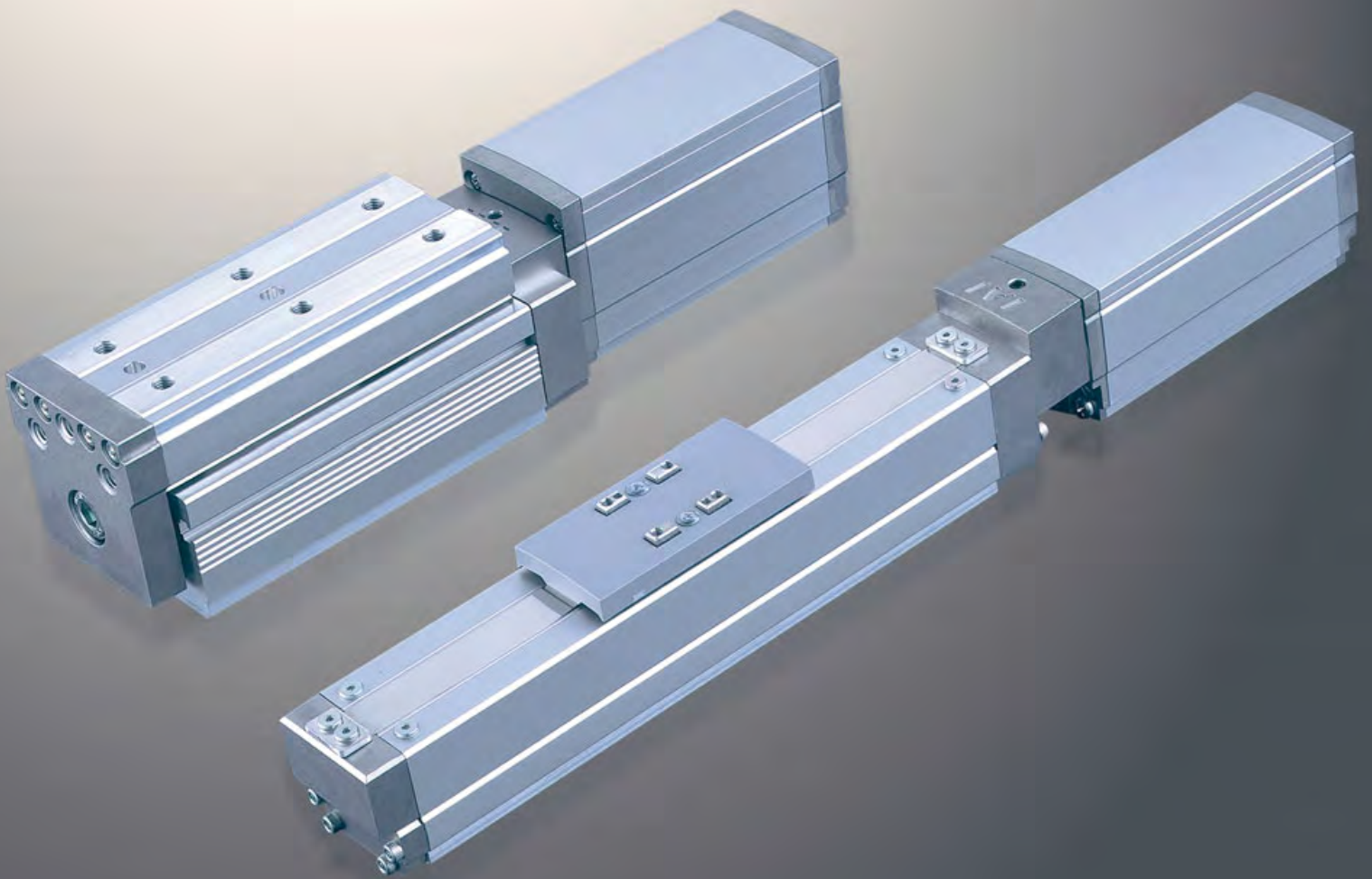


www.actuator.ru тел.:(495) 662-87-56, e-mail: iai@actuator.ru

IAI
Quality and Innovation

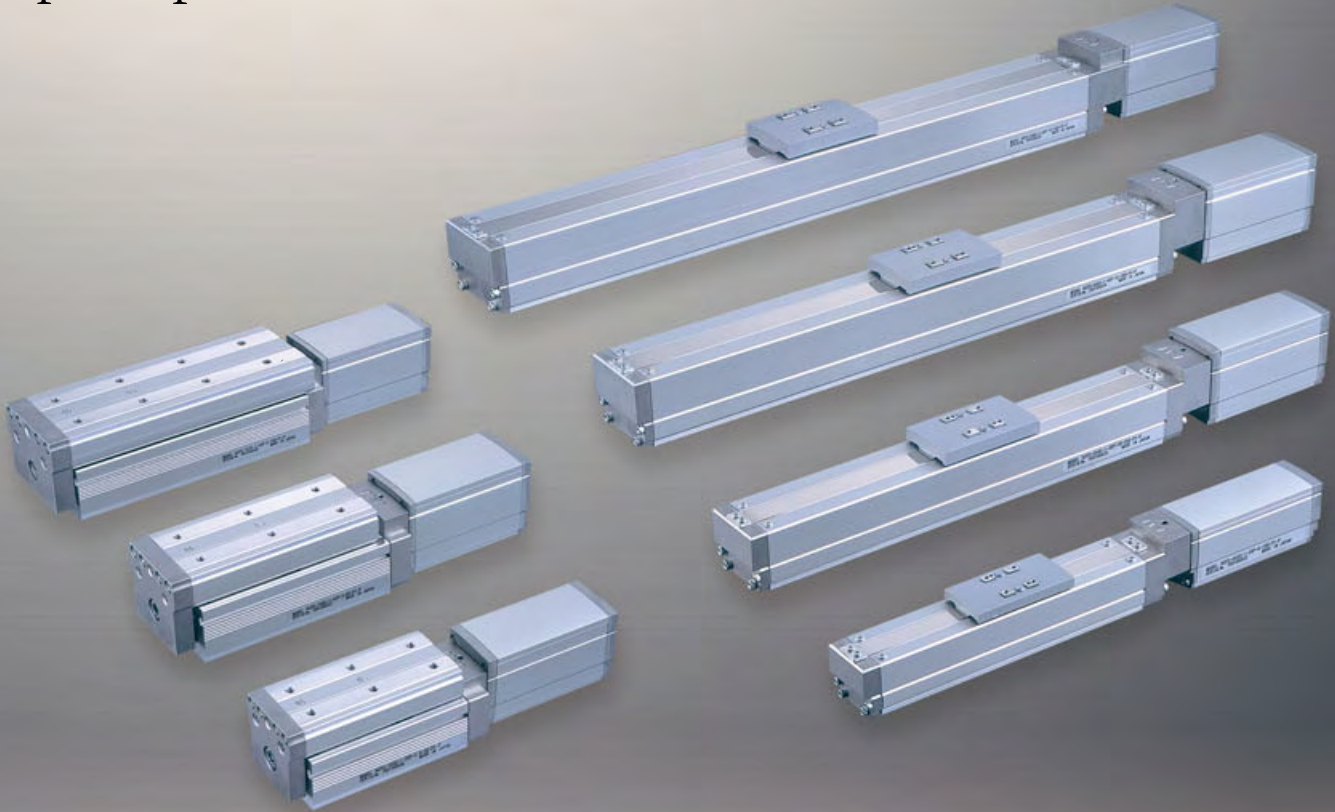
Robo Cylinder

RCP3/RCA2



www.intelligentactuator.com

The next generation of Robo Cylinder offers lower cost, simpler operation, and easier maintenance than ever before.



1 Power Cylinder With Guide

We have completely re-engineered guide, ball screws, and servo motor to achieve cost reductions. We are making power cylinders affordable to more companies than ever before.



Table Type
RCP3-TA5C (25 stroke)

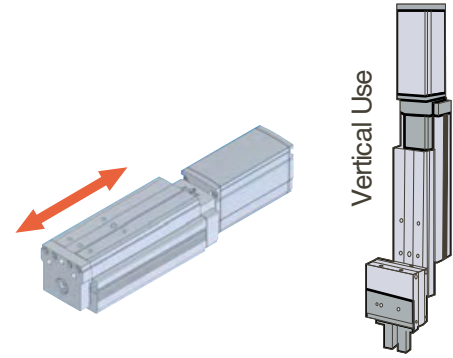


Slider Type
RCP3-SA3C (50 stroke)

2 New Table Type Available

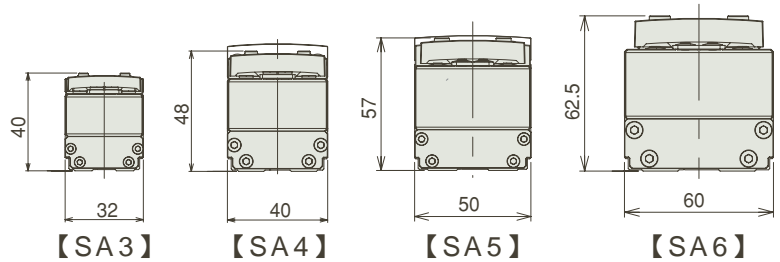
Introducing a new top-mounted, horizontally-moving table type to expand our product lineup.

The guide makes the table effective for moment loads and applications where straightness of motion is required.



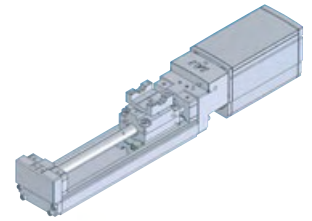
3 Smaller Size Available

A new smaller 32 mm size, SA3, is now available. This is effective in applications where minimal space is available.



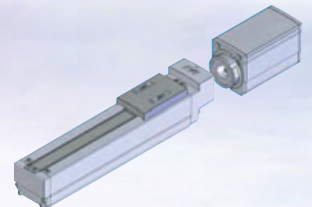
4 Coverless Option Available

You can now opt to purchase a table without the cover and stainless steel sheet. This can be used as an internal part where a cover is not necessary, or as a way to reduce costs.



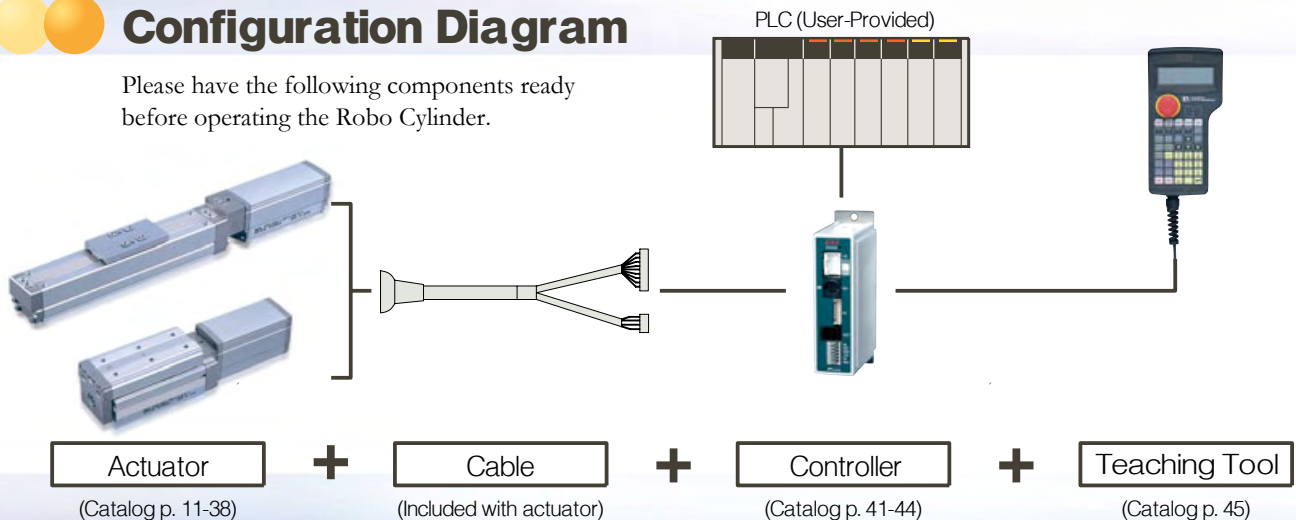
5 New Easy-Maintenance Motor Unit

The motor unit can now be switched out simply by removing a single screw. This makes for easy maintenance if the motor should need to be replaced.



Configuration Diagram

Please have the following components ready before operating the Robo Cylinder.



Product Specifications

RCP3 series pulse-motor equipped actuators are suitable for low- to medium-speed movement and push operations.

RCP3 Series

Specifications

※ The maximum load and maximum speed indicated below require different ball screw leads.
(Use short leads for maximum load, long leads for maximum speed)

Slider Type



⇒p.11

SA3C

Table Width (mm)	32
Stroke (mm)	50-300 (by 50s)
Max Horiz. Load (kg)	3
Max Vert. Load (kg)	1.5
Max Speed (mm/s)	300



⇒p.13

SA4C

Table Width (mm)	40
Stroke (mm)	50-400 (by 50s)
Max Horiz. Load (kg)	6
Max Vert. Load (kg)	3
Max Speed (mm/s)	500



⇒p.15

SA5C

Table Width (mm)	50
Stroke (mm)	50-500 (by 50s)
Max Horiz. Load (kg)	10
Max Vert. Load (kg)	~4
Max Speed (mm/s)	600



⇒p.17

SA6C

Table Width (mm)	60
Stroke (mm)	50-600 (by 50s)
Max Horiz. Load (kg)	10
Max Vert. Load (kg)	~4
Max Speed (mm/s)	600

Table Type



⇒p.27

TA5C

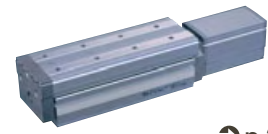
Table Width (mm)	55
Stroke (mm)	25-100 (by 25s)
Max Horiz. Load (kg)	~6
Max Vert. Load (kg)	~3
Max Speed (mm/s)	465



⇒p.29

TA6C

Table Width (mm)	65
Stroke (mm)	25-150 (by 25s)
Max Horiz. Load (kg)	~8
Max Vert. Load (kg)	~4
Max Speed (mm/s)	560



⇒p.31

TA7C

Table Width (mm)	75
Stroke (mm)	25-200 (by 25s)
Max Horiz. Load (kg)	~10
Max Vert. Load (kg)	~4
Max Speed (mm/s)	600

Controllers



PCON C

Positioner Type

Positions Possible
512

Standard Price
—

Capable of up to 512 different positions



PCON CG

Safety Application Type

Positions Possible
512

Standard Price
—

Meets specifications for safety applications



PCON CY

Electromagnetic Valve Type

Positions Possible
3

Standard Price
—

Can operate with the same controls as an air cylinder



PCON PL/PO

Pulse Train Control Type

Positions Possible
—

Standard Price
—

Can be freely controlled with a pulse train



PCON SE

Serial Communication Type

Positions Possible
64

Standard Price
—

Designed for serial communication use



ROBOTNET RPCON

Field Network Type

Positions Possible
768

Standard Price
— (1)

Can be controlled via DeviceNet CCLink ProfiBus



PSEL

Program Type

Positions Possible
1500

Standard Price
— (2)

Programmable sequence function operation

(1) RoboNet Gateway Unit (sold separately) required to use RPCON.
(2) Single-axis use only.

RCA2 series servo-motor equipped actuators are suitable for applications requiring high speed movement and low noise.

RCA2 Series

Specifications

※ The maximum load and maximum speed indicated below require different ball screw leads.
(Use short leads for maximum load, long leads for maximum speed)

Slider Type



⇒p.19

SA3C

Table Width (mm)	32
Stroke (mm)	50-300 (by 50s)
Max Horiz. Load (kg)	3
Max Vert. Load (kg)	1.5
Max Speed (mm/s)	300



⇒p.21

SA4C

Table Width (mm)	40
Stroke (mm)	50-400 (by 50s)
Max Horiz. Load (kg)	6
Max Vert. Load (kg)	3
Max Speed (mm/s)	500



⇒p.23

SA5C

Table Width (mm)	50
Stroke (mm)	50-500 (by 50s)
Max Horiz. Load (kg)	9
Max Vert. Load (kg)	3
Max Speed (mm/s)	600



⇒p.25

SA6C

Table Width (mm)	60
Stroke (mm)	50-600 (by 50s)
Max Horiz. Load (kg)	10
Max Vert. Load (kg)	4
Max Speed (mm/s)	600

Table Type



⇒p.33

TA5C

Table Width (mm)	55
Stroke (mm)	25-100 (by 25s)
Max Horiz. Load (kg)	5
Max Vert. Load (kg)	3
Max Speed (mm/s)	465



⇒p.35

TA6C

Table Width (mm)	65
Stroke (mm)	25-150 (by 25s)
Max Horiz. Load (kg)	6
Max Vert. Load (kg)	3
Max Speed (mm/s)	560



⇒p.37

TA7C

Table Width (mm)	75
Stroke (mm)	25-200 (by 25s)
Max Horiz. Load (kg)	8
Max Vert. Load (kg)	4
Max Speed (mm/s)	600

Controllers



ACON C

Positioner Type	
Positions Possible	512
Standard Price	—
Capable of up to 512 different positions	



ACON CG

Safety Application Type	
Positions Possible	512
Standard Price	—
Meets specifications for safety applications	



ACON CY

Electromagnetic Valve Type	
Positions Possible	3
Standard Price	—
Can operate with the same controls as an air cylinder	



ACON PL/PO

Pulse Train Control Type	
Positions Possible	—
Standard Price	—
Can be freely controlled with a pulse train	



ACON SE

Serial Communication Type	
Positions Possible	64
Standard Price	—
Designed for serial communication use	



ROBONET RACON

Field Network Type	
Positions Possible	768
Standard Price	— (1)
Can be controlled via DeviceNet CCLink Profibus	



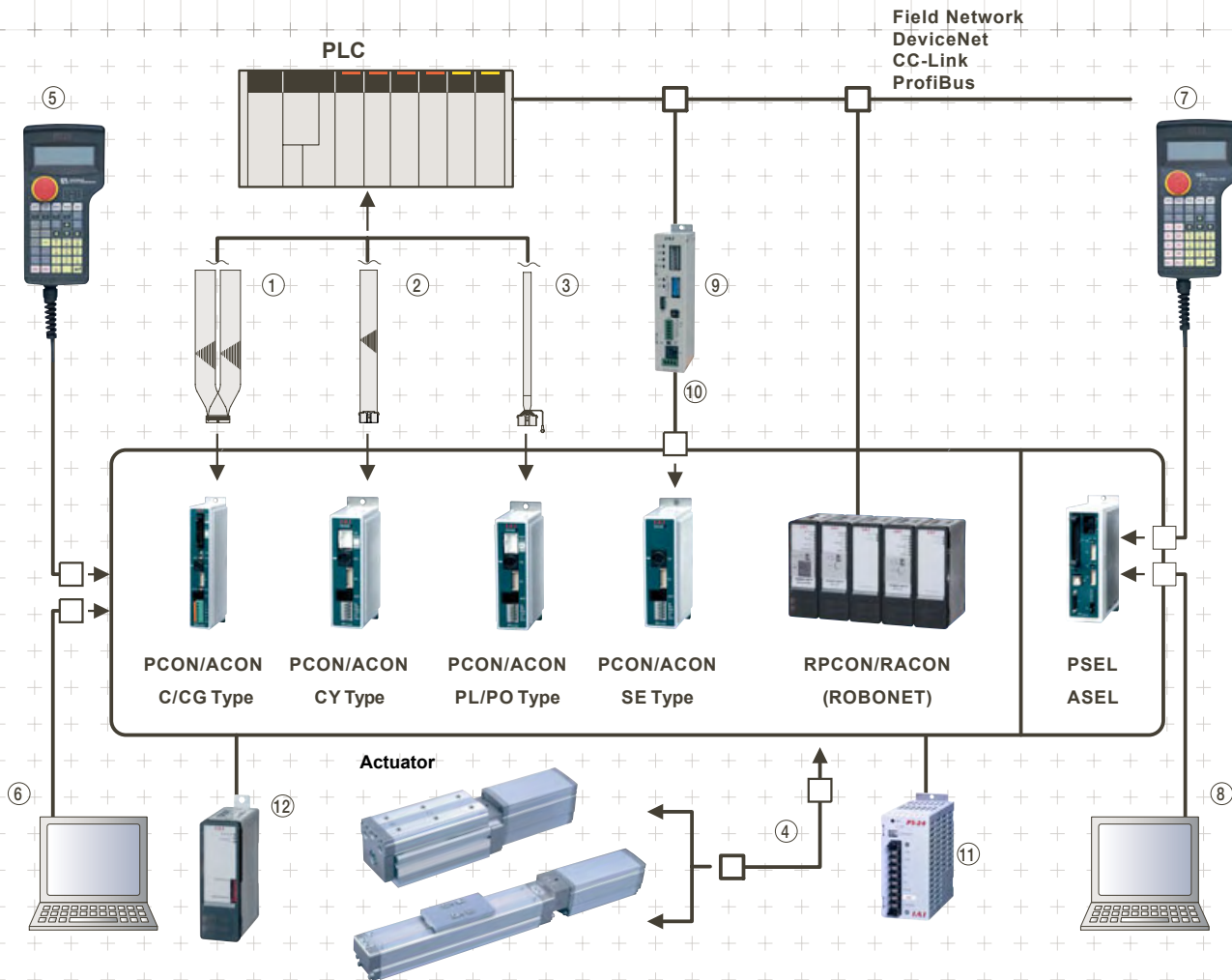
ASEL

Program Type	
Positions Possible	1500
Standard Price	— (2)
Programmable sequence function operation	

(1) RoboNet Gateway Unit (sold separately) required to use RACON.

(2) Single-axis use only.

System Configuration



Name	Model	Note	Standard Price	Page
① I/O cable for C/CG type (for both PCON/ACON)	CB-PAC-PIO***		—	(※)
② I/O cable for CY type (for both PCON/ACON)	CB-PACY-PIO***	Cable length 2m/3m/5m (controller accessory)	—	(※)
③ Pulse train transmission cable (for both PCON/ACON)	CB-PACPU-PIO***		—	(※)
④ Motor/encoder combined cable (for PCON/RPCON/PSEL)	CB-PCS-MPA	Cable length 1m/3m/5m	—	p.46
Motor/encoder combined cable (for ACON/RACON/ASEL)	CB-ACS-MPA	(Actuator※ Essential Option)	—	p.46
Teaching box for PCON/ACON/RPCON/RACON	CON-T		—	p.45
⑤ Basic teaching box for PCON/ACON/RPCON/RACON	RCM-E	Cable length 5m	—	p.45
Regulator for RCON/ACON/RPCON/RACON	RCM-P		—	p.45
⑥ PC software for PCON/ACON/RPCON/RACON (RS232 connection)	RCM-101-MW	w/ PC connection cable (5m)	—	p.45
PC software for PCON/ACON/RPCON/RACON (USB connection)	RCM-101-USB	w/ PC connection cable (5m+1m)	—	p.45
⑦ Teaching box for PSEL/ASEL (standard specification)	SEL-T-J	Cable length 5m	—	p.45
Teaching box for PSEL/ASEL (ANSI compatible)	SEL-TD-J	w/ 3-position enabler switch	—	p.45
⑧ PC software for PSEL/ASEL (RS232 connection)	IA-101-X-MW-J	w/ PC connection cable (5m)	—	p.45
PC software for PSEL/ASEL (USB connection)	IA-101-X-USB	w/ PC connection USB cable (1m)	—	p.45
Gateway unit for field network connection (DeviceNet)	RCM-GW-DV		—	(※)
⑨ Gateway unit for field network connection (CC-Link)	RCM-GW-CC		—	(※)
Gateway unit for field network connection (Profibus)	RCM-GW-PR		—	(※)
⑩ Controller link cable (connects to gateway unit)	CB-RCB-CTL002	Cable length 0.2m	—	(※)
⑪ DC24V power supply for Robo Cylinder (100 V)	PS-241		—	(※)
DC24V power supply for Robo Cylinder (200 V)	PS-242		—	(※)
⑫ Simple absolute unit (for PCON)	PCON-ABU		—	—
Simple absolute unit (for ACON)	ACON-ABU		—	—

(※) See Robo Cylinder comprehensive catalog.

Unit Overview

RCP 3 and RCA 2 types consist of the units described below.

Details of various units are displayed below. All models consist of the same unit categories, but specific unit availability varies by model. Please see individual model's page for details.

Slider Type

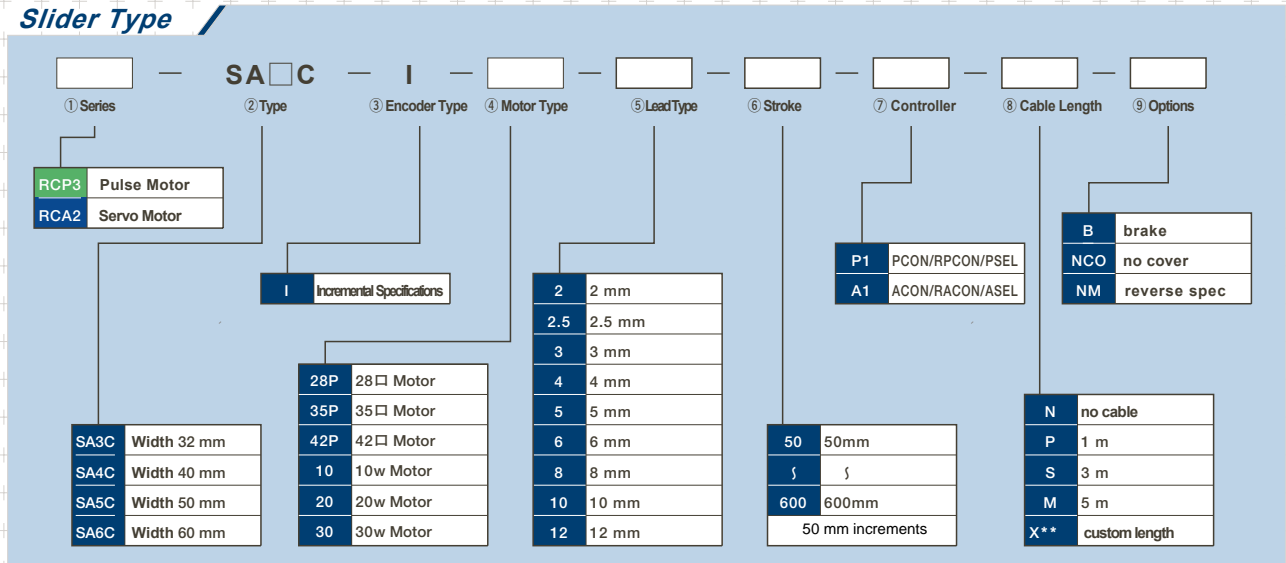
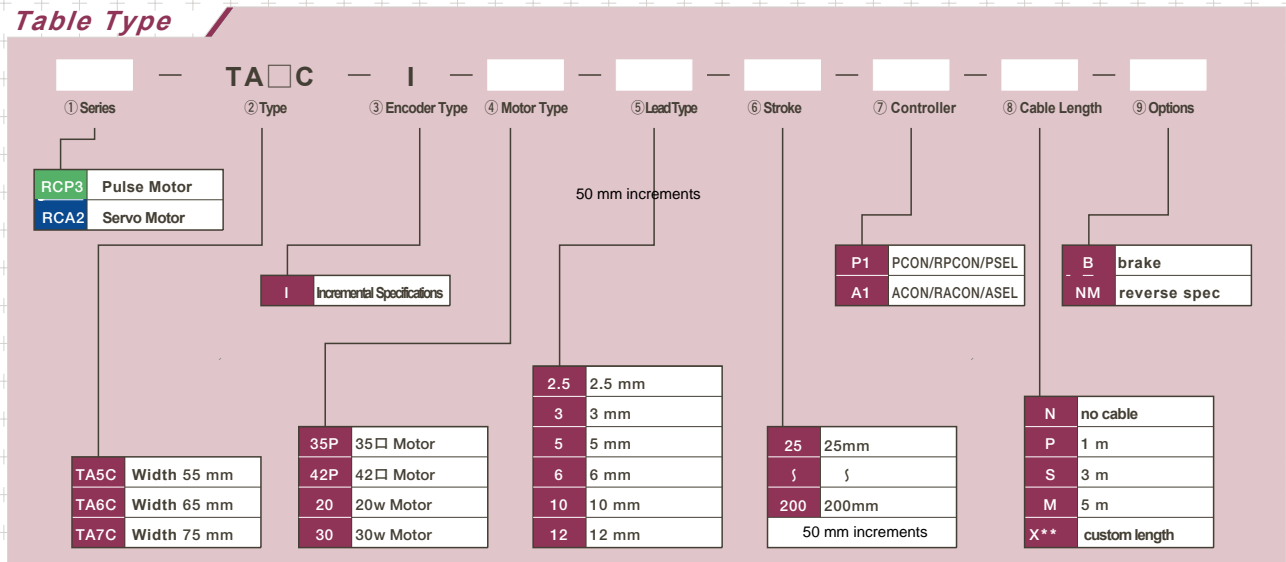


Table Type

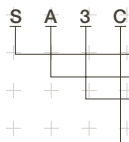


① Series

Indicates series name

② Type

Indicates form (slider, table, etc.), material (aluminum, steel, etc.), size (body width), and motor coupling.



3: 32 mm body width 4: 40 mm 5: 50 mm (slider type)/55 mm (table type)
6: 60 mm (slider type)/65 mm (table type) 7: 75 mm

③ Encoder Type

Indicates whether actuator's encoder is [A: absolute specification] or [B: incremental specification].

All RCP3 and RCA2 types are incremental specification.

④ Motor Type

Indicates the motor type of the actuator.

For RCP3, this is the pulse motor size. For RCA2, this is the motor's wattage.

⑤ Lead

Indicates ball screw lead (distance screw moves with one complete rotation).

⑥ Stroke

Indicates motion range of actuator

⑦ Controller

Indicates what types of controllers can be connected.

⑧ Cable Length

Indicates length of (combined) motor-encoder cable connecting actuator with controller. The standard specification for a RCP2/RCA2 motor-encoder cable is robotic cable.

⑨ Options

Indicates options available for actuator.

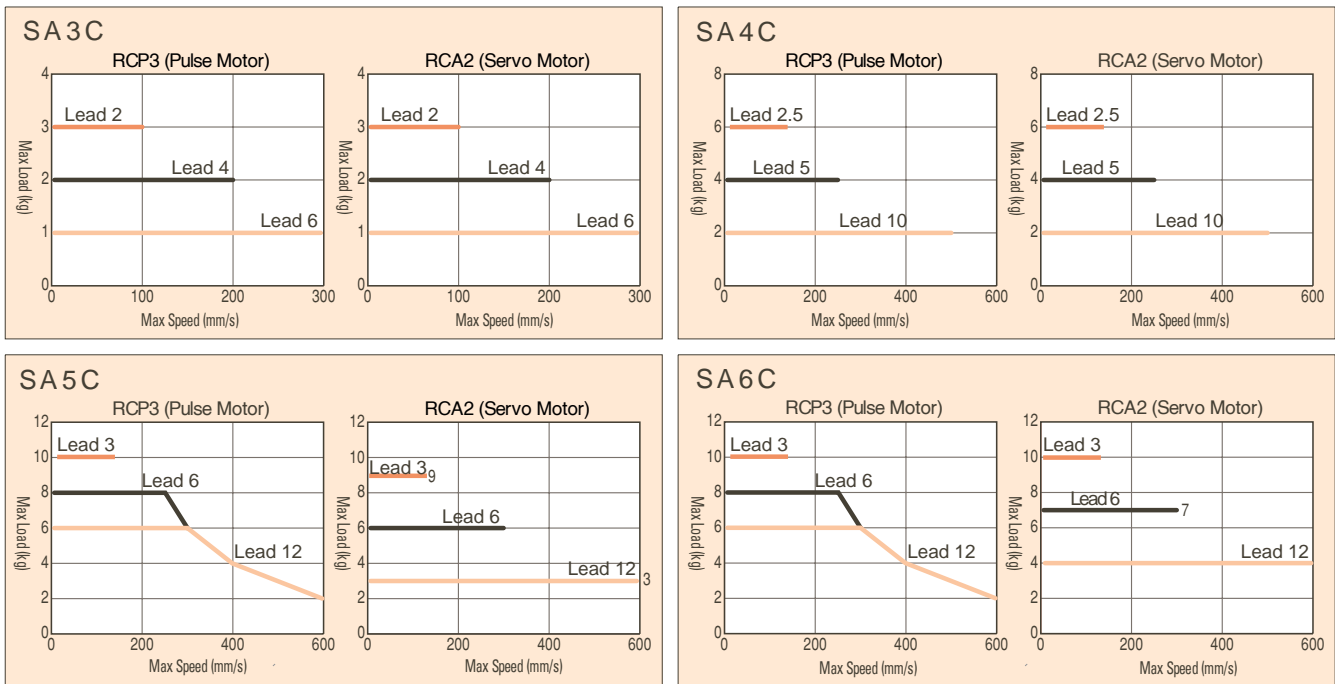
Please write options in alphabetical order if choosing more than one.

Selection Guide (Speed and Weight Charts)

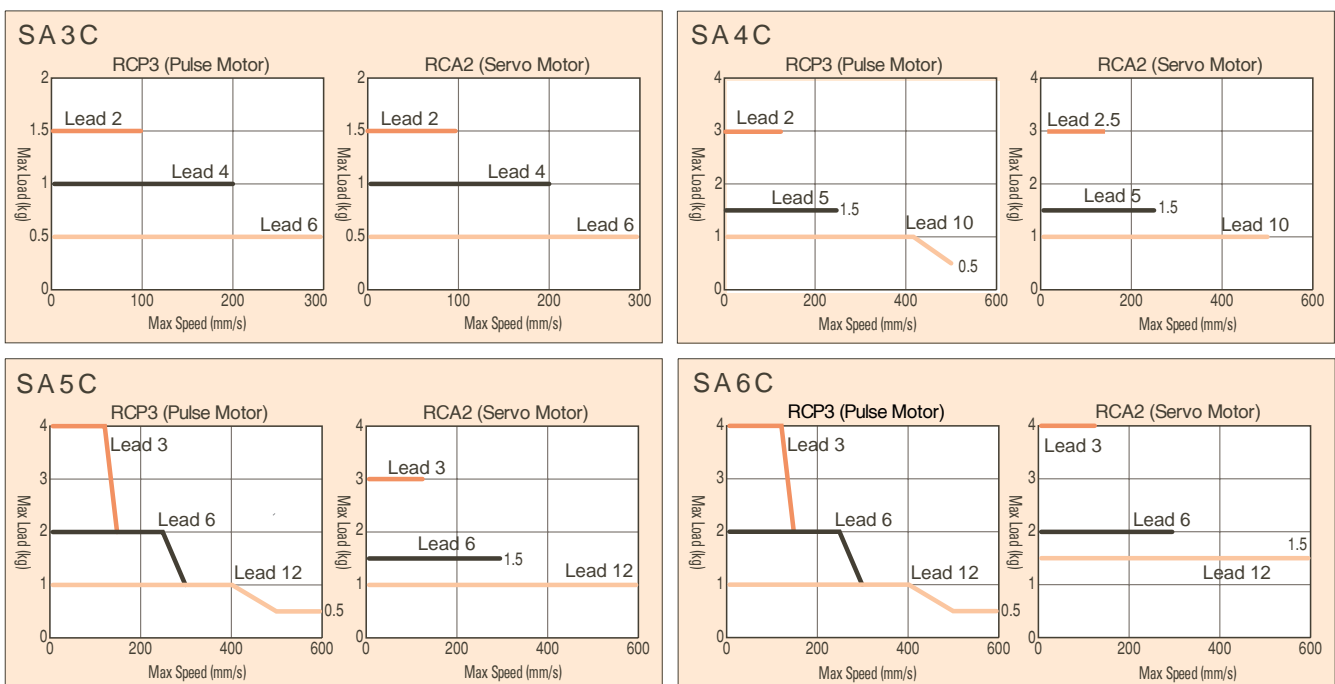
The RCP3 pulse motor loses torque at high speeds, reducing the maximum load capacity. If you choose an RCP3, please verify that the unit you select can operate with the required load at the required speed. The RCA2 does not lose load capacity at high speeds and is therefore a better choice if speed is your primary requirement.

Slider type: Positioning operations

Horizontal/Side-Lying Use



Vertical Use



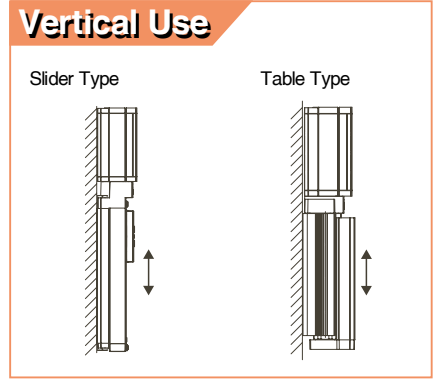
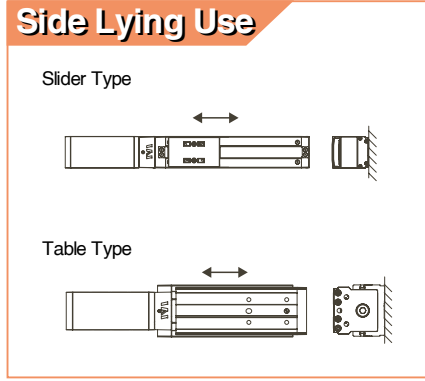
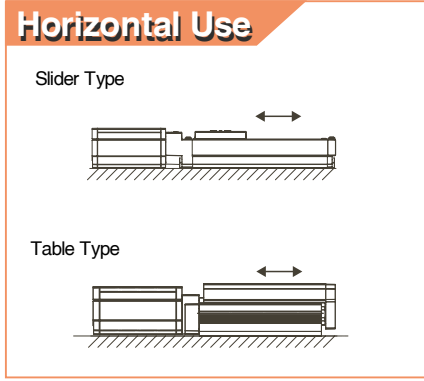
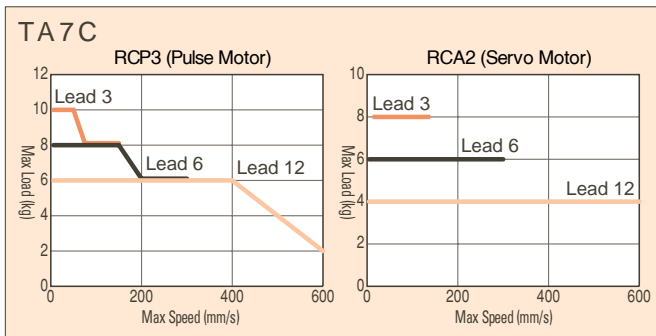
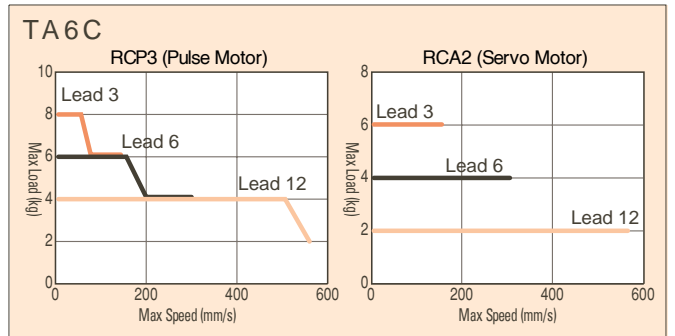
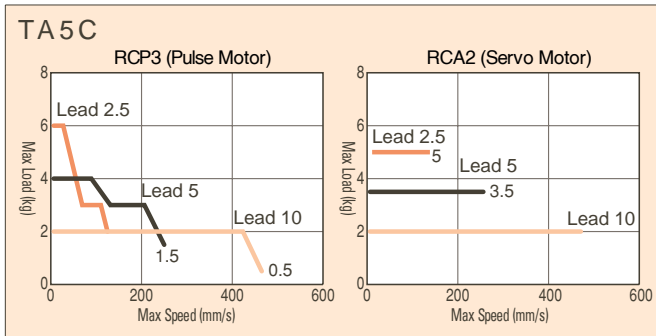
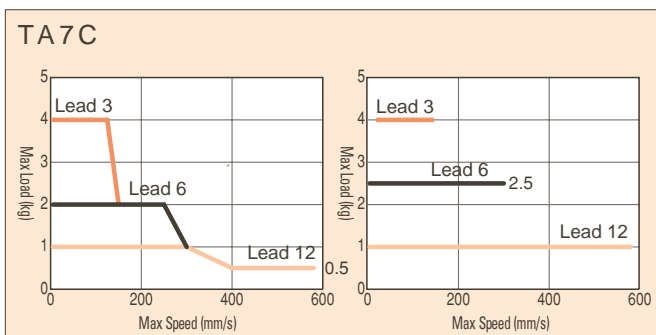
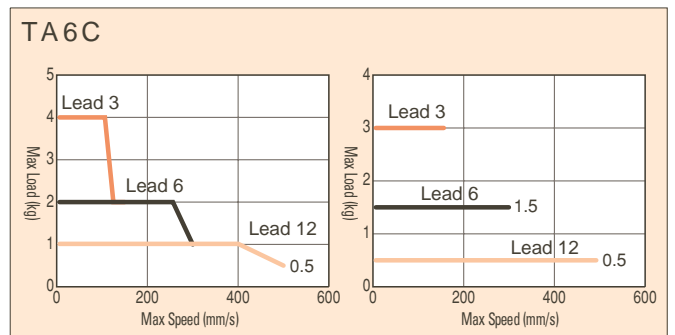
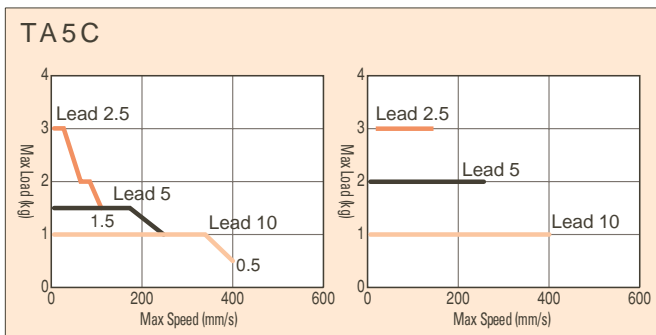


Table type: Positioning operations

Horizontal/Side-Lying Use



Vertical Use



Selection Guide (Push Force and Current Limit Chart)

The RCP3 actuator is capable of push operations in which it applies continuous pressure to the work load with the slider or table. The pressure applied during such operations can be adjusted by using the controller to set the electrical current limit. Use the push force chart below to choose a model that is capable of applying the necessary force for the moment load you plan to use.

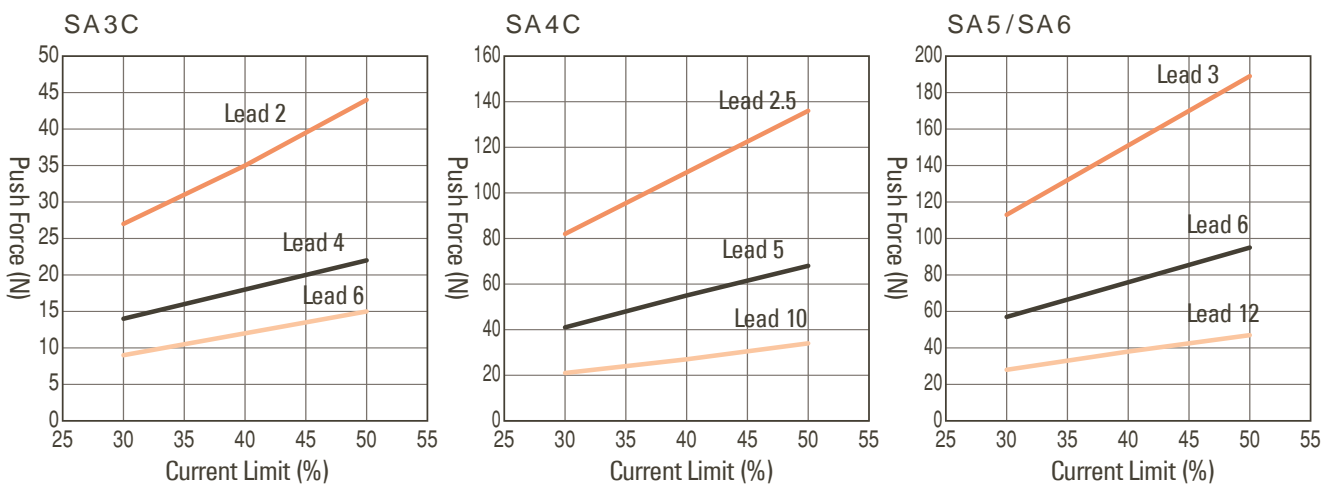
Slider Type: Push Operations

(1) Push Force

Determine the push force required, and choose an appropriate model.

When using the controller to set the current limit, the RCP3 can operate at between **30-50%** of maximum push force.

Push Force and Current Limit



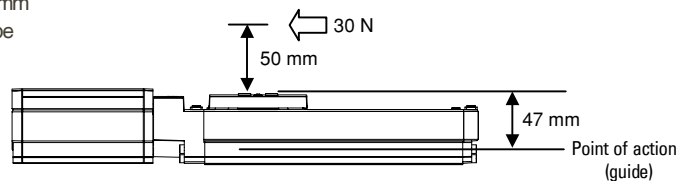
(2) Moment Load

When performing push operations with the slider type, never set the push force at a level where the corresponding reaction moment is higher than **80% of the allowable moment** as specified in the catalog.

(Calculation Example)

For RCP3-SA6C types (lead 12), if 30 N of force is applied to a point 50 mm above the top surface of the slider, the moment applied to the guide can be determined by:

$$\begin{aligned}
 Ma &= (47+50) \times 30 \\
 &= 2910 \text{ (N}\cdot\text{mm)} = \\
 &= 2.91 \text{ (N}\cdot\text{m)}
 \end{aligned}$$



The SA6C has an allowable moment (M_a) of 4.31 (N·m), 80% of which value is 3.48. In this case, because that is higher than the load moment to be applied to the guide (2.91), we determine that the device can be used in this application.

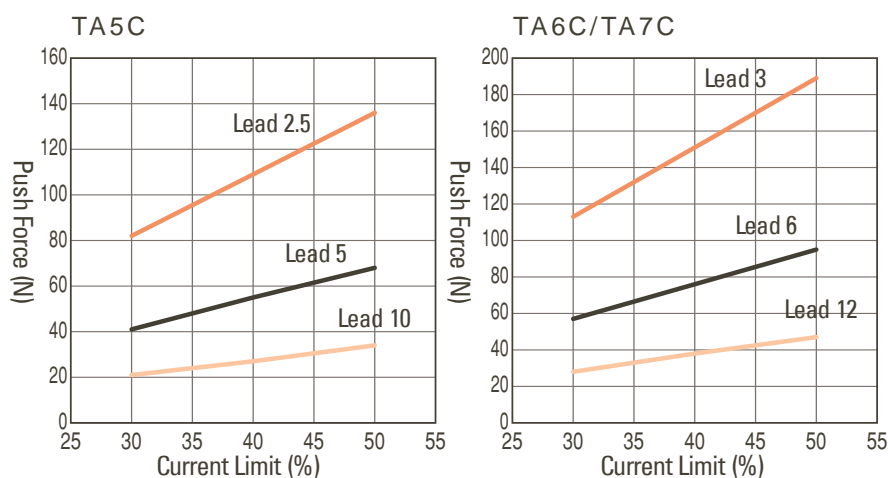
Table Type: Push Operations

(1) Push Force

Determine the push force required, and choose an appropriate model.

When using the controller to set the current limit, the RCP3 can operate at between **30-50%** of maximum push force.

Push Force and Current Limit



(2) Moment Load

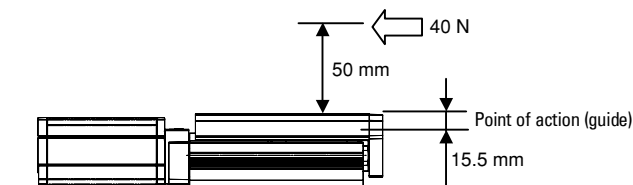
When performing push operations with the slider type, never set the push force at a level where the corresponding reaction moment is higher than **80% of the allowable moment** as specified in the catalog.

(Calculation Example)

For RCP3-TA6C types (lead 12), if 40 N of force is applied to the point shown in the diagram to the right, the moment applied to the guide can be determined by:

$$\begin{aligned}
 Ma &= (15.5+50) \times 40 \\
 &= 2620 \text{ (N}\cdot\text{mm)} = \\
 &= 2.62 \text{ (N}\cdot\text{m)}
 \end{aligned}$$

The TA6C has an allowable moment (M_a) of 7.26 (N·m), 80% of which value is 5.968. In this case, because that is higher than the load moment to be applied to the guide (2.62), we determine that the device can be used in this application.

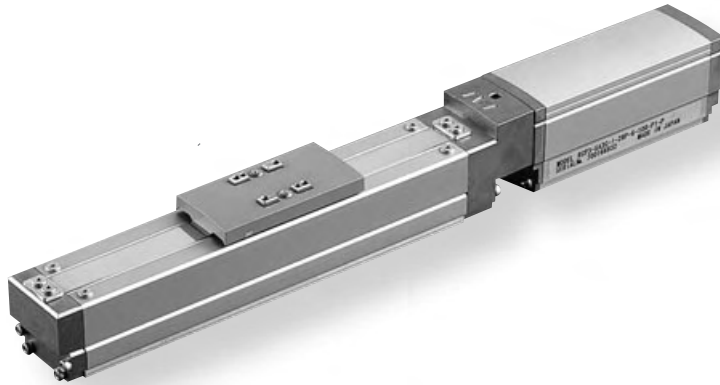


RCP3-SA3C

Robo Cylinder Slider Type Body Width 3.2 mm Pulse Motor Coupling Specification

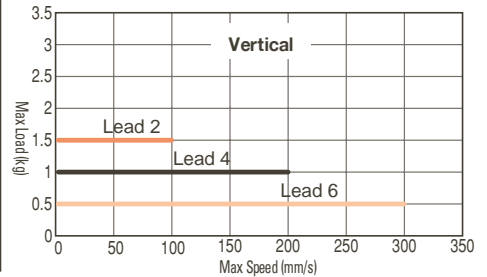
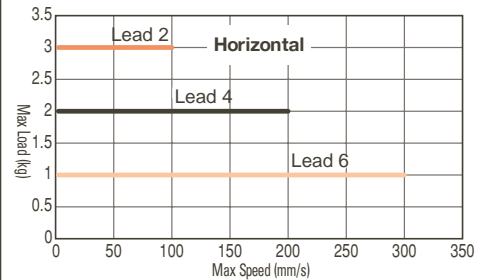
Unit	RCP3 - SA3C	I	28P	<input type="checkbox"/>	<input type="checkbox"/>	P1	<input type="checkbox"/>	<input type="checkbox"/>	
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
			I: Incremental Specification	28P: Pulse Motor 28 Size	6: 6 mm 4: 4 mm 2: 2 mm	50: 50 mm to 300: 300 mm (pitch set in 50 mm increments)	P1: PCON PSEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NCO: no cover NM: reverse spec

* See p.6 for details on various units



Speed and Weight Charts

The RCP3 Series pulse motor loses load capacity as speed increases. Check the charts below to ensure your model can handle the desired speed and load.



- (1) The RCP3 series pulse motor loses load capacity at high speeds. Check the charts to the right to ensure that your model can handle the desired speed and load.
- (2) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 2 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Lead (mm)	Max Load Capacity		Max Push (N)	Stroke (mm)
		Horiz (kg)	Vert (kg)		
RCP3-SA3C-I-28P-6- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	6	1	0.5	15	50 - 300 (by 50 mms)
RCP3-SA3C-I-28P-4- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	4	2	1	22	
RCP3-SA3C-I-28P-2- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	2	3	1.5	44	

Key Stroke Cable Length Options

Stroke and maximum speed

Lead	Stroke	50 - 300 (by 50 mms)
4	200	
2	100	

(Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code	
	SA3C	
	Encoder Type	
	Incremental	
	Body Width	
	With Cover (Standard)	Coverless (Option)
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20 m)	—

Standard cable is a motor/encoder cable conforming to robot cable specifications. See p.46 for security cables.

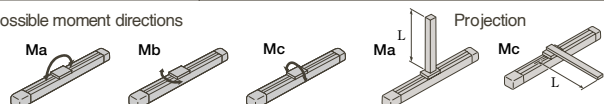
Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
No Cover	NCO	—	—
Reverse Spec	NM	—	—

Actuator Specifications

Item	Details
Drive System	Ball screw, 6 mm, rolling C10
Repetitive Positioning Accuracy	± 0.05 mm
Lost Motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum Load Moment	Ma: 1.96 N-m, Mb: 2.84 N-m, Mc: 3.14 N-m
Projection Length	Up to 100 mm
Operating Temp, Humidity	0-40°C, up to 85% RH (avoid condensation)
Operating Life	5,000 km

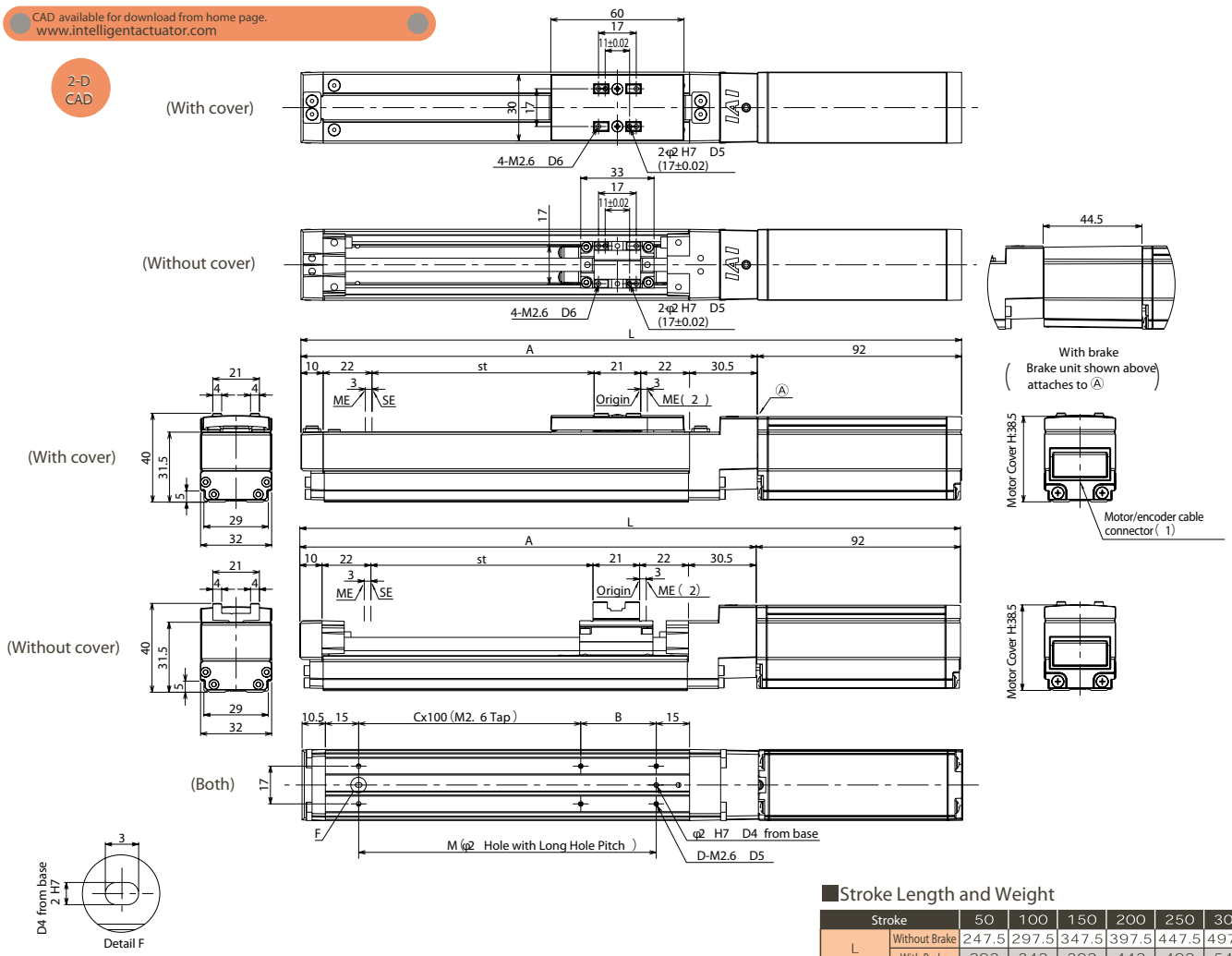
Possible moment directions



Dimensions

CAD available for download from home page.
www.intelligentactuator.com

2-D
CAD



- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please ensure that the surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Stroke Length and Weight

Stroke		50	100	150	200	250	300
L	Without Brake	247.5	297.5	347.5	397.5	447.5	497.5
	With Brake	292	342	392	442	492	542
A		155.5	205.5	255.5	305.5	355.5	405.5
B		84	34	84	34	84	34
C		0	1	1	2	2	3
D		4	6	6	8	8	10
M		84	134	184	234	284	334
Weight (kg)	With Cover	0.7	0.7	0.8	0.9	0.9	1
	Without Cover	0.6	0.7	0.7	0.8	0.8	0.9

Controllers

Compatible Controllers

RCP3 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		PCON-C-28PI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	2 A max	-	→p.41
Safety Application Positioner Type		PCON-CG-28PI-NP-2-0						
Electromagnetic Valve Type	PCON-CY-28PI-NP-2-0	Controllable together with electromagnetic valve	3					
Pulse Train Input Type (Differential Line Driver)		PCON-PL-28PI-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		PCON-SE-28PI-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RPCON-28P	Specifically designed for field networks	768				
Program Control Type		PSEL-C-1-28PI-NP-2-0	Able to run programs Maximum of 2 axes	1 500				

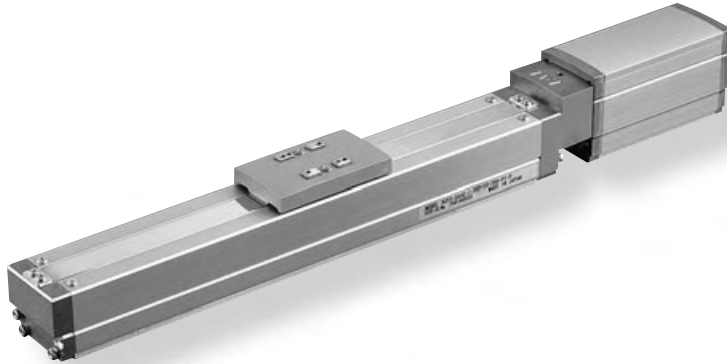
PSEL is for single-axis use

RCP3-SA4C

Robo Cylinder Slider Type Body Width 40 mm Pulse Motor Coupling Specification

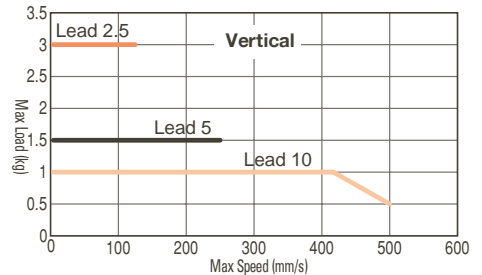
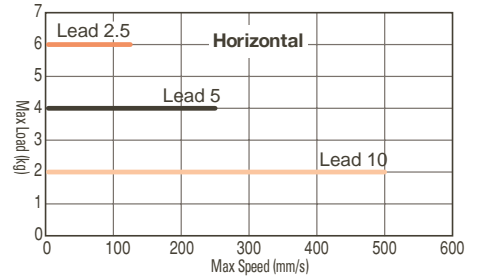
Unit	RCP3 — SA4C — I — 35P — <input type="checkbox"/> — <input type="checkbox"/> — <input type="checkbox"/>	P1 — <input type="checkbox"/> — <input type="checkbox"/>						
Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
I: Incremental Specification	35P: Pulse Motor 35 Size	10: 10 mm 5: 5 mm 2.5: 2.5 mm	50: 50 mm to 400: 400 mm <small>(pitch set in 50 mm increments)</small>	P1: PCON PSEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NCO: no cover NM: reverse spec		

※ See p.6 for details on various units



Speed and Weight Charts

The RCP3 Series pulse motor loses load capacity as speed increases. Check the charts below to ensure your model can handle the desired speed and load.



- (1) The RCP3 series pulse motor loses load capacity at high speeds. Check the charts to the right to ensure that your model can handle the desired speed and load.
- (2) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 2.5 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Lead (mm)	Max Load Capacity		Max Push (N)	Stroke (mm)
		Horiz (kg)	Vert (kg)		
RCP3-SA4C-I-35P-10- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	10	2	~ 1	34	50- 400 (by 50 mms)
RCP3-SA4C-I-35P-5- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	5	4	1.5	68	
RCP3-SA4C-I-35P-2.5- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	2.5	6	3	136	

Key Stroke Cable Length Options

Stroke and maximum speed

Lead	Stroke	50- 400 (by 50 mms)
		10
5	250	
2.5	125	

(Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code	
	SA 4 C	
	Encoder Type	
	Incremental	
	Body Width	
	With Cover (Standard)	Coverless (Option)
5 0	—	—
1 0 0	—	—
1 5 0	—	—
2 0 0	—	—
2 5 0	—	—
3 0 0	—	—
3 5 0	—	—
4 0 0	—	—

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X 0 6 (6 m) - X 1 0 (1 0 m)	—
	X 1 1 (1 1 m) - X 1 5 (1 5 m)	—
	X 1 6 (1 6 m) - X 2 0 (2 0 m)	—

See p.46 for security cables.

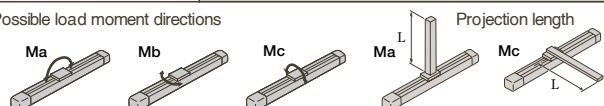
Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
No Cover	NCO	—	—
Reverses Spec	NM	—	—

Actuator Specifications

Item	Details
Drive system	Ball screw, 8 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 3.04 N-m, Mb: 4.31 N-m, Mc: 5.00 N-m
Projection length	Up to 120 mm
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

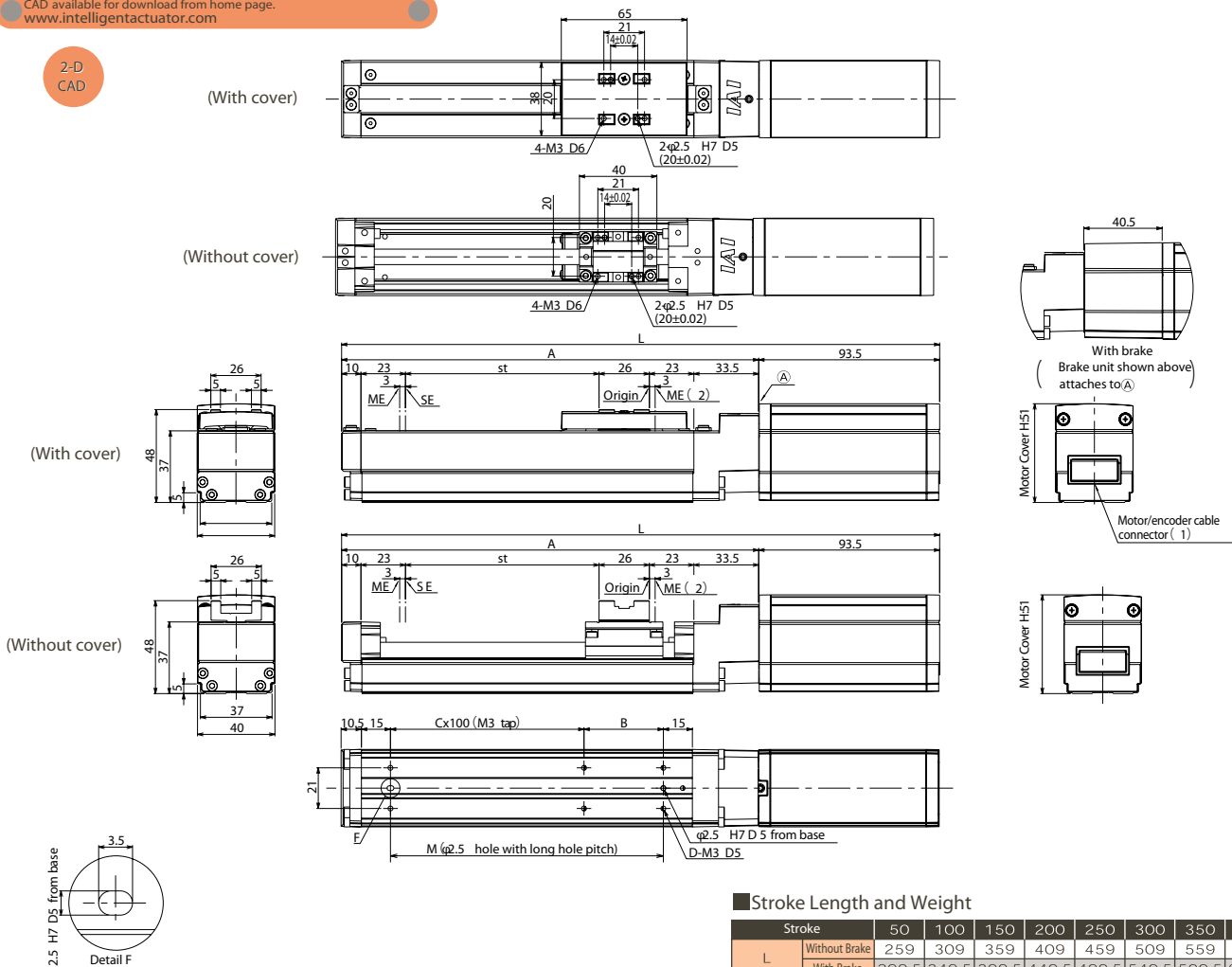
Possible load moment directions



Dimensions

CAD available for download from home page.
www.intelligentactuator.com

2-D
CAD



- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Controllers

Compatible Controllers

RCP3 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		PCON-C-35PI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	2 A max	-	→p.41
Safety Application Positioner Type		PCON-CG-35PI-NP-2-0						
Electromagnetic Valve Type	PCON-CY-35PI-NP-2-0	Controllable together with electromagnetic valve	3					
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		PCON-SE-35PI-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RPCON-35P	Specifically designed for field networks	768				
Program Control Type		PSEL-C-1-35PI-NP-2-0	Able to run programs Maximum of 2 axes	1500				

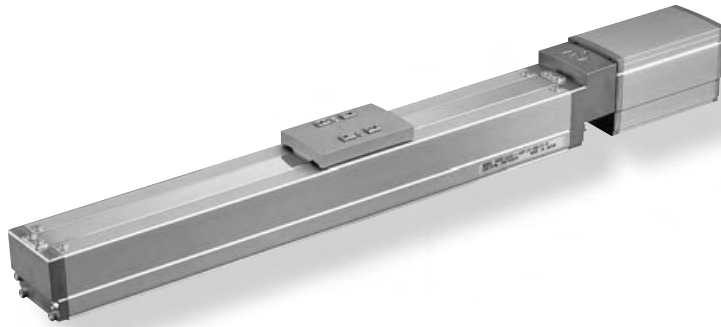
PSEL is for single-axis use

RCP3-SA5C

Robo Cylinder Slider Type Body Width 50 mm Pulse Motor Coupling Specification

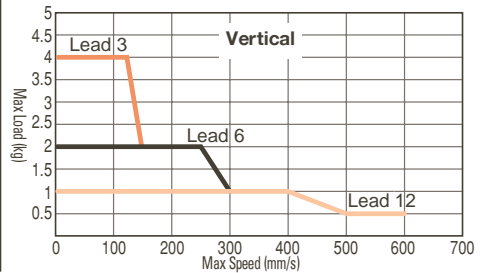
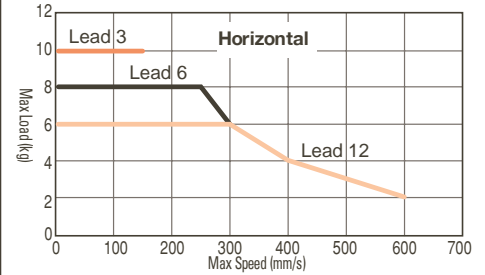
Unit	RCP3 - SA5C - I - 42P - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - P1 - <input type="checkbox"/> - <input type="checkbox"/>							
Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
I: Incremental Specification	42P: Pulse Motor 42 Size	12: 12 mm 6: 6 mm 3: 3 mm	50: 50 mm to 500: 500 mm <small>(pitch set in 50 mm increments)</small>	P1: PCON PSEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NCO: no cover NM: reverse spec		

** See p.6 for details on various units



Speed and Weight Charts

The RCP3 Series pulse motor loses load capacity as speed increases. Check the charts below to ensure your model can handle the desired speed and load.



- (1) The RCP3 series pulse motor loses load capacity at high speeds. Check the charts to the right to ensure that your model can handle the desired speed and load.
- (2) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 3 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Lead (mm)	Max Load Capacity		Max Push (N)	Stroke (mm)
		Horiz (kg)	Vert (kg)		
RCP3-SA5C-I-42P-12- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	12	~ 6	~ 1	47	50- 500 (by 50 mms)
RCP3-SA5C-I-42P-6- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	6	~ 8	~ 2	95	
RCP3-SA5C-I-42P-3- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	3	10	~ 4	189	

Key Stroke Cable Length Options

Stroke and maximum speed

Stroke Lead	50- 500 (by 50 mms)	
	12	600
6	300	
3	150	

(Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code	
	SA5C	
	Encoder Type	
	Incremental	
	Body Width	
	With Cover (Standard)	Coverless (Option)
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—
350	—	—
400	—	—
450	—	—
500	—	—

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20 m)	—

See p.46 for security cables.

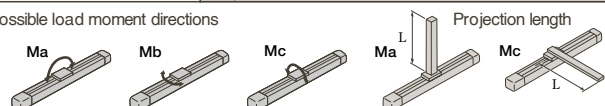
Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
No Cover	NCO	—	—
Reverse Spec	NM	—	—

Actuator Specifications

Item	Details
Drive system	Ball screw, 10 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 3.92 N-m, Mb: 5.58 N-m, Mc: 8.53 N-m
Projection length	Up to 130 mm
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

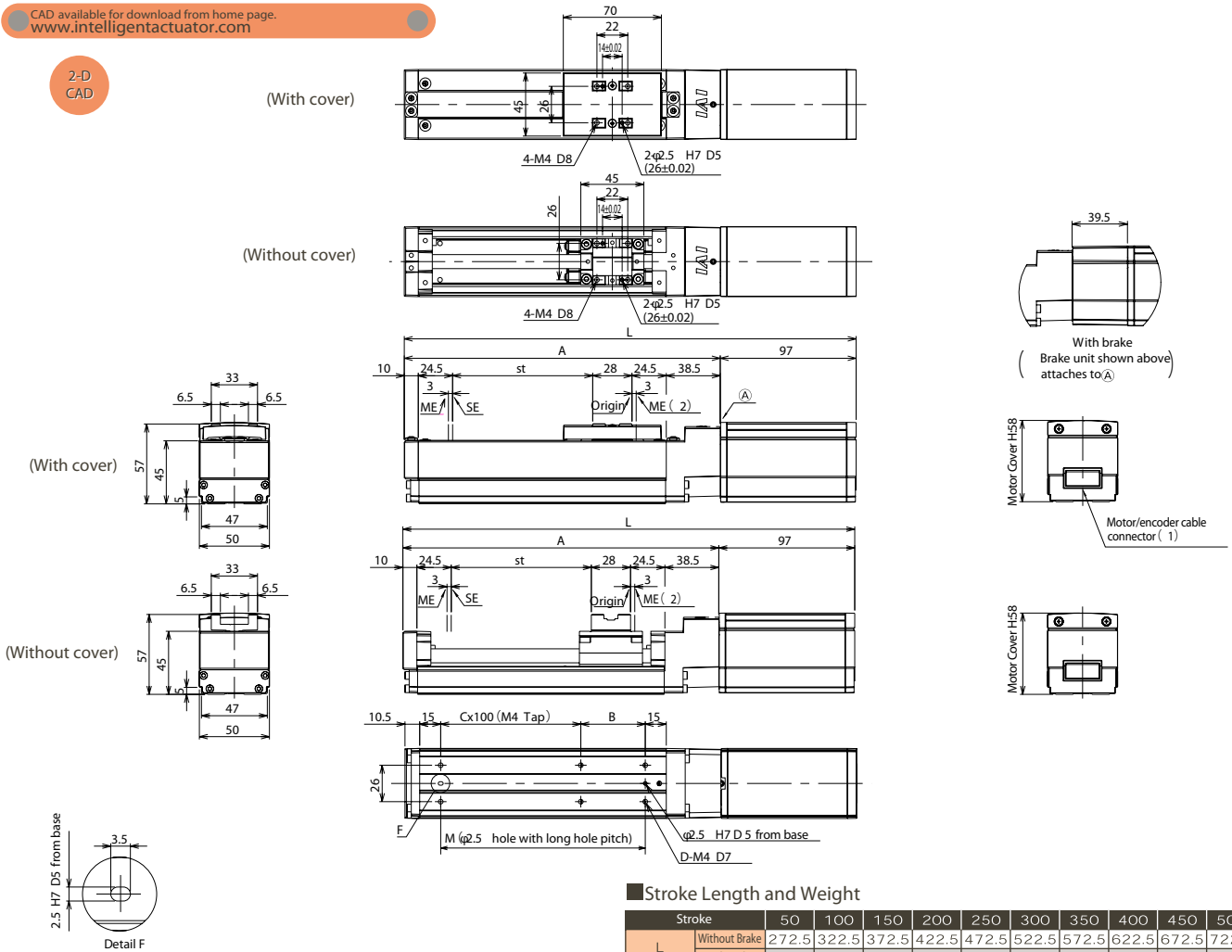
Possible load moment directions



Dimensions

CAD available for download from home page.
www.intelligentactuator.com

2-D
CAD



- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Controllers

Compatible Controllers

RCP3 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		PCON-C-42PI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	2 A max	-	→p.41
Safety Application Positioner Type		PCON-CG-42PI-NP-2-0						
Electromagnetic Valve Type		PCON-CY-42PI-NP-2-0	Controllable together with electromagnetic valve	3				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		PCON-SE-42PI-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RPCON-42P	Specifically designed for field networks	768				
Program Control Type		PSEL-C-1-42PI-NP-2-0	Able to run programs Maximum of 2 axes	1500				

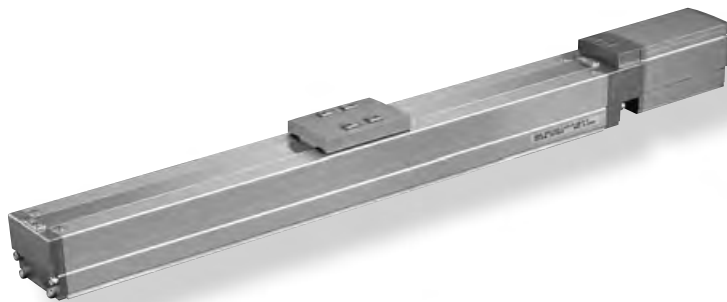
PSEL is for single-axis use

RCP3-SA6C

Robo Cylinder Slider Type Body Width 60 mm Pulse Motor Coupling Specification

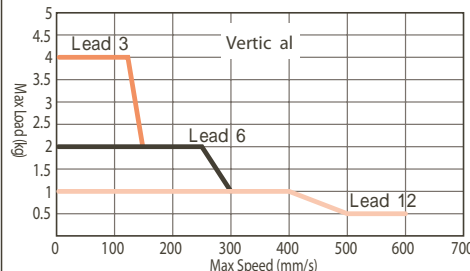
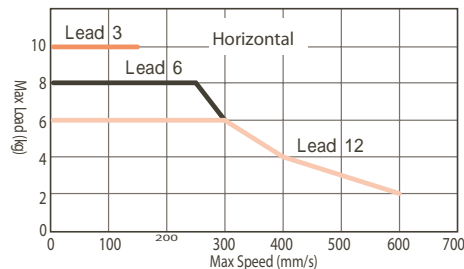
Unit	RCP3 - SA6C	I	42P			P1		
Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
		I: Incremental Specification	42P: Pulse Motor 42 Size	12: 12 mm 6: 6 mm 3: 3 mm	50: 50 mm to 600: 600 mm (pitch set in 50mm increments)	P1: PCON PSEL	N: none P: 1 m S: 3 m M: 5 m X <input type="checkbox"/> : custom length	B: w/ brake NCO: no cover NM: reverse spec

See p6 for details on various units



Speed and Weight Charts

The RCP3 Series pulse motor loses load capacity as speed increases. Check the charts below to ensure your model can handle the desired speed and load.



- (1) Maximum speed decreases as stroke length increases due to ball screw critical rotation speed. Check actuator specifications below for maximum speed at desired stroke length.
- (2) The RCP3 series pulse motor loses load capacity at high speeds. Check the charts to the right to ensure that your model can handle the desired speed and load.
- (3) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 3 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Lead (mm)	Max Load Capacity		Max Push (N)	Stroke (mm)
		Horiz (kg)	Vert (kg)		
RCP3-SA6C-I-42P-12-①-P1-②-③	12	~6	~1	47	50- 600 (by 50 mms)
RCP3-SA6C-I-42P-6-①-P1-②-③	6	~8	~2	95	
RCP3-SA6C-I-42P-3-①-P1-②-③	3	10	~4	189	

Key ① Stroke ② Cable Length ③ Options

Stroke and maximum speed

Stroke	50- 550 (by 50 mms)		600 (mm)
	Lead	Max Speed (mm/s)	
12	300	600	540
6	150	300	270
3	75	150	135

(Unit: mm/s)

① Pricing by Stroke (Standard)

① Stroke (mm)	Type Code	
	SA6C	
	Encoder Type	
	Incremental	
	Body Width	
	With Cover (Standard)	Coverless (Option)
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—
350	—	—
400	—	—
450	—	—
500	—	—
550	—	—
600	—	—

③ Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
No Cover	NCO	—	—
Reverse Spec	NM	—	—

② Pricing by Cable Length (Standard)

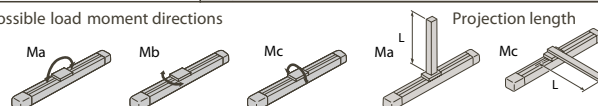
Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20m)	—

※See p.46 for security cables.

Actuator Specifications

Item	Details
Drive system	Ball screw w, ϕ 10 mm, rolling C10
Repetitive positioning accuracy	\pm 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 4.31 N·m, Mb: 6.17 N·m, Mc: 10.98 N·m
Projection length	Up to 150 mm
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

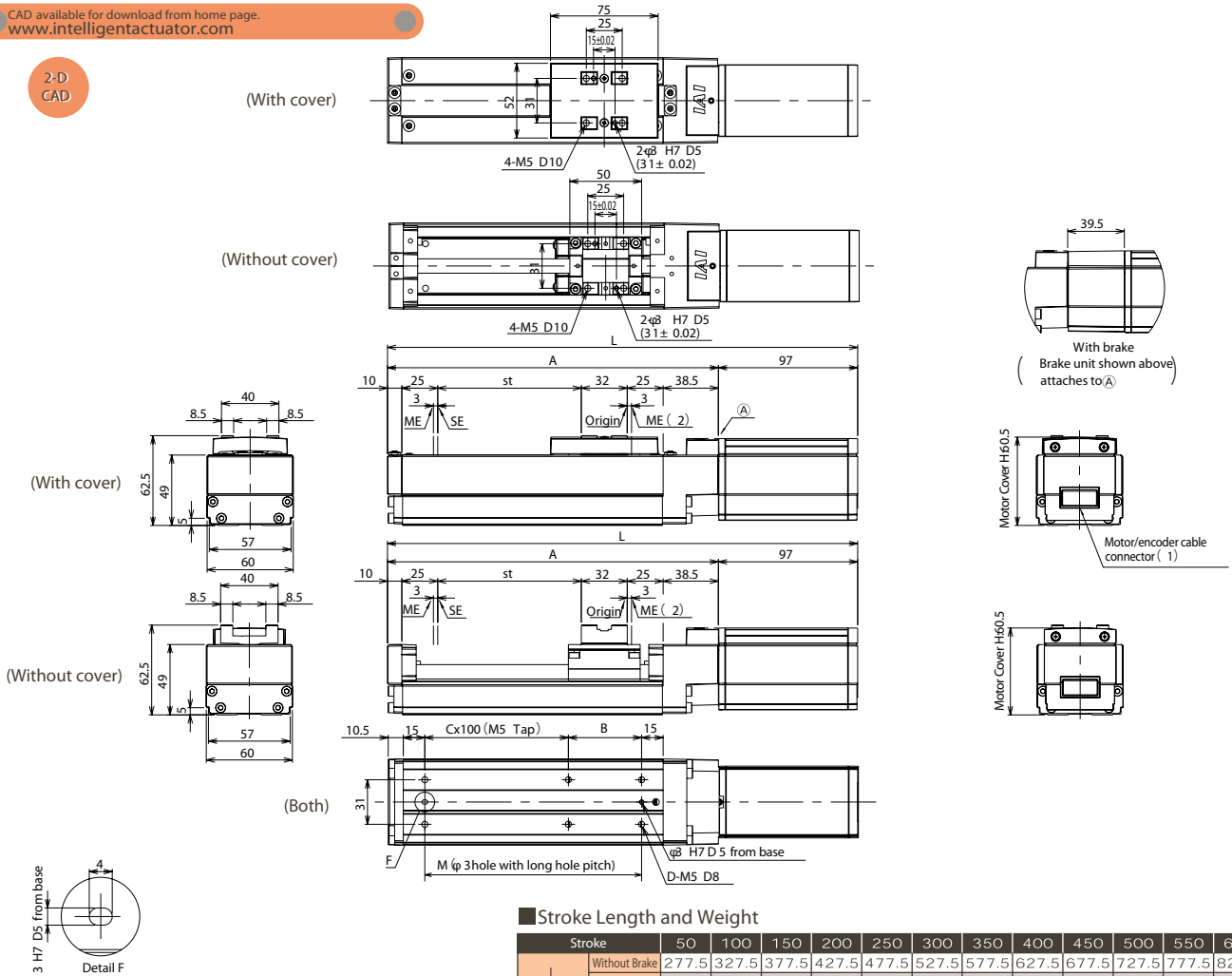
Possible load moment directions



Dimensions

CAD available for download from home page.
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2-D
CAD



Stroke Length and Weight

Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	Without Brake	277.5	327.5	377.5	427.5	477.5	527.5	577.5	627.5	677.5	727.5	827.5
	With Brake	317	367	417	467	517	567	617	667	717	767	867
A	180.5	230.5	280.5	330.5	380.5	430.5	480.5	530.5	580.5	630.5	680.5	730.5
B	101	51	101	51	101	51	101	51	101	51	101	51
C	0	1	1	2	2	3	3	4	4	5	5	6
D	4	6	6	8	8	10	10	12	12	14	14	16
M	101	151	201	251	301	351	401	451	501	551	601	651
Weight (kg)	With Cover	1.6	1.8	2	2.1	2.3	2.5	2.7	2.8	3	3.2	3.3
	Without Cover	1.5	1.7	1.8	2	2.1	2.3	2.4	2.6	2.7	2.8	3.1

- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Controllers

Compatible Controllers

RCP3 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		PCON-C-42PI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	2 A max	-	→p.41
Safety Application Positioner Type		PCON-CG-42PI-NP-2-0						
Electromagnetic Valve Type		PCON-CY-42PI-NP-2-0	Controllable together with electromagnetic valve	3				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		PCON-SE-42PI-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RPCON-42P	Specifically designed for field networks	768				
Program Control Type		PSEL-C-1-42PI-NP-2-0	Able to run programs Maximum of 2 axes	1500				

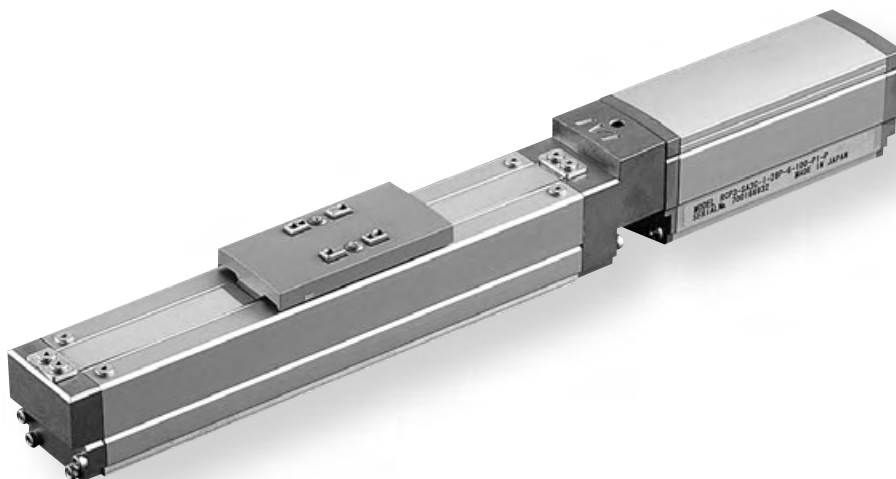
PSEL is for single-axis use

RCA2-SA3C

Robo Cylinder Slider Type Body Width 32 mm Servo Motor Coupling Specification

Unit	RCA2-SA3C	I	10	<input type="checkbox"/>	<input type="checkbox"/>	A1	<input type="checkbox"/>	<input type="checkbox"/>	
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
			I: Incremental Specification	10: Servo Motor 10W	6: 6 mm 4: 4 mm 2: 2 mm	50: 50 mm to 300: 300 mm <small>(pitch set in 50 mm increments)</small>	A1: ACON ASEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NCO: no cover NM: reverse spec

* See p.6 for details on various units



(1) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 2 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Motor Output (W)	Lead (mm)	Max Load Capacity		Rated Force (N)	Stroke (mm)
			Horiz (kg)	Vert (kg)		
RCA2-SA3C-I-10-6- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>	10	6	1	0.5	28	50-300 (by 50 mms)
RCA2-SA3C-I-10-4- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		4	2	1	43	
RCA2-SA3C-I-10-2- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		2	3	1.5	85	

Key Stroke Cable Length Options

Stroke and maximum speed

Stroke Lead	50-300 (by 50 mms)	
	6	300
4	200	
2	100	

(Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code	
	SA3C	
	Encoder Type	
	Incremental	
	Body Width	
	With Cover (Standard)	Coverless (Option)
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20 m)	—

See p.46 for security cables.

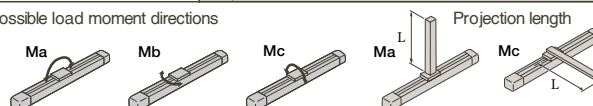
Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
No Cover	NCO	—	—
Reverse Spec	NM	—	—

Actuator Specifications

Item	Details
Drive system	Ball screw, 6 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 1.96 N-m, Mb: 2.84 N-m, Mc: 3.14 N-m
Projection length	Up to 100 mm
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

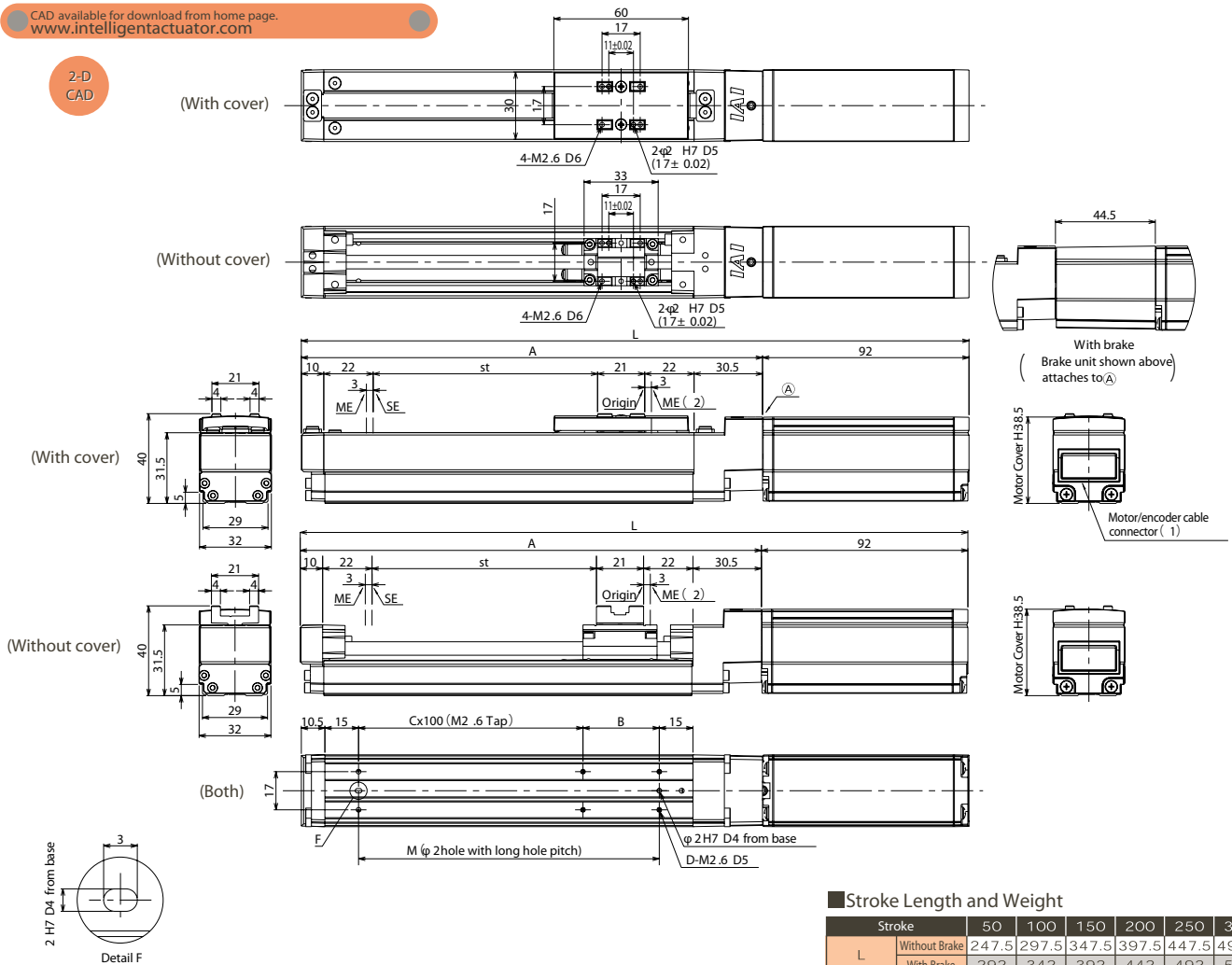
Possible load moment directions



Dimensions

CAD available for download from home page.
www.intelligentactuator.com

2-D
CAD



- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Stroke Length and Weight

Stroke		50	100	150	200	250	300
L	Without Brake	247.5	297.5	347.5	397.5	447.5	497.5
	With Brake	292	342	392	442	492	542
A		155.5	205.5	255.5	305.5	355.5	405.5
B		84	34	84	34	84	34
C		0	1	1	2	2	3
D		4	6	6	8	8	10
M		84	134	184	234	284	334
Weight (kg)	With Cover	0.6	0.6	0.7	0.8	0.8	0.9
	Without Cover	0.5	0.6	0.6	0.7	0.7	0.8

Controllers

Compatible Controllers

RCA2 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		ACON-C-10I-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	-	→p.41
Safety Application Positioner Type		ACON-CG-10I-NP-2-0						
Electromagnetic Valve Type	ACON-CY-10I-NP-2-0	Controllable together with electromagnetic valve	3					
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		ACON-PO-10I-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		ACON-SE-10I-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RACON-10	Specifically designed for field networks	768				
Program Control Type		ASEL-C-1-10I-NP-2-0	Able to run programs Maximum of 2 axes	1500				

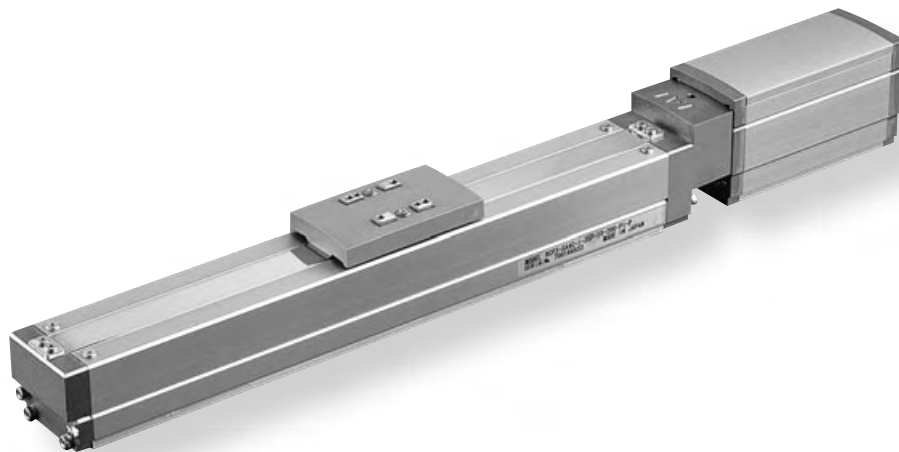
ASEL is for single-axis use

RCA2-SA4C

Robo Cylinder Slider Type Body Width 40 mm Servo Motor Coupling Specification

Unit	RCA2-SA4C	I	20	<input type="checkbox"/>	<input type="checkbox"/>	A1	<input type="checkbox"/>	<input type="checkbox"/>	
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
			I: Incremental Specification	20: Servo Motor 20W	10: 10 mm 5: 5 mm 2.5: 2.5 mm	50: 50 mm to 500: 500 mm <small>(pitch set in 50 mm increments)</small>	A1: ACON ASEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NCO: no cover NM: reverse spec

※ See p.6 for details on various units



(1) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 2.5 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Motor Output (W)	Lead (mm)	Max Load Capacity		Rated Force (N)	Stroke (mm)
			Horiz (kg)	Vert (kg)		
RCA2-SA4C-I-20-10- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>	20	10	2	1	34	50-400 <small>(by 50 mms)</small>
RCA2-SA4C-I-20-5- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		5	4	1.5	68	
RCA2-SA4C-I-20-2.5- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		2.5	6	3	136	

Key Stroke Cable Length Options

Stroke and maximum speed

Lead	Stroke	50-400 <small>(by 50 mms)</small>
	10	500
5	250	
2.5	125	

(Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code	
	SA4C	
	Encoder Type	
	Incremental	
	Body Width	
	With Cover (Standard)	Coverless (Option)
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—
350	—	—
400	—	—

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20 m)	—

See p.46 for security cables.

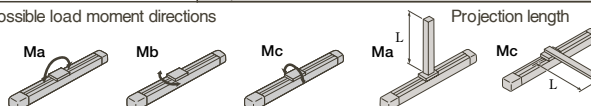
Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
No Cover	NCO	—	—
Reverse Spec	NM	—	—

Actuator Specifications

Item	Details
Drive system	Ball screw, 8 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 3.04 N-m, Mb: 4.31 N-m, Mc: 5.00 N-m
Projection length	Up to 120 mm
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

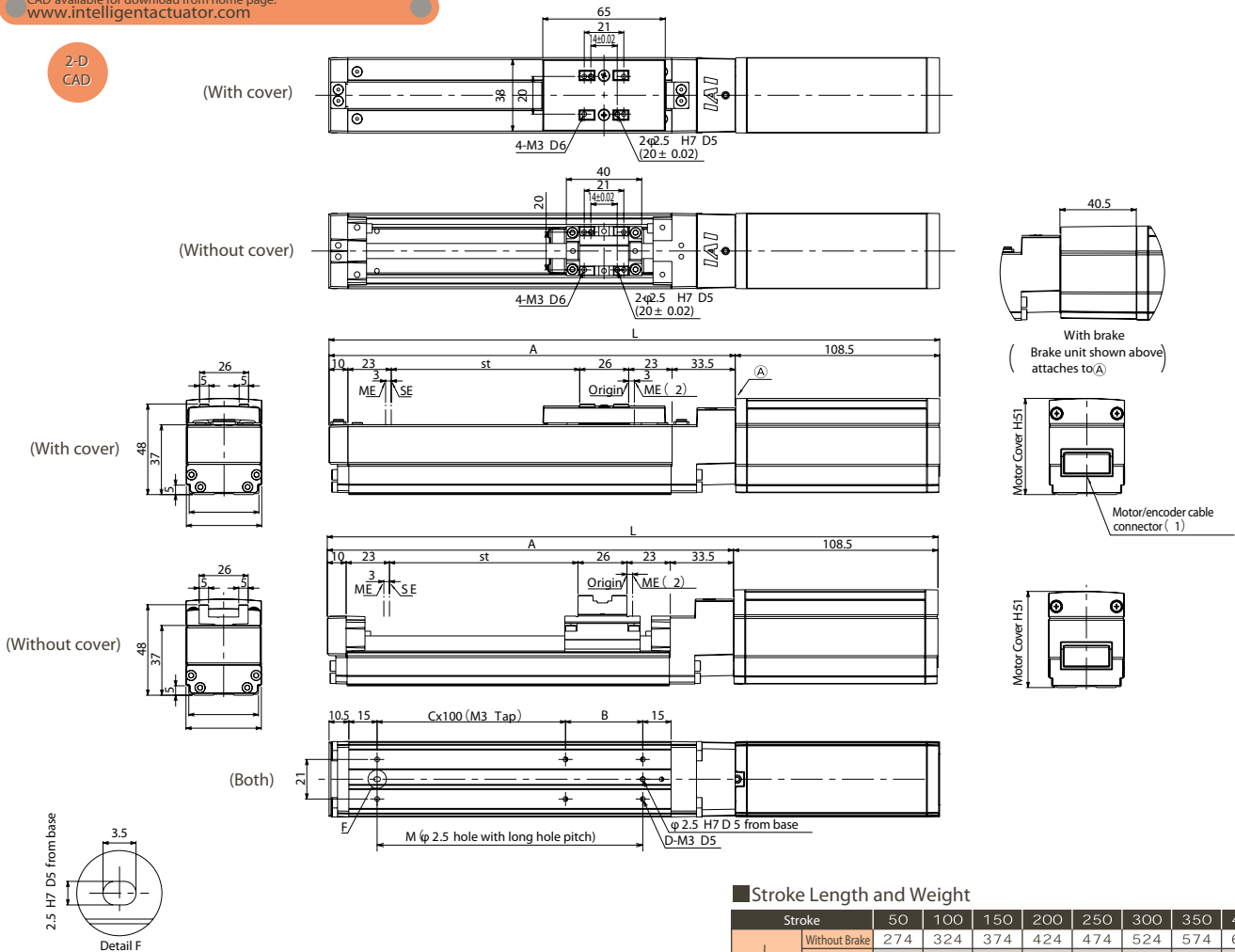
Possible load moment directions



Dimensions

CAD available for download from home page.
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CAD



- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Stroke Length and Weight

Stroke		50	100	150	200	250	300	350	400
L	Without Brake	274	324	374	424	474	524	574	624
	With Brake	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5
A		165.5	215.5	265.5	315.5	365.5	415.5	465.5	515.5
B		91	41	91	41	91	41	91	41
C		0	1	1	2	2	3	3	4
D		4	6	6	8	8	10	10	12
M		91	141	191	241	291	341	391	441
Weight (kg)	With Cover	0.9	1	1.1	1.1	1.2	1.3	1.4	1.5
	Without Cover	0.8	0.9	1	1	1.1	1.2	1.3	1.3

Controllers

Compatible Controllers

RCA2 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		ACON-C-2OSI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	-	→p.41
Safety Application Positioner Type		ACON-CG-2OSI-NP-2-0						
Electromagnetic Valve Type	ACON-CY-2OSI-NP-2-0	Controllable together with electromagnetic valve	3					
Pulse Train Input Type (Differential Line Driver)		ACON-PL-2OSI-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		ACON-PO-2OSI-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		ACON-SE-2OSI-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RACON-2OS	Specifically designed for field networks	768				
Program Control Type		ASEL-C-1-2OSI-NP-2-0	Able to run programs Maximum of 2 axes	1500				

ASEL is for single-axis use

RCA2-SA5C

Robo Cylinder Slider Type Body Width 50 mm Servo Motor Coupling Specification

Unit	RCA2-SA5C	I	20	<input type="checkbox"/>	<input type="checkbox"/>	A1	<input type="checkbox"/>	<input type="checkbox"/>	
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
			I: Incremental Specification	20: Servo Motor 20W	12: 12 mm 6: 6 mm 3: 3 mm	50: 50 mm to 500: 500 mm <small>(pitch set in 50 mm increments)</small>	A1: ACON ASEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NCO: no cover NM: reverse spec

*: See p.6 for details on various units



(1) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 3 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Motor Output (W)	Lead (mm)	Max Load Capacity		Rated Force (N)	Stroke (mm)
			Horiz (kg)	Vert (kg)		
RCA2-SA5C-I-20-12- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>	20	12	3	1	17	50-500 (by 50 mms)
RCA2-SA5C-I-20-6- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		6	6	1.5	34	
RCA2-SA5C-I-20-3- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		3	9	3	68	

Key Stroke Cable Length Options

Stroke and maximum speed

Lead	Stroke	50-500 (by 50 mms)
	12	600
6	300	
3	150	

(Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code	
	SA5C	
	Encoder Type	
	Incremental	
	Body Width	
	With Cover (Standard)	Coverless (Option)
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—
350	—	—
400	—	—
450	—	—
500	—	—

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20 m)	—

See p.46 for security cables.

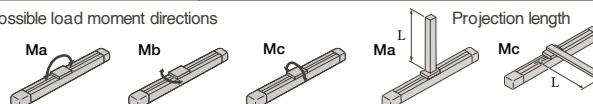
Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
No Cover	NCO	—	—
Reverse Spec	NM	—	—

Actuator Specifications

Item	Details
Drive system	Ball screw, 10 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 3.92 N-m, Mb: 5.58 N-m, Mc: 8.53 N-m
Projection length	Up to 130 mm
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

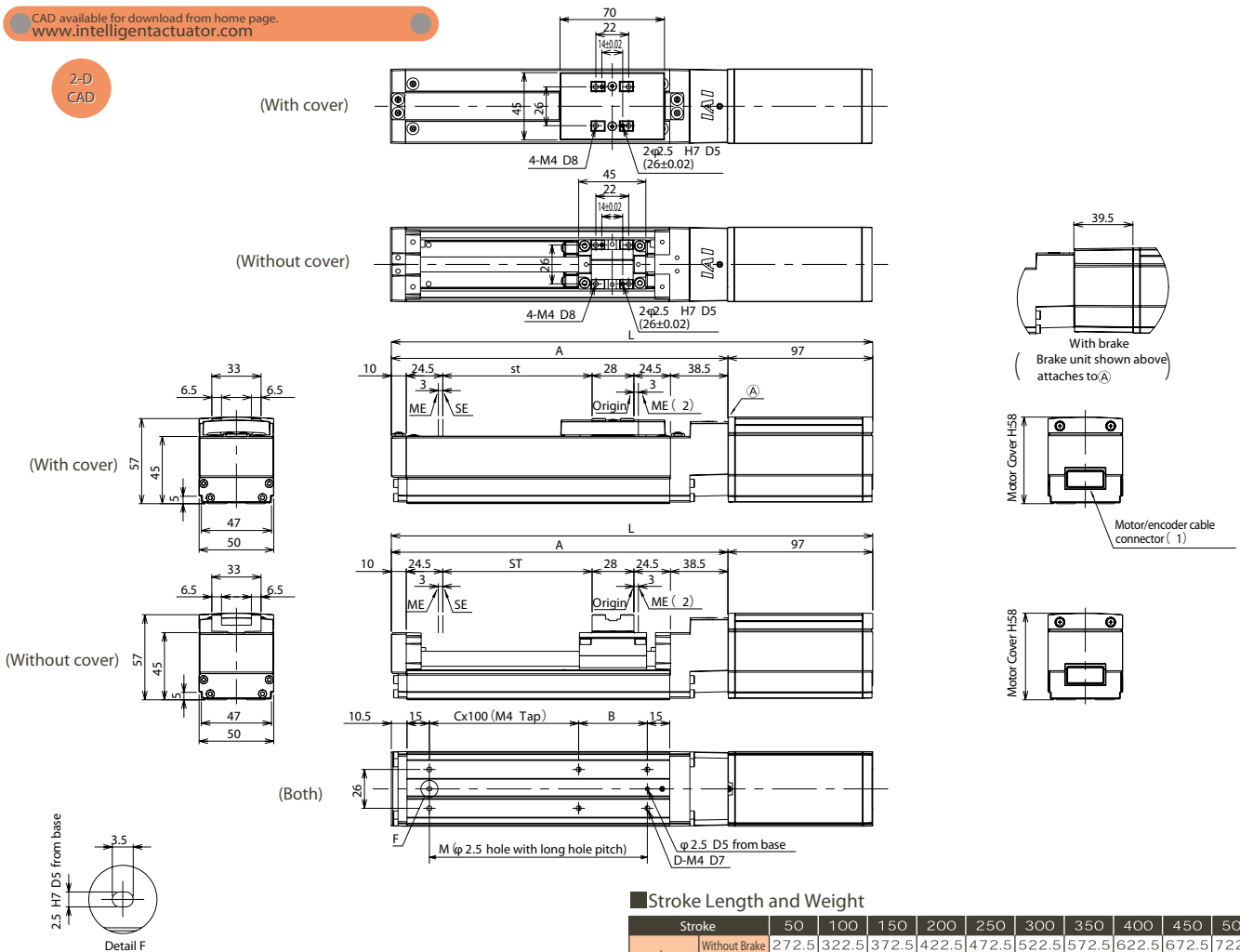
Possible load moment directions



Dimensions

CAD available for download from home page:
www.intelligentactuator.com

2-D
CAD



- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Stroke Length and Weight

Stroke	50	100	150	200	250	300	350	400	450	500	
L	Without Brake	272.5	322.5	372.5	422.5	472.5	522.5	572.5	622.5	672.5	722.5
	With Brake	312	362	412	462	512	562	612	662	712	762
A	175.5	225.5	275.5	325.5	375.5	425.5	475.5	525.5	575.5	625.5	
B	96	46	96	46	96	46	96	46	96	46	
C	0	1	1	2	2	3	3	4	4	5	
D	4	6	6	8	8	10	10	12	12	14	
M	96	146	196	246	296	346	396	446	496	546	
Weight (kg)	With Cover	1.2	1.4	1.5	1.6	1.8	1.9	2	2.2	2.3	2.4
	Without Cover	1.1	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1

Controllers

Compatible Controllers

RCA2 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		ACON-C-20I-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	-	→p.41
Safety Application Positioner Type		ACON-CG-20I-NP-2-0						
Electromagnetic Valve Type	ACON-CY-20I-NP-2-0	Controllable together with electromagnetic valve	3					
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		ACON-PO-20I-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		ACON-SE-20I-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RACON-20	Specifically designed for field networks	768				
Program Control Type		ASEL-C-1-20I-NP-2-0	Able to run programs Maximum of 2 axes	1500				

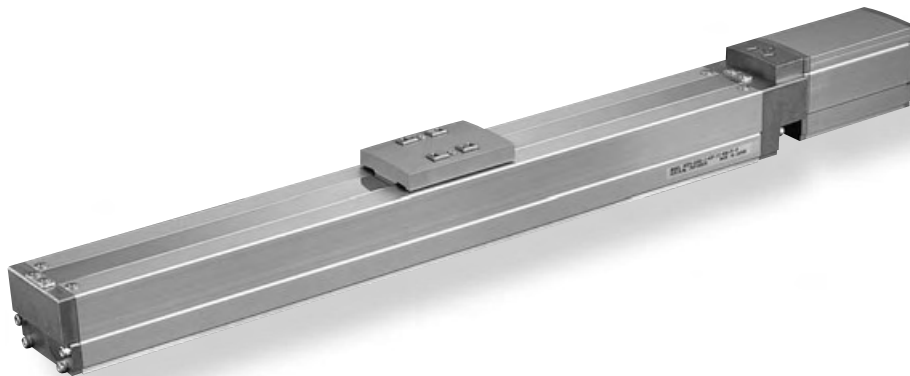
ASEL is for single-axis use

RCA2-SA6C

Robo Cylinder Slider Type Body Width 60 mm Servo Motor Coupling Specification

Unit	RCA2-SA6C	I	30	<input type="checkbox"/>	<input type="checkbox"/>	A1	<input type="checkbox"/>	<input type="checkbox"/>	
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
			I: Incremental Specification	30: Servo Motor 30W	12: 12 mm 6: 6 mm 3: 3 mm	50: 50 mm to 600: 600 mm (pitch set in 50 mm increments)	A1: ACON ASEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NCO: no cover NM: reverse spec

*: See p.6 for details on various units



- (1) Maximum speed decreases as stroke length increases due to ball screw critical rotation speed. Check actuator specifications below for maximum speed at desired stroke length.
- (2) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 3 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Motor Output (W)	Lead (mm)	Max Load Capacity		Rated Force (N)	Stroke (mm)
			Horiz (kg)	Vert (kg)		
RCA2-SA6C-I-30-12- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>	30	12	4	1.5	26	50-600 (by 50 mms)
RCA2-SA6C-I-30-6- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		6	7	2	53	
RCA2-SA6C-I-30-3- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		3	10	4	105	

Key Stroke Cable Length Options

Stroke and maximum speed

Stroke Lead	50-550 (by 50 mms)	600 (mm)
	12	600
6	300	270
3	150	135

(Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code	
	SA6C	
	Encoder Type	
	Incremental	
	Body Width	
	With Cover (Standard)	Coverless (Option)
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—
350	—	—
400	—	—
450	—	—
500	—	—
550	—	—
600	—	—

Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
No Cover	NCO	—	—
Reverse Spec	NM	—	—

Pricing by Cable Length (Standard)

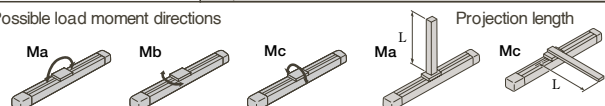
Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20 m)	—

See p.46 for security cables.

Actuator Specifications

Item	Details
Drive system	Ball screw, 8 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 4.31 N-m, Mb: 6.17 N-m, Mc: 10.98 N-m
Projection length	Up to 150 mm
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

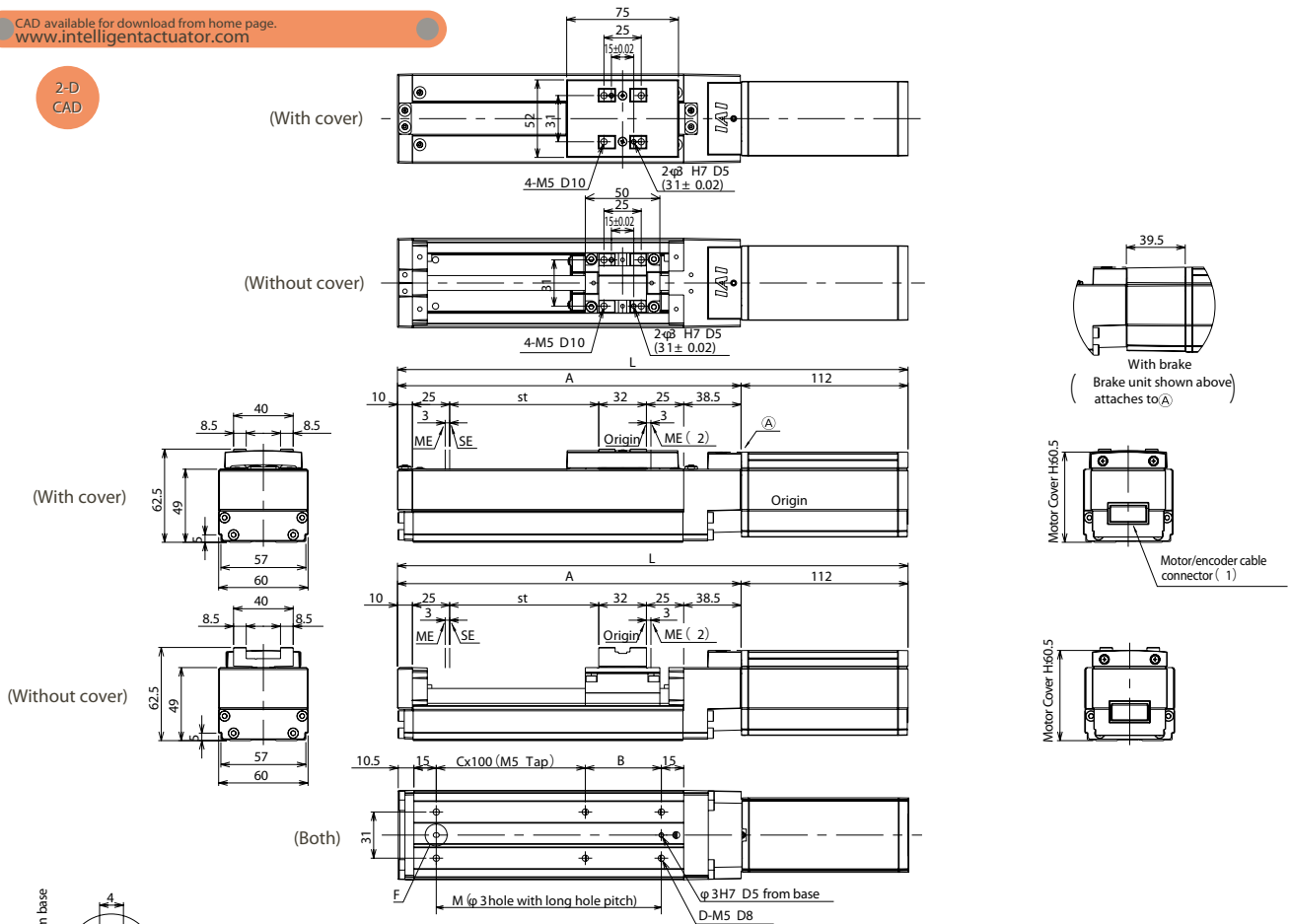
Possible load moment directions



Dimensions

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CAD



Stroke Length and Weight

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	
L	Without Brake	292.5	342.5	392.5	442.5	492.5	542.5	592.5	642.5	692.5	742.5	792.5	842.5
	With Brake	332	382	432	482	532	582	632	682	732	782	832	882
A	180.5	230.5	280.5	330.5	380.5	430.5	480.5	530.5	580.5	630.5	680.5	730.5	
B	101	51	101	51	101	51	101	51	101	51	101	51	
C	0	1	1	2	2	3	3	4	4	5	5	6	
D	4	6	6	8	8	10	10	12	12	14	14	16	
M	101	151	201	251	301	351	401	451	501	551	601	651	
Weight (kg)	With Cover	1.6	1.7	1.9	2.1	2.3	2.4	2.6	2.8	2.9	3.1	3.3	3.5
	Without Cover	1.5	1.6	1.8	1.9	2.1	2.2	2.3	2.5	2.6	2.8	2.9	3.1

- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Controllers

Compatible Controllers

RCA2 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		ACON-C-30I-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	-	→p.41
Safety Application Positioner Type		ACON-CG-30I-NP-2-0						
Electromagnetic Valve Type		ACON-CY-30I-NP-2-0	Controllable together with electromagnetic valve	3				
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30I-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		ACON-PO-30I-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		ACON-SE-30I-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RACON-30	Specifically designed for field networks	768				
Program Control Type		ASEL-C-1-30I-NP-2-0	Able to run programs Maximum of 2 axes	1500				

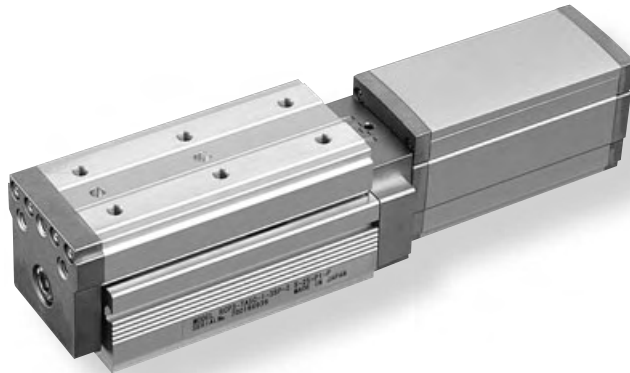
ASEL is for single-axis use

RCP3-TA5C

Robo Cylinder Table Type Body Width 55 mm Pulse Motor Coupling Specification

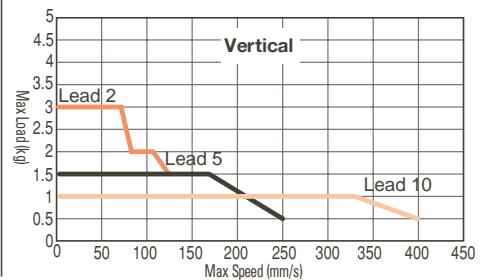
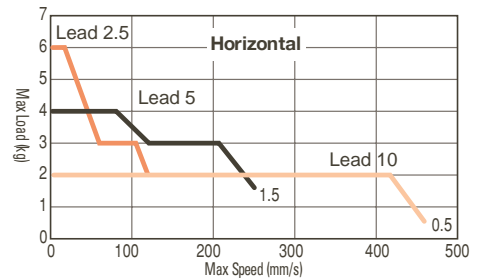
Unit	RCP3	TA5C	I	35P	<input type="checkbox"/>	<input type="checkbox"/>	P1	<input type="checkbox"/>	<input type="checkbox"/>
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
			I: Incremental Specification	35P: Pulse Motor 35 Size	10: 10 mm 5: 5 mm 2.5: 2.5 mm	25: 25 mm to 100: 100 mm <small>(pitch set in 25 mm increments)</small>	P1: PCON PSEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NM: reverse spec

*: See p.6 for details on various units



Speed and Weight Charts

The RCP3 Series pulse motor loses load capacity as speed increases. Check the charts below to ensure your model can handle the desired speed and load.



- (1) The RCP3 series pulse motor loses load capacity at high speeds. Check the charts to the right to ensure that your model can handle the desired speed and load.
- (2) Please note that maximum speed differs for horizontal and vertical use.
- (3) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 2.5 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Lead (mm)	Max Load Capacity		Max Push (N)	Stroke (mm)
		Horiz (kg)	Vert (kg)		
RCP3-TA5C-I-35P-10- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	10	~ 2	~ 1	34	25- 100 (by 25 mms)
RCP3-TA5C-I-35P-5- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	5	~ 4	~ 1.5	68	
RCP3-TA5C-I-35P-2.5- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	2.5	~ 6	~ 3	136	

Key Stroke Cable Length Options

Stroke and maximum speed

Stroke Lead	25- 100 (by 25 mms)	
	10	465
5	250	
2.5	125	

Brackets are for vertical use (Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code
	2 5
5 0	Encoder Type
	Incremental
7 5	—
1 0 0	—

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X 0 6 (6 m) - X 1 0 (10 m)	—
	X 1 1 (11 m) - X 1 5 (15 m)	—
	X 1 6 (16 m) - X 2 0 (20 m)	—
		—

See p.46 for security cables.

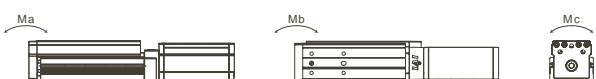
Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
Reverse Spec	NM	—	—

Actuator Specifications

Item	Details
Drive system	Ball screw, 8 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 6.57 N·m, Mb: 9.32 N·m, Mc: 14.32 N·m
Projection length	-
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

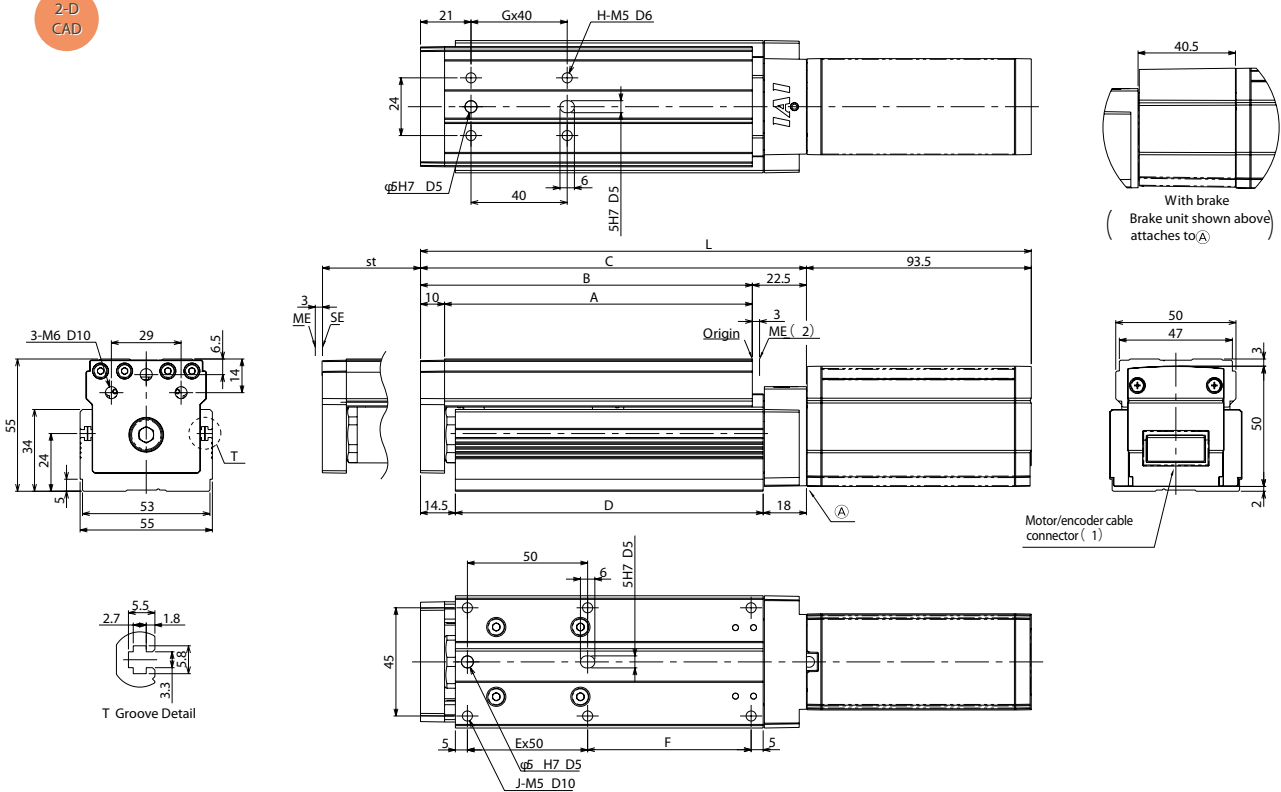
Possible load moment directions



Dimensions

CAD available for download from home page:
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2-D
CAD



Stroke Length and Weight

Stroke		25	50	75	100
L	Without Brake	229	254	279	304
	With Brake	269.5	294.5	319.5	344.5
A		103	128	153	178
B		113	138	163	188
C		135.5	160.5	185.5	210.5
D		103	128	153	178
E		1	1	2	2
F		43	68	43	68
G		1	1	2	2
H		4	4	6	6
J		6	6	8	8
Weight (kg)		1.2	1.4	1.5	1.7

- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Controllers

Compatible Controllers

RCP3 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		PCON-C-35PI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	-	→p.41
Safety Application Positioner Type		PCON-CG-35PI-NP-2-0						
Electromagnetic Valve Type		PCON-CY-35PI-NP-2-0	Controllable together with electromagnetic valve	3				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		PCON-SE-35PI-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RPCON-35P	Specifically designed for field networks	768				
Program Control Type		PSEL-C-1-35PI-NP-2-0	Able to run programs Maximum of 2 axes	1500				

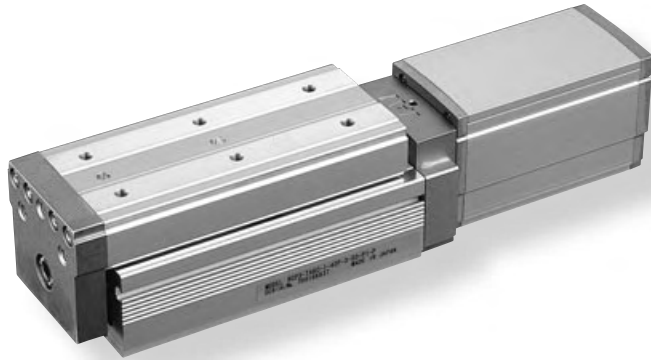
PSEL is for single-axis use

RCP3-TA6C

Robo Cylinder Table Type Body Width 65 mm Pulse Motor Coupling Specification

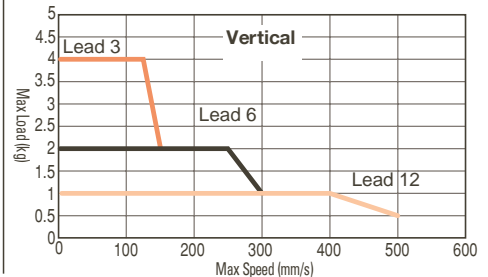
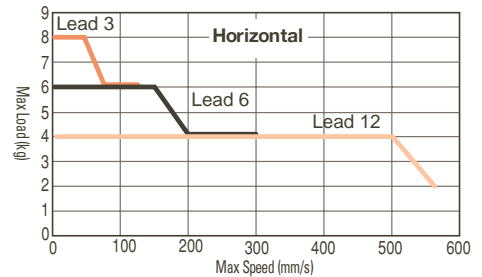
Unit	RCP3 - TA6C - I - 42P - <input type="checkbox"/> - <input type="checkbox"/> - P1 - <input type="checkbox"/> - <input type="checkbox"/>							
Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
I: Incremental Specification	42P: Pulse Motor 42 Size	12: 12 mm 6: 6 mm 3: 3 mm	25: 25 mm to 150: 150 mm <small>(pitch set in 25 mm increments)</small>	P1: PCON PSEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NM: reverse spec		

*: See p.6 for details on various units



Speed and Weight Charts

The RCP3 Series pulse motor loses load capacity as speed increases. Check the charts below to ensure your model can handle the desired speed and load.



- (1) The RCP3 series pulse motor loses load capacity at high speeds. Check the charts to the right to ensure that your model can handle the desired speed and load.
- (2) Please note that maximum speed differs for horizontal and vertical use.
- (3) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 3 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Lead (mm)	Max Load Capacity		Max Push (N)	Stroke (mm)
		Horiz (kg)	Vert (kg)		
RCP3-TA6C-I-42P-12- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	12	~ 4	~ 1	47	25- 150 (by 25 mms)
RCP3-TA6C-I-42P-6- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	6	~ 6	~ 2	95	
RCP3-TA6C-I-42P-3- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	3	~ 8	~ 4	189	

Key Stroke Cable Length Options

Stroke and maximum speed

Stroke Lead	25- 150 (by 50 mms)	
	12	560
6	300	
3	150	

Brackets are for vertical use (Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code	
	TA6C	
	Encoder Type	
25	—	
50	—	
75	—	
100	—	
125	—	
150	—	

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20 m)	—

See p.46 for security cables.

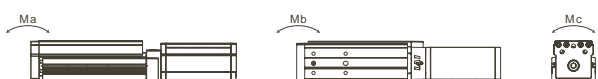
Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
Reverse Spec	NM	—	—

Actuator Specifications

Item	Details
Drive system	Ball screw, 8 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 7.26 N-m, Mb: 10.3 N-m, Mc: 18.25 N-m
Projection length	Up to 120 mm
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

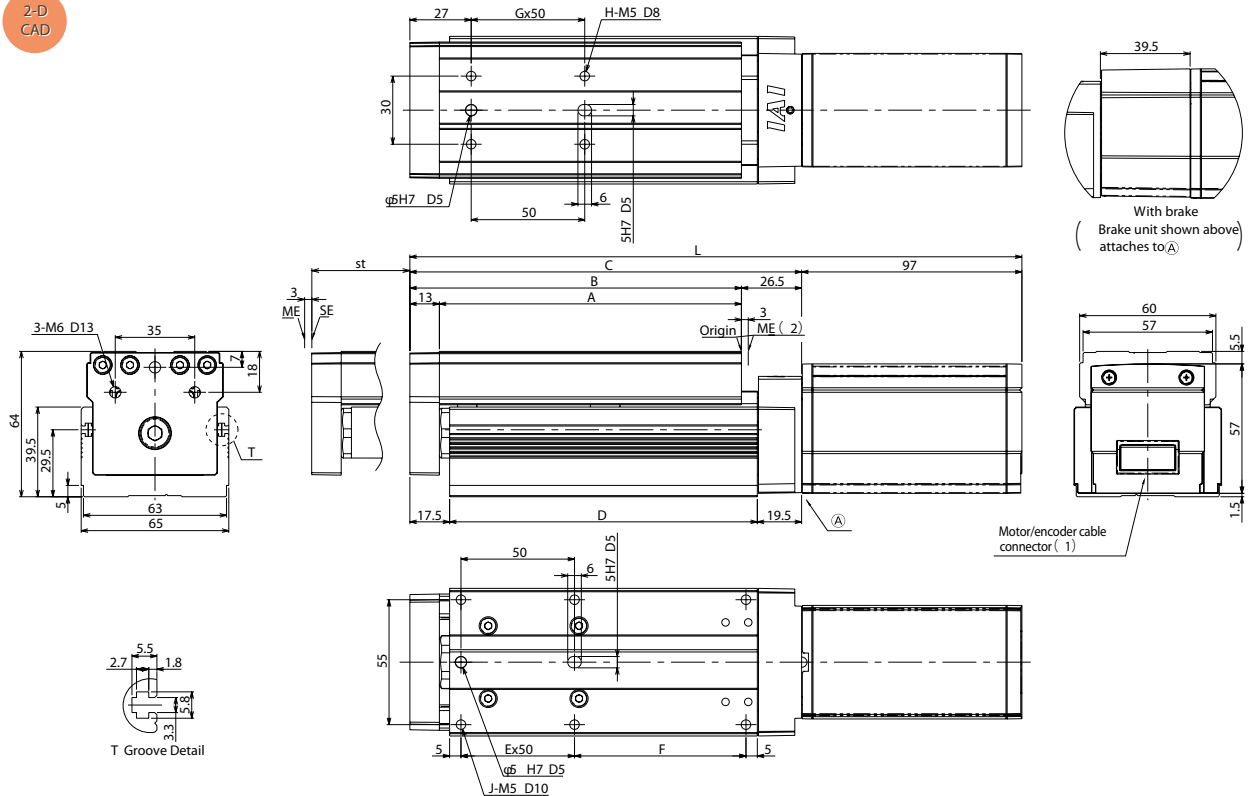
Possible load moment directions



Dimensions

CAD available for download from home page.
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2-D
CAD



Stroke Length and Weight

Stroke	Stroke Length (mm)						
	25	50	75	100	125	150	
L	Without Brake	244.5	269.5	294.5	319.5	344.5	369.5
	With Brake	284	309	334	359	384	409
A	108	133	158	183	208	233	
B	121	146	171	196	221	246	
C	147.5	172.5	197.5	222.5	247.5	272.5	
D	110.5	135.5	160.5	185.5	210.5	235.5	
E	1	1	2	2	3	3	
F	50.5	75.5	50.5	75.5	50.5	75.5	
G	1	1	2	2	3	3	
H	4	4	6	6	8	8	
J	6	6	8	8	10	10	
Weight (kg)	1.8	2	2.2	2.4	2.6	2.8	

- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Controllers

Compatible Controllers

RCP3 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		PCON-C-42PI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	-	→p.41
Safety Application Positioner Type		PCON-CG-42PI-NP-2-0						
Electromagnetic Valve Type	PCON-CY-42PI-NP-2-0	Controllable together with electromagnetic valve	3					
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		PCON-SE-42PI-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RPCON-42P	Specifically designed for field networks	768				
Program Control Type		PSEL-C-1-42PI-NP-2-0	Able to run programs Maximum of 2 axes	1500				

PSEL is for single-axis use

RCP3-TA7C

Robo Cylinder Table Type Body Width 75 mm Pulse Motor Coupling Specification

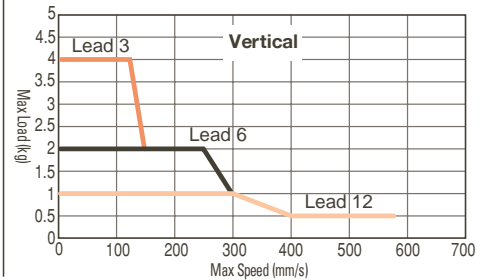
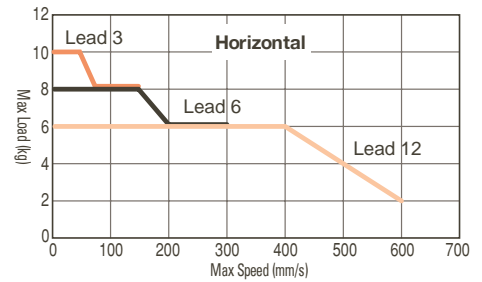
Unit	RCP3 - TA7C	I	42P	<input type="checkbox"/>	<input type="checkbox"/>	P1	<input type="checkbox"/>	<input type="checkbox"/>	
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
			I: Incremental Specification	42P: Pulse Motor 42 Size	12: 12 mm 6: 6 mm 3: 3 mm	25: 25 mm to 200: 200 mm <small>(pitch set in 25 mm increments)</small>	P1: PCON PSEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NM: reverse spec

*: See p.6 for details on various units



Speed and Weight Charts

The RCP3 Series pulse motor loses load capacity as speed increases. Check the charts below to ensure your model can handle the desired speed and load.



- (1) The RCP3 series pulse motor loses load capacity at high speeds. Check the charts to the right to ensure that your model can handle the desired speed and load.
- (2) Please note that maximum speed differs for horizontal and vertical use.
- (3) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 3 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Lead (mm)	Max Load Capacity		Max Push (N)	Stroke (mm)
		Horiz (kg)	Vert (kg)		
RCP3-TA7C-I-42P-12- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	12	~ 6	~ 1	47	25- 200 (by 25 mms)
RCP3-TA7C-I-42P-6- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	6	~ 8	~ 2	95	
RCP3-TA7C-I-42P-3- <input type="checkbox"/> -P1- <input type="checkbox"/> - <input type="checkbox"/>	3	~ 10	~ 4	189	

Key Stroke Cable Length Options

Stroke and maximum speed

Stroke Lead	25- 200 (by 25 mms)	
	12	600
6	300	
3	150	

Brackets are for vertical use (Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code
	TA7C
	Encoder Type
25	—
50	—
75	—
100	—
125	—
150	—
175	—
200	—

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20 m)	—

See p.46 for security cables.

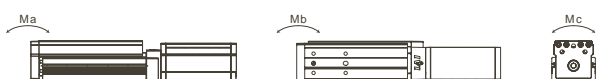
Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
Reverse Spec	NM	—	—

Actuator Specifications

Item	Details
Drive system	Ball screw, 10 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 9.91 N-m, Mb: 14.13 N-m, Mc: 28.65 N-m
Projection length	-
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

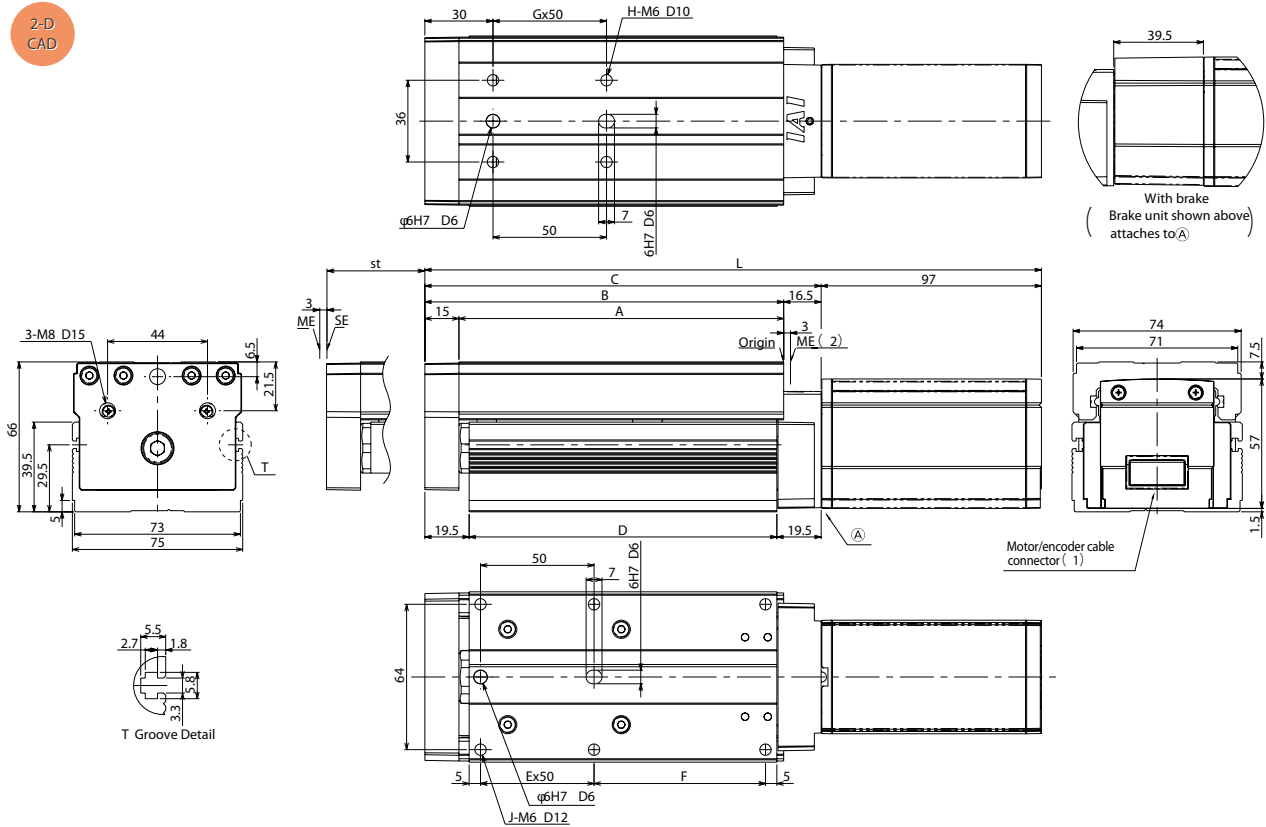
Possible load moment directions



Dimensions

CAD available for download from home page:
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CAD



Stroke Length and Weight

Stroke	25	50	75	100	125	150	175	200
L	246.5	271.5	296.5	321.5	346.5	371.5	396.5	421.5
	286	311	336	361	386	411	436	461
A	118	143	168	193	218	243	268	293
B	133	158	183	208	233	258	283	308
C	149.5	174.5	199.5	224.5	249.5	274.5	299.5	324.5
D	110.5	135.5	160.5	185.5	210.5	235.5	260.5	285.5
E	1	1	2	2	3	3	4	4
F	50.5	75.5	50.5	75.5	50.5	75.5	50.5	75.5
G	1	1	2	2	3	3	4	4
H	4	4	6	6	8	8	10	10
J	6	6	8	8	10	10	12	12
Weight (kg)	2.1	2.3	2.5	2.8	3	3.2	3.4	3.6

- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Controllers

Compatible Controllers

RCP3 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		PCON-C-42PI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	-	→p.41
Safety Application Positioner Type		PCON-CG-42PI-NP-2-0						
Electromagnetic Valve Type	PCON-CY-42PI-NP-2-0	Controllable together with electromagnetic valve	3					
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		PCON-SE-42PI-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RPCON-42P	Specifically designed for field networks	768				
Program Control Type		PSEL-C-1-42PI-NP-2-0	Able to run programs Maximum of 2 axes	1500				

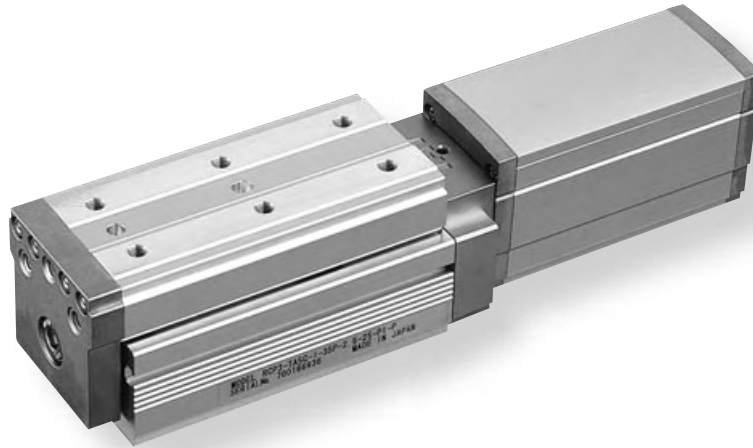
PSEL is for single-axis use

RCA2-TA5C

Robo Cylinder Table Type Body Width 55 mm Servo Motor Coupling Specification

Unit	RCA2-TA5C	I	20	<input type="checkbox"/>	<input type="checkbox"/>	A1	<input type="checkbox"/>	<input type="checkbox"/>	
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
			I: Incremental Specification	20: Servo Motor 20W	10: 10 mm 5: 5 mm 2.5: 2.5 mm	25: 25 mm to 100: 100 mm <small>(pitch set in 25 mm increments)</small>	A1: ACON ASEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NM: reverse spec

*: See p.6 for details on various units



- (1) Please note that maximum speed differs for horizontal and vertical use.
- (2) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 2.5 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Motor Output (W)	Lead (mm)	Max Load Capacity		Rated Force (N)	Stroke (mm)
			Horiz (kg)	Vert (kg)		
RCA2-TA5C-I-20-10- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>	20	10	2	1	34	25-100 (by 25 mms)
RCA2-TA5C-I-20-5- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		5	3.5	2	68	
RCA2-TA5C-I-20-2.5- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		2.5	5	3	137	

Key Stroke Cable Length Options

Stroke and maximum speed

Stroke Lead	25-100 (by 25 mms)	
	10	465
5	250	
2.5	125	

Brackets are for vertical use (Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code
	TA5C
	Encoder Type
2.5	—
5.0	—
7.5	—
10.0	—

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20 m)	—

See p.46 for security cables.

Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
Reverse Spec	NM	—	—

Actuator Specifications

Item	Details
Drive system	Ball screw, 8 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 6.57 N-m, Mb: 9.32 N-m, Mc: 14.32 N-m
Projection length	-
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

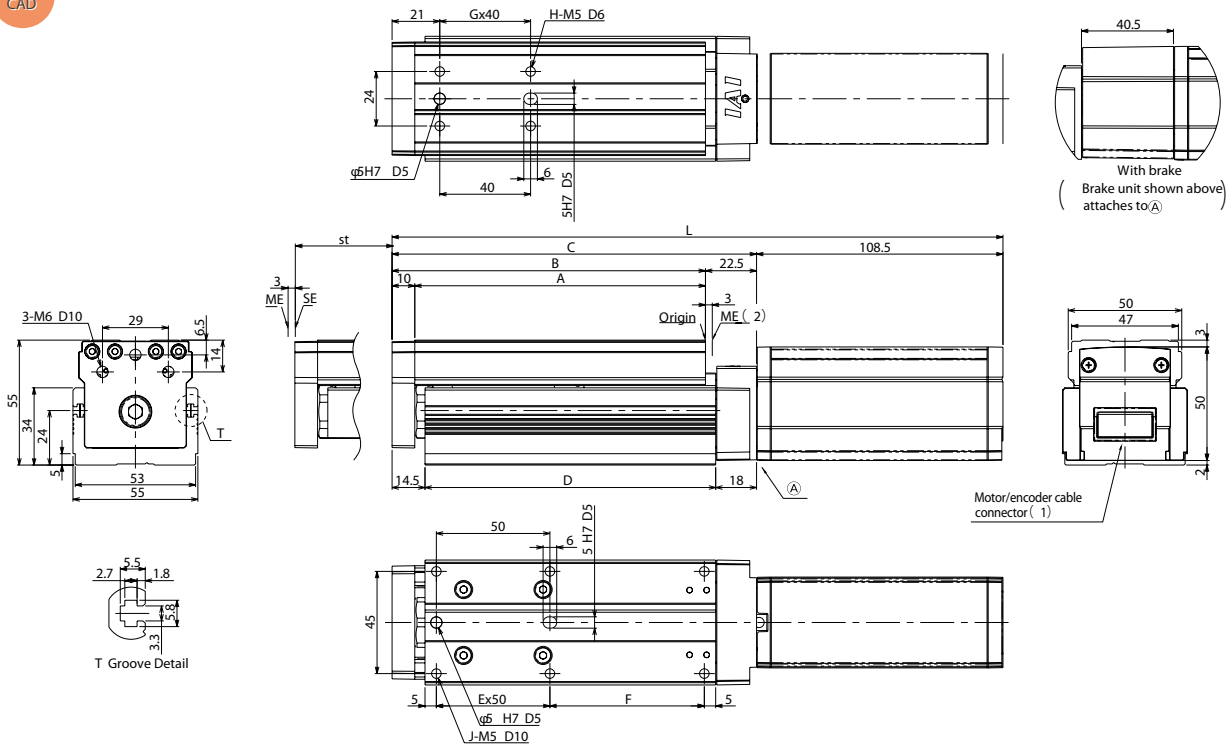
Possible load moment directions



Dimensions

CAD available for download from home page.
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2-D
CAD



- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Stroke Length and Weight

Stroke		25	50	75	100
L	Without Brake	244	269	294	319
	With Brake	284.5	309.5	334.5	359.5
A		103	128	153	178
B		113	138	163	188
C		135.5	160.5	185.5	210.5
D		103	128	153	178
E		1	1	2	2
F		43	68	43	68
G		1	1	2	2
H		4	4	6	6
J		6	6	8	8
Weight (kg)		1.2	1.4	1.5	1.7

Controllers

Compatible Controllers

RCA2 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		ACON-C-2OSI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	-	→p.41
Safety Application Positioner Type		ACON-CG-2OSI-NP-2-0						
Electromagnetic Valve Type		ACON-CY-2OSI-NP-2-0	Controllable together with electromagnetic valve	3				
Pulse Train Input Type (Differential Line Driver)		ACON-PL-2OSI-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		ACON-PO-2OSI-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		ACON-SE-2OSI-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RACON-2OS	Specifically designed for field networks	768				
Program Control Type		ASEL-C-1-2OSI-NP-2-0	Able to run programs Maximum of 2 axes	1500				

ASEL is for single-axis use

RCA2-TA6C

Robo Cylinder Table Type Body Width 65 mm Servo Motor Coupling Specification

Unit	RCA2-TA6C	I	20	<input type="checkbox"/>	<input type="checkbox"/>	A1	<input type="checkbox"/>	<input type="checkbox"/>	
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
			I: Incremental Specification	20: Servo Motor 20W	12: 12 mm 6: 6 mm 3: 3 mm	25: 25 mm to 150: 150 mm <small>(pitch set in 25 mm increments)</small>	A1: ACON ASEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NM: reverse spec

* See p.6 for details on various units



- (1) Please note that maximum speed differs for horizontal and vertical use.
- (2) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 3 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Motor Output (W)	Lead (mm)	Max Load Capacity		Rated Force (N)	Stroke (mm)
			Horiz (kg)	Vert (kg)		
RCA2-TA6C-I-20-12- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>	20	12	2	0.5	17	25-150 <small>(by 25 mm)</small>
RCA2-TA6C-I-20-6- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		6	4	1.5	34	
RCA2-TA6C-I-20-3- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		3	6	3	68	

Key Stroke Cable Length Options

Stroke and maximum speed

Stroke Lead	25-150 <small>(by 25 mm)</small>	
	12	560
6	300	
3	150	

Brackets are for vertical use (Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code
	TA6C
	Encoder Type
25	—
50	—
75	—
100	—
125	—
150	—

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20 m)	—

See p.46 for security cables.

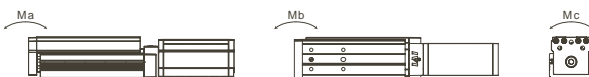
Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
Reverse Spec	NM	—	—

Actuator Specifications

Item	Details
Drive system	Ball screw, 10 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 7.26 N-m, Mb: 10.3 N-m, Mc: 18.25 N-m
Projection length	-
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

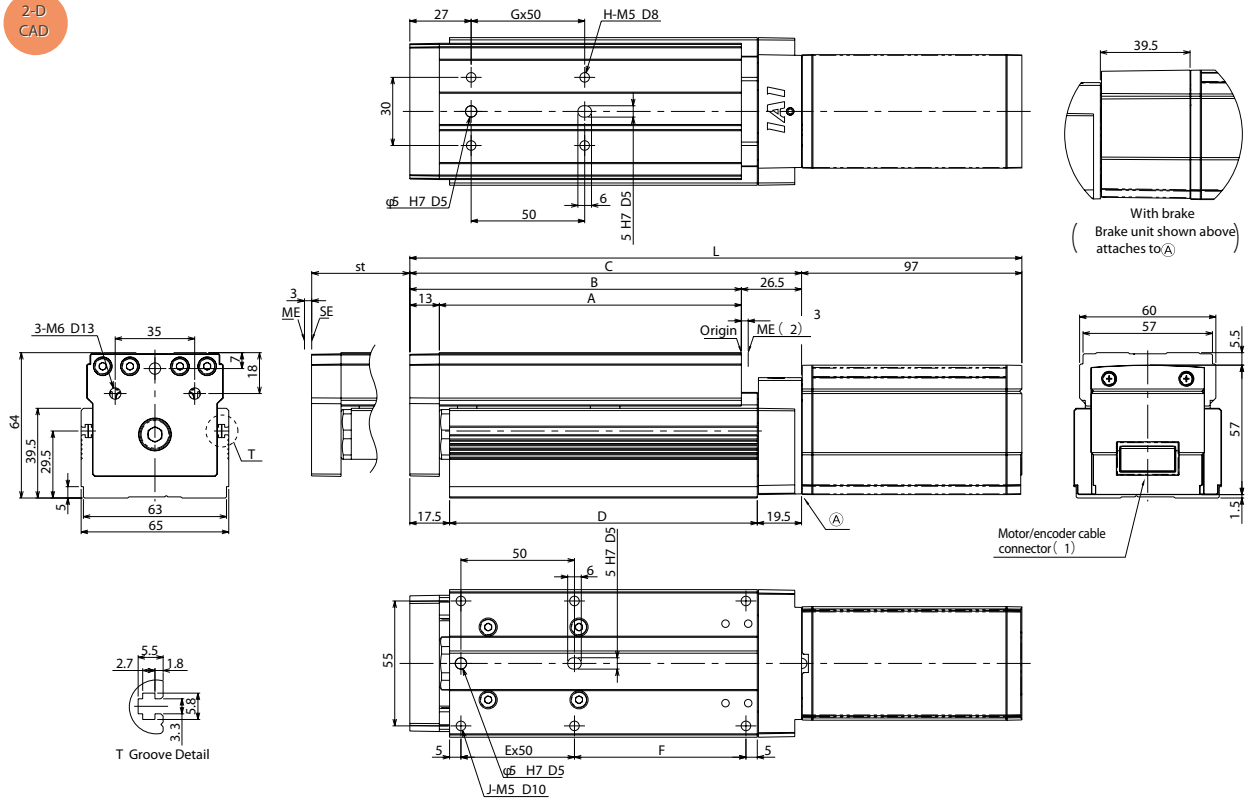
Possible load moment directions



Dimensions

CAD available for download from home page.
www.intelligentactuator.com

2-D
CAD



Stroke Length and Weight

Stroke	25	50	75	100	125	150	
L	Without Brake	244.5	269.5	294.5	319.5	344.5	369.5
	With Brake	284	309	334	359	384	409
A	108	133	158	183	208	233	
B	121	146	171	196	221	246	
C	147.5	172.5	197.5	222.5	247.5	272.5	
D	110.5	135.5	160.5	185.5	210.5	235.5	
E	1	1	2	2	3	3	
F	50.5	75.5	50.5	75.5	50.5	75.5	
G	1	1	2	2	3	3	
H	4	4	6	6	8	8	
J	6	6	8	8	10	10	
Weight (kg)	1.8	2	2.2	2.4	2.6	2.8	

- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Controllers

Compatible Controllers

RCA2 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		ACON-C-20I-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	-	→p.41
Safety Application Positioner Type		ACON-CG-20I-NP-2-0						
Electromagnetic Valve Type		ACON-CY-20I-NP-2-0	Controllable together with electromagnetic valve	3				
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		ACON-PO-20I-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		ACON-SE-20I-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RACON-20	Specifically designed for field networks	768				
Program Control Type		ASEL-C-1-20I-NP-2-0	Able to run programs Maximum of 2 axes	1500				

ASEL is for single-axis use

RCA2-TA7C

Robo Cylinder Table Type Body Width 75 mm Servo Motor Coupling Specification

Unit	RCA2-TA7C	I	30	<input type="checkbox"/>	<input type="checkbox"/>	A1	<input type="checkbox"/>	<input type="checkbox"/>	
	Series	Type	Encoder Type	Motor Type	Lead	Stroke	Controller	Cable Length	Options
			I: Incremental Specification	30: Servo Motor 30W	12: 12 mm 6: 6 mm 3: 3 mm	25: 25 mm to 200: 200 mm <small>(pitch set in 25 mm increments)</small>	A1: ACON ASEL	N: none P: 1 m S: 3 m M: 5 m X : custom length	B: w/ brake NM: reverse spec

*: See p.6 for details on various units



- (1) Please note that maximum speed differs for horizontal and vertical use.
- (2) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 3 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications

Lead and maximum load

Unit	Motor Output (W)	Lead (mm)	Max Load Capacity		Rated Force (N)	Stroke (mm)
			Horiz (kg)	Vert (kg)		
RCA2-TA7C-I-30-12- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>	30	12	4	1	26	25-200 (by 25 mms)
RCA2-TA7C-I-30-6- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		6	6	2.5	53	
RCA2-TA7C-I-30-3- <input type="checkbox"/> -A1- <input type="checkbox"/> - <input type="checkbox"/>		3	8	4	105	

Key Stroke Cable Length Options

Stroke and maximum speed

Lead	Stroke	25-200 (by 25 mms)	
	12	600	580
6	300		
3	150		

Brackets are for vertical use (Unit: mm/s)

Pricing by Stroke (Standard)

Stroke (mm)	Type Code
	TA7C
	Encoder Type
2.5	—
5.0	—
7.5	—
10.0	—
12.5	—
15.0	—
17.5	—
20.0	—

Pricing by Cable Length (Standard)

Type	Cable Code	Price
Standard (Robot Cable)	P (1 m)	—
	S (3 m)	—
	M (5 m)	—
Special Length	X06 (6 m) - X10 (10 m)	—
	X11 (11 m) - X15 (15 m)	—
	X16 (16 m) - X20 (20 m)	—

See p.46 for security cables.

Option Pricing (Standard)

Option	Option Code	See Page	Price
With Brake	B	—	—
Reverse Spec	NM	—	—

Actuator Specifications

Item	Details
Drive system	Ball screw, 10 mm, rolling C10
Repetitive positioning accuracy	± 0.05 mm
Lost motion	Less than 0.1 mm
Base	Aluminum, specially alumite treated
Maximum load moment	Ma: 9.91 N-m, Mb: 14.13 N-m, Mc: 28.65 N-m
Projection length	-
Operating temp. and humidity	0-40°C, up to 85% RH (avoid condensation)
Operating life	5,000 km

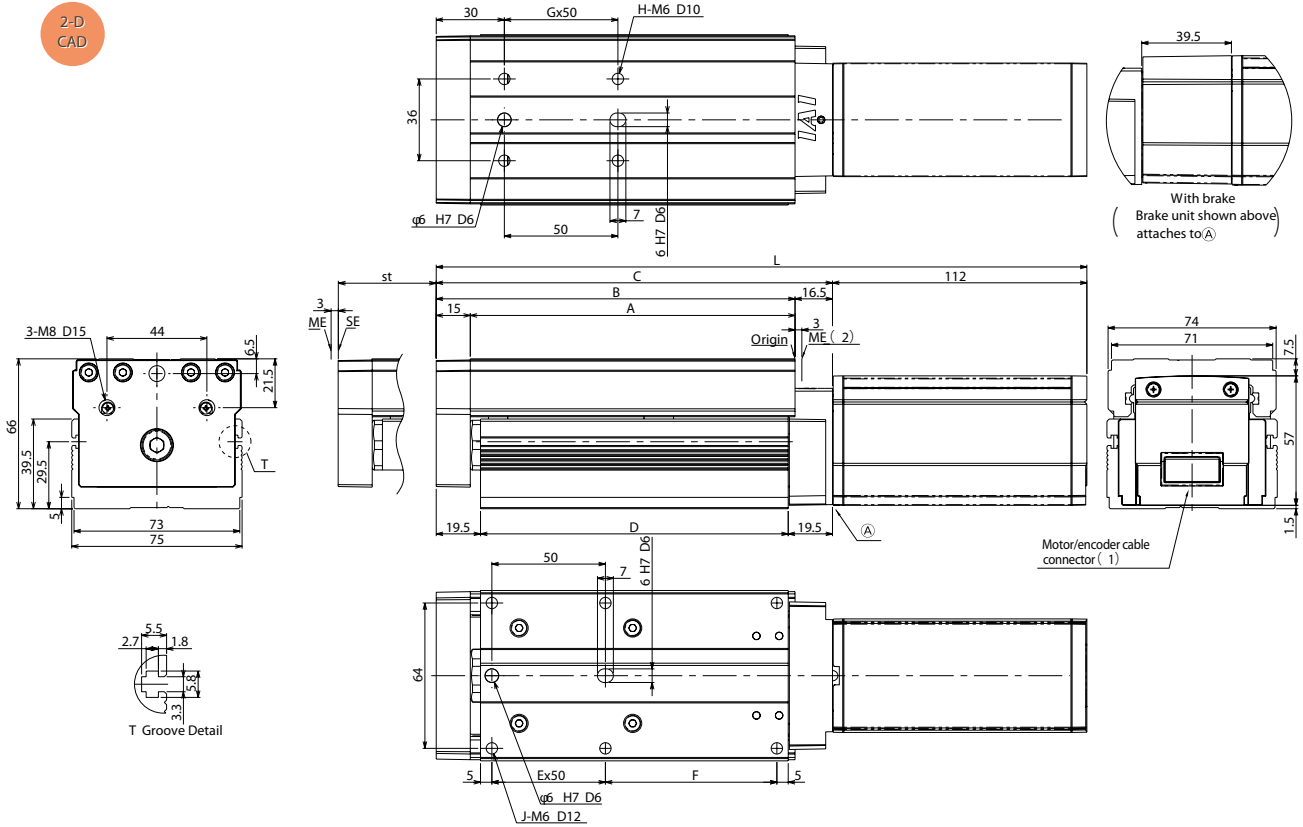
Possible load moment directions



Dimensions

CAD available for download from home page.
www.intelligentactuator.com

2-D
CAD



Stroke Length and Weight

Stroke	L	Stroke Length (mm)							
		25	50	75	100	125	150	175	200
Without Brake	261.5	286.5	311.5	336.5	361.5	386.5	411.5	436.5	
	301	326	351	376	401	426	451	476	
With Brake	118	143	168	193	218	243	268	293	
A	133	158	183	208	233	258	283	308	
B	149.5	174.5	199.5	224.5	249.5	274.5	299.5	324.5	
C	110.5	135.5	160.5	185.5	210.5	235.5	260.5	285.5	
D	1	1	2	2	3	3	4	4	
E	50.5	75.5	50.5	75.5	50.5	75.5	50.5	75.5	
F	1	1	2	2	3	3	4	4	
G	4	4	6	6	8	8	10	10	
H	6	6	8	8	10	10	12	12	
J	6	6	8	8	10	10	12	12	
Weight (kg)	2.1	2.3	2.5	2.8	3	3.2	3.4	3.6	

- (1) The motor/encoder cable is a composite cable. (see p.46)
- (2) The slider moves to ME after returning to the point of origin. Please be sure surrounding area is clear.
ME: Mechanical End
SE: Stroke End

Controllers

Compatible Controllers

RCA2 Series works with the actuators shown below. Please select the appropriate type for your intended use.

Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	Price	See Page
Positioner Type		ACON-C-30I-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	-	→p.41
Safety Application Positioner Type		ACON-CG-30I-NP-2-0						
Electromagnetic Valve Type		ACON-CY-30I-NP-2-0	Controllable together with electromagnetic valve	3				
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30I-NP-2-0	Uses differential line driver Pulse train input type	(-)				
Pulse Train Input Type (Open Collector)		ACON-PO-30I-NP-2-0	Uses open collector Pulse train input type					
Serial Communication Type		ACON-SE-30I-N-0-0	Specifically designed for serial communication	64				
Field Network Type		RACON-30	Specifically designed for field networks	768				
Program Control Type		ASEL-C-1-30I-NP-2-0	Able to run programs Maximum of 2 axes	1500				

ASEL is for single-axis use

Moment Load Calculation

The life of the actuator will vary greatly depending on the position of the attached work, even when operating within the appropriate maximum load weight and speed. Follow the formulas below to use the weight of the static and active moments to calculate the moment values, then ensure that the sum of both moment values is within the allowable limit for the actuator type you have chosen. The life of the actuator may be drastically reduced if the actuator is used beyond this limit.

Slider Type

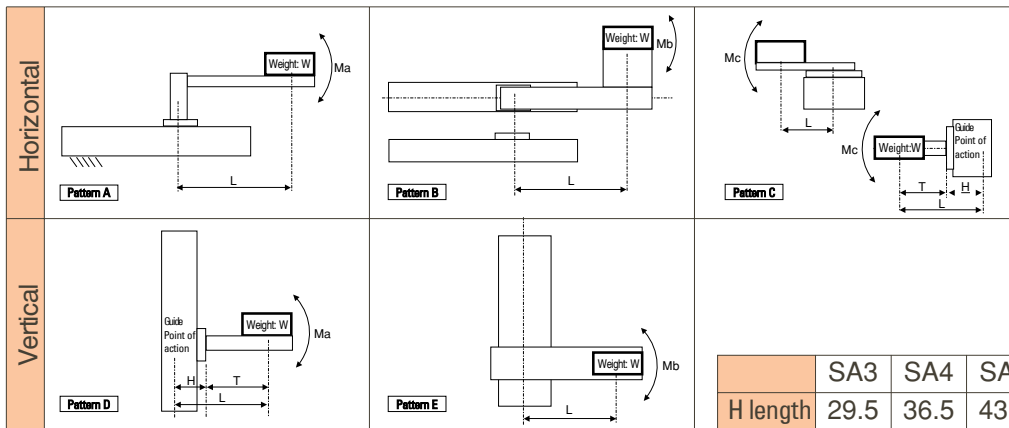
Static Moment (moment when actuator is at rest)

W: Weight L: Distance from point of action to load center of gravity (L=T+H)

T: Distance from slider surface to load center of gravity

H: Distance from guide point of action to slider surface

$$M1 (N \cdot m) = W (kg) \times L (mm) \times 9.8 / 1000$$



(Unit: mm)

	SA3	SA4	SA5	SA6
H length	29.5	36.5	43.5	47.0

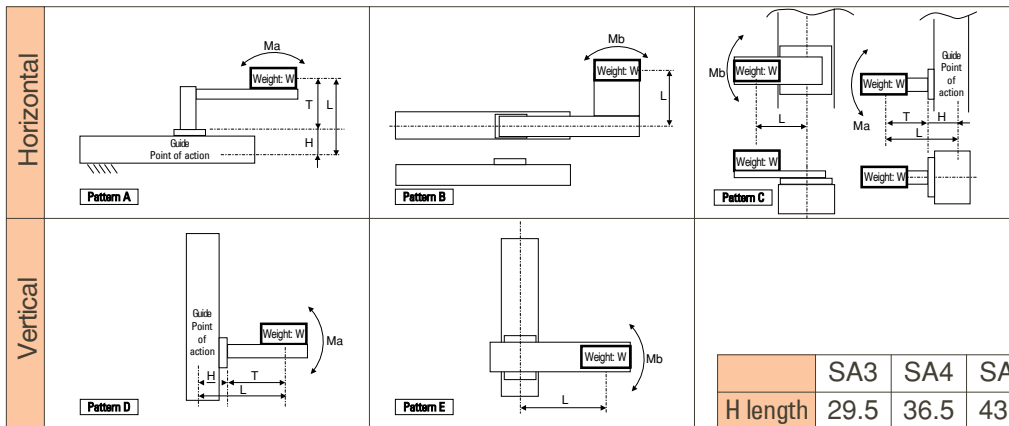
Active Moment (moment when actuator is in motion)

W: Weight L: Distance from point of action to load center of gravity (L=T+H)

T: Distance from slider surface to load center of gravity

H: Distance from guide point of action to slider surface

$$M2 (N \cdot m) = W (kg) \times L (mm) \times a (G) \times 9.8 / 1000$$



(Unit: mm)

	SA3	SA4	SA5	SA6
H length	29.5	36.5	43.5	47.0

Ensure that the sum of M1 (static moment) and M2 (active moment) is within the allowable limit as indicated below. If it is greater than the allowable moment value, use a larger actuator type or add an auxiliary guide.

$M1 + M2 < \text{Allowable Moment Value}$

Allowable Moment Values

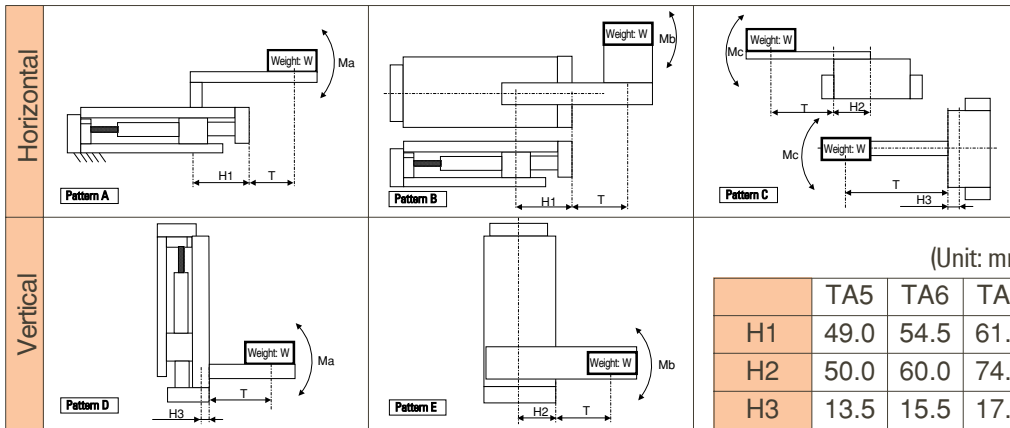
	SA3C	SA4C	SA5C	SA6C
Ma (N · m)	1.96	3.04	3.92	4.31
Mb (N · m)	2.84	4.31	5.58	6.17
Mc (N · m)	3.14	5.00	8.53	10.98

Table Type

Static Moment (moment when actuator is at rest)

W: Weight
 L: Distance from point of action to load center of gravity
 Patterns A, B L = T + H + Stroke
 Patterns C, D, E L = T + H

$$M1 (N \cdot m) = W (kg) \times L (mm) \times 9.8 / 1000$$



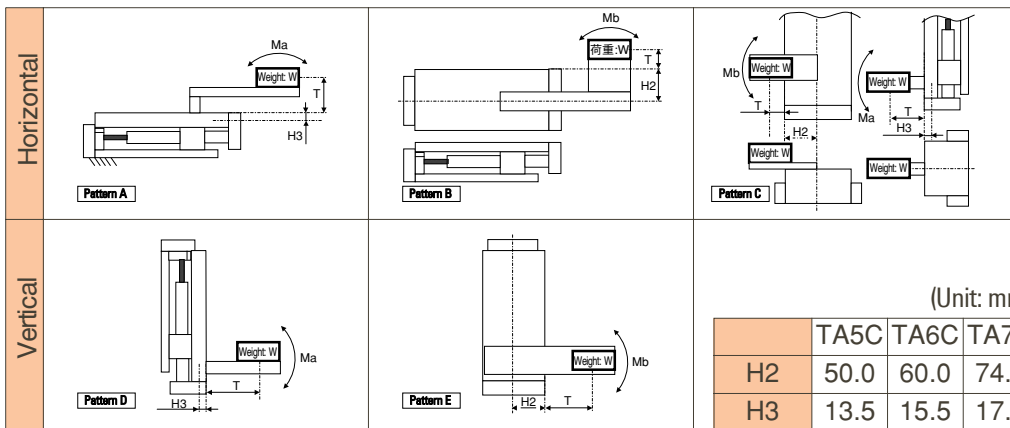
(Unit: mm)

	TA5	TA6	TA7
H1	49.0	54.5	61.5
H2	50.0	60.0	74.0
H3	13.5	15.5	17.5

Active Moment (moment when actuator is in motion)

W: Weight
 L: Distance from point of action to load center of gravity
 Patterns A, B L = T + H + Stroke
 Patterns C, D, E L = T + H
 a: designated acceleration

$$M2 (N \cdot m) = W (kg) \times L (mm) \times a (G) \times 9.8 / 1000$$



(Unit: mm)

	TA5C	TA6C	TA7C
H2	50.0	60.0	74.0
H3	13.5	15.5	17.5

Ensure that the sum of M1 (static moment) and M2 (active moment) is within the allowable limit as indicated below. If it is greater than the allowable moment value, use a larger actuator type or add an auxiliary guide.








M1 + M2 < Allowable Moment Value

Allowable Moment Values

	TA5C	TA6C	TA7C
Ma (N · m)	6.57	7.26	9.91
Mb (N · m)	9.32	10.3	14.13
Mc (N · m)	14.32	18.25	28.65

RCP3 Controllers

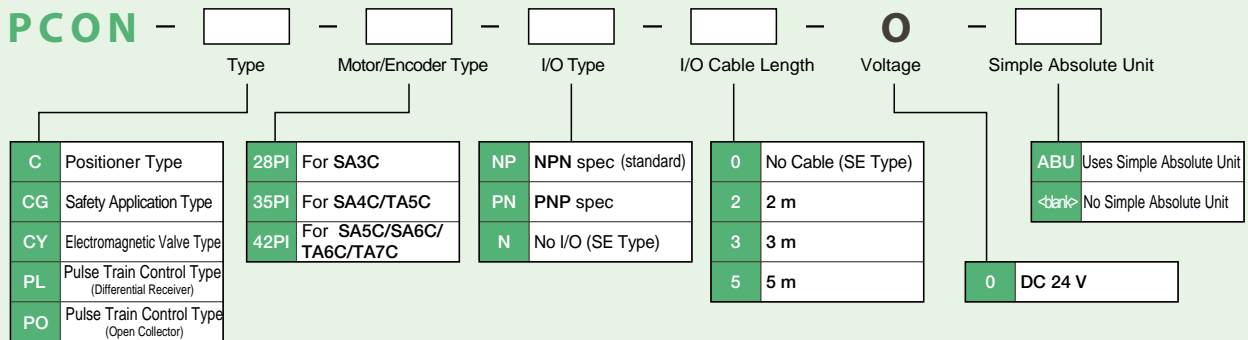
Selection / Pricing

Type	PCON					RPCON (ROBONET)	PSEL
	C	CG	CY	PL/PO	SE	Field Network Type	Program Type
Name	Positioner Type	Safety Application Type	Electromagnetic Valve Type	Pulse Train Control Type	Serial Communication Type	Field Network Type	Program Type
Appearance							
Advantage	Capable of up to 512 different positions	Meets specifications for safety applications	Can operate with the same controls as an air cylinder	Can be freely controlled with a pulse train	Designed for serial communication use	Can be controlled via DeviceNet, CC-Link, ProfBus	Programmable sequence function operation
Price	-	-	-	-	-	-(1)	-(2)

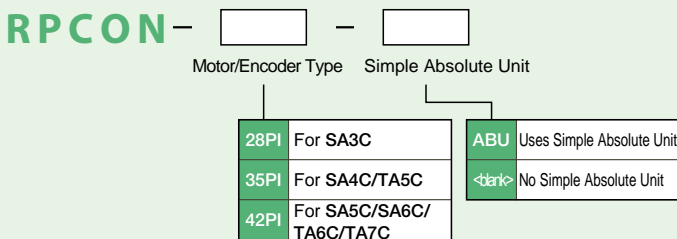
(1) RoboNet Gateway Unit (sold separately) required to use RPCON. (2) Single-axis use only.

Units

【PCON Controller】

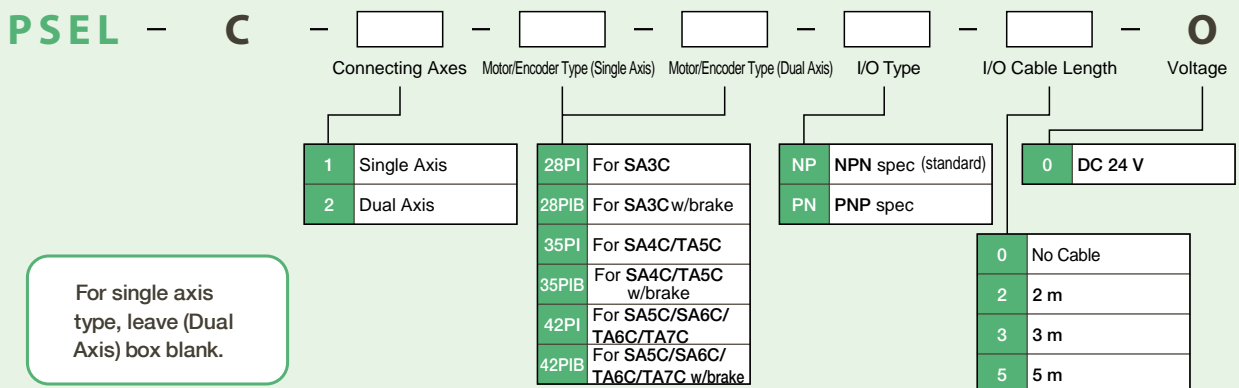


【RPCON Controller】



RPCON use requires Gateway Unit to connect to network. See ROBONET catalog for details.

【PSEL Controller】



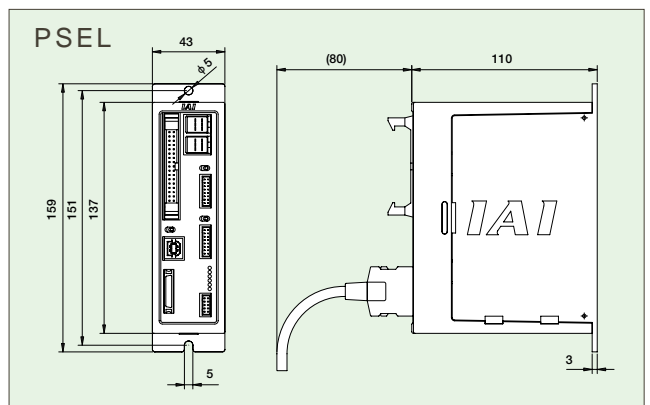
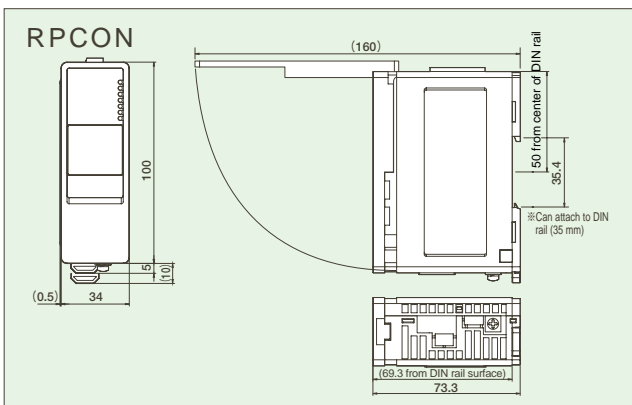
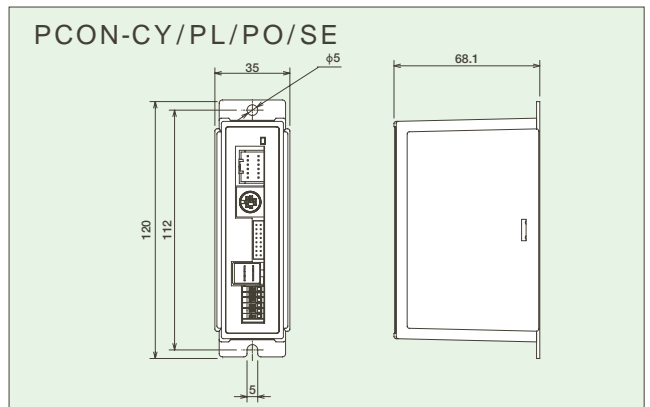
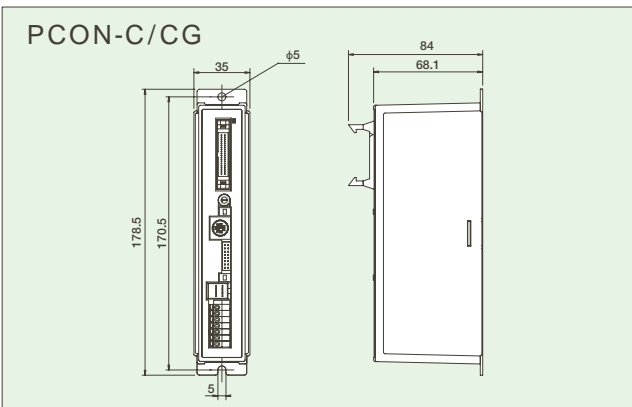
For single axis type, leave (Dual Axis) box blank.

Selection / Pricing

Item	Specification							
	PCON						RPCON (ROBONET)	PSEL
Controller Type	C	CG	CY	PL	PO	SE		
Maximum Controllable Axes	1 Axis						Can operate up to 16 axes together	2 Axes
Operation Method	Positioner Type		EM Valve Type	Pulse Train Control Type		Serial Comm Type	Field Network Type	Program
Possible Positions	512		3	-		64	768	1500
I/O Connector	14 Pin Connector		12 Pin Connector	14 Pin Connector		-	-	34 Pin Connector
I/O Points	16 Input/16 Output		4 Input/6 Output	4 Input/4 Output		-	-	24 Input/8 Output
Serial Communication	RS 485 (Modbus RTU)							RS232
External Equipment Communication Cable	CB-PAC-PIO		CB-PACY-PIO	CB-PACPU-PIO		CB-RCB-CTL002	-	CB-DS-PIO
Command Pulse Input Method	-			Differential Line Driver	Open Collector	-		
Maximum Input Pulse Frequency	-			200 kpps	60 kpps	-		
Positioning Method	Incremental Encoder							
Motor/Encoder Cable	CB-PCS-MPA (Max Length 10 m)							
Power Input	DC 24 V ± 10%							
Amperage	Up to 2 A						Up to 2 A ()	Up to 5.5 A
Isolation Voltage	DC 500 V 1M							DC500V 10M +
Operating Environment	Temp: 0-40 °C, Humidity: 10-95% (Avoid Condensation), Other: Avoid Corrosive Gas							
Protection Grade	IP 20							
Weight	About 300 g		About 130 g			About 200 g	About 450 g	








() Operation requires 2 A × number of devices plus power consumption of gateway unit (0.6 A)

External Dimensions



RCA2 Controllers

Selection / Pricing

Type	ACON					RACON (ROBONET)	ASEL
	C	CG	CY	PL/PO	SE	Field Network Type	Program Type
Name	Positioner Type	Safety Application Type	Electromagnetic Valve Type	Pulse Train Control Type	Serial Communication Type	Field Network Type	Program Type
Appearance							
Advantage	Capable of up to 512 different positions	Meets specifications for safety applications	Can operate with the same controls as an air cylinder	Can be freely controlled with a pulse train	Designed for serial communication use	Can be controlled via DeviceNet, CC-Link, ProfBus	Programmable sequence function operation
Price	-	-	-	-	-	-(1)	-(2)

(1) RoboNet Gateway Unit (sold separately) required to use RACON. (2) Single-axis use only.

Units

ACON Controller

ACON - [] - [] - [] - [] - [] - []

Type Motor/Encoder Type I/O Type I/O Cable Length Voltage Simple Absolute Unit

C	Positioner Type	10I	For SA3C	NP	NPN spec (standard)	0	No Cable (SE Type)	ABU	Uses Simple Absolute Unit
CG	Safety Application Type	20SI	For SA4C/TA5C	PN	PNP spec	2	2 m	<blank>	No Simple Absolute Unit
CY	Electromagnetic Valve Type	20I	For SA5C/TA6C	N	No I/O (SE Type)	3	3 m	0	DC 24 V
PL	Pulse Train Control Type (Differential Receiver)	30I	For SA6C/TA7C			5	5 m		
PO	Pulse Train Control Type (Open Collector)								

RACON Controller

RACON - [] - []

Motor/Encoder Type Simple Absolute Unit

10I	For SA3C	ABU	Uses Simple Absolute Unit
20SI	For SA4C/TA5C	<blank>	No Simple Absolute Unit
20I	SA5C/TA6C		
30I	SA6C/TA7C		

RACON use requires Gateway Unit to connect to network. See ROBONET catalog for details.

ASEL Controller

ASEL - **C** - [] - [] - [] - [] - [] - [] - []

Connecting Axes Motor/Encoder Type (Single Axis) Motor/Encoder Type (Dual Axis) I/O Type I/O Cable Length Voltage

1	Single Axis	10I	For SA3C	20I	For SA5C/TA6C	NP	NPN spec (standard)	0	DC 24 V
2	Dual Axis	10IB	For SA3C w/brake	20IB	For SA5C/TA6C w/brake	PN	PNP spec	0	No Cable
		20SI	For SA4C/TA5C	30I	For SA6C/TA7C			2	2 m
		20SIB	For SA4C/TA5C w/brake	30IB	For SA6C/TA7C w/brake			3	3 m
								5	5 m

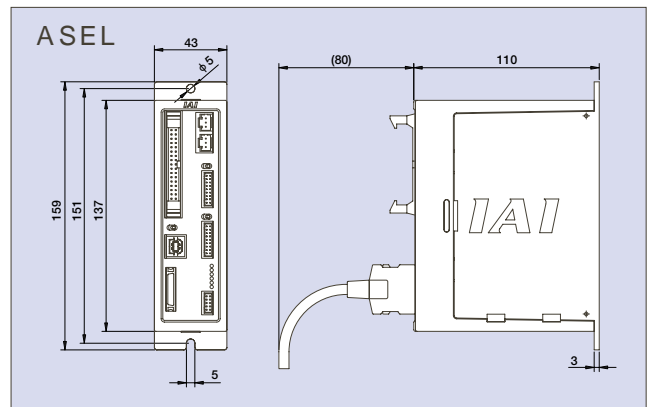
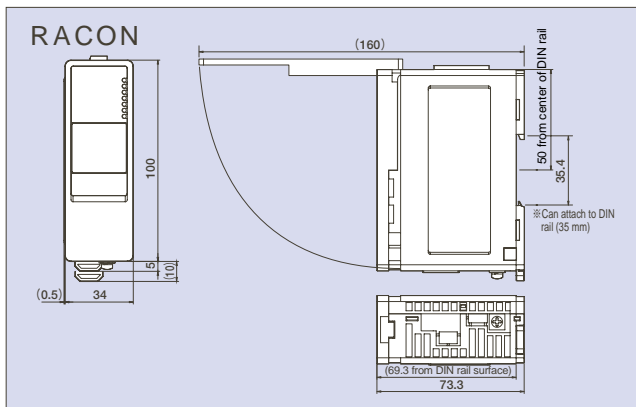
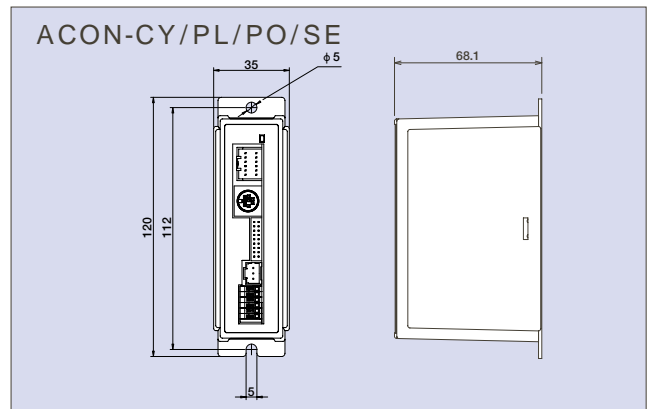
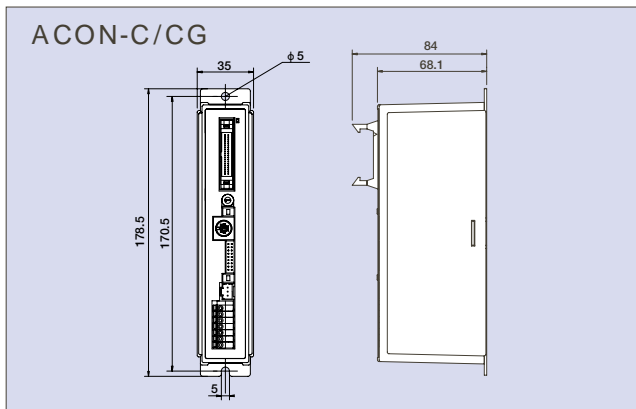
For single axis type, leave (Dual Axis) box blank.

Specification Chart

Item	Specification							
	ACON						RACON (ROBONET)	ASEL
Controller Type	C	CG	CY	PL	PO	SE		
Maximum Controllable Axes	1 Axis						Can operate up to 16 axes together	2 Axes
Operation Method	Positioner Type		EM Valve Type	Pulse Train Control Type		Serial Comm Type	Field Network Type	Program
Possible Positions	512		3	-		64	768	1500
I/O Connector	14 Pin Connector		12 Pin Connector	14 Pin Connector		-	-	34 Pin Connector
I/O Points	16 Input/16 Output		4 Input/6 Output	4 Input/4 Output		-	-	24 Input/8 Output
Serial Communication	RS 485 (Modbus RTU)							RS232
External Equipment Communication Cable	CB-PAC-PIO		CB-PACY-PIO	CB-PACPU-PIO		CB-RCB-CTL002	-	CB-DS-PIO
Command Pulse Input Method	-			Differential Line Driver	Open Collector	-		
Maximum Input Pulse Frequency	-			200 kpps	60 kpps	-		
Positioning Method	Incremental Encoder							
Motor/Encoder Cable	CB-PCS-MPA (Max Length 10 m)							
Power Input	DC 24 V ± 10%							
Amperage	Up to 2 A						Up to 2 A ()	Up to 5.5 A
Isolation Voltage	DC 500 V 1M							DC500V 10M +
Operating Environment	Temp: 0-40 °C, Humidity: 10-95% (Avoid Condensation), Other: Avoid Corrosive Gas							
Protection Grade	IP 20							
Weight	About 300 g		About 130 g			About 200 g	About 450 g	

() Operation requires 5.1 A × number of devices plus power consumption of gateway unit (0.6 A)

External Dimensions



Controller Options

【Teaching Boxes】 Instructional devices for position input, testing, and monitoring

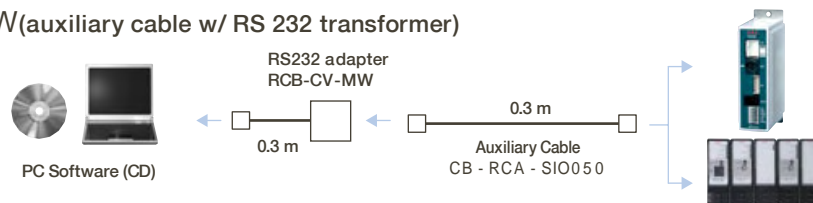
Item	RCM-E	RCM-P	CON-T	SEL-T-J	SEL-TD-J
Appearance					
Compatible Controllers	PCON/ACON/RPCON/RACON			PSEL/ASEL	
Position Input					
Program Input	x	x	x		
Actuator Operation		x			
Display	16 Chrs x 2Lines LCD			20 Chrs x 4 Lines LCD	
3 Position Enable Switch	x	x	x	x	
ANSI Compatible	x	x	x	x	
CE Mark Compatible	x	x			
UL Compatible	x	x	x	x	
Cable Length	5 m				
Usage Environment	Temp : 0-40 Humidity : 85% RH Max				
Protection Grade	-	-		IP54	
Weight	App x 400 g	App x 360g	App x 400g	App x 400g	App x 400g
Standard Price	-	-	-	-	-

【PC Software (Windows Only)】 Advantages: Software for PCs that provides program and position input, testing, and monitoring. Upgraded debugging functions to get up and running quickly.

【PC Software for PCON/ACON/RPCON/RACON (RS232 connection)】

Item RCM - 1 0 1 - MW(auxiliary cable w/ RS 232 transformer)

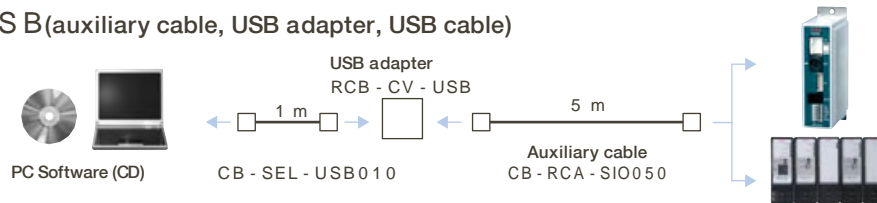
Consists of



【PC Software for PCON/ACON/RPCON/RACON (USB connection)】

Item RCM - 1 0 1 - USB(auxiliary cable, USB adapter, USB cable)

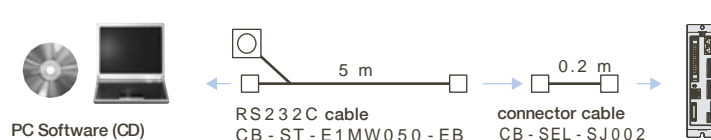
Consists of



【PSEL/ASEL PC Software (RS232 connection)】

Item IA - 1 0 1 - X - MW - J(RS232C cable w/ connector cable)

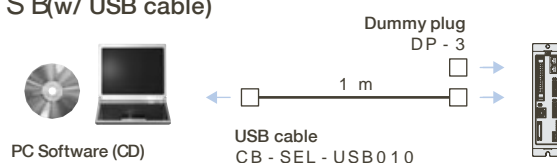
Consists of



【PSEL/ASEL PC Software (USB connection)】

Item IA - 1 0 1 - X - USB(w/ USB cable)

Consists of



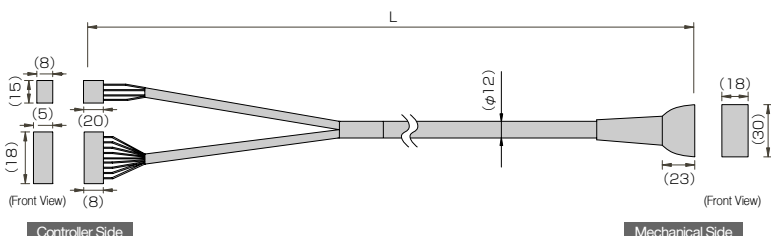
Maintenance Products

【Motor/Encoder Cable】

RCP3 Motor/Encoder Cable

Item **CB-PCS-MPA**

Write cable length (L) in _____, up to 10 m.
Example: 080 = 8 m

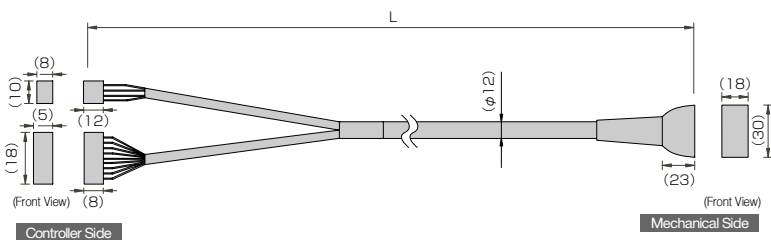


Symbol	PIN	(Line Color)	PIN	Symbol
A	B1	Blk	A1	A
VMM	A2	Wht	B1	VMM
/A	A1	Red	A2	/A
B	B3	Grn	B2	B
VMM	B2	Yel	A3	VMM
/B	A3	Bm	B3	/B
			A4	NC
			B4	NC
BK+	14	Peach (Red)	A5	BK+
BK-	13	Peach (Blu)	B5	BK-
LS+	16	White (Red)	A6	LS+
LS-	15	White (Blu)	B6	LS-
A+	12	Orange (Red)	A7	A+
A-	11	Orange (Blu)	B7	A-
B+	10	Gray (Red)	A8	B+
B-	9	Gray (Blu)	B8	B-
NC	8		A9	NC
VPS	7	Orange (Bluline)	B9	VPS
VCC	6	Gray (Redline)	A10	VCC
GND	5	Orange (Bluline)	B10	GND
NC	4		A11	NC
FG	1	Shielding	B11	FG

RCA2 Motor/Encoder Cable

Item **CB-ACS-MPA**

Write cable length (L) in _____, up to 10 m.
Example: 080 = 8 m



Symbol	PIN	(Line Color)	PIN	Symbol
U	1	Red	A1	U
V	2	Yel	B1	V
W	3	Blk	A2	W
			B2	NC
			A3	NC
			B3	NC
BK+	16	Yellow (Red)	A4	BK+
BK-	15	Yellow (Blu)	B4	BK-
LS+	18	Peach (Red)	A5	LS+
LS-	17	Peach (Blu)	B5	LS-
A	14	White (Red)	A6	A+
+	13	White (Blu)	B6	A-
A	12	Orange (Red)	A7	B+
-	11	Orange (Blu)	B7	B-
B	10	Gray (Red)	A8	Z+
+	9	Gray (Blu)	B8	Z-
B	8	Orange (Redline)	A9	-
-	7	Orange (Bluline)	B9	/PS
Z	6	Gray (Redline)	A10	VCC
+	5	Gray (Bluline)	B10	GND
Z			A11	NC
-	1	Shielding	B11	FG

【Motor Unit】

Axis Type			Motor Unit			
			No Brake		With Brake	
			Type	Standard Price	Type	Standard Price
RCP3	Slider Type	SA3C	RCP3-MU1A	-	RCP3-MU1A-B	-
		SA4C	RCP3-MU2A	-	RCP3-MU2A-B	-
		SA5C	RCP3-MU3A	-	RCP3-MU3A-B	-
	Table Type	SA6C	RCP3-MU3A	-	RCP3-MU3A-B	-
		TA5C	RCP3-MU2A	-	RCP3-MU2A-B	-
		TA6C	RCP3-MU3A	-	RCP3-MU3A-B	-
RCA2	Slider Type	TA7C	RCP3-MU3A	-	RCP3-MU3A-B	-
		SA3C	RCA2-MU1A	-	RCA2-MU1A-B	-
		SA4C	RCA2-MU2A	-	RCA2-MU2A-B	-
		SA5C	RCA2-MU3A	-	RCA2-MU3A-B	-
	Table Type	SA6C	RCA2-MU4A	-	RCA2-MU4A-B	-
		TA5C	RCA2-MU2A	-	RCA2-MU2A-B	-
		TA6C	RCA2-MU3A	-	RCA2-MU3A-B	-
		TA7C	RCA2-MU4A	-	RCA2-MU4A-B	-

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