ R03 (3m)	_
	R04 (4m) ~ R05 (5m)	-
Robot Cable	R06 (6m) ~ R10 (10m)	_
	R11 (11m) ~ R15 (15m)	_
	R16 (16m) ~ R20 (20m)	_

^{*} See page A-39 for cables for maintenance.

Actuator Specifications

riotauto. Opocinioanono				
Description				
Ball screw Ø10mm C10 grade				
±0.02mm				
0.1mm or less				
Material: Aluminum (special alumite treated)				
Ma: 18.6 N·m Mb: 26.6 N·m Mc: 47.5 N·m				
Ma: 4.9 N·m Mb: 6.8 N·m Mc: 11.7 N·m				
Ma direction: 150mm or less; Mb·Mc direction: 150mm or less				
0~40°C, 85% RH or less (Non-condensing)				

(*) Based on 5,000km travel life. **Directions of Allowable Load Moments**







27 RCP2-SA5C







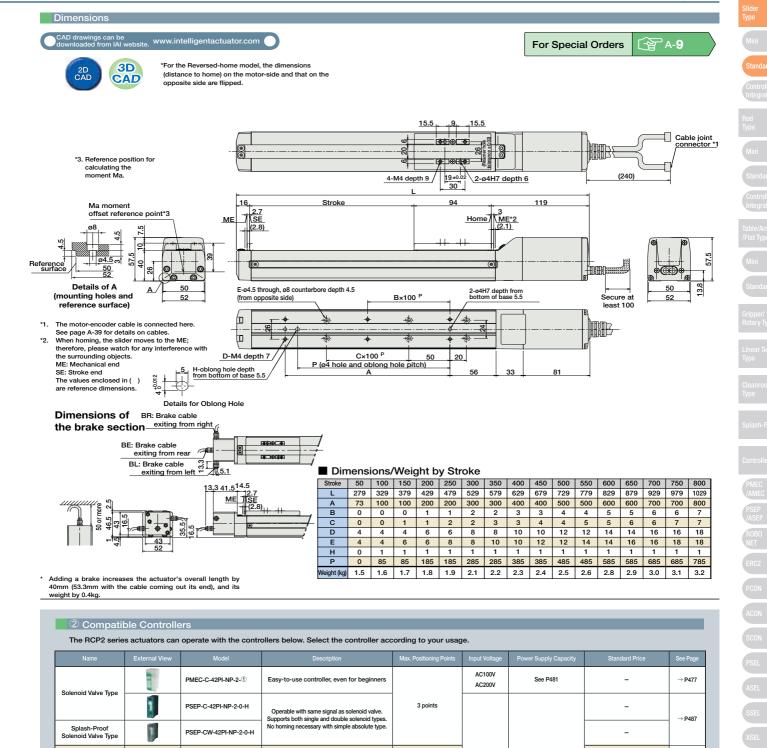
For Special Orders







*For the Reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.



Adding a brake increases the actuator's overall length by 40mm (53.3mm with the cable coming out its end), and its weight by 0.4kg.

② Compatible Controllers	
--------------------------	--

Name	The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage. Name External View Model Description Max. Positioning Points Input Voltage Power Supply Capacity Standard Price See Page								
	External view	PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477	
Solenoid Valve Type		PSEP-C-42PI-NP-2-0-H	Operable with same signal as solenoid valve.		3 points		-	→ P487	
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0-H	No homing necessary with simple absolute type.	oports both single and double solenoid types. homing necessary with simple absolute type.			-		
Positioner Type		PCON-C-42PI-NP-2-0-H	Positioning is possible for up to 512 points 512 points				-		
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0-H	rositioning is possible for up to 312 points	OTE POINTS			-		
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0-H Pulse to	Pulse train input type with differential line driver support		DC24V	2A max.	-	→ P52	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0-H	Pulse train input type with open collector support	(-)				-	
Serial Communication Type		PCON-SE-42PI-N-0-0-H	Dedicated to serial communication	64 points			-		
Field Network Type		RPCON-42P-H	Dedicated to field network	768 points			-	→ P50	
Program Control Type		PSEL-C-1-42PI-NP-2-0-H	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P55	

* This is for the single-axis PSEL.

Weight (kg) 1.5 1.6 1.7 1.8 1.9 2.1 2.2 2.3 2.4 2.5 2.6 2.8 2.9 3.0 3.1 3.2

^{*} ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).

 ${
m CP2 ext{-}SA6C}$ ROBO Cylinder Slider Type 58mm Width Pulse Motor Straight Type Coupled

■ Configuration: RCP2 — SA6C — **42P**

3: 3mm

N : None P : 1m S : 3m M : 5m 12:12mm 50: 50mm BL: Brake (Cable exiting left)
BR: Brake (Cable exiting right)
NM: Reversed-home RPCON absolute encode

800:800mm

(50mm pitch

models are labeled as "I".



Technical References

(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.

Use the actuator specification table below to check the maximum speed at the stroke you desire.

Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-53.

Speed vs. Load Capacity

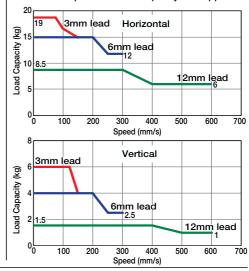
PSEL

P3:PMEC

PSEP

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

X : Custom Length SR : Slider Roller R : Robot cable



Actuator Specifications Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases. Max. Load Capacity (Note 1) Lead

Stroke Horizontal (kg) Vertical (kg) RCP2-SA6C-I-42P-12-1 - 2 - 3 - 4 12 \sim 8.5 \sim 1.5 $50 \sim 800$ RCP2-SA6C-I-42P-6-1 - 2 - 3 - 4 6 \sim 15 ~ 4 (50mm increments) RCP2-SA6C-I-42P-3-1-2-3-4 3 \sim 19 \sim 6 Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

_	,,,,	one and iv	ιαλιιι	iuiii v	ppee	u	
St Lead	roke	$50\sim550$ (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	2	600	540	460	400	360	300
6		300	270	230	200	180	150
3		150	135	115	100	90	75
						(Unit:	mm/s)

■ Stroke and Maximum Speed

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

Option List			
Name	Option Code	See Page	Standard Price
Brake (Cable-exit end)	BE	→ A-25	_
Brake (Cable exiting left)	BL	→ A-25	_
Brake (Cable exiting right)	BR	→ A-25	_
Reversed-home	NM	→ A-33	_
Slider Roller	SB	→ A 26	_

Туре	Cable Symbol	Standard Price
Standard	P (1m)	_
	S (3m)	-
	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	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)	_

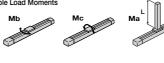
^{*} See page A-39 for cables for maintenance.

Actuator Specifications

/ iotaato. Opcomodiiono				
Item	Description			
Drive System	Ball screw Ø10mm C10 grade			
Positioning Repeatability	±0.02mm			
Lost Motion	0.1mm or less			
Base	Material: Aluminum (special alumite treated)			
Allowable Static Moment	Ma: 38.3 N·m Mb: 54.7 N·m Mc: 81.0 N·m			
Allowable Dynamic Moment (*)	Ma: 8.9 N·m Mb: 12.7 N·m Mc: 18.6 N·m			
Overhang Load Length	Ma direction: 220mm or less; Mb·Mc direction: 220mm or less			
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)			

Based on 5,000km travel lif











For Special Orders

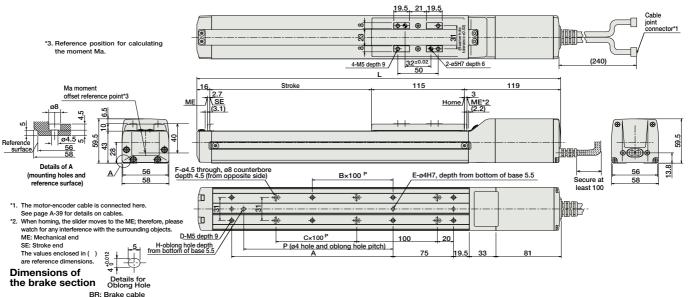


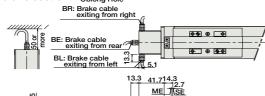


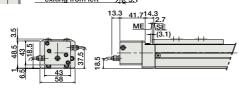
Dimensions



*For the Reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.







Adding a brake increases the actuator's overall length by 40mm (53.3mm with the cable coming out its end), and its weight by 0.4kg.

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
Α	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
В	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
С	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
D	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
E	2	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
Н	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Р	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	1.8	2.0	2.1	2.2	2.4	2.5	2.7	2.8	2.9	3.1	3.2	3.4	3.5	3.6	3.8	3.9

② Compatible Controllers

The HCP2 series actuators can operate with the controllers below. Select the controller according to your usage.									
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page	
Solenoid Valve Type		PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477	
Colonold valve type	1	PSEP-C-42PI-NP-2-0-H	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			-	→ P487	
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0-H	No homing necessary with simple absolute type.				-	7 1 407	
Positioner Type	ŧ	PCON-C-42PI-NP-2-0-H	Positioning is possible for up to 512 points	512 points		DC24V 2A max.		-	
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0-H	r contouring to possible for up to 0.2 points	512 points			-		
Pulse Train Input Type (Differential Line Driver)	ĠĬ.	PCON-PL-42PI-NP-2-0-H	Pulse train input type with differential line driver support	DC24V			-	→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0-H	Pulse train input type with open collector support				-		
Serial Communication Type		PCON-SE-42PI-N-0-0-H	Dedicated to serial communication	64 points			-		
Field Network Type	ERRED	RPCON-42P-H Dedicated to field network 768 points	768 points		-	→ P503			
Program Control Type		PSEL-C-1-42PI-NP-2-0-H	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P557	
					the cinale av				

* This is for the single-axis PSEL. * \odot is a placeholder for the power supply voltage (1: 100V / 2: 100 \sim 240V).

Standar

Standar

Standar

Control integral

Mini

Standar

Rod
Type

Mini

Standar

Table/Arrat

Table/Arrat

Mini

Mini

PMEC /AMEC PSEP /ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL

P2-SA7C ROBO Cylinder Slider Type 73mm Width Pulse Motor Straight Type Coupled

■ Configuration: RCP2 — SA7C — **56P**

4: 4mm

N : None P : 1m S : 3m M : 5m 56P: Pulse motor 16:16mm 50: 50mm BL: Brake (Cable exiting left)
BR: Brake (Cable exiting right)
NM: Reversed-home **RPCON** 800:800mm

(50mm pitch

PSEL

PSEP

models are labeled as "I".

Technical References



speed.
Use the actuator specification table below to check the maximum speed at the stroke you desire.

(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational

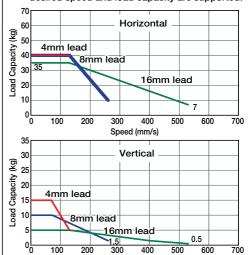
(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 4mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

X : Custom Length SR : Slider Roller R : Robot cable



Actuator Specifications

■ Lead and Load Capacity (Note 1) Pleas	e note that the max	imum load capacit	y decreases as the	speed increases
Model	Lead (mm)	Max. Load Ca Horizontal (kg)	Vertical (kg)	Stroke (mm)
RCP2-SA7C-I-56P-16-①-②-③-④	16	~ 35	~ 5	
RCP2-SA7C-I-56P-8-①-②-③-④	8	~ 40	~ 10	50 ~ 800 (50mm increments)
RCP2-SA7C-I-56P-4-1 -2 -3 -4	4	40	∼ 1 5	o.o.mentay

Stroke Lead	$50 \sim 700 \\ \text{(50mm increments)}$	~ 800 (mm)			
16	533	480			
8	266	240			
4	100	100			

Speed (mm/s)

(Unit: mm/s)

■ Stroke and Maximum Speed

① Stroke Lis	st
Stroke (mm)	Standard Price
50/100	-
150/200	-
250/300	-
350/400	-
450/500	-
550/600	-
650/700	-
750/800	-

Odbie List					
Туре	Cable Symbol	Standard Price			
	P (1m)	-			
Standard	S (3m)	-			
	M (5m)	-			
	X06 (6m) ~ X10 (10m)	-			
Special Lengths	X11 (11m) ~ X15 (15m)	-			
	X16 (16m) ~ X20 (20m)	-			
	R01 (1m) ~ R03 (3m)	_			
	R04 (4m) ~ R05 (5m)	-			
Robot Cable	R06 (6m) ~ R10 (10m)	_			
	R11 (11m) ~ R15 (15m)	_			
	R16 (16m) ~ R20 (20m)	_			

^{*} See page A-39 for cables for maintenance.

3 Cable List

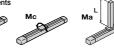
Name	Option Code	See Page	Standard Price
Brake (Cable-exit end)	BE	→ A-25	_
Brake (Cable exiting left)	BL	→ A-25	_
Brake (Cable exiting right)	BR	→ A-25	-
Reversed-home	NM	→ A-33	_
Slider Roller	SR	→ A-36	-

Actuator Specifications

Item	Description			
Drive System	Ball screw ø12mm C10 grade			
Positioning Repeatability	±0.02mm			
Lost Motion	0.1mm or less			
Base	Material: Aluminum (special alumite treated)			
Allowable Static Moment	Ma: 50.4 N·m Mb: 71.9 N·m Mc: 138.0 N·m			
Allowable Dynamic Moment (*)	Ma: 13.9 N·m Mb: 19.9 N·m Mc: 38.3 N·m			
Overhang Load Length	Ma direction: 230mm or less; Mb·Mc direction: 230mm or less			
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)			

(*) Based on 5,000km travel life Directions of Allowable Load Moments







Slider Type

Mini

Standar

Controll
Integrat

Rod
Type

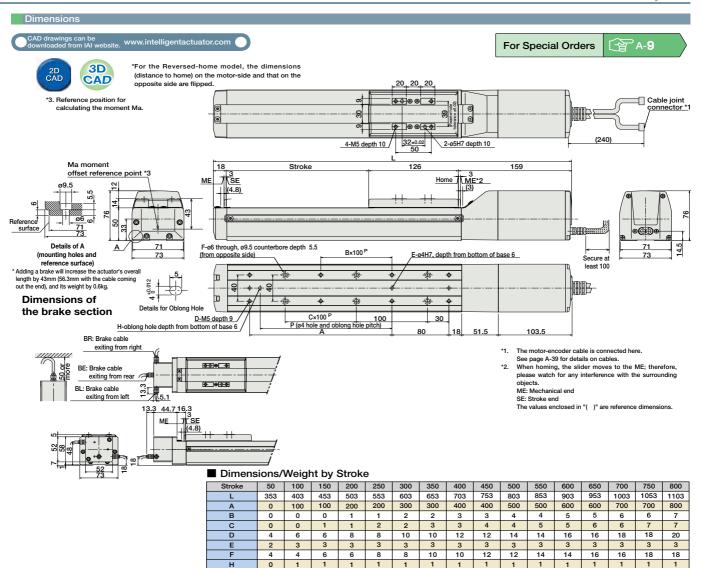
Mini

Standar

Controll Integrat Table/Arr /Flat Type

Standar Gripper/ Rotary Ty Linear Se Type

PMEC /AMEC PSEP /ASEP ROBO NET ERG2 PCON ACON SCON PSEL ASEL XSEL XSEL



2 Com	patible	Controllers	

0 85 85

185

Weight (kg) 3.1 3.3 3.6 3.8 4.0 4.2 4.5 4.7 4.9

185 285 285

385

385

485

485 585 585 685

5.1 5.4 5.6 5.8 6.0 6.3 6.5

685

785

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page			
Solenoid Valve Type		PMEC-C-56PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477			
Colonola valve Type		PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points	3 points	3 points	3 points			-	→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-56PI-NP-2-0	No homing necessary with simple absolute type.				-	→ P48/			
Positioner Type		PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points	512 points				-			
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0	r contouring to possible for up to 012 points	(-)			-				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support		- (-)		DC24V 2A max.	DC24V	2A max.	-	→ P525
Pulse Train Input Type (Open Collector)	9	PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support						-		
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points			-				
Field Network Type		RPCON-56P	Dedicated to field network	768 points			-	→ P503			
Program Control Type	<u> </u>	PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P557			

^{*} This is for the single-axis PSEL. * \odot is a placeholder for the power supply voltage (1: 100V / 2: 100 \sim 240V).

33

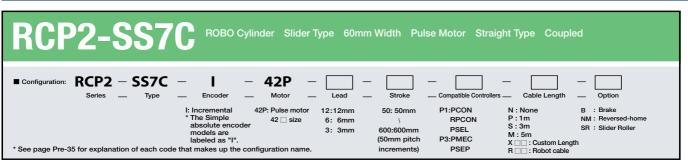
4 Option List

Reversed-home

Slider Roller

Brake

Name





References A-5

(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.

Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.
 Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

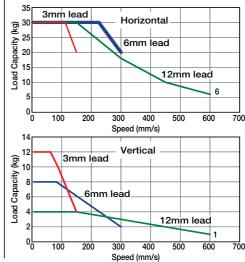
 The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used

vertically).

These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications								
■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.								
Model	Lead	Max. Load Ca	Stroke					
Wiodei	(mm)	Horizontal (kg)	Vertical (kg)	(mm)				
RCP2-SS7C-I-42P-12-①-②-③-④	12	~ 30	~ 4					
RCP2-SS7C-I-42P-6-①-②-③-④	6	~ 30	~ 8	50 ~ 600 (50mm increments)				
RCP2-SS7C-I-42P-3-①-②-③-④	3	~ 30	~ 12	incromonic,				
Legend ①Stroke ②Compatible controller ③Cable length	4 Options							

See Page

→ A-25

→ A-33

→ A-36

Standard Price

Stroke Lead	$50 \sim 500$ (50mm increments)	~ 600 (mm)
12	600	470
6	300	230
3	150	115
	-	(Unit: mm/o

■ Stroke and Maximum Speed

① Stroke List					
Stroke (mm)	Standard Price				
50/100	-				
150/200	-				
250/300	-				
350/400	-				
450/500	=				
EE0/600					

Option Code

NM

SR

t	
Cable Symbol	Standard Price
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)	_
R16 (16m) ~ R20 (20m)	-
	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)

^{*} See page A-39 for cables for maintenance.

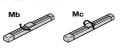
Actuator Specifications

Description			
Ball screw Ø10mm C10 grade			
±0.02mm			
0.1mm or less			
Material: Special alloy steel			
Ma: 79.4 N·m Mb: 79.4 N·m Mc: 172.9 N·m			
Ma: 14.7 N·m Mb: 14.7 N·m Mc: 33.3 N·m			
Ma direction: 300mm or less; Mb·Mc direction: 300mm or less			
0~40°C, 85% RH or less (Non-condensing)			

(*) Based on 10,000km travel life.

Directions of Allowable Load Moment







Slider Type

Mini

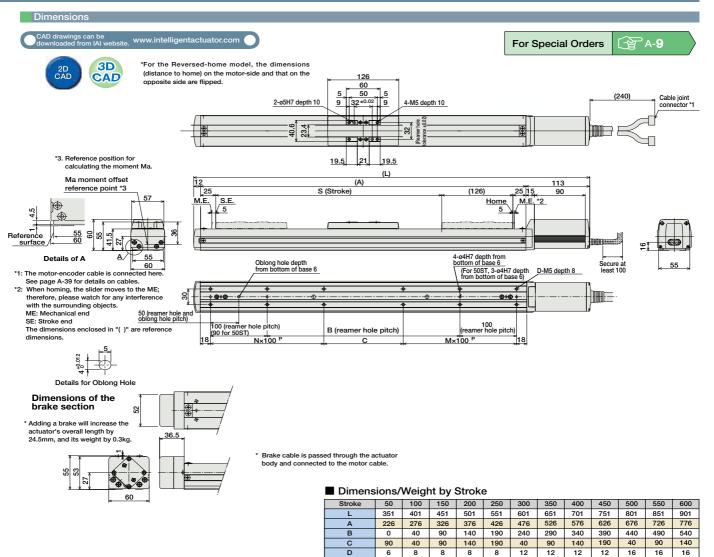
Standar

Controll
Integrat

Standar

Controll
Integrat

PMEC /AMEC PSEP / ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL SSEL



Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Pag	
Solenoid Valve Type		PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P47	
Solenoid valve type		PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points	3 points	3 points		-	
Splash-Proof Solenoid Valve Type	D	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				-	→ P487	
Positioner Type		PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points			-		
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0		orz ponto			-		
Pulse Train Input Type Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	DC24V			2A max.	-	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support			it type with open		-	
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			-		
Field Network Type		RPCON-42P	Dedicated to field network	768 points			-	→ P50	
Program Control Type	6	PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P58	

D

м

N

 Weight (kg) 3.1 3.4 3.7 4.0 4.3 4.7 5.0 5.4 5.7 6.1 6.4 6.7

 IAI

RCP2-SS7C **34**

P2-SS8 ROBO Cylinder Slider Type 80mm Width Pulse Motor Straight Type Steel Base ■ Configuration: RCP2 — SS8C — **56P** N: None P:1m S:3m M:5m 56P: Pulse motor 20:20mm 50: 50mm 10:10mm RPCON NM: Reversed-home PSEL 5: 5mm 1000:1000mm models are labeled as "I". (50mm pitch P3:PMEC

increments)

PSEP



* See page Pre-35 for explanation of each code that makes up the configuration name

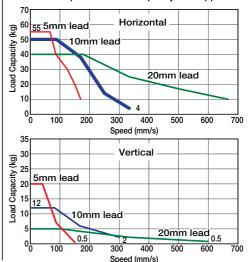
Technical References



- (1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. speed.
 Use the actuator specification table below to check the maximum speed at the stroke you desire.
- (2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 5mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



		, ,	(1.5)	101110111(119)	
Wiodei		(mm)	Horizontal (kg)	Vertical (kg)	
Model		Lead	Max. Load Ca	pacity (Note 1)	
■ Lead and Load Capacity	(Note 1) Please r	note that the maxi	mum load capacity	decreases as the	spe
Actuator Specifications					

Model	Lead	Max. Load Ca	, , ,	Stroke
Model	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SS8C-I-56P-20-①-②-③-④	20	~ 40	~ 5	50 1000
RCP2-SS8C-I-56P-10-①-②-③-④	10	~ 50	~ 12	50 ~ 1000 (50mm increments)
RCP2-SS8C-I-56P-5-①-②-③-④	5	~ 55	~ 20	increments
Legend ①Stroke ②Compatible controller ③Cable length	4 Options			

Stroke 50 ~ 800 ~ 900 ~ 1000 515 (600) (600) 333 310 255 (300) (300)

■ Stroke and Maximum Speed

165

<150> **(150)** (Unit: mm/s) The values enclosed in < > apply to

155

125

Stroke (mm)	Standard Price
50/100	-
150/200	-
250/300	-
350/400	-
450/500	-
550/600	-
650/700	-
750/800	-
850/900	-
950/1000	-

③ Cable List

5

Туре	Cable Symbol	Standard Price
	P (1m)	_
Standard	S (3m)	-
	M (5m)	_
	X06 (6m) ~ X10 (10m)	_
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
	R01 (1m) ~ R03 (3m)	-
	R04 (4m) ~ R05 (5m)	-
Robot Cable	R06 (6m) ~ R10 (10m)	_
	R11 (11m) ~ R15 (15m)	_
	R16 (16m) ~ R20 (20m)	-

^{*} See page A-39 for cables for maintenance.

Option Code	See Page	Standard Price
В	→ A-25	-
NM	→ A-33	_
SR	→ A-36	_
	B NM	B → A-25 NM → A-33

Actuator Specifications

· · · · · · · · · · · · · · · · · · ·							
Item	Description						
Drive System	Ball screw ø16mm C10 grade						
Positioning Repeatability	±0.02mm						
Lost Motion	0.1mm or less						
Base	Material: Special alloy steel						
Allowable Static Moment	Ma: 198.9 N·m Mb: 198.9 N·m Mc: 416.7 N·m						
Allowable Dynamic Moment (*)	Ma: 36.3 N·m Mb: 36.3 N·m Mc: 77.4 N·m						
Overhang Load Length	Ma direction: 450mm or less; Mb·Mc direction: 450mm or less						
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)						

(*) Based on 10.000km travel life Directions of Allowable Load Moments









Dimensions CAD drawings can be downloaded from IAI website. www.intelligentactuator.com

For Special Orders



(240)

 \supset



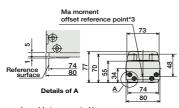


*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

30 M.E.

S.E.

*3. Reference position for calculating the moment Ma.



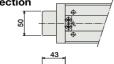
The motor-encoder cable is connected here

*2:

Ine motor-encoder cable is connected nere.
See page A-39 for details on cables.
When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.
ME: Mechanical end
SE: Stroke end
The dimensions enclosed in "()" are reference dimensions

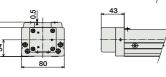
Dimensions of the brake section

* Adding a brake will increase the actuator's overall length by 26mm, and its weight by 0.5kg.





N×100 P 100 (reamer hole pitch)
50 (reamer and oblong hole pitch)



S (Stroke)

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	435	485	535	585	635	685	735	785	835	885	935	985	1035	1085	1135	1185	1235	1285	1335	1385
Α	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
В	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
D	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	24	24	24	26
F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
Weight (kg)	6.6	7.1	7.6	8.1	8.6	9.2	9.7	10.2	10.7	11.3	11.7	12.3	12.8	13.4	13.9	14.5	15.0	15.5	16.1	16.6

45 Peamer h

2-ø8H7 depth 10 (L)

(170)

N×100 P

Home

5

⊕•• ₹

D-M8 depth 10

② Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page	
Solenoid Valve Type	101	PMEC-C-56PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477	
-		PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve.	3 points	DC24V	2A max.	-	→ P487	
Splash-Proof Solenoid Valve Type	F	PSEP-CW-56PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.				-		
Positioner Type		PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points	512 points			-		
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0	Positioning is possible for up to 312 points	312 points			-		
Pulse Train Input Type Differential Line Driver)		PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	()			-	→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support	(-)			-		
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points			-		
Field Network Type		RPCON-56P	Dedicated to field network	768 points			-	→ P500	
Program Control Type		PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P55°	

PMEC (AMEC PSEP (ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL

^{*} ① is a placeholder for the power supply voltage (1: 100V / 2: $100\sim 240V$).

950/1000

P2-HS8C ROBO Cylinder High

* See page Pre-35 for explanation of each code that makes up the configuration name

ROBO Cylinder High-Speed Slider Type 80mm Width Pulse Motor Straight Type

■ Configuration: RCP2 — HS8C — Type

56 🗌 high

86P: Pulse motor 30:30mm output

1000:1000mm (50mm pitch

increments)

P2:PCON-CF

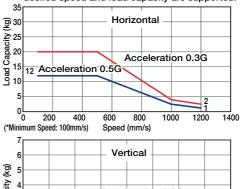
NM: Reversed-home

Technical References

- (1) Due the large lead of the ball screw in high-speed actuators, operating at low speeds may cause vibration and/or noise. Therefore, use the actuator at speeds over 100mm/s.
- (2) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the
- (3) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are
- (4) The load capacity is based on operation at an acceleration of 0.3G (0.2G when used vertically). The upper limit for the acceleration is 0.5G for horizontal use and 0.2G for vertical use.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



		Capac	4 3 2 1			Ac	celer	ation (0.2G			
		(*Mir	o O nimum	100 Speed:	200 100mm/s	300 s) Sp	400 eed (mi	500 m/s)	600	700	800)
0	eed	increas	es.	■ St	roke	and N	/laxim	num S	peed			

Actuator Specifications

Legend 1 Stroke 2 Cable length 3 Options

Lead and Load Capacity (Note 1) Fleas	TIOLE MAL ME MAXI	mum load capacity	decreases as the	speed increases.	
Model	Lead	Max. Load Ca	Stroke		
Wiodei	(mm)	Horizontal (kg)	Vertical (kg)	(mm)	
RCP2-HS8C-I-86P-30-1-P2-2-3	30	~ 20	~ 3	50 ~ 1000 (50mm increments)	

- otroko aria maximam opeca										
Stroke Lead	$50 \sim 800$ (50mm increments)	~ 900 (mm)	~ 1000 (mm)							
30	1200 〈750〉	1000 〈750〉	800 〈750〉							

* The values enclosed in < > apply to (Unit: mm/s) vertical setting.

① Stroke Lis	it en
Stroke (mm)	Standard Price
50/100	-
150/200	-
250/300	-
350/400	-
450/500	-
550/600	-
650/700	-
750/800	-
850/900	_

Туре	Cable Symbol	Standard Price
	P (1m)	-
Standard	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
	R01 (1m) ~ R03 (3m)	-
	R04 (4m) ~ R05 (5m)	-
Robot Cable	R06 (6m) ~ R10 (10m)	-
	R11 (11m) ~ R15 (15m)	-
	R16 (16m) ~ R20 (20m)	_

^{*} See page A-39 for cables for maintenance.

③ Option List

Name	Option Code	See Page	Standard Price
Brake	В	→ A-25	_
Reversed-home	NM	→ A-33	_
Slider Roller	SR	→ A-36	_

Actuator Specifications

Item	Decemention
item	Description
Drive System	Ball screw ø16mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Special alloy steel
Allowable Static Moment	Ma: 198.9 N·m Mb: 198.9 N·m Mc: 416.7 N·m
Allowable Dynamic Moment (*)	Ma: 36.3 N·m Mb: 36.3 N·m Mc: 77.4 N·m
Overhang Load Length	Ma direction: 450mm or less; Mb·Mc direction: 450mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 10,000km travel life.







Dimensions



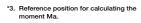
CAD drawings can be downloaded from IAI website. www.intelligentactuator.com

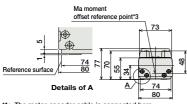
* For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

For Special Orders

D-M8 depth 10





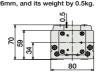


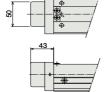
11: The motor-encoder cable is connected nere.
See page A-39 for details on cables.
22: When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.
ME: Mechanical end
SE: Stroke end
The dimensions enclosed in "()" are reference dimensions.

Dimensions of

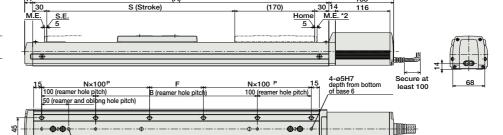
the brake section

* Adding a brake will increase the actuator's overall length by 26mm, and its weight by 0.5kg.





4-M8 depth 10 45 Reamer hole erance ±002 34 56 2-ø8H7 depth 10 35 20 35 (L)



Details for Oblong Hole

The brake cable is passed through the actuator body and connected to the motor cable.

Oblong hole depth from bottom of base 6

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	435	485	535	585	635	685	735	785	835	885	935	985	1035	1085	1135	1185	1235	1285	1335	1385
Α	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
В	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
D	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	24	24	24	26
F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
Weight (kg)	6.6	7.1	7.6	8.1	8.6	9.2	9.7	10.2	10.7	11.3	11.7	12.3	12.8	13.4	13.9	14.5	15.0	15.5	16.1	16.6

Compatible Controllers

The controller for the RCP2-HS8C type is a dedicated controller

ſ	Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
	Positioner Type		PCON-CF-86PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	6A max.	-	→ P525

Note: • Please note that the encoder cable is a dedicated CF-type cable that is different from the PCON-C/CG/CY/PL/PO/SE controllers.

• Note that a simple absolute unit cannot be used.

Stider Type

Mini

Standari

Standari

Standari

Standari

Standari

Standari

Integrat

Mini

Standari

Mini

Mini

Mini

PMEC /AMEC PSEP / ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL

P2-SA5R

lacktriangle Configuration: RCP2 - SA5R -**42P**

3: 3mm

N : None Set
P : 1m * F
S : 3m
M : 5m
X . . : Custom Length
R . : Robot cable See Options below

* Be sure to specify which
side the motor is to be
mounted (ML/MR). 42P: Pulse motor 12:12mm 50: 50mm 42 🗌 size RPCON

800:800mm

models are labeled as "I". (50mm pitch P3:PMEC * See page Pre-35 for explanation of each code that makes up the configuration name PSEP

Pictured: Left-mounted motor model (ML).

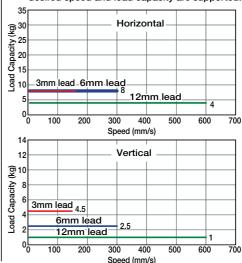
Technical References

- (1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.
 Use the actuator specification table below to check the maximum speed at the stroke you desire.
- (2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

PSEL

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please	note that the maxi	mum load capacity	decreases as the	speed increases.
Model	Lead	Max. Load Ca	Stroke	
Wodel	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SA5R-I-42P-12-①-②-③-④	12	4	1	50 000
RCP2-SA5R-I-42P-6-①-②-③-④	6	8	2.5	50 ~ 800 (50mm increments)
RCP2-SA5R-I-42P-3-①-②-③-④	3	8	4.5	increments)

	one and it	· cax		Spoo	u	
Stroke Lead	$50 \sim 550$ (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	540	460	400	360	300
6	300	270	230	200	180	150
3	150	135	115	100	90	75
					(Unit:	mm/s)

Stroke and Maximum Speed

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

Legend ①Stroke ②Compatible controller ③Cable length ④Options

4 Option List			
Name	Option Code	See Page	Standard Price
Brake	В	→ A-25	_
Reversed-home	NM	→ A-33	_
Left-Mounted Motor (Standard)	ML	→ A-33	-
Right-Mounted Motor	MR	→ A-33	-
Slider Roller	SR	→ A-36	_

③ Cable List

Туре	Cable Symbol	Standard Price
	P (1m)	-
Standard	S (3m)	-
	M (5m)	_
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	_
	R01 (1m) ~ R03 (3m)	-
	R04 (4m) ~ R05 (5m)	-
Robot Cable	R06 (6m) ~ R10 (10m)	_
	R11 (11m) ~ R15 (15m)	-
	R16 (16m) ~ R20 (20m)	_

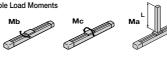
^{*} See page A-39 for cables for maintenance.

Actuator Specifications

/ totalator oppositionalic					
Item	Description				
Drive System	Ball screw Ø10mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Base	Material: Aluminum (white alumite treated)				
Allowable Static Moment	Ma: 18.6 N·m Mb: 26.6 N·m Mc: 47.5 N·m				
Allowable Dynamic Moment (*)	Ma: 4.9 N·m Mb: 6.8 N·m Mc: 11.7 N·m				
Overhang Load Length	Ma direction: 150mm or less; Mb·Mc direction: 150mm or less				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)				

(*) Based on 5,000km travel life Directions of Allowable Load Mon









For Special Orders





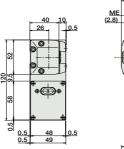


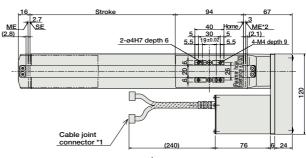
*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

- The motor-encoder cable is connected here. See page A-39 for details on cables. When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end

SE: Stroke end
The values enclosed in "()" are reference dimer

* The offset reference position for the moment Ma is the same as the SA5 type. (See P28)





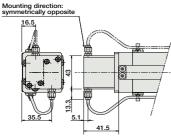
+

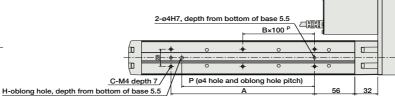


49

Dimensions of the brake section

* Adding a brake will increase the actuator's overall length by 40mm, and its weight by 0.4kg







Details for Oblong Hole

■ Dimensions/Weight by Stroke

		_	•													
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	227	277	327	377	427	477	527	577	627	677	727	777	827	877	927	977
Α	73	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
В	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
С	4	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18
Н	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Р	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	2.0	2.1	2.2	2.3	2.4	2.6	2.7	2.8	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.7

② Compatible Controllers

* For brake cable exiting from the side, it can only exit from the motor side.

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.									
	External View	Model		Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page	
Solenoid Valve Type		PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477	
Soletiold valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			-	→ P487	
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				-	→ P407	
Positioner Type	PCON-C-42PI-NP-2-0 Positioning is possible for up to 512 points 512 points	DN-C-42PI-NP-2-0 Positioning is possible for up to 512 points				-			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	Positioning is possible for up to 312 points	312 points			-		
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	-	→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			_		
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			-		
Field Network Type		RPCON-42P	Dedicated to field network	768 points			-	→ P503	
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P557	

Slider Type

Mini
Standar
Control
Integral

Rod
Type

Mini

PMEC (AMEC PSEP / ASEP PGON NET PGON NET PGON ACON SCON PSEL ASEL SSEL

^{*} This is for the single-axis PSEL.

* ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).

P2-SA6R ROBO Cylinder Slider Type 58mm Width Pulse Motor Side-Mounted Motor

 \blacksquare Configuration: RCP2 - SA6R -**42P**

3: 3mm

N: None
P:1m
S:3m
M:5m
X : Custom Ler
R : Robot cable * Be sure to specify which side the motor is to be mounted (ML/MR). 42P: Pulse motor 12:12mm 50: 50mm 42 🗌 size RPCON 800:800mm

PSEL

models are labeled as "I". (50mm pitch P3:PMEC * See page Pre-35 for explanation of each code that makes up the configuration name PSEP



Technical References

(1) When the stroke increases, the maximum speed will drop to pr Use the actuator specification table below to check the maximum speed at the stroke you desire.

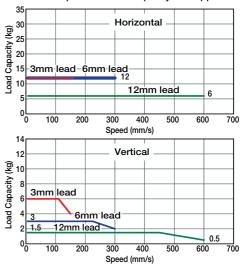
(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically).

These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications				
■ Lead and Load Capacity (Note 1) Please	note that the maxi	mum load capacity	decreases as the	speed increase
Model	Lead	Max. Load Ca	pacity (Note 1)	Stroke
Model	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SA6R-I-42P-12-①-②-③-④	12	6	∼ 1.5	
RCP2-SA6R-I-42P-6-①-②-③-④	6	12	~ 3	50 ~ 800 (50mm increments)
RCP2-SA6R-I-42P-3-①-②-③-④	3	12	~ 6	increments

Stroke	$50 \sim 550$ (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	540	460	400	360	300
6	300	270	230	200	180	150
3	150	135	115	100	90	75
					/I Imite	mm/o

■ Stroke and Maximum Speed

① Stroke List

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

Legend ①Stroke ②Compatible controller ③Cable length ④Options

4 Option List			
Name	Option Code	See Page	Standard Price
Brake	В	→ A-25	_
Reversed-home	NM	→ A-33	_
Left-Mounted Motor (Standard)	ML	→ A-33	_
Right-Mounted Motor	MR	→ A-33	_
Slider Boller	SB	→ A 26	_

③ Cable List

Туре	Cable Symbol	Standard Price
	P (1m)	-
Standard	S (3m)	-
	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
	R01 (1m) ~ R03 (3m)	_
	R04 (4m) ~ R05 (5m)	-
Robot Cable	R06 (6m) ~ R10 (10m)	_
	R11 (11m) ~ R15 (15m)	_
	R16 (16m) ~ R20 (20m)	-

^{*} See page A-39 for cables for maintenance.

Actuator Specifications

Item	Description
Drive System	Ball screw Ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (white alumite treated)
Allowable Static Moment	Ma: 38.3 N·m Mb: 54.7 N·m Mc: 81.0 N·m
Allowable Dynamic Moment (*)	Ma: 8.9 N·m Mb: 12.7 N·m Mc: 18.6 N·m
Overhang Load Length	Ma direction: 220mm or less; Mb·Mc direction: 220mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km travel life Directions of Allowable Load Moments







For Special Orders







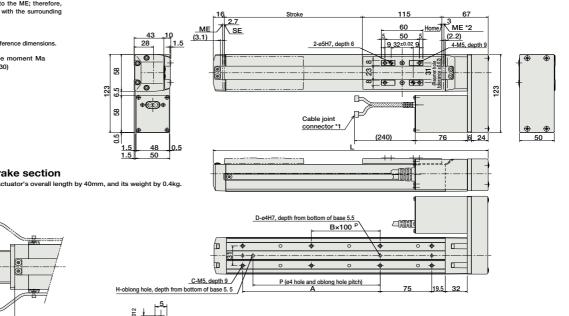
*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

- The motor-encoder cable is connected here.
 See page A-39 for details on cables.
 When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.
 ME: Mechanical end
 SE: Stroke end
 The values enclosed in "()" are reference dimensions.

Mounting direction: symmetrically opposite

Dimensions of the brake section

*The offset reference position for the moment Ma is the same as the SA6 type. (See P30)



^{*} For brake cable exiting from the side, it can only exit from the motor side

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	248	298	348	398	448	498	548	598	648	698	748	798	848	898	948	998
Α	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
В	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
С	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
D	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Н	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Р	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	2.3	2.5	2.6	2.7	2.9	3.0	3.2	3.3	3.4	3.6	3.7	3.9	4.0	4.1	4.3	4.4

② Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page				
Solenoid Valve Type		PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477				
Goldhold Valve Type		PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points							-	→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				-	→ P40/				
Positioner Type		PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points				-				
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	Tositoning is possible for up to 312 points	312 points			-					
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)		DC24V	2A max.	-	→ P525			
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support				-					
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			-					
Field Network Type		RPCON-42P	Dedicated to field network	768 points			-	→ P503				
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P557				

RCP2-SA6R

^{*} This is for the single-axis PSEL.

* ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).

ROBO Cylinder Slider Type 73mm Width Pulse Motor Side-Mounted Motor

■ Configuration: RCP2 — SA7R — **56P**

I: Incremental
* The Simple
absolute encoder
models are
labeled as "I". See Options below
* Be sure to specify which side the motor is to be 56P: Pulse motor 16:16mm 50: 50mm 56 🗌 size 8: 8mm RPCON 4: 4mm PSEL 800:800mm

(50mm pitch P3:PMEC * See page Pre-35 for explanation of each code that makes up the configuration name PSEP



Use the actuator specification table below to check the maximum speed at the stroke you desire.

(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.

Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

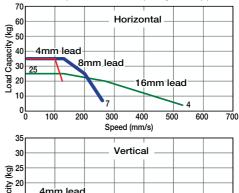
(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 4mm-lead model, or when used

These values are the upper limits for the acceleration.

rotational speed.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



30	Vertical
Load Capacity (kg) 2 01 21 2 01 21	
20 acit	4mm lead
di 10	8mm lead
Loac	16mm lead
0	100 200 300 400 500 600 700
<u> </u>	Speed (mm/s)

■ Stroke and Maximum Speed

Actuator Specifications				
■ Lead and Load Capacity (Note 1) Please n	ote that the maxi	mum load capacity	decreases as the	speed increases
Model	Lead	Max. Load Cap	pacity (Note 1)	Stroke
Wodel	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SA7R-I-56P-16-①-②-③-④	16	~ 25	~ 5	50 000
RCP2-SA7R-I-56P-8-①-②-③-④	8	~ 35	~ 10	50 ~ 800 (50mm increments)
RCP2-SA7R-I-56P-4-①-②-③-④	4	~ 35	∼ 1 5	increments
Legend ①Stroke ②Compatible controller ③Cable length	4 Options			

Stroke Lead	$50 \sim 700 \\ \text{(50mm increments)}$	~ 800 (mm)
16	533 〈400〉	480 〈400〉
8	266	240
4	133	120
		/

① Stroke Lis	st
Stroke (mm)	Standard Price
50/100	-
150/200	-
250/300	-
350/400	-
450/500	-
550/600	-
650/700	-
750/800	

O Capie Lis	L .	
Туре	Cable Symbol	Standard Price
	P (1m)	-
Standard	S (3m)	-
	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	_
	R01 (1m) ~ R03 (3m)	_
	R04 (4m) ~ R05 (5m)	-
Robot Cable	R06 (6m) ~ R10 (10m)	_
	R11 (11m) ~ R15 (15m)	_
	R16 (16m) ~ R20 (20m)	_

^{*} See page A-39 for cables for maintenance.

Name	Option Code	See Page	Standard Price
Brake	В	→ A-25	_
Reversed-home	NM	→ A-33	_
Left-Mounted Motor (Standard)	ML	→ A-33	_
Right-Mounted Motor	MR	→ A-33	_
Slider Roller	SR	→ A-36	_

Actuator Specifications

Item	Description
Drive System	Ball screw ø12mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (white alumite treated)
Allowable Static Moment	Ma: 50.4 N·m Mb: 71.9 N·m Mc: 138.0 N·m
Allowable Dynamic Moment (*)	Ma: 13.9 N·m Mb: 19.9 N·m Mc: 38.3 N·m
Overhang Load Length	Ma direction: 230mm or less; Mb·Mc direction: 230mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km travel life Directions of Allowable Load Moments







For Special Orders



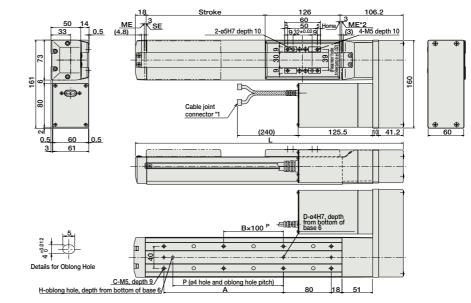




*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

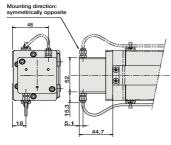
- The motor-encoder cable is connected here. See page A-39 for details on cables. When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end

ME: MECHANICAL BIOL
SE: Stroke end
The values enclosed in "()" are reference dimensions.
"The offset reference position for the moment Ma
is the same as the SA7 type. (See P32)



Dimensions of the brake section

* Adding a brake will increase the actuator's overall length by 43mm, and its weight by 0.6kg.



* For brake cable exiting from the side, it can only exit from the motor side.

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	300.2	350.2	400.2	450.2	500.2	550.2	600.2	650.2	700.2	750.2	800.2	850.2	900.2	950.2	1000.2	1050.2
Α	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
В	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
С	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
D	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Н	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Р	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	4.5	4.7	5.0	5.2	5.4	5.6	5.9	6.1	6.3	6.5	6.8	7.0	7.2	7.4	7.7	7.9

② Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page						
Solenoid Valve Type		PMEC-C-56PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477						
Solenoid valve Type	1	PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points									-	→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-56PI-NP-2-0	No homing necessary with simple absolute type.				-	→ F40/						
Positioner Type	E	PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points	512 points					-					
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0	· containing to possible for up to 012 points	512 points			-							
Pulse Train Input Type (Differential Line Driver)			DC24V	2A max.	-	→ P525								
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open			-								
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points			-							
Field Network Type		RPCON-56P	Dedicated to field network	768 points			-	→ P503						
Program Control Type	2	PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P557						

* This is for the single-axis PSEL.

* ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).

Stider Type

Mini

Standari

Rod
Type

Mini

Standari

Rod
Type

Mini

Standari

Albie/Arra

Table/Arra

Mini

Mini

ROBO Cylinder Slider Type 60mm Width Pulse Motor Side-Mounted Motor Steel Base

PSEL

■ Configuration: RCP2 — SS7R — **42P** Type

3: 3mm

N : None P : 1m S : 3m M : 5m I: Incremental
* The Simple
absolute encoder See Options below
* Be sure to specify which
side the motor is to be
mounted (ML/MR). 42P: Pulse motor 12:12mm 50: 50mm 42 🗌 size 6: 6mm RPCON 600:600mm

models are labeled as "I". (50mm pitch P3:PMEC * See page Pre-35 for explanation of each code that makes up the configuration name PSEP

Pictured: Left-mounted motor model (ML).

Technical References

Actuator Specifications

When the stroke increases, the maximum speed will drop to prevent the ball screw from read rotational speed.
 Use the actuator specification table below to check the maximum speed at the stroke you desire.

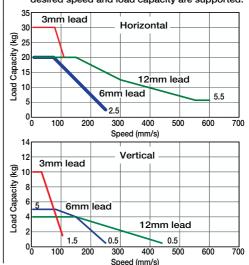
(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.

Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically).
These values are the upper limits for the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator opecifications				
■ Lead and Load Capacity (Note 1) Please r	note that the maxis	mum load capacity	decreases as the	speed increases
Model	Lead	Max. Load Ca	Stroke	
iviodei	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SS7R-I-42P-12-①-②-③-④	12	~ 20	~ 4	
RCP2-SS7R-I-42P-6-①-②-③-④	6	~ 20	~ 5	50 ~ 600 (50mm

Model	Lead	Max. Load Ca	Stroke	
Wodel	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SS7R-I-42P-12-①-②-③-④	12	~ 20	~ 4	
RCP2-SS7R-I-42P-6-①-②-③-④	6	~ 20	~ 5	50 ~ 600 (50mm increments)
RCP2-SS7R-I-42P-3-①-②-③-④	3	~ 30	~ 10	increments
Legend ①Stroke ②Compatible controller ③Cable length	4 Options			

Stroke Lead	$50 \sim 500 \\ \text{(50mm increments)}$	~ 600 (mm)
12	600 〈440〉	470 〈440〉
6	250	230
3	105	105

* The values enclosed in < > apply to vertical setting. (Unit: mm/s)

■ Stroke and Maximum Speed

① Stroke List					
Stroke (mm)	Standard Price				
50/100	-				
150/200	-				
250/300	-				
350/400	-				
450/500	-				

③ Cable List				
Туре	Cable Symbol	Standard Price		
	P (1m)	-		
Standard	S (3m)	-		
	M (5m)	-		
	X06 (6m) ~ X10 (10m)	-		
Special Lengths	X11 (11m) ~ X15 (15m)	-		
	X16 (16m) ~ X20 (20m)	-		
	R01 (1m) ~ R03 (3m)	-		
	R04 (4m) ~ R05 (5m)	-		
Robot Cable	R06 (6m) ~ R10 (10m)	-		
	R11 (11m) ~ R15 (15m)	_		
	R16 (16m) ~ R20 (20m)	_		

^{*} See page A-39 for cables for maintenance.

550/600

Name	Option Code	See Page	Standard Price
Brake	В	→ A-25	_
Reversed-home	NM	→ A-33	_
Left-Mounted Motor (Standard)	ML	→ A-33	-
Right-Mounted Motor	MR	→ A-33	_
Slider Roller	SR	→ A-36	_

Actuator Specifications

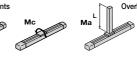
Item	Description			
	Ball screw Ø10mm C10 grade			
Drive System	Ball screw 1910mm C10 grade			
Positioning Repeatability	±0.02mm			
Lost Motion	0.1mm or less			
Base	Material: Special alloy steel			
Allowable Static Moment	Ma: 79.4 N·m Mb: 79.4 N·m Mc: 172.9 N·m			
Allowable Dynamic Moment (*)	Ma: 14.7 N·m Mb: 14.7 N·m Mc: 33.3 N·m			
Overhang Load Length	Ma direction: 300mm or less; Mb·Mc direction: 300mm or less			
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)			

(*) Based on 10,000km travel life.

Directions of Allowable Load Moments









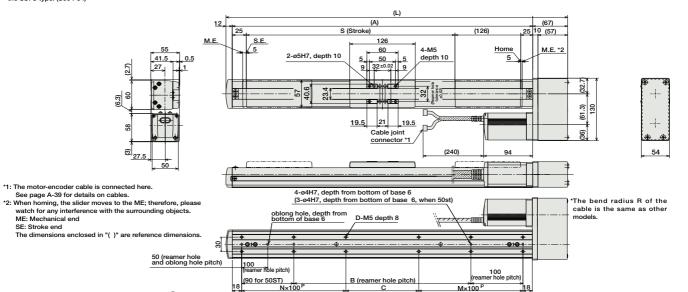
For Special Orders

PMEC /AMEC PSEP /ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL SSEL

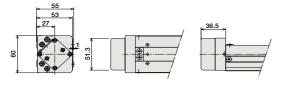
*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

- * The reference surface is the same as the SS7C type. (See P34)
- * The offset reference position for the moment Ma is the same as the SS7C type. (See P34)

CAD drawings can be



Dimensions of the brake section



* The brake cable is passed through the actuator body and connected to the motor cable

■ Dimensions/Weight by Stroke

	Stroke	50	100	150	200	250	300	350	400	450	500	550	600
	П	305	355	405	455	505	555	605	655	705	755	805	855
Γ	Α	226	276	326	376	426	476	526	576	626	676	726	776
	В	0	40	90	140	190	240	290	340	390	440	490	540
	С	90	40	90	140	190	40	90	140	190	40	90	140
Ι	D	6	8	8	8	8	12	12	12	12	16	16	16
Π	М	1	1	1	1	1	2	2	2	2	3	3	3
Ι	N	0	1	1	1	1	2	2	2	2	3	3	3
	Weight (kg)	3.8	4.1	4.4	4.7	5.1	5.4	5.8	6.1	6.4	6.7	7.1	7.4

② Compatible Controllers

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type		PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477
Soleriold valve Type		PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			-	→ P48
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				_	→ P40
Positioner Type	sitioner Type PCON-C-42PI-NP-2		Positioning is possible for up to 512 points	512 points			-	
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	r contouring to possible for up to orappoints	012 pointe			-	
Pulse Train Input Type (Differential Line Driver)	Ġ.	PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	_	→ P52
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			_	
Serial Communication Type			Dedicated to serial communication	64 points			-	
Field Network Type		RPCON-42P	Dedicated to field network	768 points				→ P50
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P55

* This is for the single-axis PSEL.

* ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).

P2-SS8R

ROBO Cylinder Slider Type 80mm Width Pulse Motor Side-Mounted Motor Steel Base

PSEL

 \blacksquare Configuration: RCP2 - SS8R -**56P**

5: 5mm

I: Incremental
* The Simple
absolute encoder
models are
labeled as "I". See Options below
* Be sure to specify which side the motor is to be 56P: Pulse motor 20:20mm 50: 50mm 56 🗌 size 10:10mm RPCON 1000:1000mm

P3:PMEC (50mm pitch * See page Pre-35 for explanation of each code that makes up the configuration name increments) PSEP



Technical References

When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.
 Use the actuator specification table below to check the maximum speed at the stroke you desire.

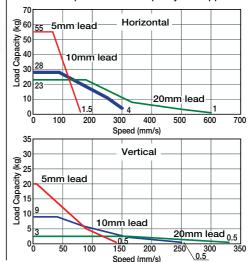
(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 5mm-lead model, or when

used vertically).
These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please	note that the maxi	mum load capacity	decreases as the	speed increases.	
Model	Lead Max. Load Ca		pacity (Note 1)	Stroke	
Model	(mm)	Horizontal (kg)	Vertical (kg)	(mm)	
RCP2-SS8R-I-56P-20-①-②-③-④	20	~ 23	\sim 3		
RCP2-SS8R-I-56P-10-①-②-③-④	10	~ 28	~ 9	50 ~ 1000 (50mm increments)	
RCP2-SS8R-I-56P-5-①-②-③-④	5	~ 55	~ 20	o.cieitta)	

RCF	2-558H-	I-56P-5-[1]-[2]-[3	-[4]	5	
Legend	1 Stroke	2 Compatible controller	3 Cable length	4 Options	

■ Stroke and Maximum Speed

	Stroke Lead	$50 \sim 800$ (50mm increments)	~ 900 (mm)	~ 1000 (mm)	
ı	20	600	600	515	
	20	⟨333⟩	<333 >	〈333 〉	
	10	300	300	255	
	10	⟨250⟩	<250>	〈250〉	
	5	160	155	125	
4	3	⟨140⟩	<140>	(140)	

* The values enclos	sed in <	> apply	to vertical setti	ng. (Unit: mm/s

Stroke (mm)	Standard Price
50/100	-
150/200	1
250/300	-
350/400	-
450/500	1
550/600	-
650/700	-
750/800	-
850/900	-
950/1000	_

Туре	Cable Symbol	Standard Price
	P (1m)	-
Standard	S (3m)	-
	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
	R01 (1m) ~ R03 (3m)	-
	R04 (4m) ~ R05 (5m)	-
Robot Cable	R06 (6m) ~ R10 (10m)	-
	R11 (11m) ~ R15 (15m)	_
	R16 (16m) ~ R20 (20m)	_

^{*} See page A-39 for cables for maintenance.

4 Option List

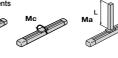
Name	Option Code	See Page	Standard Price
Brake	В	→ A-25	_
Reversed-home	NM	→ A-33	_
Left-Mounted Motor (Standard)	ML	→ A-33	_
Right-Mounted Motor	MR	→ A-33	_
Slider Roller	SR	→ A-36	_

Actuator Specifications

Item	Description
Drive System	Ball screw ø16mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Special alloy steel
Allowable Static Moment	Ma: 198.9 N·m Mb: 198.9 N·m Mc: 416.7 N·m
Allowable Dynamic Moment (*)	Ma: 36.3 N·m Mb: 36.3 N·m Mc: 77.4 N·m
Overhang Load Length	Ma direction: 450mm or less; Mb·Mc direction: 450mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 10.000km travel life









For Special Orders



Stider Type

Mini

Standar

Control Integral

Mini

Standar

Type

Mini

Standar

Table/Arra

Table/Ar

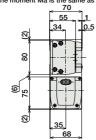
Mini

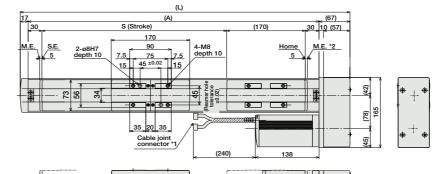
PMEC /AMEC
PSEP /ASEP
ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL



*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

- * The reference surface is the same as the SS8C type. (See P36)
- * The offset reference position for the moment Ma is the same as the SS8C type. (See P36) the SS8C type. (See P36)





*1: The motor-encoder cable is connected here.
See page A-39 for details on cables.
*2: When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.
ME: Mechanical end

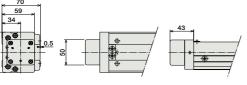
SE: Stroke end
The dimensions enclosed in "()" are reference dime

Oblong hole depth from bottom of base 6 50 (reamer and oblong hole pitch) 100 (ream B (reamer hole pitch) 100 (reamer hole pitch) Details for Oblong Hole

Dimensions of the brake section

8

* Adding a brake will increase the actuator's length by 26mm and its weight by 0.5kg.



5 0012

40

The brake cable is passed through the actuator body and connected to the motor cable.

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	364	414	464	514	564	614	664	714	764	814	864	914	964	1014	1064	1114	1164	1214	1264	1314
Α	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
В	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
D	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	24	24	24	26
F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
Weight (kg)	7.4	7.9	8.5	9.0	9.5	10	10.5	11.1	11.6	12.1	12.7	13.2	13.7	14.3	14.8	15.3	15.8	16.4	16.9	17.4

② Compatible Controllers

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page	
Solenoid Valve Type		PMEC-C-56PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	_	→ P477	
Solellold valve Type	1	PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			-	→ P487	
Splash-Proof Solenoid Valve Type	T)	PSEP-CW-56PI-NP-2-0	No homing necessary with simple absolute type.				-		
Positioner Type	E	PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points	512 points			-		
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0	Toshlorning is possible for up to 312 points				-		
Pulse Train Input Type (Differential Line Driver)		PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	(-) 64 points	DC24V	DC24V	2A max.	_	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support		(-)		_		
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication		64 points			-	
Field Network Type		RPCON-56P	Dedicated to field network	768 points			-	→ P503	
Program Control Type	4	PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P557	

* This is for the single-axis PSEL.

* ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).

P2-HS8R ROBO Cylinder High-Speed Slider Type 80mm Width Pulse Motor Side-Mounted Motor Steel Base

■ Configuration: RCP2 — HS8R —

* See page Pre-35 for explanation of each code that makes up the configuration name.

86P

models are labeled as "I".

86P: Pulse motor 30:30mm 56 🗌 high output

1000:1000mm (50mm pitch

increments)

P2:PCON-CF

P2

N : None P : 1m S : 3m M : 5m

BL: Brake (Cable exiting left)
BR: Brake (Cable exiting right)
NM: Reversed-home

X : Custom Length SR : Slider Roller R : Robot cable

Pictured: Left-mounted motor model (ML).

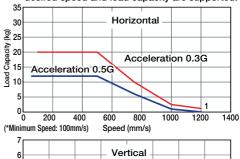
Technical References

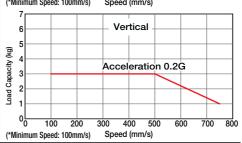


- (1) Due the large lead of the ball screw in high-speed actuators, operating at low speeds may cause vibration and/or noise. Therefore, use the actuator at speeds over 100mm/s.
- (2) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the Use the actuator specification table below to check the maximum speed at the stroke you desire.
- (3) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (4) The load capacity is based on operation at an acceleration of 0.3G (0.2G when used vertically). The upper limit for the acceleration is 0.5G for horizontal use and 0.2G for vertical use.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.





Actuator Specifications

Legend 1 Stroke 2 Cable length 3 Options

■ Lead and Load Capacity (Note 1) Please	note that the maxi	mum load capacity	decreases as the	speed increases.
Model	Lead (mm)	Max. Load Car Horizontal (kg)	-, -, -,	Stroke (mm)
RCP2-HS8R-I-86P-30-①-P2-②-③	30	~ 20	~ 3	50 ~ 1000 (50mm increments)

■ Stroke and Maximum Speed					
Stroke Lead	$50 \sim 800$ (50mm increments)	~ 900 (mm)	~ 1000 (mm)		
30	1200	1000	800		

The values enclosed in < > apply to vertical setting. (Unit: mm/s)

	01 1	
(1)	Stroke	LIST
•	00000	

Stroke (mm)	Standard Price
50/100	-
150/200	-
250/300	-
350/400	-
450/500	-
550/600	-
650/700	-
750/800	-
850/900	-
950/1000	_

② Cable List

Туре	Cable Symbol	Standard Price
	P (1m)	-
Standard	S (3m)	-
	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
	R01 (1m) ~ R03 (3m)	-
	R04 (4m) ~ R05 (5m)	-
Robot Cable	R06 (6m) ~ R10 (10m)	-
	R11 (11m) ~ R15 (15m)	-
	R16 (16m) ~ R20 (20m)	_

^{*} See page A-39 for cables for maintenance.

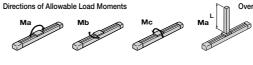
Name	Option Code	See Page	Standard Price
Brake	В	→ A-25	-
Reversed-home	NM	→ A-33	_
Left-Mounted Motor (Standard)	ML	→ A-33	-
Right-Mounted Motor	MR	→ A-33	_
Slider Roller	SR	→ A-36	-

Actuator Specifications

Item	Description
Drive System	Ball screw ø16mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Special alloy steel
Allowable Static Moment	Ma: 198.9 N·m Mb: 198.9 N·m Mc: 416.7 N·m
Allowable Dynamic Moment (*)	Ma: 36.3 N·m Mb: 36.3 N·m Mc: 77.4 N·m
Overhang Load Length	Ma direction: 450mm or less; Mb·Mc direction: 450mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 10,000km travel life











For Special Orders



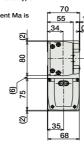


Dimensions

*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

(See P38)

* The offset reference position for the moment Ma is the same as the HS8C type. (See P38)



(A) (67) 30 10 (57) 30 S (Stroke) (170) 170 S.E. 2-ø8H7 4-M8 M.E. *2 <u>Home</u> 90 depth 10 5 depth 10 5 ` 15 (42) 73 정 (78) 35 20 35 Cable joint 42) (240) 138

*1: The motor-encoder cable is connected here. See page A-39 for details on cables.

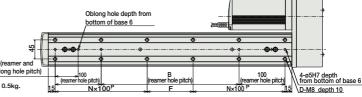
*2 When homing, the slider moves to the ME; therefore, ple watch for any interference with the surrounding objects.

ME: Mechanical end

SE: Stroke end

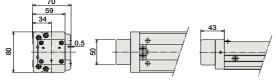
The dimensions enclosed in () are reference dimensions

Details for Oblong Hole



Dimensions of

the brake section Adding a brake will increase actuator's length by 26mm and its weight by 0.5kg.



The brake cable is passed through the actuator body and connected to the motor cable

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	364	414	464	514	564	614	664	714	764	814	864	914	964	1014	1064	1114	1164	1214	1264	1314
Α	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
В	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
D	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	24	24	24	26
F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
Weight (kg)	7.4	7.9	8.5	9.0	9.5	10	10.5	11.1	11.6	12.1	12.7	13.2	13.7	14.3	14.8	15.3	15.8	16.4	16.9	17.4

Compatible Controllers

The controller for the RCP2-HS8R type is a dedicated controller.

[Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
	Positioner Type	-	PCON-CF-86PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	6A max.	-	→ P525

Note: • Please note that the encoder cable is a dedicated CF-type cable that is different from the PCON-C/CG/CY/PL/PO/SE controllers.

• Note that a simple absolute unit cannot be used.

Stider Type

Mini

Standar

Control integral

Rod
Type

Mini

Standar

Table/Arr

/Flat Type

PMEC /AMEC PSEP / ASEP PCON NET ERC2 PCON ACON SCON PSEL ASEL SSEL

■ Configuration: RCP2 —

P2-BA6/BA6U ROBO Cylinder Belt Type 58mm Width Pulse Motor Top-Mounted Motor / Bottom-Mounted Motor

Туре BA6 :Belt type Top-mou BA6U:Belt type absolute encode models are labeled as "I".

* See page Pre-35 for explanation of each code that makes up the configuration name

42P: Pulse motor 54:54mm

54

42P

500: 500mm 1000:1000mm (50mm pitch

P1: PCON RPCON PSEL P3: PMEC N: None P:1m S:3m M:5m X : :

PSEP

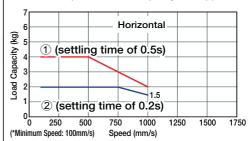


Technical References

- (1) Operating the belt type actuator at low speeds may cause vibration and/or resonance. Therefore, please set the speed at 100mm/s or faster.
- (2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are
- (3) The load capacity is based on operation at an acceleration of 0.5G. 0.5G is the upper limit for the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Graph ① is for standard specifications, with settling time of 0.5s for calculating the positioning time.

Graph 2 reflects some changes in the controller settings. The load capacity is lower, however the settling time is decreased to 0.2s.

If the load capacity is lower than graph $\ensuremath{@}$, and you want to shorten the positioning time, change the controller settings. (See the manual for details.)

(Vertical operation is not possible.)

Actuator Specifications ■ Stroke and Maximum Speed Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases Motor Mounting Max. Load Capacity (Note 1) 500 ~ 1000 Lead Stroke Horizontal (kg) Vertical (kg) RCP2-BA6-I-42P-54-1 - 2 - 3 - 4 Top $500 \sim 1000$ Not Allowed 1000 equivalent RCP2-BA6U-I-42P-54-1 - 2 - 3 - 4 increments) (Unit: mm/s) Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

① Stroke List								
Stroke (mm)	Standard Price							
500	-							
550	1							
600	-							
650	-							
700	-							
750	-							
800	-							
850	-							
900	-							
950	-							
1000	1							

3 Cable List							
Туре	Cable Symbol	Standard Price					
	P (1m)	-					
Standard	S (3m)	-					
	M (5m)	_					
	X06 (6m) ~ X10 (10m)	-					
Special Lengths	X11 (11m) ~ X15 (15m)	-					
	X16 (16m) ~ X20 (20m)	-					
	R01 (1m) ~ R03 (3m)	-					
	R04 (4m) ~ R05 (5m)	_					
Robot Cable	R06 (6m) ~ R10 (10m)	_					
	R11 (11m) ~ R15 (15m)	-					
	R16 (16m) ~ R20 (20m)	-					

^{*} See page A-39 for cables for maintenance

④ Option List			
Name	Option Code	See Page	Standard Price
Reversed-home	NM	→ A-33	-

Item	Description				
Drive System	Timing Belt				
Positioning Repeatability	±0.1mm				
Lost Motion	0.1mm or less				
Allowable Dynamic Moment (*)	Ma: 8.9 N·m Mb: 12.7 N·m Mc: 18.6 N·m				
Overhang Load Length	Ma direction: 150mm or less; Mb·Mc direction: 150mm or less				

Ambient Operating Temp./Humidity 0~40°C, 85% RH or less (Non-condensing) (*) Based on 5,000km travel life.

Actuator Specifications











For Special Orders



Stider Type

Mini
Standar

Control integral

Mini
Standar

Rod
Type

Mini
Standar

Able/Arra

Table/Arra

Mini
Mini

PMEC (AMEC)
PSEP (ASEP PCON ACON SCON PSEL ASEL SSEL



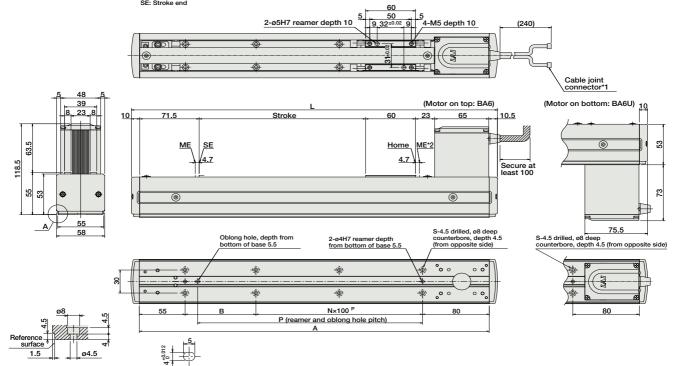
Dimensions



- *1 The motor-encoder cable is connected here. See page A-39 for details on cables. *2 When homing, the slider moves to the ME; therefore, please

watch for any interference with the surrounding objects.

ME: Mechanical end



■ Dimensions/Weight by Stroke

Stroke	500	550	600	650	700	750	800	850	900	950	1000
L	740	790	840	890	940	990	1040	1090	1140	1190	1240
Α	720	770	820	870	920	970	1020	1070	1120	1170	1220
В	85	35	85	35	85	35	85	35	85	35	85
N	5	6	6	7	7	8	8	9	9	10	10
Р	570	620	670	720	770	820	870	920	970	1020	1070
S	14	16	16	18	18	20	20	22	22	24	24
Weight (kg)	2.8	2.9	3.0	3.2	3.3	3.4	3.5	3.7	3.8	3.9	4.1

② Compatible Controllers

Details of A (mounting hole and reference surface)

Details for Oblong Hole

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type		PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P477
Sciencia valve Type		PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.				-	→ P48
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				_	→ P40
Positioner Type		PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	p 512 points 512 points			-	
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	Positioning is possible for up to 312 points	one points		2A max.	-	
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V		-	→ P52
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			-	
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			-	
Field Network Type		RPCON-42P	Dedicated to field network	768 points	1		-	→ P50
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			_	→ P55

^{*} This is for the single-axis PSEL.

* ① is a placeholder for the power supply voltage (1: 100V / 2: 100~240V).

■ Configuration:

RCP2 –

P2-BA7/BA7U ROBO Cylinder Belt Type 68mm Width Pulse Motor Top-Mounted Motor / Bottom-Mounted Motor

I: Incremental

* The Simple
absolute encoder
models are
labeled as "I". BA7 : Belt type Top-mou BA7U: Belt type Bottom-

* See page Pre-35 for explanation of each code that makes up the configuration name.

42P: Pulse motor 54:54mm 42 🗌 size

600: 600mm 1200:1200mm (50mm pitch

P1: PCON RPCON PSEL P3: PMEC

NM: Reversed-home

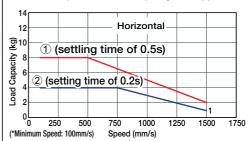


Technical References

- (1) Operating the belt type actuator at low speeds may cause vibration and/or resonance. Therefore, please set the speed at 100mm/s or faster.
- (2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are
- (3) The load capacity is based on operation at an acceleration of 0.5G. 0.5G is the upper limit for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Note:

Graph ① is for standard specifications, with settling time of 0.5s for calculating the positioning time.

Graph 2 reflects some changes in the controller settings. The load capacity is lower, however the settling time is decreased to 0.2s.

If the load capacity is lower than graph $\ \ \,$, and you want to shorten the positioning time, change the controller settings. (See the manual for details.)

(Vertical operation is not possible.)

Actuator Specifications							
■ Lead and Load Capacity	(Note 1) Please r	ote that the maxir	■ Stroke and Maximum Speed				
Model	Motor Mounting Direction		Max. Load Ca Horizontal (kg)	, , ,	Stroke (mm)	Stroke Lead	$600 \sim$ 1200 (50mm increments)
RCP2-BA7-I-42P-54-①-②-③-④	Тор	54 equivalent	~ 8	Not Allowed	600 ∼ 1200 (50mm	54	1500
RCP2-BA7U-I-42P-54-①-②-③-④	Bottom	54 equivalent		Not Allowed	increments)	equivalent	1300
Legend ① Stroke ② Compatible controller ③ Cable length ④ Options (Unit: mm/s)							

① Stroke List							
Stroke (mm)	Standard Price						
600	-						
650	1						
700	-						
750	-						
800	1						
850	-						
900	-						
950	-						
1000	-						
1050	-						
1100	-						
1150	-						
1200	-						

④ Option List			
Name	Option Code	See Page	Standard Price
Reversed-home	NM	ightarrow A-33	_

③ Cable List

Туре	Cable Symbol	Standard Price
	P (1m)	-
Standard	S (3m)	-
	M (5m)	-
	X06 (6m) ~ X10 (10m)	-
Special Lengths	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
	R01 (1m) ~ R03 (3m)	-
	R04 (4m) ~ R05 (5m)	-
Robot Cable	R06 (6m) ~ R10 (10m)	-
	R11 (11m) ~ R15 (15m)	_
	R16 (16m) ~ R20 (20m)	_

^{*} See page A-39 for cables for maintenance.

Actuator Specifications

Item	Description
Drive System	Timing Belt
Positioning Repeatability	±0.1mm
Lost Motion	0.1mm or less
Allowable Dynamic Moment (*)	Ma: 13.8 N·m Mb: 19.7 N·m Mc: 29.0 N·m
Overhang Load Length	Ma direction: 150mm or less; Mb·Mc direction: 150mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km travel life.









