

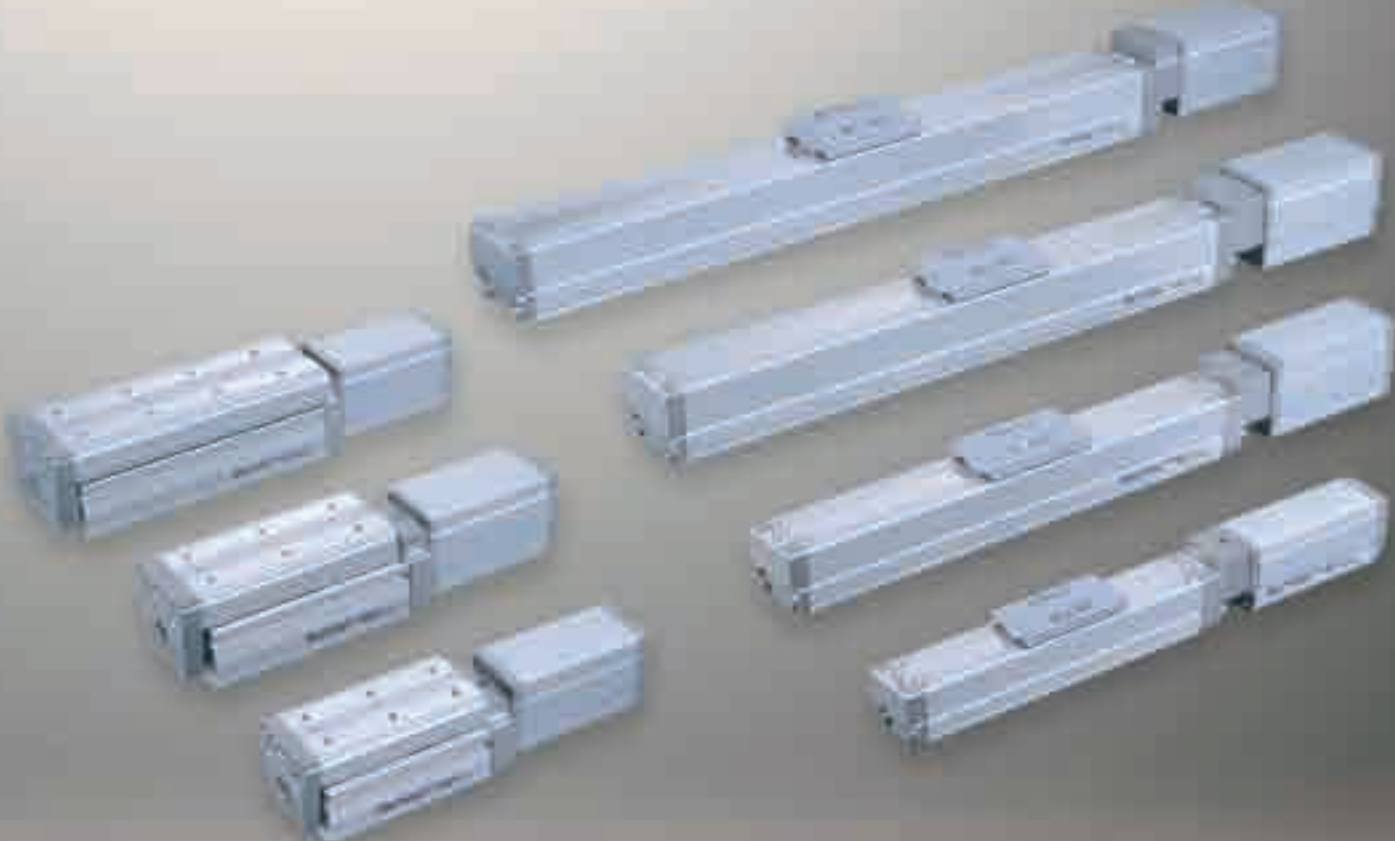
RoboCylinder
Slider / Table Type

RCP3/RCA2



RC ROBO
CYLINDER

The next generation of RoboCylinder 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 mm stroke)

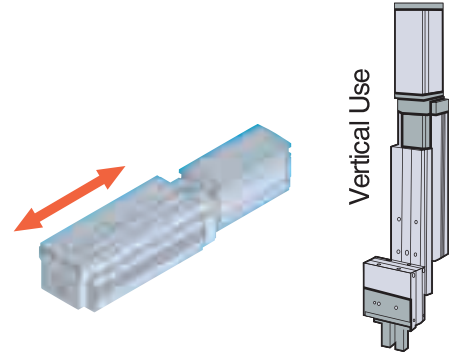


Slider Type
RCP3-SA3C (50 mm stroke)

2 New Table Type Available

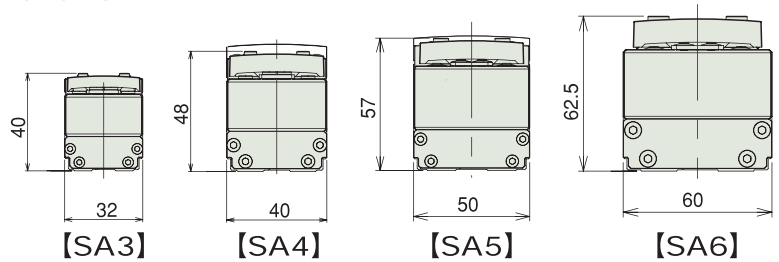
Introducing a new top-mounted, horizontally-moving table type to expand our product lineup.

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



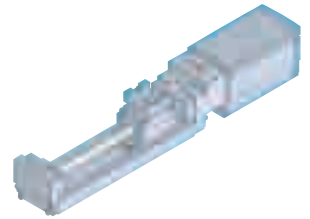
3 Smaller Size Available

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



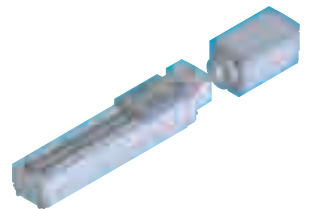
4 Coverless Option Available

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.



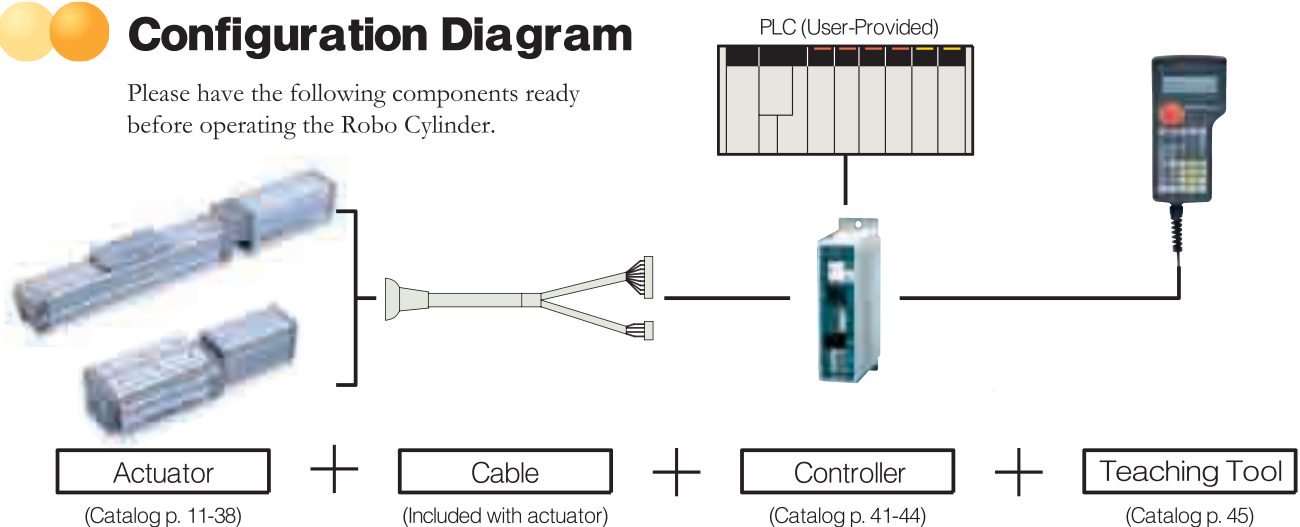
5 New Easy-Maintenance Motor Unit

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.



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

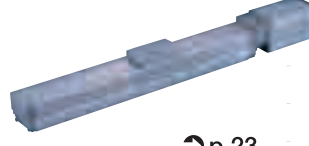
Width (mm)	32
Stroke (mm)	50-300 (by 50-mm steps)
Max Horiz. Load (kg)	3
Max Vert. Load (kg)	1.5
Max Speed (mm/s)	300



▷p.21

SA4C

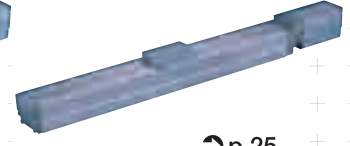
Width (mm)	40
Stroke (mm)	50-400 (by 50-mm steps)
Max Horiz. Load (kg)	6
Max Vert. Load (kg)	3
Max Speed (mm/s)	500



▷p.23

SA5C

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

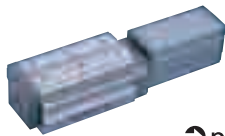


▷p.25

SA6C

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

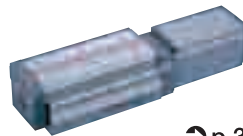
Table Type



▷p.33

TA5C

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



▷p.35

TA6C

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



▷p.37

TA7C

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

Controllers



ACON C

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



ACON CG

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



ACON CY

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



ACON PL/PO

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



ACON SE

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



ROBONET RACON

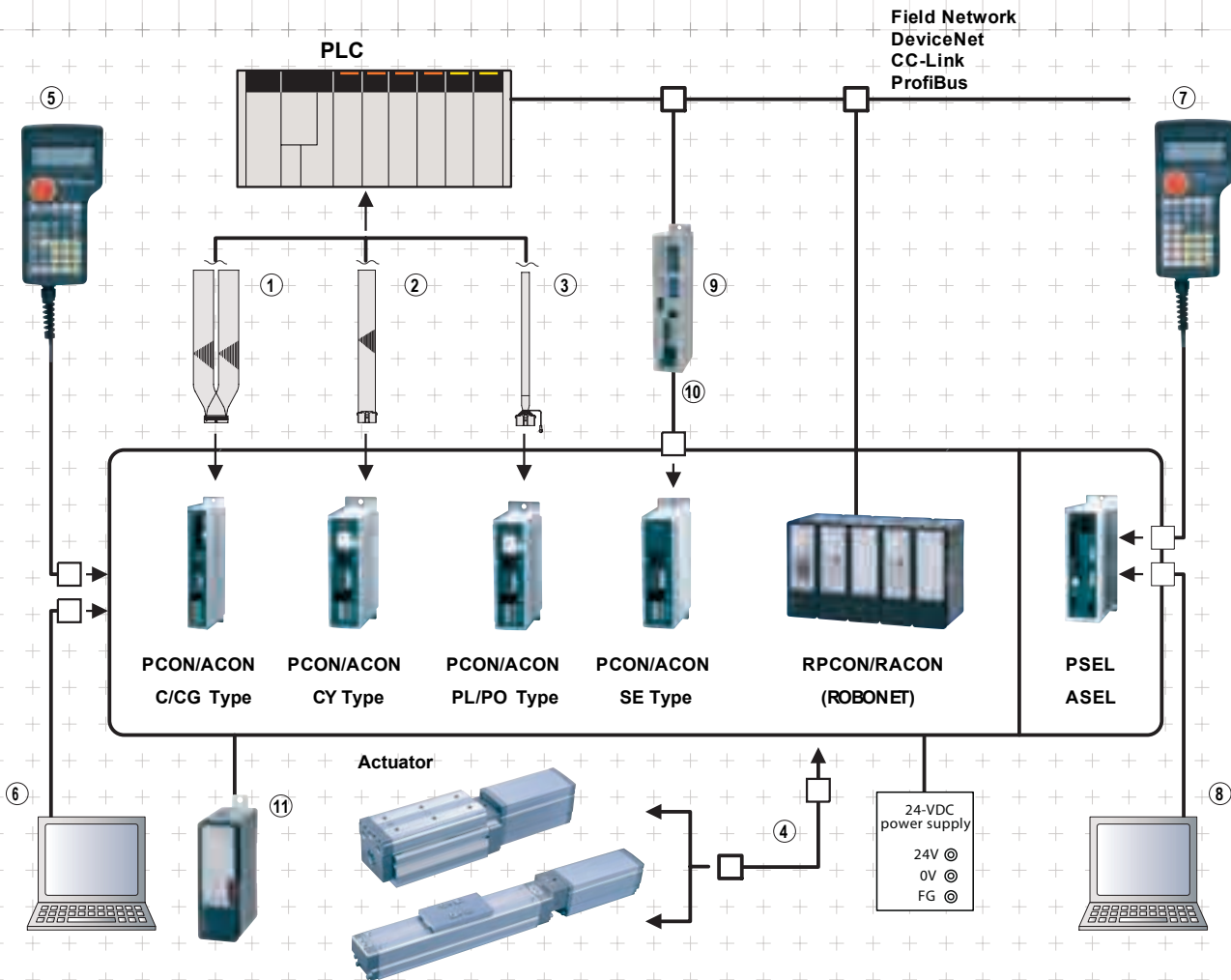
Field Network Type	
Positions Possible	768
—	—
Can be controlled via DeviceNet CCLink Profibus	



ASEL

Program Type	
Positions Possible	1500
—	—
Programmable sequence function operation	

System Configuration



Name	Model	Note	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
Teachingbox for PCON/ACON/RPCON/RACON	CON-T-ENG		p.45
⑤ Basic teachingbox 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 Teachingbox for PSEL/ASEL (standard specification)	SEL-T-J	Cable length 5m	p.45
Teachingbox 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 Simple absolute unit (for PCON)	PCON-ABU		(*)
Simple absolute unit (for ACON)	ACON-ABU		(*)

(*) See RoboCylinder comprehensive catalog.

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

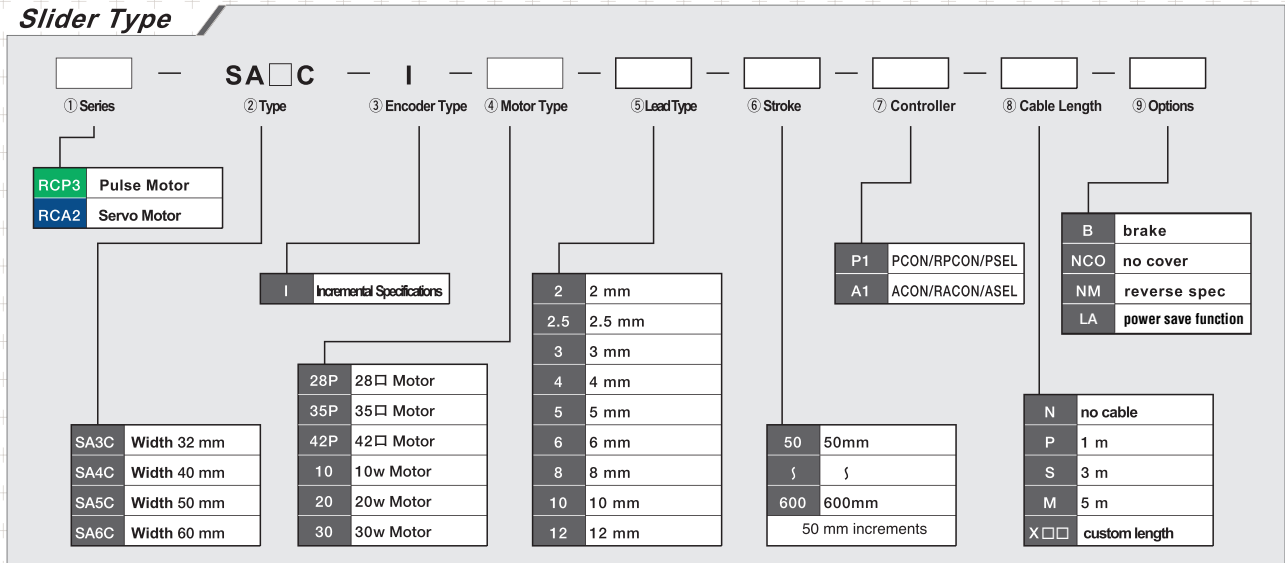
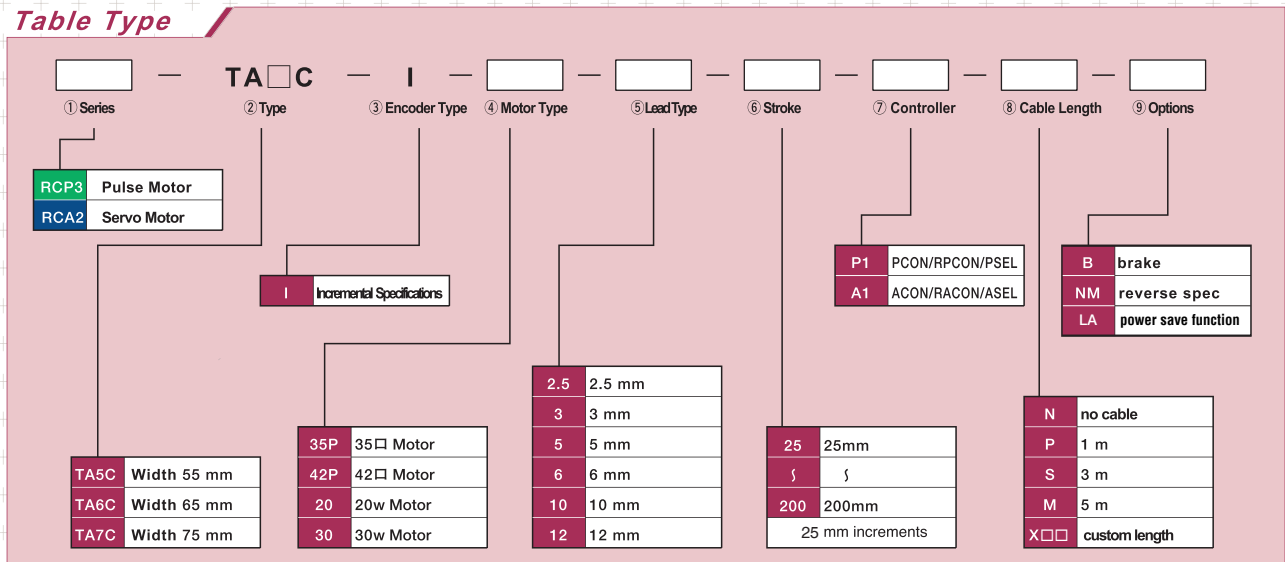


Table Type



- ① **Series** Indicates series name
- ② **Type** Indicates form (slider, table, etc.), material (aluminum, steel, etc.), size (body width), and motor coupling.

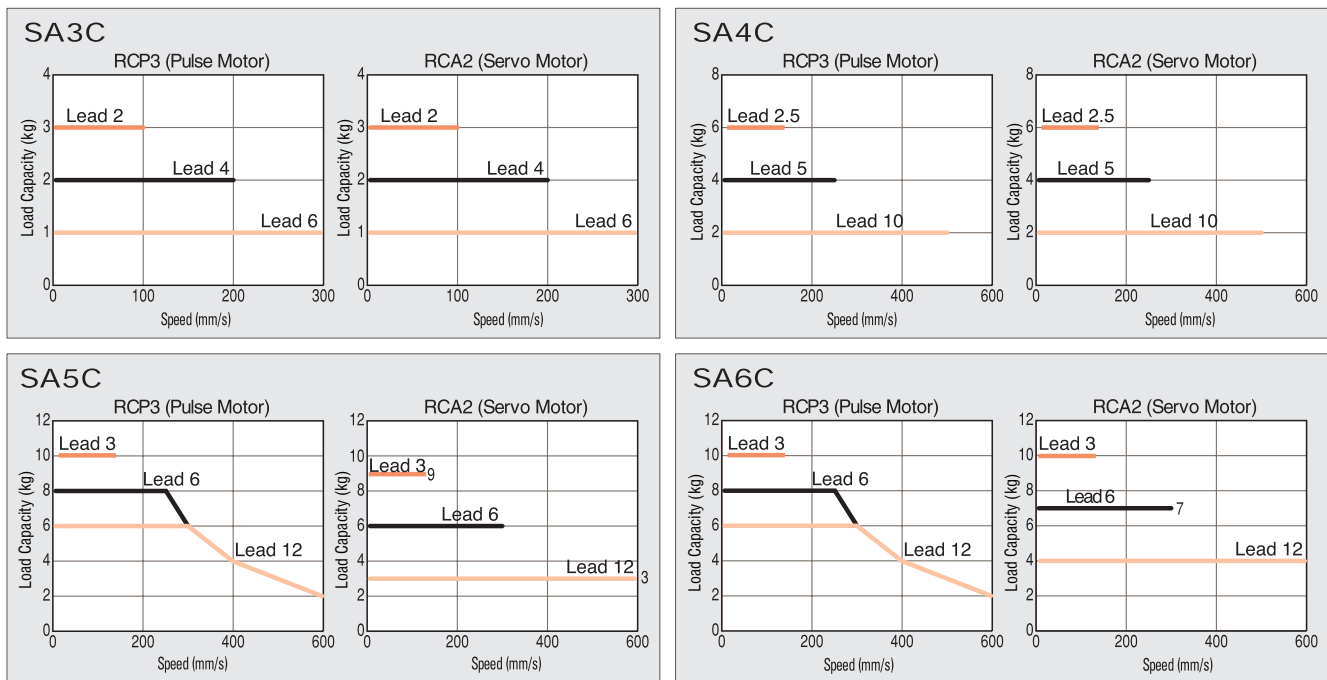
S	A	3	C	
S: Slider type		T: Table type		
A: Aluminum material				
3: 32 mm body width		4: 40 mm	5: 50 mm (slider type)/55 mm (table type)	
6: 60 mm (slider type)/65 mm (table type)		7: 75 mm		
- ③ **Encoder Type** Indicates whether actuator's encoder is [A: absolute specification] or [I: incremental 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)

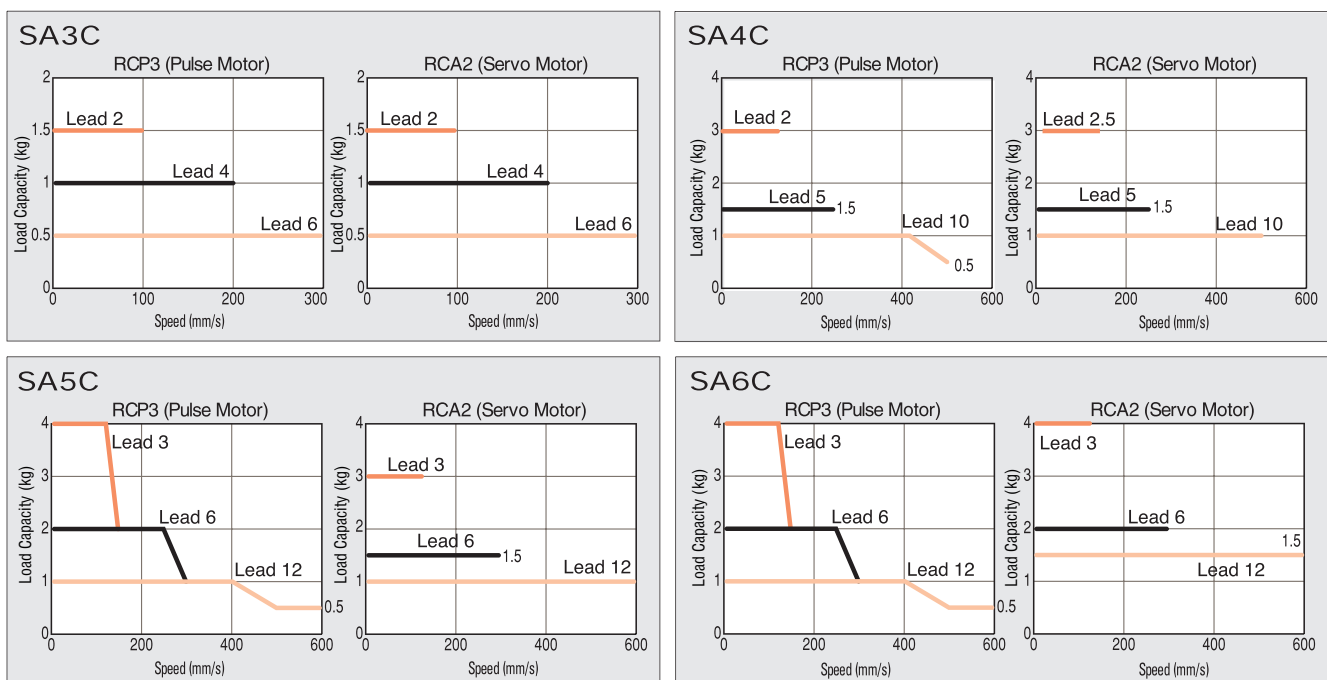
The RCP3 pulse motor loses torque at high speeds, reducing the maximum load capacity. If you choose an RCP3, please verify that the unit you select can operate with the required load at the required speed. The RCA2 does not lose load capacity at high speeds and is therefore a better choice if speed is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

Slider type: Positioning operations

Horizontal/Side-Lying Use



Vertical Use



Horizontal Use

Slider Type

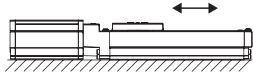
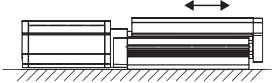


Table Type



Side Lying Use

Slider Type

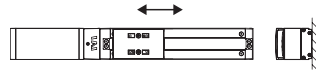
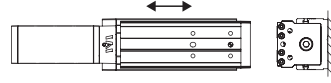


Table Type



Vertical Use

Slider Type

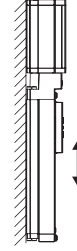


Table Type

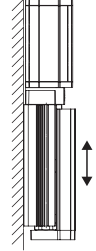
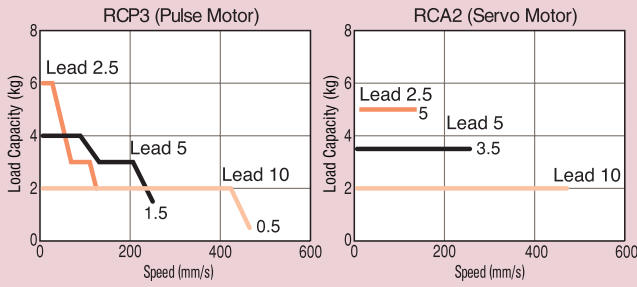


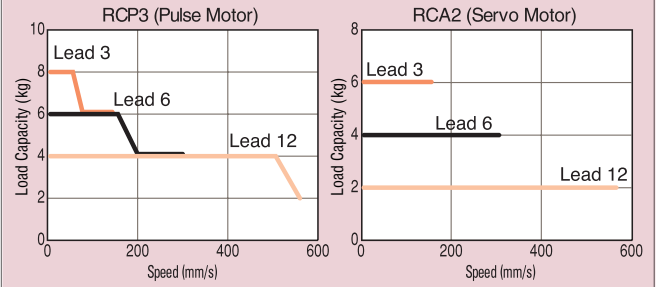
Table type: Positioning operations

Horizontal/Side-Lying Use

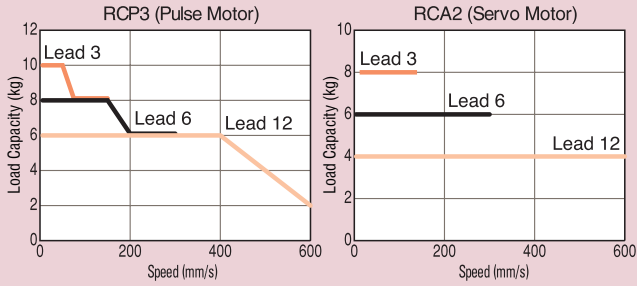
TA5C



TA6C

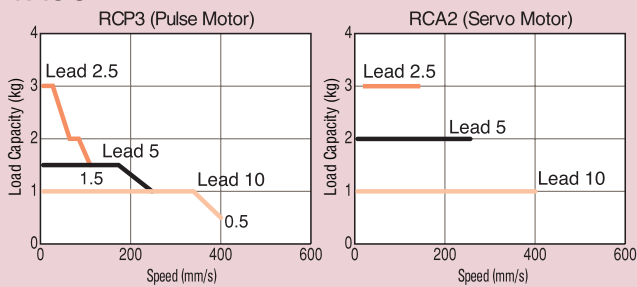


TA7C

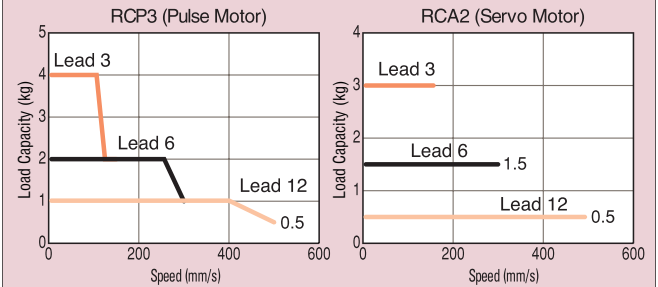


Vertical Use

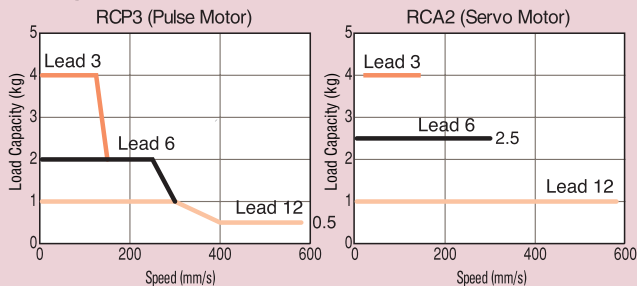
TA5C



TA6C



TA7C



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.

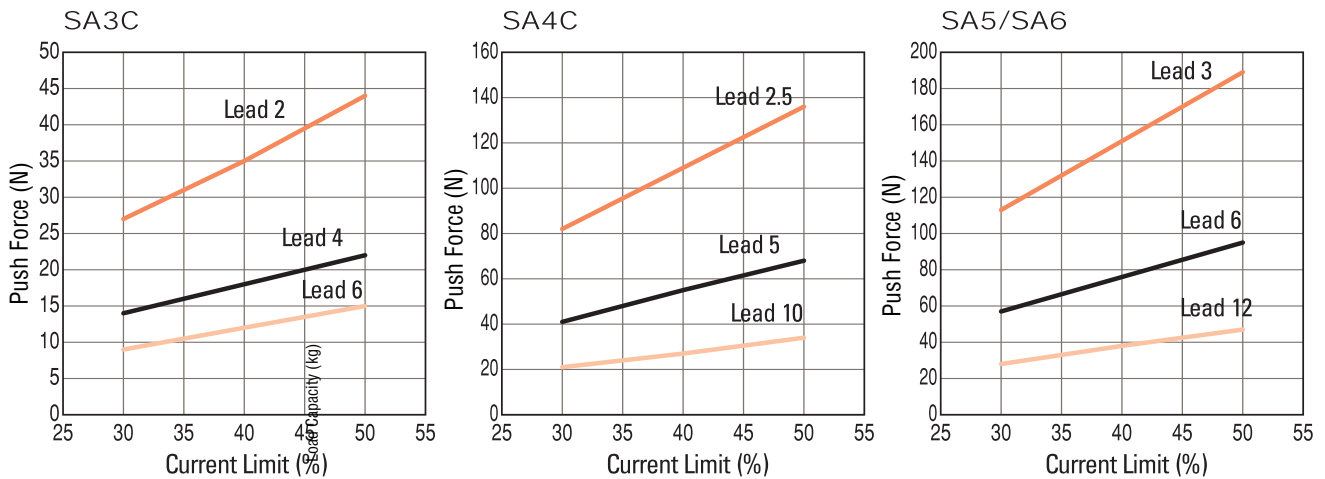
Slider Type: Push Operations

(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



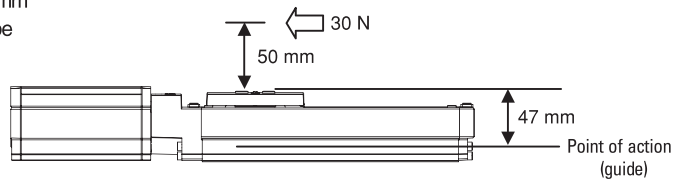
(2) Moment Load

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 (Ma) 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.

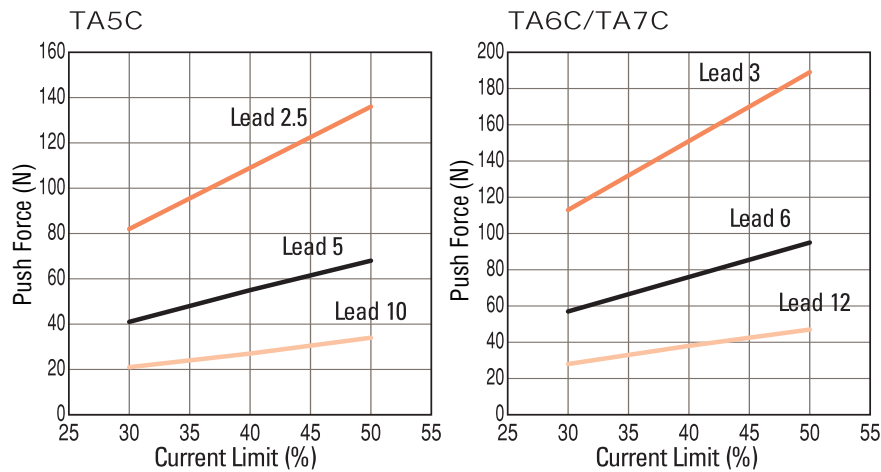
Table Type: Push Operations

(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



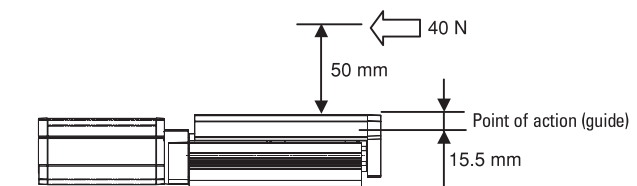
(2) Moment Load

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:

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



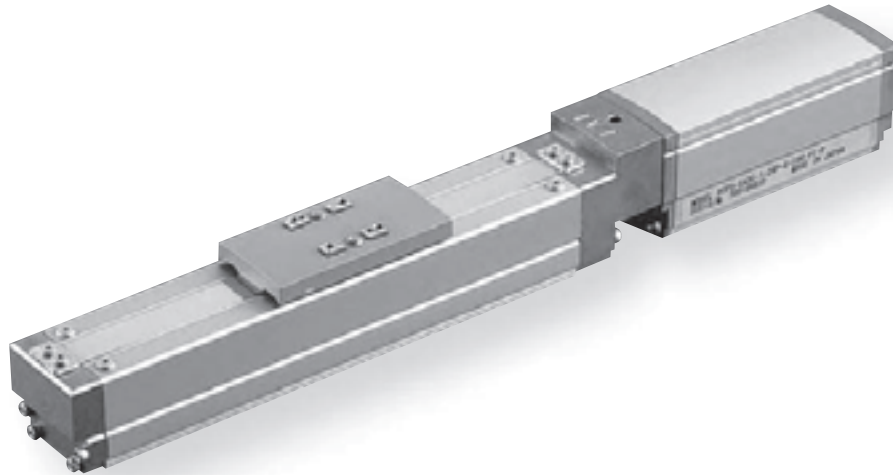
The TA6C has an allowable moment (Ma) of 7.26 (N·m), 80% of which value is 5.968. In this case, because that is higher than the load moment to be applied to the guide (2.62), we determine that the device can be used in this application.

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 <input type="checkbox"/> <input type="checkbox"/> : custom length	B: w/ brake NCO: no cover NM: reverse spec LA: power save function

※ See p.6 for details on various units



POINT

Read carefully

(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.

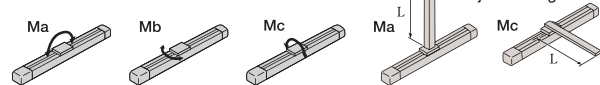
Actuator Specifications						
Lead and maximum load				Stroke and maximum speed		
Unit	Motor Output (W)	Lead (mm)	Max Load Capacity	Rated Force (N)	Stroke (mm)	Stroke (mm)
			Horiz (kg) Vert (kg)			50-300 (Set in 50-mm steps)
RCA2-SA3C-I-10-6-①-A1-②-③	10	6	1 0.5	28	50-300 (Set in 50-mm steps)	300
RCA2-SA3C-I-10-4-①-A1-②-③		4	2 1	43		200
RCA2-SA3C-I-10-2-①-A1-②-③		2	3 1.5	85		100

Key ① Stroke ② Cable Length ③ Options (Unit: mm/s)

Cable Length	
Type	Cable Code
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)

Actuator Specifications	
Item	Details
Drive system	Ball screw, $\phi 6$ 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

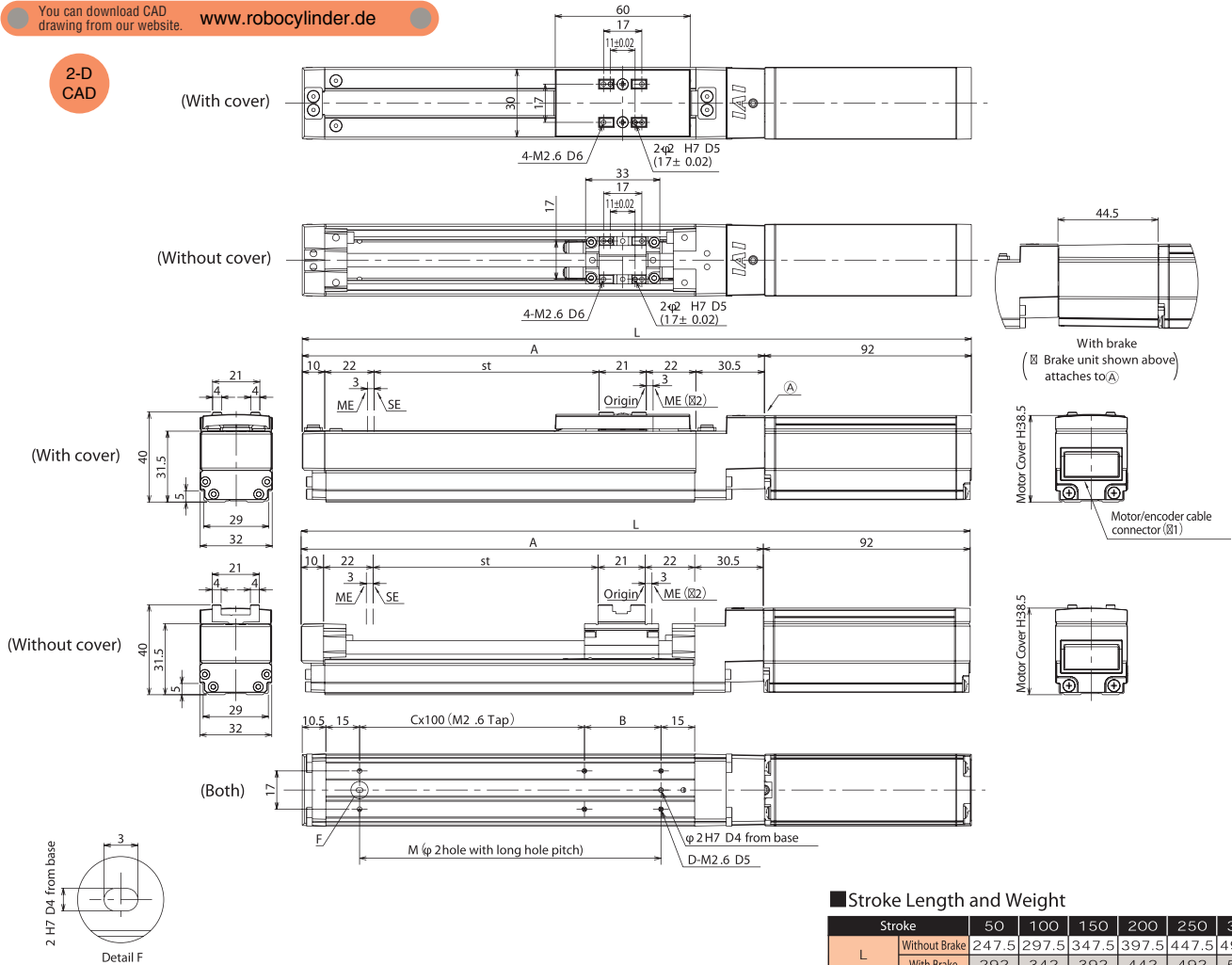


Options			
Option	Option Code		
With Brake	B		
No Cover	NCO		
Reverse Spec	NM		
Power Save Function	LA		

Dimensions

You can download CAD drawing from our website. www.robocylinder.de

2-D CAD



- (Ø1) The motor/encoder cable is a composite cable. (see p.46)
- (Ø2) 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.

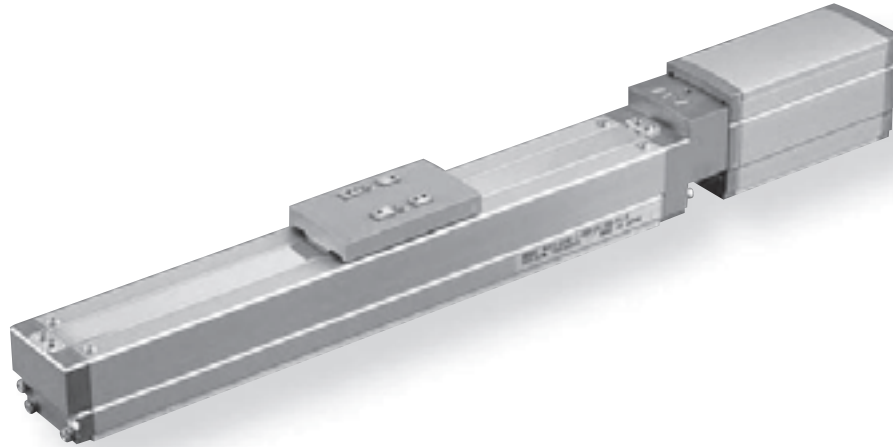
Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	See Page
Positioner Type		ACON-C-1OI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	→p.41
Safety Application Positioner Type		ACON-CG-1OI-NP-2-0					
Electromagnetic Valve Type		ACON-CY-1OI-NP-2-0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

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 <input type="checkbox"/> <input type="checkbox"/> : custom length	B: w/ brake NCO: no cover NM: reverse spec LA: power save function		

※ See p.6 for details on various units



POINT
Read carefully

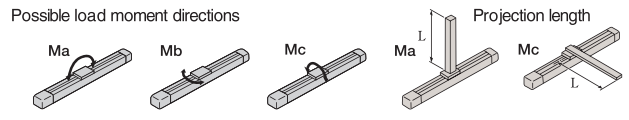
(1) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 2.5 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications						
Lead and maximum load				Stroke and maximum speed		
Unit	Motor Output (W)	Lead (mm)	Max Load Capacity Horiz (kg) Vert (kg)	Rated Force (N)	Stroke (mm)	Stroke and maximum speed 50-400 (Set in 50-mm steps)
RCA2-SA4C-I-20-10-①-A1-②-③	20	10	2 1	34	50-400 <small>(Set in 50-mm steps)</small>	500
RCA2-SA4C-I-20-5-①-A1-②-③		5	4 1.5	68		250
RCA2-SA4C-I-20-2.5-①-A1-②-③		2.5	6 3	136		125

Key ① Stroke ② Cable Length ③ Options (Unit: mm/s)

Cable Length (Standard)	
Type	Cable Code
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)

Actuator Specifications	
Item	Details
Drive system	Ball screw, $\phi 8$ 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

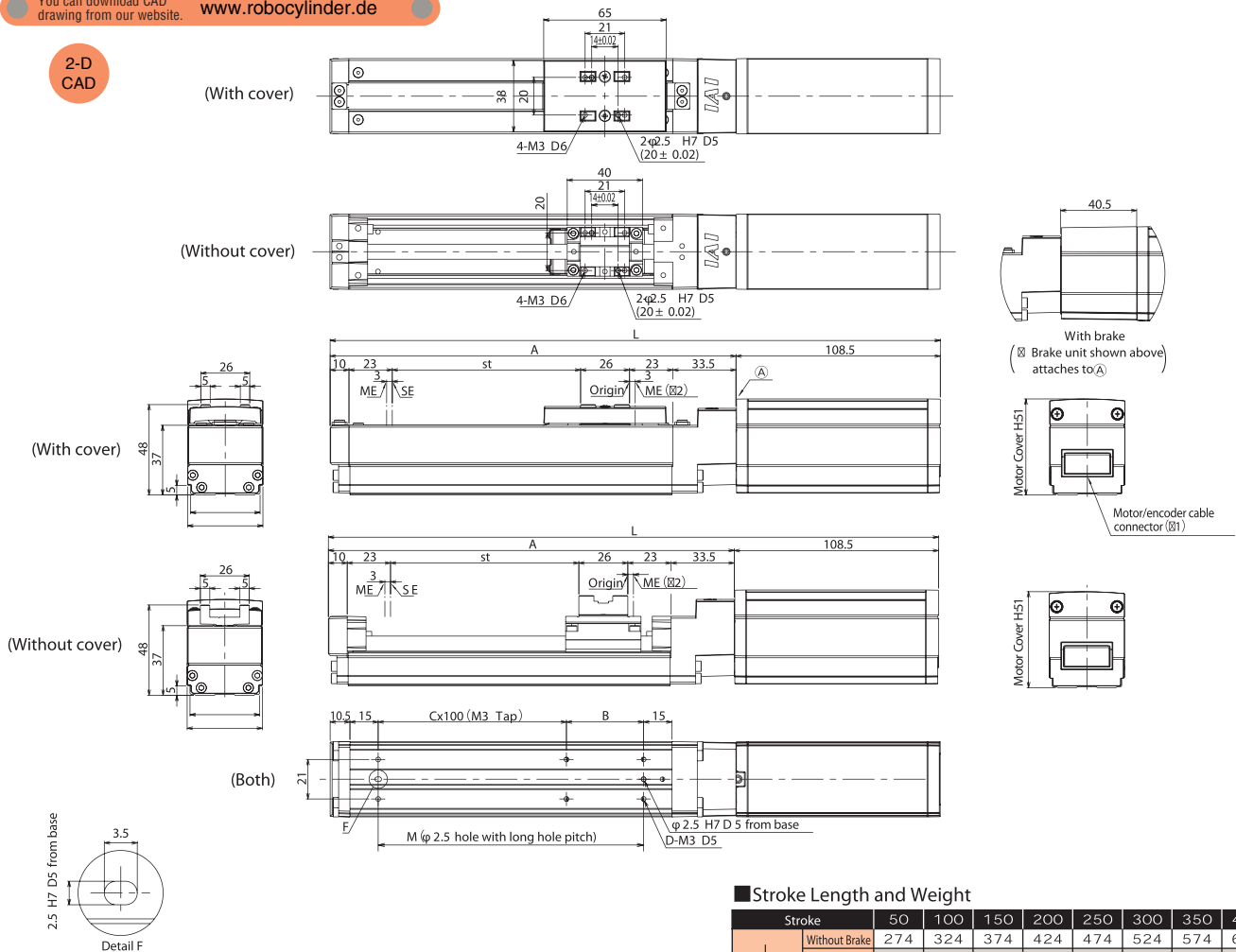


Options	
Option	Option Code
With Brake	B
No Cover	NCO
Reverse Spec	NM
Power Save Function	LA

Dimensions

You can download CAD drawing from our website. www.robocylinder.de

2-D CAD



- (Ø1) The motor/encoder cable is a composite cable. (see p.46)
- (Ø2) 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.

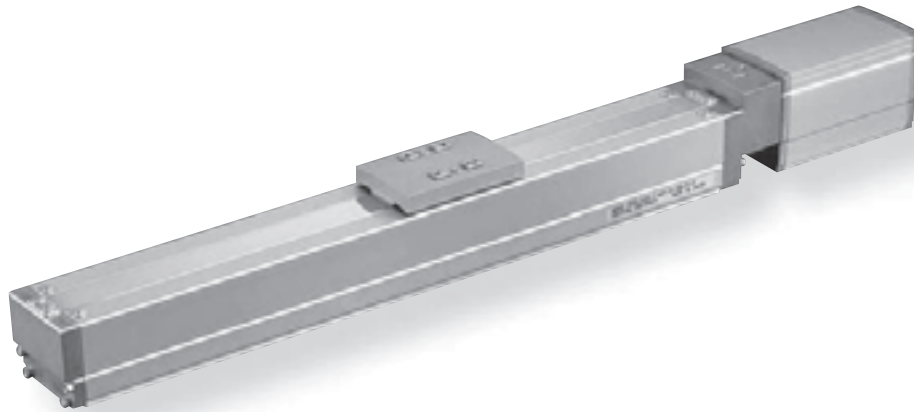
Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	See Page
Positioner Type		ACON-C-2OSI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	→p.41
Safety Application Positioner Type		ACON-CG-2OSI-NP-2-0					
Electromagnetic Valve Type		ACON-CY-2OSI-NP-2-0	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-O-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			

RCA2-SA5C

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

■ Unit	RCA2	SA5C	I	20			A1		
	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 LA: power save function

※ See p.6 for details on various units



POINT

Read carefully

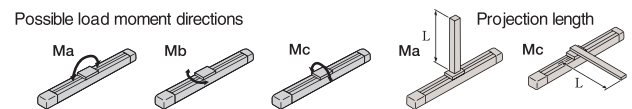
(1) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 3 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications							Stroke and maximum speed	
■ Lead and maximum load								
Unit	Motor Output (W)	Lead (mm)	Max Load Capacity		Rated Force (N)	Stroke (mm)	Stroke	50- 500 (Set in 50-mm steps)
			Horiz (kg)	Vert (kg)			Lead	
RCA2-SA5C-I-20-12-①-A1-②-③	20	12	3	1	17	50- 500 (Set in 50-mm steps)	12	600
RCA2-SA5C-I-20-6-①-A1-②-③		6	6	1.5	34		6	300
RCA2-SA5C-I-20-3-①-A1-②-③		3	9	3	68		3	150

Key ① Stroke ② Cable Length ③ Options (Unit: mm/s)

Cable Length		
Type	Cable Code	
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)	

Actuator Specifications	
Item	Details
Drive system	Ball screw, 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: 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

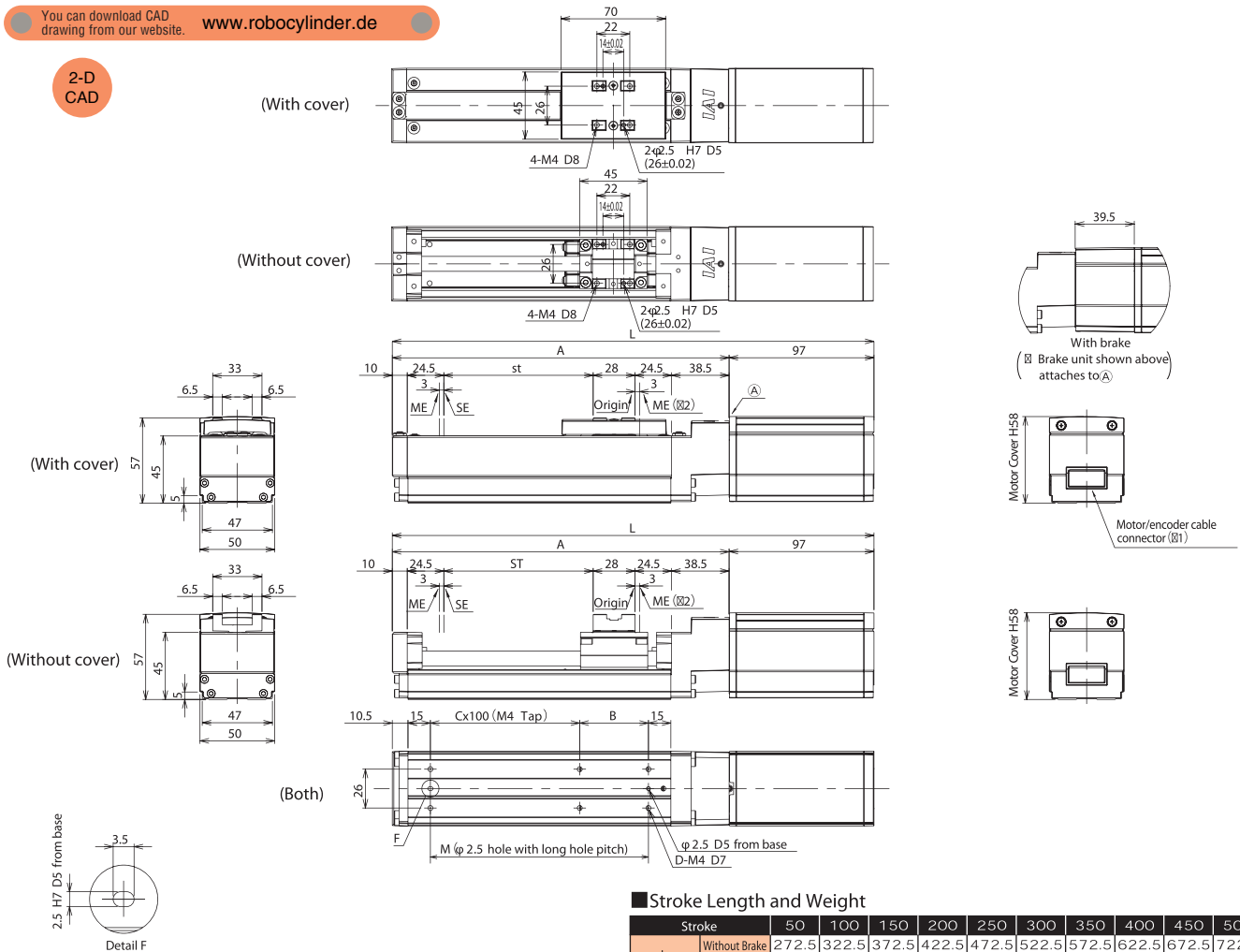


Options			
Option	Option Code		
With Brake	B		
No Cover	NCO		
Reverse Spec	NM		
Power Save Function	LA		

Dimensions

You can download CAD drawing from our website. www.robocylinder.de

2-D CAD



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

- (Ø1) The motor/encoder cable is a composite cable. (see p.46)
- (Ø2) 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.

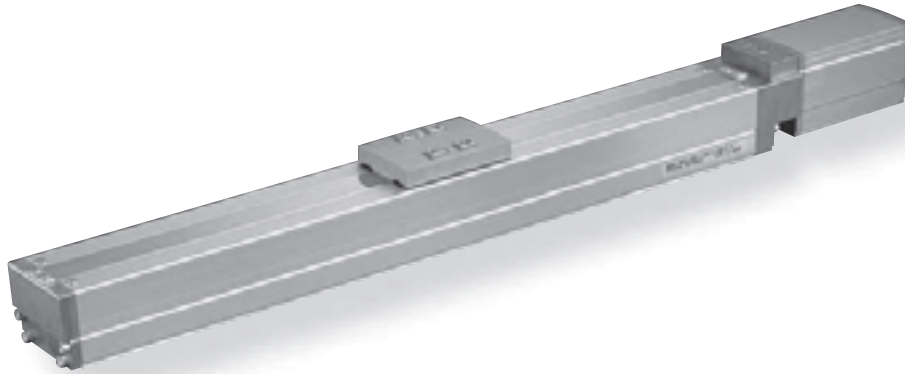
Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	See Page
Positioner Type		ACON-C-20I-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	→p.41
Safety Application Positioner Type		ACON-CG-20I-NP-2-0					
Electromagnetic Valve Type		ACON-CY-20I-NP-2-0	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-O-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			

RCA2-SA6C

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

■Unit	RCA2 — SA6C — I — 30 — <input type="text"/> — <input type="text"/> — A1 — <input type="text"/> — <input type="text"/>							
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 <small>(pitch set in 50 mm increments)</small>	A1: ACON ASEL	N: none P: 1 m S: 3 m M: 5 m X <input type="checkbox"/> <input type="checkbox"/> : custom length	B: w/ brake NCO: no cover NM: reverse spec LA: power save function

※ See p.6 for details on various units



POINT
Read carefully

(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.

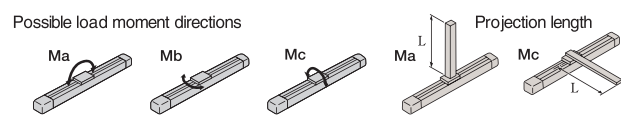
(2) The stated maximum load is for acceleration of 0.3 G (0.2 G for lead 3 and vertical use). This is the maximum possible acceleration for this device.

Actuator Specifications							Stroke and maximum speed		
■ Lead and maximum load									
Unit	Motor Output (W)	Lead (mm)	Max Load Capacity		Rated Force (N)	Stroke (mm)	Stroke / Lead	50- 550 (Set in 50-mm steps)	600 (mm)
RCA2-SA6C-I-30-12-①-A1-②-③	30	12	4	1.5	26	50- 600 (Set in 50-mm steps)	12	600	540
RCA2-SA6C-I-30-6-①-A1-②-③		6	7	2	53		6	300	270
RCA2-SA6C-I-30-3-①-A1-②-③		3	10	4	105		3	150	135

Key ① Stroke ② Cable Length ③ Options (Unit: mm/s)

Cable Length	
Type	Cable Code
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)

Actuator Specifications	
Item	Details
Drive system	Ball screw, ϕ 8 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

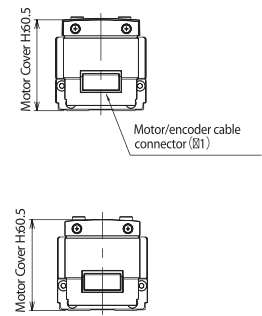
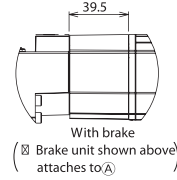
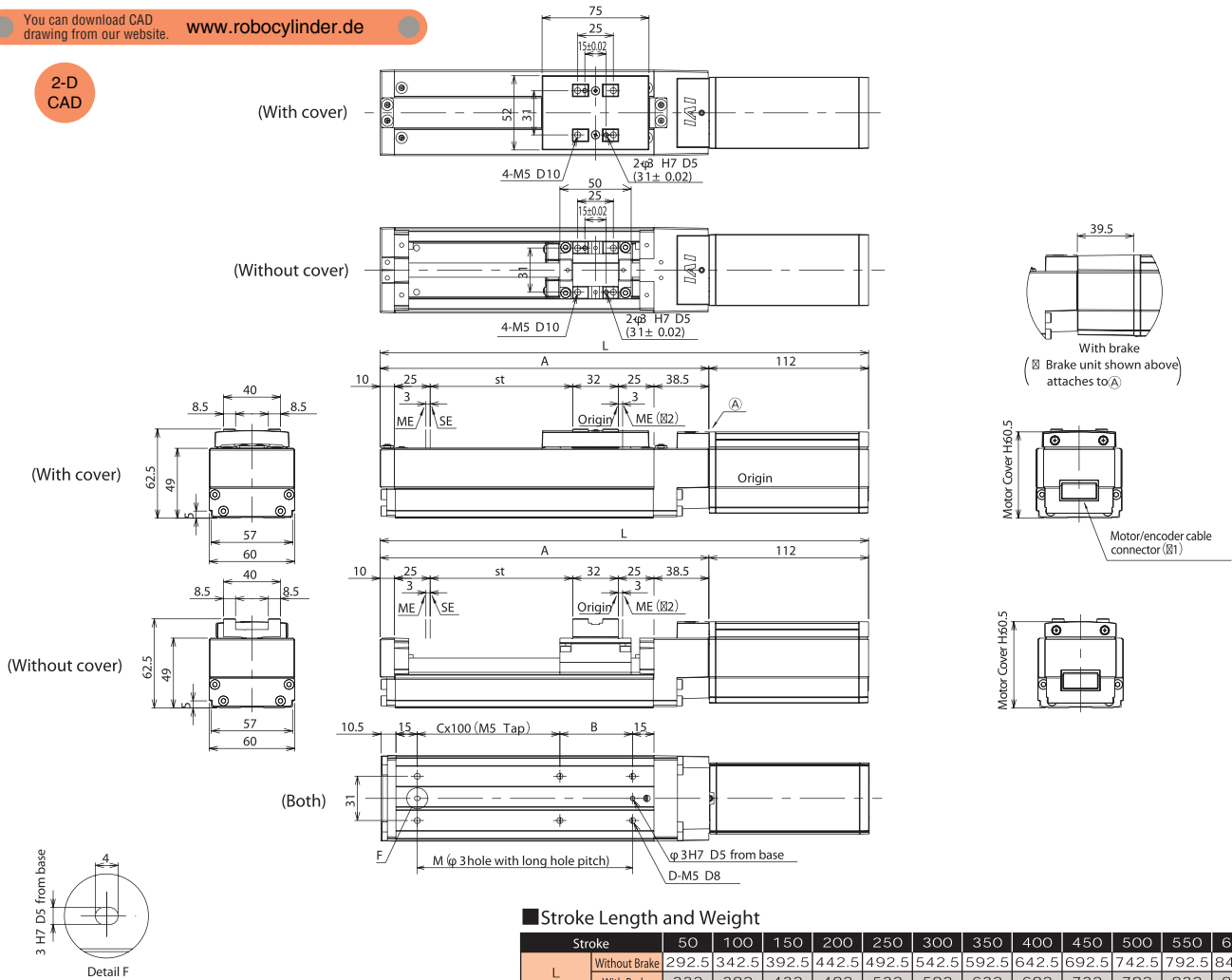


Options	
Option	Option Code
With Brake	B
No Cover	NCO
Reverse Spec	NM
Power Save Function	LA

Dimensions

You can download CAD drawing from our website. www.robocylinder.de

2-D 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

- (Ø1) The motor/encoder cable is a composite cable. (see p.46)
 - (Ø2) 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.

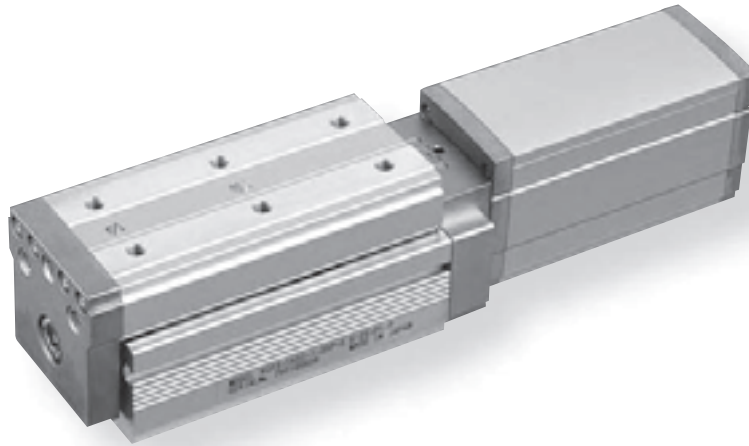
Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	See Page
Positioner Type		ACON-C-30I-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	→p.41
Safety Application Positioner Type		ACON-CG-30I-NP-2-0					
Electromagnetic Valve Type		ACON-CY-30I-NP-2-0	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-O-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			

RCA2-TA5C

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

Unit	RCA2	TA5C	I	20			A1		
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 LA: power save function	

※ See p.6 for details on various units



POINT

Read carefully

(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 Horiz (kg)	Max Load Capacity Vert (kg)	Rated Force (N)	Stroke (mm)
RCA2-TA5C-I-20-10-①-A1-②-③	20	10	2	1	34	25-100 <small>(Set in 25-mm steps)</small>
RCA2-TA5C-I-20-5-①-A1-②-③		5	3.5	2	68	
RCA2-TA5C-I-20-2.5-①-A1-②-③		2.5	5	3	137	

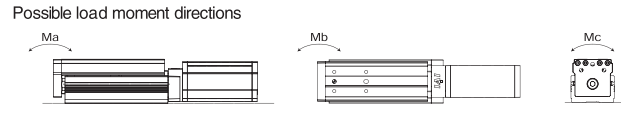
Key ① Stroke ② Cable Length ③ Options

Stroke and maximum speed	
Stroke / Lead	25-100 <small>(Set in 25-mm steps)</small>
10	465 (400)
5	250
2.5	125

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

Cable Length	
Type	Cable Code
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)

Actuator Specifications	
Item	Details
Drive system	Ball screw, $\phi 8$ 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

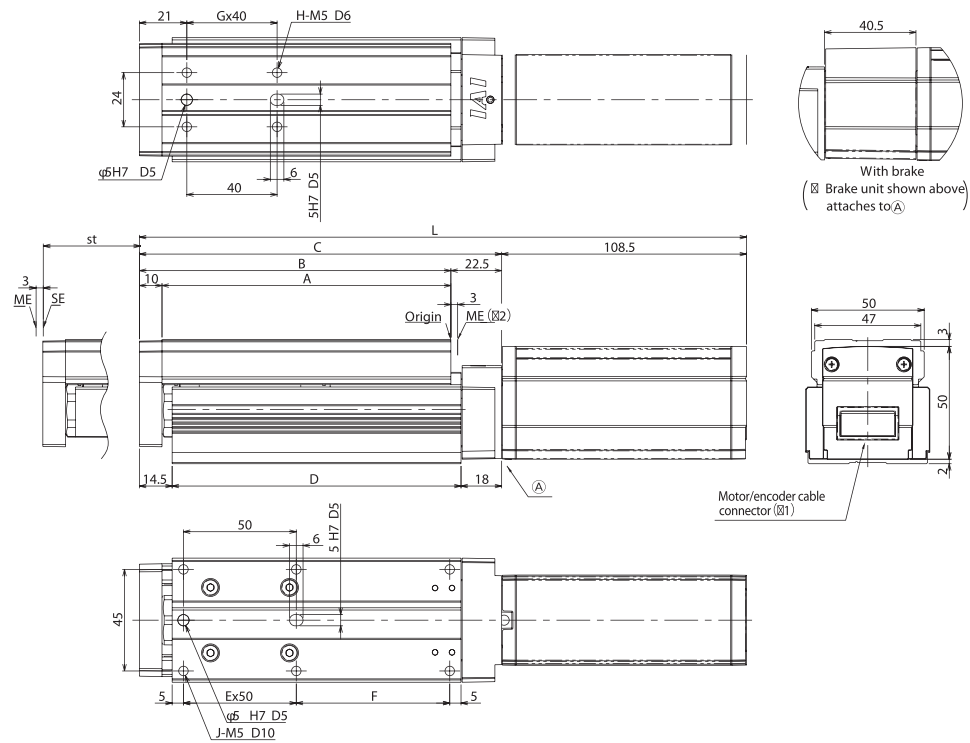
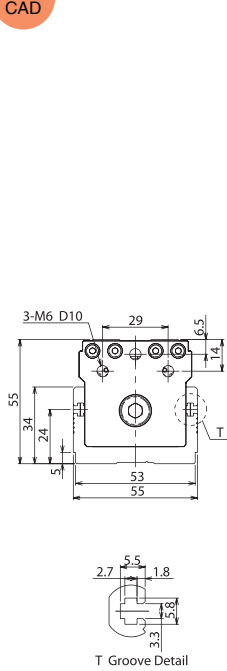


Options			
Option	Option Code		
With Brake	B		
Reverse Spec	NM		
Power Save Function	LA		

Dimensions

You can download CAD drawing from our website. www.robocylinder.de

2-D CAD



- (Ø1) The motor/encoder cable is a composite cable. (see p.46)
- (Ø2) 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.

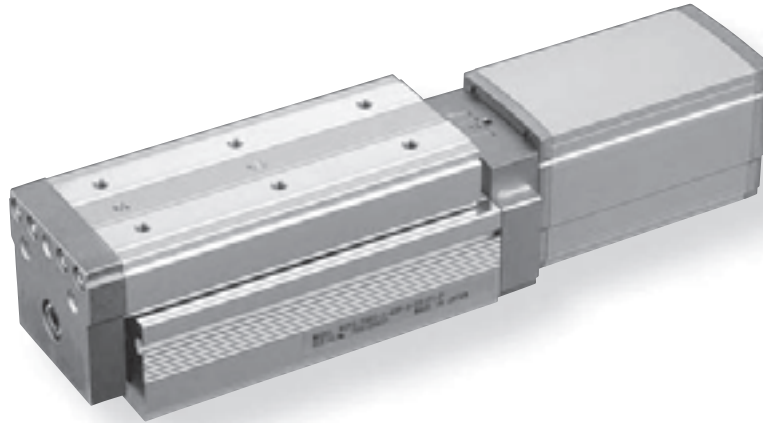
Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	See Page
Positioner Type		ACON-C-2OSI-NP-2-0	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	→p.41
Safety Application Positioner Type		ACON-CG-2OSI-NP-2-0					
Electromagnetic Valve Type		ACON-CY-2OSI-NP-2-0	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-O-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			

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 <input type="checkbox"/> <input type="checkbox"/> : custom length	B: w/ brake NM: reverse spec LA: power save function

※ See p.6 for details on various units



POINT

Read carefully

(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-20-12-①-A1-②-③	20	12	2 / 0.5	17	25-150 <small>(Set in 25-mm steps)</small>	25-150 <small>(Set in 25-mm steps)</small>
RCA2-TA6C-I-20-6-①-A1-②-③		6	4 / 1.5	34		
RCA2-TA6C-I-20-3-①-A1-②-③		3	6 / 3	68		

Key ① Stroke ② Cable Length ③ Options

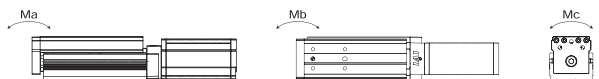
Stroke and maximum speed	
Stroke	25-150 <small>(Set in 25-mm steps)</small>
Lead 12	560 (500)
Lead 6	300
Lead 3	150

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

Cable Length	
Type	Cable Code
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)

Actuator Specifications	
Item	Details
Drive system	Ball screw, ϕ 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

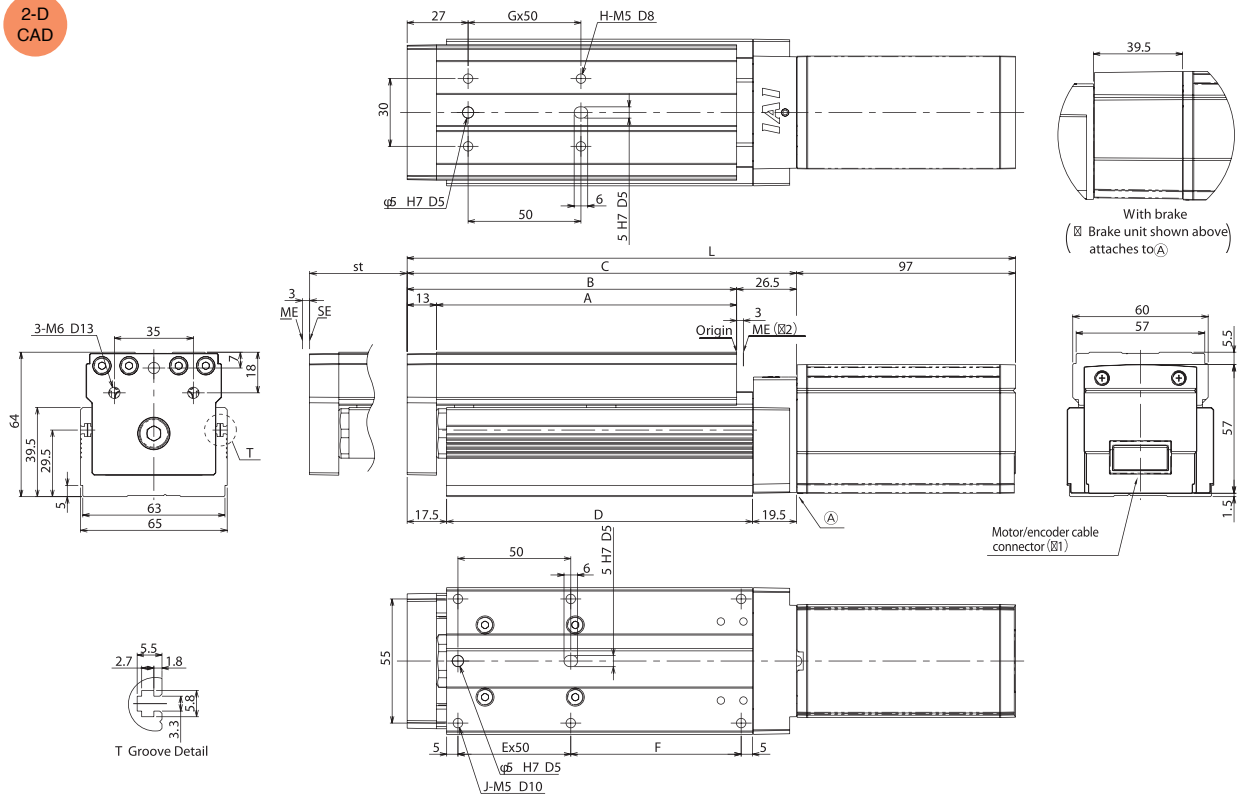


Options			
Option	Option Code		
With Brake	B		
Reverse Spec	NM		
Power Save Function	LA		

Dimensions

You can download CAD drawing from our website. www.robocylinder.de

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

- (Ø1) The motor/encoder cable is a composite cable. (see p.46)
- (Ø2) 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

RCA 2 Series works with the actuators shown below. Please select the appropriate type for your intended use.

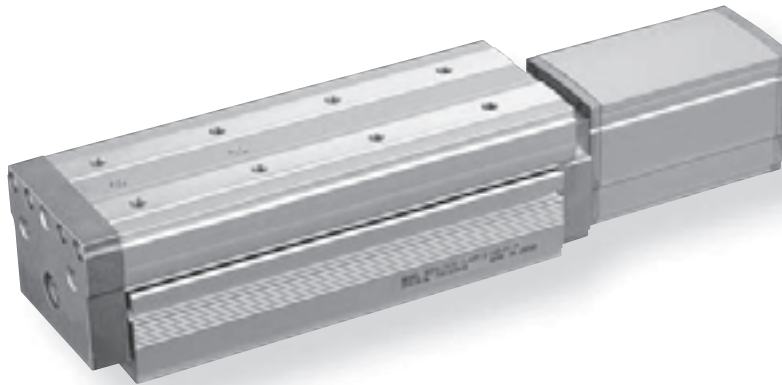
Controller	Exterior	Item No.	Advantage	Positions Possible	Voltage	Amperage	See Page
Positioner Type		ACON-C-2OI-NP-2-O	Capable of up to 512 different positions	512	DC 24 V	5.1 A max (via actuator)	→p.41
Safety Application Positioner Type		ACON-CG-2OI-NP-2-O					
Electromagnetic Valve Type		ACON-CY-2OI-NP-2-O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

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 <input type="checkbox"/> <input type="checkbox"/> : custom length	B: w/ brake NM: reverse spec LA: power save function		

※ See p.6 for details on various units



POINT

Read carefully

(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.

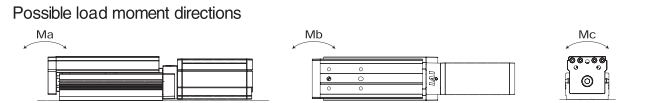
Actuator Specifications						
Lead and maximum load				Stroke and maximum speed		
Unit	Motor Output (W)	Lead (mm)	Max Load Capacity	Rated Force (N)	Stroke (mm)	
			Horiz (kg)	Vert (kg)		Stroke
RCA2-TA7C-I-30-12-①-A1-②-③	30	12	4	1	26	25-200 (Set in 25-mm steps)
RCA2-TA7C-I-30-6-①-A1-②-③		6	6	2.5	53	600 (580)
RCA2-TA7C-I-30-3-①-A1-②-③		3	8	4	105	300
						150

Key ① Stroke ② Cable Length ③ Options

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

Cable Length	
Type	Cable Code
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)

Actuator Specifications	
Item	Details
Drive system	Ball screw, ϕ 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

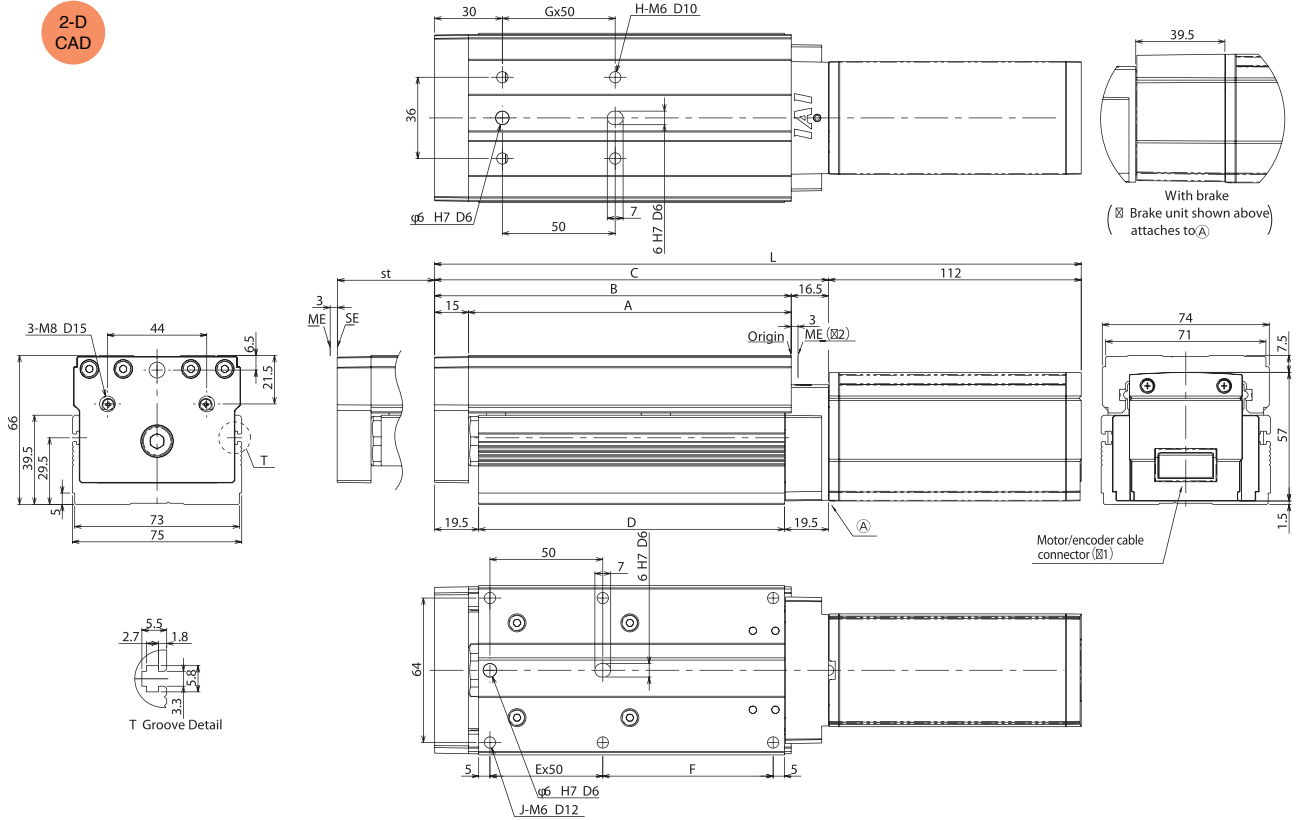


Options			
Option	Option Code		
With Brake	B		
Reverse Spec	NM		
Power Save Function	LA		

Dimensions

You can download CAD drawing from our website. www.robocylinder.de

2-D CAD



(Ø1) The motor/encoder cable is a composite cable. (see p.46)

(Ø2) 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	Stroke Length (mm)								
	25	50	75	100	125	150	175	200	
L	Without Brake	261.5	286.5	311.5	336.5	361.5	386.5	411.5	436.5
	With Brake	301	326	351	376	401	426	451	476
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	

Controllers

Compatible Controllers

RCA 2 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	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-O-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			

Moment Load Calculation

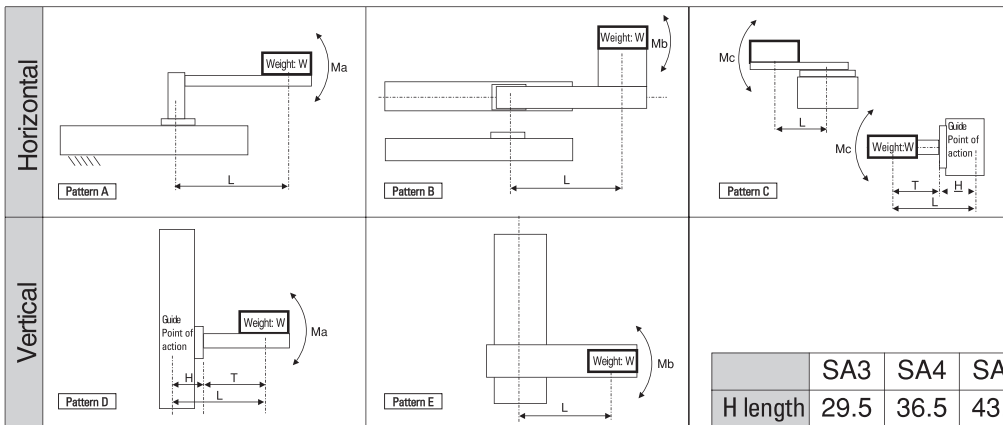
The life of the actuator will vary greatly depending on the position of the attached work, even when operating within the appropriate maximum load weight and speed. Follow the formulas below to use the weight of the static and active moments to calculate the moment values, then ensure that the sum of 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

① 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

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



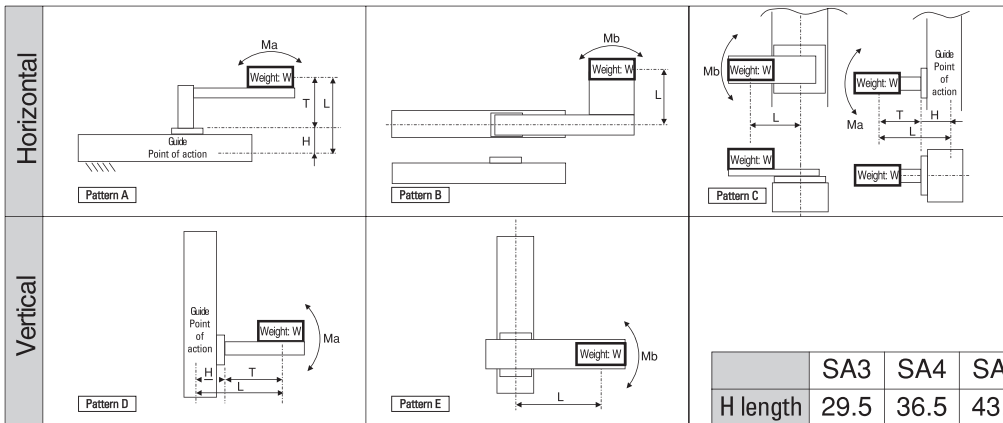
(Unit: mm)

	SA3	SA4	SA5	SA6
H length	29.5	36.5	43.5	47.0

② 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
 a: designated acceleration

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



(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

① Static Moment (moment when actuator is at rest)

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

W: Weight

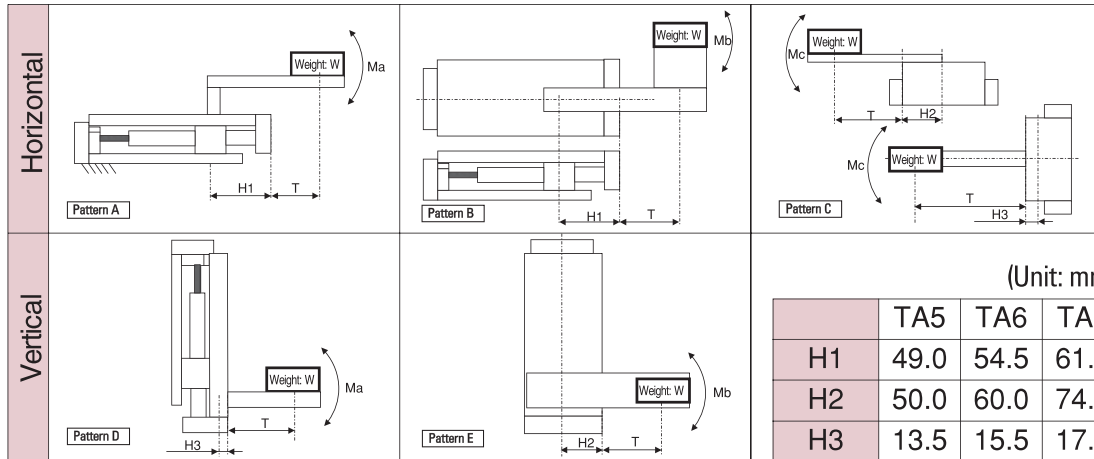
L: Distance from point of action to load center of gravity

Patterns A, B

$$L = T + H \square + \text{Stroke}$$

Patterns C, D, E

$$L = T + H \square$$



(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

② Active Moment (moment when actuator is in motion)

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

W: Weight

L: Distance from point of action to load center of gravity

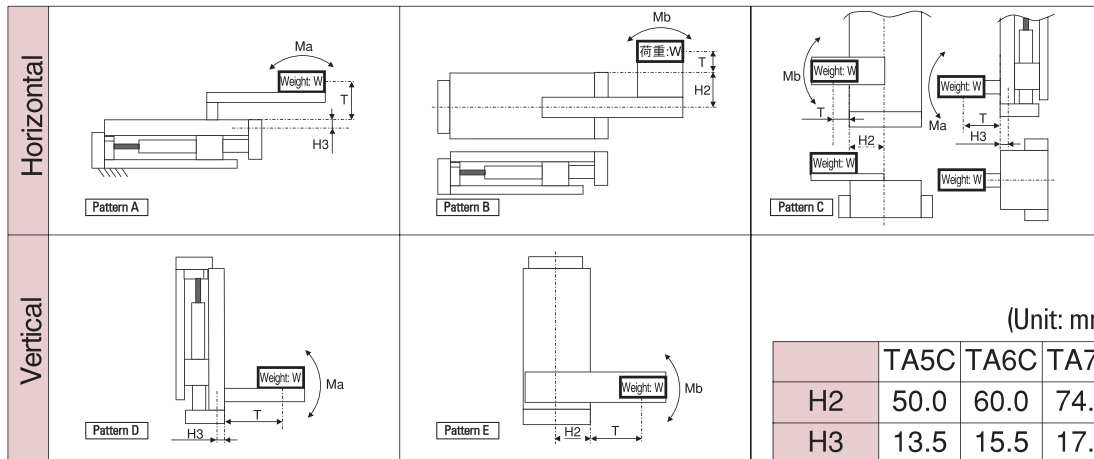
Patterns A, B

$$L = T + H \square + \text{Stroke}$$

Patterns C, D, E

$$L = T + H \square$$

a: designated acceleration



(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

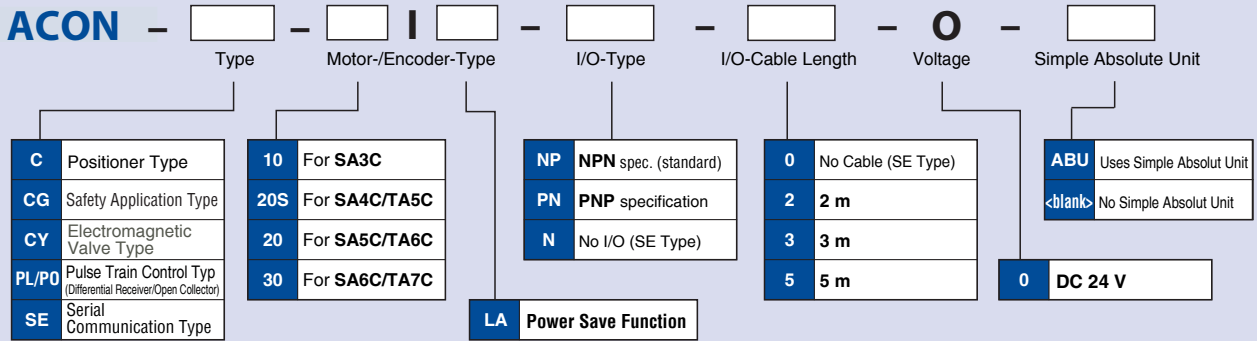
RCA2 Controllers

Selection

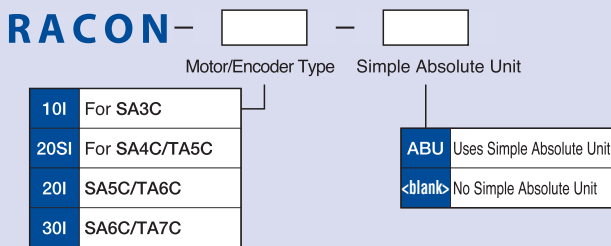
Type	ACON					RACON (ROBONET)	ASEL
	C	CG	CY	PL/PO	SE		
Name	Positioner Type	Safety Application Type	Electromagnetic Valve Type	Pulse Train Control Type	Serial Communication Type	Field Network Type	Program Type
Appearance							
Advantage	Capable of up to 512 different positions	Meets specifications for 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

Units

[ACON Controller]

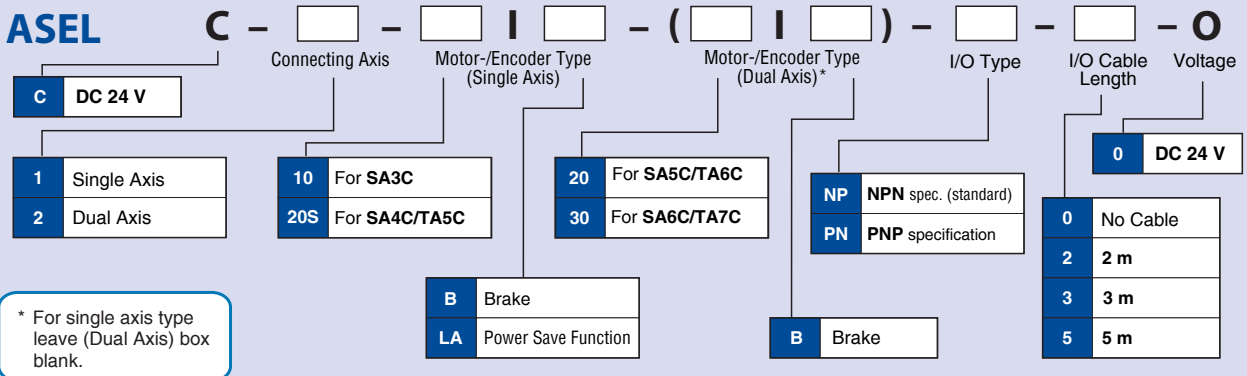


[RACON Controller]



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

[ASEL Controller]



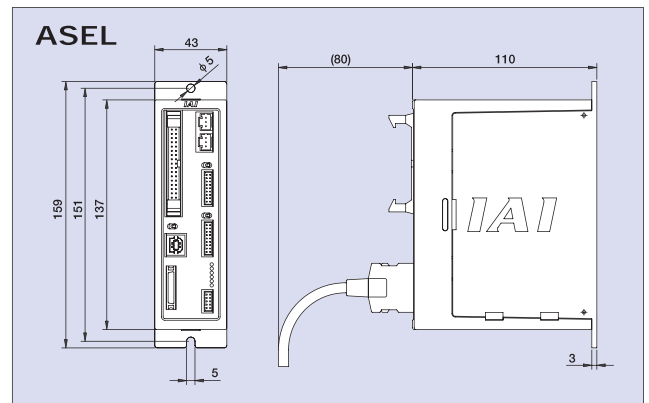
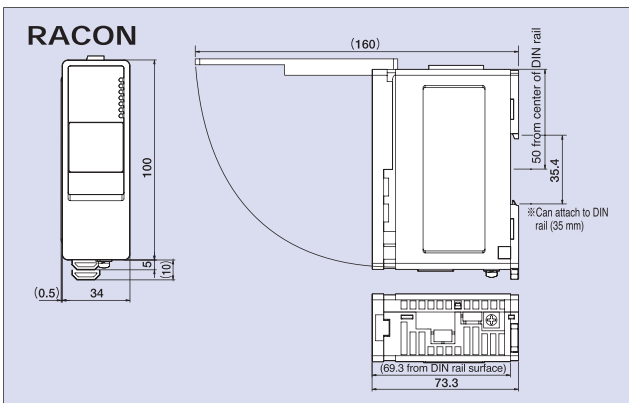
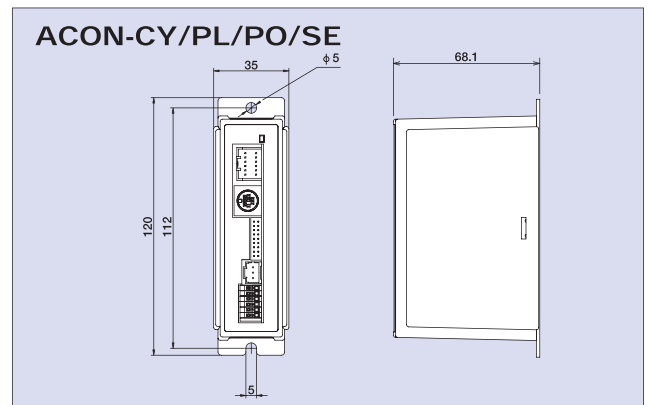
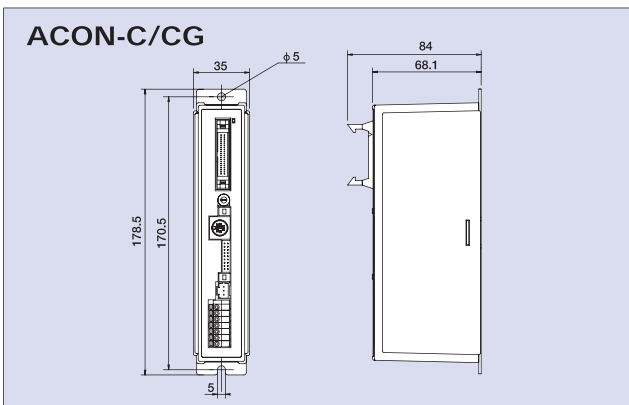
* For single axis type leave (Dual Axis) box blank.

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-ACS-MPA □□□□ (Max Length 20 m)							
Power Input	DC 24 V ±10%							
Amperage	Up to 5.1 A					Up to 5.1 A (※)	Up to 6.2 A	
Isolation Voltage	DC 500 V 1MΩ						DC500V 10MΩ+	
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 x number of devices plus power consumption of gateway unit (0.6 A)

External Dimensions



Controller Options

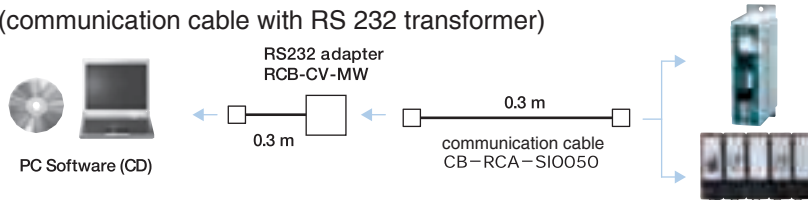
[Teaching Boxes] | Instructional devices for position input, testing, and monitoring

Item	RCM-E	RCM-P	CON-T-ENG	SEL-T-J	SEL-TD-J
Appearance					
Compatible Controllers	PCON/ACON/RPCON/RACON			PSEL/ASEL	
Position Input	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Program Input	—	—	—	<input type="radio"/>	<input type="radio"/>
Actuator Operation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Display	16 Characters x 2 Lines LCD			20 Characters x 4 Lines LCD	
3 Position Enable Switch	—	—	—	—	<input type="radio"/>
ANSI Compatible	—	—	—	—	<input type="radio"/>
CE Mark Compatible	—	—	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
UL Compatible	—	—	—	—	<input type="radio"/>
Cable Length	5 m				
Usage Environment	Temperature 0-40°C, Humidity 10 ~ 85% RH				
Protection Grade	—	—	—	IP54	
Weight	ca. 400g	ca. 360g	ca. 400g	ca. 400g	ca. 400g

[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.

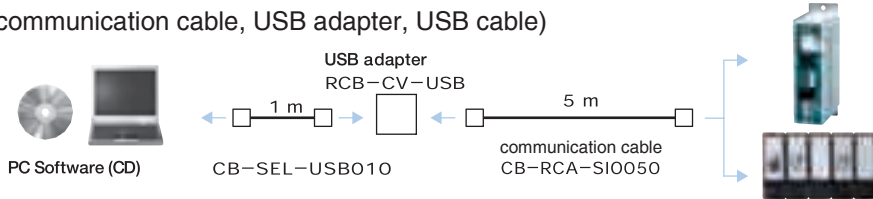
[PC Software for PCON/ACON/RPCON/RACON (RS232 connection)]

- Item **RCM-101-MW-EU** (communication cable with RS 232 transformer)
- Consists of



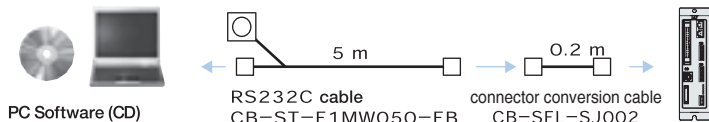
[PC Software for PCON/ACON/RPCON/RACON (USB connection)]

- Item **IA-101-USB-EU** (communication cable, USB adapter, USB cable)
- Consists of



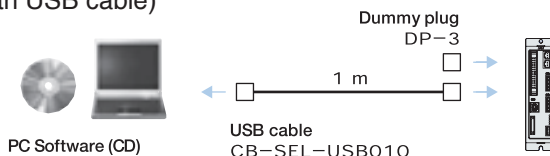
[PSEL/ASEL PC Software (RS232 connection)]

- Item **IA-101-X-MW-J** (RS232C cable, with connector conversion cable)
- Consists of



[PSEL/ASEL PC Software (USB connection)]

- Item **IA-101-X-USB** (with USB cable)
- Consists of



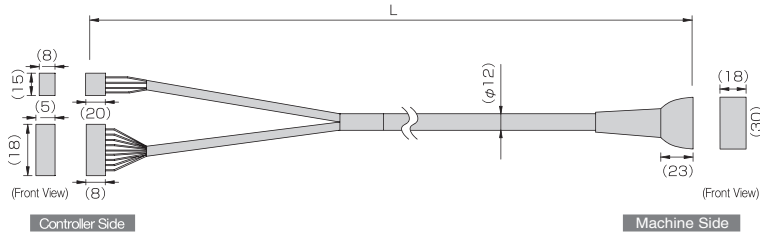
Maintenance Products

[Motor/Encoder Cable]

RCP3 Motor/Encoder Cable

Item **CB-PCS-MPA**

※Write cable length (L) in , up to 20 m.
Example: 080 = 8 m

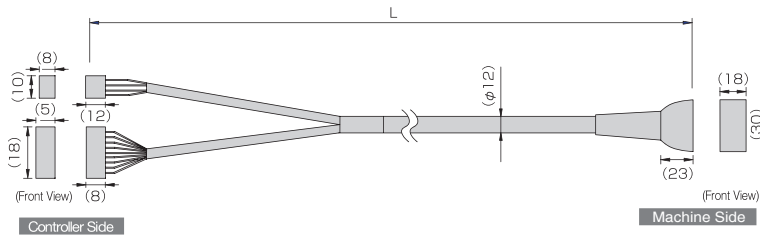


Symbol	PIN	(Line Color)	PIN	Symbol
A	B1	Blk	A1	A
VMM	A2	Wht	B1	VMM
/A	A1	Red	A2	/A
B	B3	Grrn	B2	B
VMM	B2	Yel	A3	VMM
/B	A3	Brn	B3	/B
			A4	NC
			B4	NC
BK+	14	Peach (Red.)	A5	BK+
BK-	13	Peach (Blu.)	B5	BK-
LS+	16	White (Red.)	A6	LS+
LS-	15	White (Blu.)	B6	LS-
A+	12	Orange (Red.)	A7	A+
A-	11	Orange (Blu.)	B7	A-
B+	10	Gray (Red.)	A8	B+
B-	9	Gray (Blu.)	B8	B-
NC	8		A9	NC
VPS	7	Orange (Blueline)	B9	VPS
VCC	6	Gray (Redline)	A10	VCC
GND	5	Orange (Blueline)	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 20 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 (Blueline)	B9	/PS
Z	6	Gray (Redline)	A10	VCC
+	5	Gray (Blueline)	B10	GND
Z			A11	NC
-	1	Shielding	B11	FG

[Motor Unit]

Axis Type			Motor Unit			
			No Brake		With Brake	
			Type		Type	
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	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	

**RCP3&RCA2 Series
Slider/Table Type
Catalogue No. 0608-E**

The information contained in this catalog is
subject to change without notice for the purpose
of product improvement



Providing quality products
since 1986



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