RCA2-SA3C

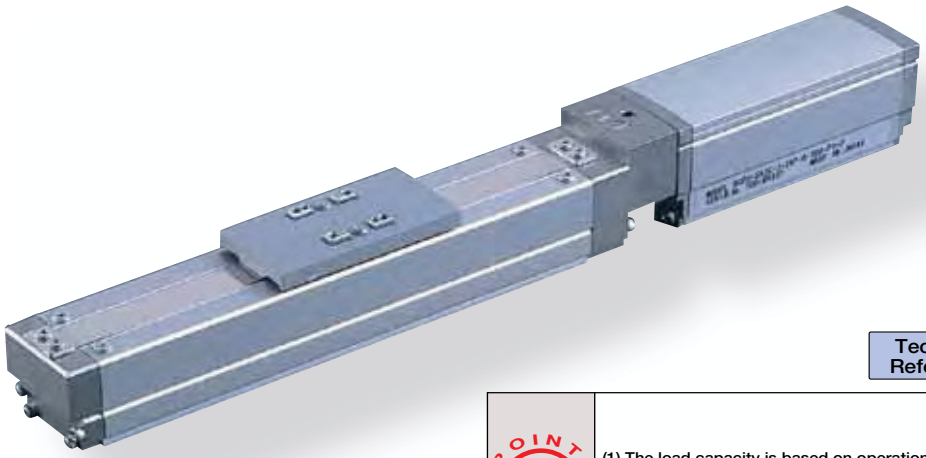
ROBO Cylinder Slider Type 32mm Width Servo Motor Coupled

■ Configuration: RCA2 – SA3C – I – 10 – [ ] – [ ] – [ ] – [ ] – [ ]

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
		I: Incremental * The Simple absolute encoder models are labeled as "I".	10P: 10W Servo motor	6 :6mm 4 :4mm 2 :2mm	50: 50mm \ 300:300mm (50mm pitch increments)	A1: ACON RACON ASEL A3: AMEC ASEP	N : None P : 1m S : 3m M : 5m X □□: Custom Length	See Options below

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

Power-saving



Technical References P. A-5

POINT Notes on Selection

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

Actuator Specifications

■ Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated Thrust (N)	Stroke (mm)
RCA2-SA3C-I-10-6-①-②-③-④	10	6	1	0.5	28	50 ~ 300 (50mm increments)
RCA2-SA3C-I-10-4-①-②-③-④		4	2	1	43	
RCA2-SA3C-I-10-2-①-②-③-④		2	3	1.5	85	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

■ Stroke and Maximum Speed

Lead \ Stroke	50 ~ 300 (50mm increments)
6	300
4	200
2	100

(Unit: mm/s)

① Stroke List

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

③ Cable List

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

* The standard cable for the RCA2 is the robot cable.
* For cables for maintenance, see page A-39.

④ Option List

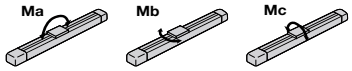
Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	–
Cable Exit Direction (Top)	CJT	→ A-25	–
Cable Exit Direction (Right)	CJR	→ A-25	–
Cable Exit Direction (Left)	CJL	→ A-25	–
Cable Exit Direction (Bottom)	CJB	→ A-25	–
Power-saving	LA	→ A-32	–
No Cover	NCO	→ A-33	–
Reversed-home	NM	→ A-33	–

Actuator Specifications

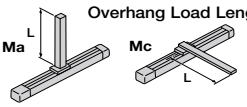
Item	Description
Drive System	Ball screw Ø6mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 5.0N·m Mb: 7.1N·m Mc: 7.9N·m
Allowable Dynamic Moment(*)	Ma: 1.96N·m Mb: 2.84N·m Mc: 3.14N·m
Overhang Load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

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

Directions of Allowable Load Moments



Overhang Load Length



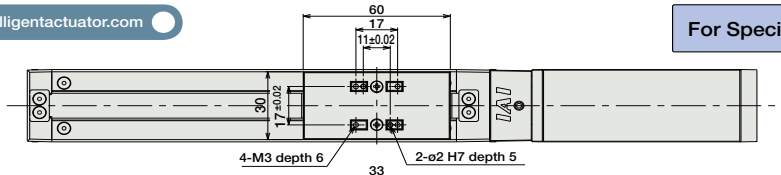
Dimensions

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

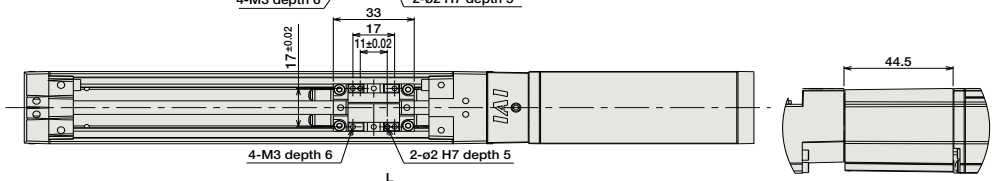
2D CAD 3D CAD

For Special Orders P. A-9

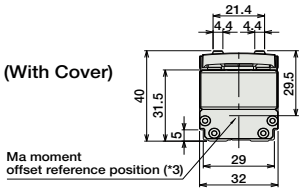
(With Cover)

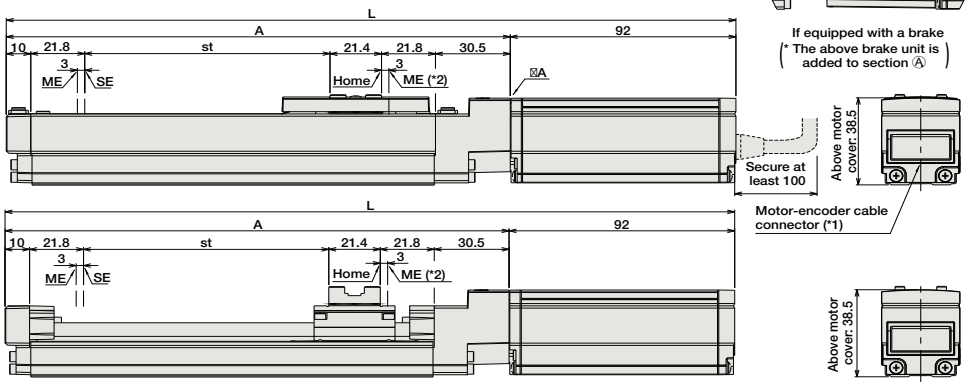


(Without Cover)

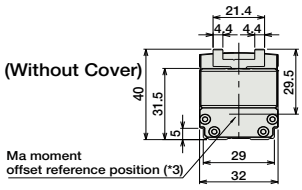


(With Cover)

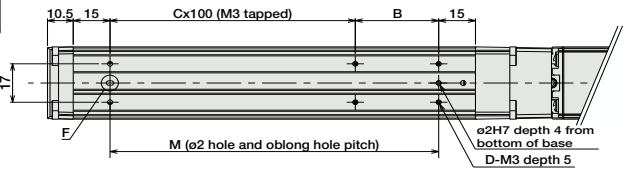


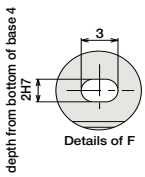


(Without Cover)

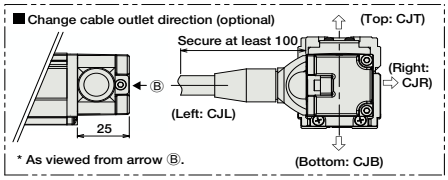


(Common)





■ Change cable outlet direction (optional)



(*1) A motor-encoder cable (integrated) is connected here. (For details on cables for maintenance, see page A-39.)
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
ME : Mechanical end
SE : Stroke end
(*3) Reference position for calculating the moment Ma

■ Dimensions/Weight by Stroke

* Brake-equipped models are heavier by 0.2kg.

Stroke		50	100	150	200	250	300
L	No Brake	247.5	297.5	347.5	397.5	447.5	497.5
	Brake-Equipped	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
	No Cover	0.5	0.6	0.6	0.7	0.7	0.8

② Compatible Controllers

The RCA2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type		AMEC-C-10I①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P477
		ASEP-C-10I①-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.		DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P487
Splash-Proof Solenoid Valve Type		ASEP-CW-10I①-NP-2-0					—	
Positioner Type		ACON-C-10I①-NP-2-0	Positioning is possible for up to 512 points	512 points			—	→ P535
Safety-Compliant Positioner Type		ACON-CG-10I①-NP-2-0					—	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I①-NP-2-0	Pulse train input type with differential line driver support	(–)			—	
Pulse Train Input Type (Open Collector)		ACON-PO-10I①-NP-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated to serial communication	64 points			—	
Field Network Type		RACON-10①	Dedicated to field network	768 points			—	→ P503
Program Control Type		ASEL-C-1-10I①-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			—	→ P567

* This is for the single-axis ASEL.
* ① is replaced with the code "LA" when support for power-saving is specified.

Slider Type
Mini
andard
trollers egrated
Rod Type
Mini
andard
trollers egrated
able/Arm Flat Type
Mini
andard
Gripper/ tary Type
ar Servo Type
eanroom Type
sh-Proof
ntrollers
PMEC /AMEC
PSEP /ASEP
ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL
SSEL
XSEL
se Motor
vo Motor (24V)
vo Motor (200V)
Linear vo Motor

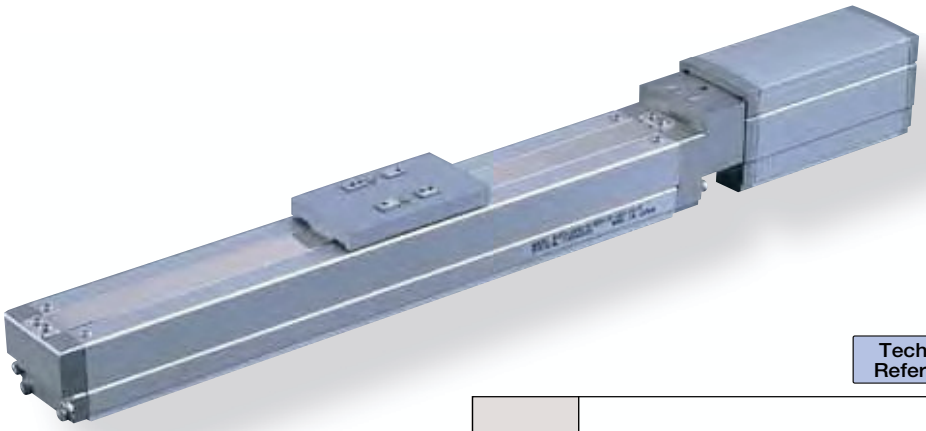
RCA2-SA4C ROBO Cylinder Slider Type 40mm Width Servo Motor Coupled

■ Configuration: **RCA2** – **SA4C** – **I** – **20** – [ ] – [ ] – [ ] – [ ] – [ ]

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
		I: Incremental * The Simple absolute encoder models are labeled as "I".	20P: 20W Servo motor	10: 6mm 5: 4mm 2.5: 2mm	50: 50mm \ 500:500mm (50mm pitch increments)	A1: ACON RACON ASEL A3: AMEC ASEP	N : None P : 1m S : 3m M : 5m X □□: Custom Length	See Options below

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

Power-saving



Technical References P. A-5

POINT Notes on Selection

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

Actuator Specifications

■ Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated Thrust (N)	Stroke (mm)
RCA2-SA4C-I-20-10-①-②-③-④	20	10	2	1	34	50 ~ 500 (50mm increments)
RCA2-SA4C-I-20-5-①-②-③-④		5	4	1.5	68	
RCA2-SA4C-I-20-2.5-①-②-③-④		2.5	6	3	136	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

■ Stroke and Maximum Speed

Lead \ Stroke	50 ~ 500 (50mm increments)
10	500
5	250
2.5	125

(Unit: mm/s)

① Stroke List

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

③ Cable List

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

* The standard cable for the RCA2 is the robot cable.
* For cables for maintenance, see page A-39.

④ Option List

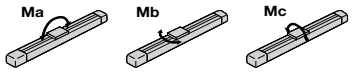
Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	–
Cable Exit Direction (Top)	CJT	→ A-25	–
Cable Exit Direction (Right)	CJR	→ A-25	–
Cable Exit Direction (Left)	CJL	→ A-25	–
Cable Exit Direction (Bottom)	CJB	→ A-25	–
Power-saving	LA	→ A-32	–
No Cover	NCO	→ A-33	–
Reversed-home	NM	→ A-33	–

Actuator Specifications

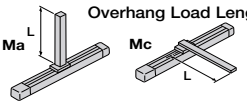
Item	Description
Drive System	Ball screw Ø8mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 6.8N·m Mb: 9.7N·m Mc: 13.3N·m
Allowable Dynamic Moment(*)	Ma: 3.04N·m Mb: 4.31N·m Mc: 5.00N·m
Overhang Load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

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

Directions of Allowable Load Moments



Overhang Load Length

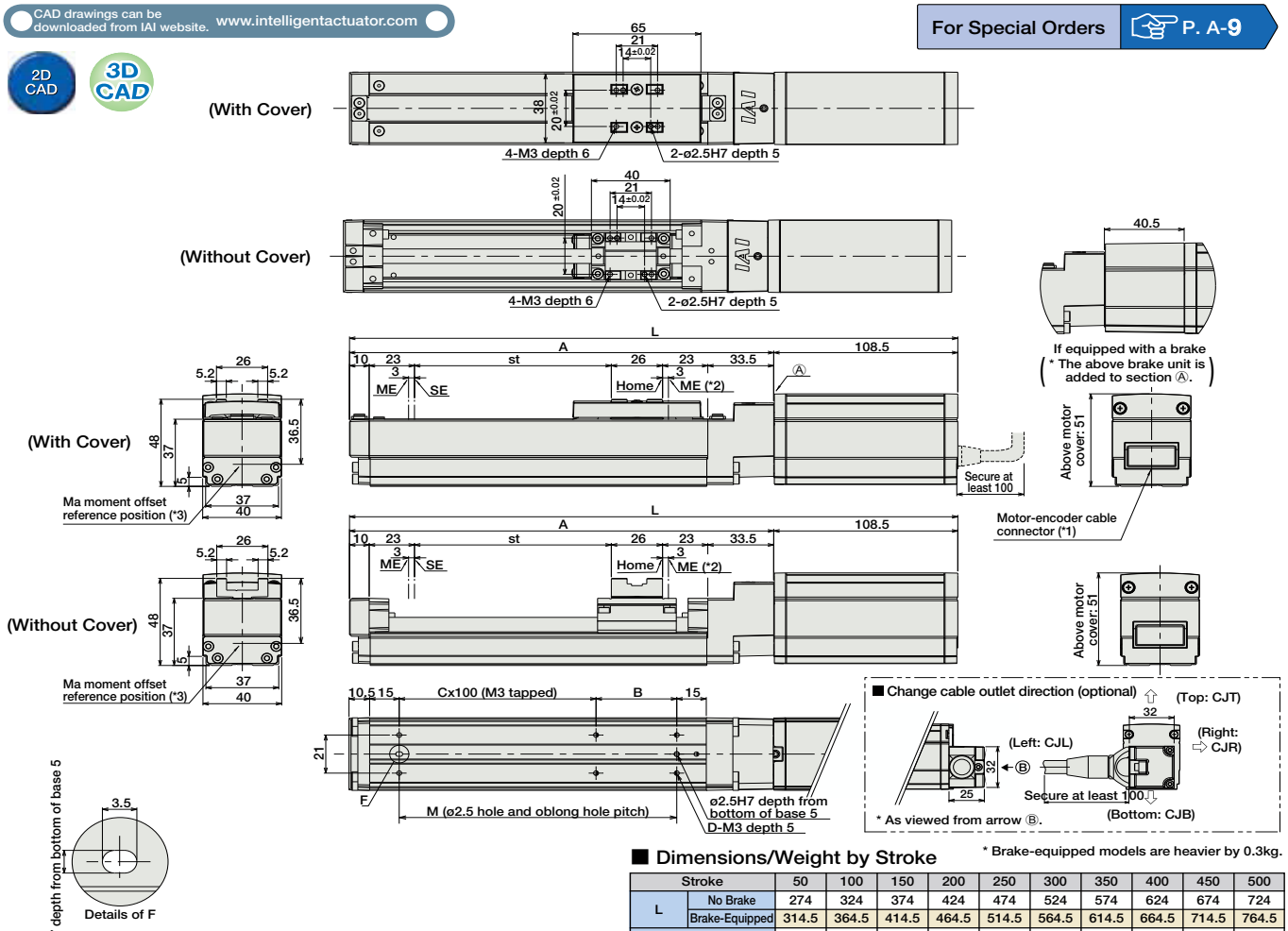


Dimensions

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

2D CAD 3D CAD

For Special Orders P. A-9



(*1) A motor-encoder cable (integrated) is connected here.
(See page A-39 for details on cables)
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
ME : Mechanical end
SE : Stroke end
(*3) Reference position for calculating the moment Ma

Dimensions/Weight by Stroke

* Brake-equipped models are heavier by 0.3kg.

Stroke		50	100	150	200	250	300	350	400	450	500
L	No Brake	274	324	374	424	474	524	574	624	674	724
	Brake-Equipped	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5	714.5	764.5
A		165.5	215.5	265.5	315.5	365.5	415.5	465.5	515.5	565.5	615.5
B		91	41	91	41	91	41	91	41	91	41
C		0	1	1	2	2	3	3	4	4	5
D		4	6	6	8	8	10	10	12	12	14
M		91	141	191	241	291	341	391	441	491	541
Weight (kg)	With Cover	0.9	1	1.1	1.1	1.2	1.3	1.4	1.5	1.5	1.6
	No Cover	0.8	0.9	1	1	1.1	1.2	1.3	1.3	1.4	1.5

② Compatible Controllers

The RCA2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type		AMEC-C-20SI①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P477
		ASEP-C-20SI①-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.		DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	—	→ P487
Splash-Proof Solenoid Valve Type		ASEP-CW-20SI①-NP-2-0					—	
Positioner Type		ACON-C-20SI①-NP-2-0	Positioning is possible for up to 512 points	512 points			—	→ P535
Safety-Compliant Positioner Type		ACON-CG-20SI①-NP-2-0					—	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20SI①-NP-2-0	Pulse train input type with differential line driver support	–			—	
Pulse Train Input Type (Open Collector)		ACON-PO-20SI①-NP-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		ACON-SE-20SI①-N-0-0	Dedicated to serial communication	64 points			—	
Field Network Type		RACON-20S①	Dedicated to field network	768 points			—	→ P503
Program Control Type		ASEL-C-1-20SI①-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			—	→ P567

* This is for the single-axis ASEL.
* ① is replaced with the code "LA" when support for power-saving is specified.

Slider Type
Mini
andard
trollers egrated
Rod Type
Mini
andard
trollers egrated
able/Arm Flat Type
Mini
andard
Gripper/ tary Type
ar Servo Type
eanroom Type
ash-Proof
ontrollers
PMEC /AMEC
PSEP /ASEP
ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL
SSEL
XSEL
se Motor
vo Motor (24V)
vo Motor (200V)
Linear vo Motor

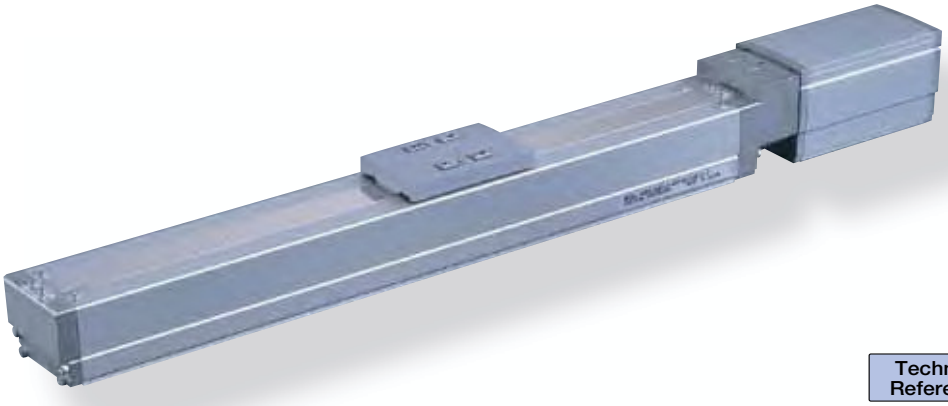
RCA2-SA5C ROBO Cylinder Slider Type 50mm Width Servo Motor Coupled

■ Configuration: **RCA2** – **SA5C** – **I** – **20** – [ ] – [ ] – [ ] – [ ] – [ ]

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
		I: Incremental * The Simple absolute encoder models are labeled as "I".	20P: 20W Servo motor	12:12mm 6: 6mm 3: 3mm	50: 50mm \ 800:800mm (50mm pitch increments)	A1: ACON RACON ASEL A3: AMEC ASEP	N : None P : 1m S : 3m M : 5m X □□: Custom Length	See Options below

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

Power-saving



Technical References P. A-5

POINT Notes on Selection

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

Actuator Specifications

■ Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated Thrust (N)	Stroke (mm)
RCA2-SA5C-I-20-12-①-②-③-④	20	12	3	1	17	50 ~ 800 (50mm increments)
RCA2-SA5C-I-20-6-①-②-③-④		6	6	1.5	34	
RCA2-SA5C-I-20-3-①-②-③-④		3	9	3	68	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

■ Stroke and Maximum Speed

Lead \ Stroke	50 ~ 550 (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	570	490	425	370	330
6	300	285	245	210	185	165
3	150	140	120	105	90	80

(Unit: mm/s)

① Stroke List

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

③ Cable List

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

* The standard cable for the RCA2 is the robot cable.
* For cables for maintenance, see page A-39.

④ Option List

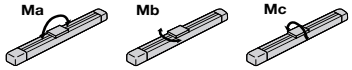
Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	–
Cable Exit Direction (Top)	CJT	→ A-25	–
Cable Exit Direction (Right)	CJR	→ A-25	–
Cable Exit Direction (Left)	CJL	→ A-25	–
Cable Exit Direction (Bottom)	CJB	→ A-25	–
Power-saving	LA	→ A-32	–
No Cover	NCO	→ A-33	–
Reversed-home	NM	→ A-33	–

Actuator Specifications

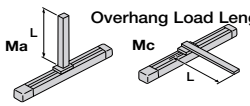
Item	Description
Drive System	Ball screw Ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 10.2N·m Mb: 14.6N·m Mc: 22.4N·m
Allowable Dynamic Moment(*)	Ma: 3.92N·m Mb: 5.58N·m Mc: 8.53N·m
Overhang Load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

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

Directions of Allowable Load Moments



Overhang Load Length



Dimensions

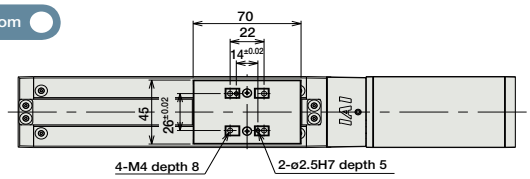
CAD drawings can be downloaded from IAI website. www.intelligentactuator.com

2D CAD 3D CAD

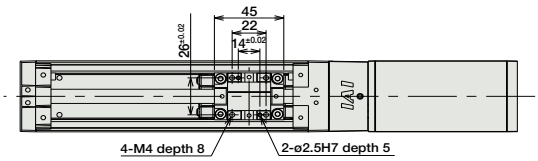
For Special Orders P. A-9

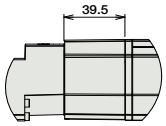
(*1) An motor-encoder cable (integrated) is connected here. (See page A-39 for details on cables.)
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
ME : Mechanical end
SE : Stroke end
(*3) Reference position for calculating the moment Ma

(With Cover)



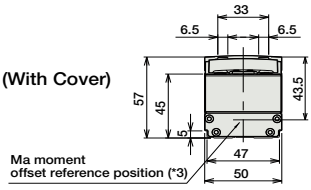
(Without Cover)



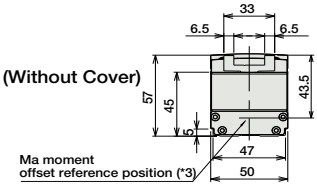


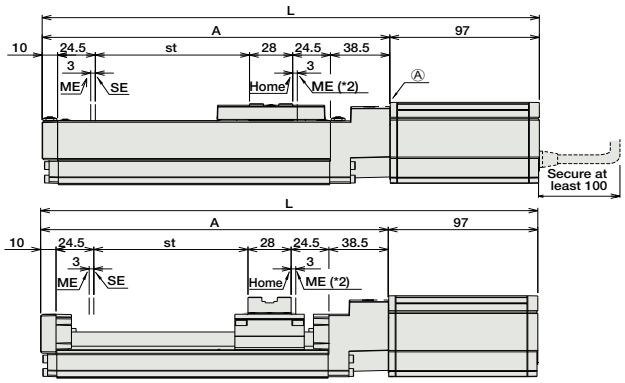
If equipped with a brake
(* The above brake unit is added to section Ⓐ.)

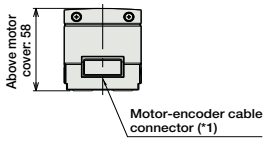
(With Cover)

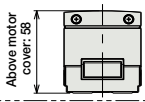


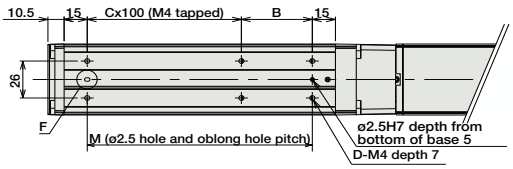
(Without Cover)

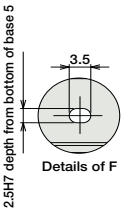




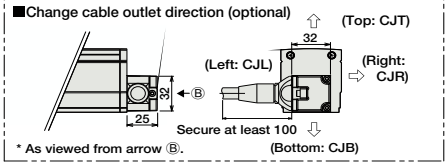








■Change cable outlet direction (optional)



■ Dimensions/Weight by Stroke

* Brake-equipped models are heavier by 0.4kg.

Stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	No Brake	272.5	322.5	372.5	422.5	472.5	522.5	572.5	622.5	672.5	722.5	772.5	822.5	872.5	922.5	972.5	1022.5
	Brake-Equipped	312	362	412	462	512	562	612	662	712	762	812	862	912	962	1012	1062
A		175.5	225.5	275.5	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5
B		96	46	96	46	96	46	96	46	96	46	96	46	96	46	96	46
C		0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
D		4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
M		96	146	196	246	296	346	396	446	496	546	596	646	696	746	796	846
Weight (kg)	With Cover	1.2	1.4	1.5	1.6	1.8	1.9	2	2.2	2.3	2.4	2.6	2.7	2.8	3.0	3.1	3.2
	No Cover	1.1	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7

② Compatible Controllers

The RCA2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type		AMEC-C-20I①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P477
		ASEP-C-20I①-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.		DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P487
Splash-ProofSolenoid Valve Type		ASEP-CW-20I①-NP-2-0					—	
Positioner Type		ACON-C-20I①-NP-2-0	Positioning is possible for up to 512 points	512 points			—	→ P535
Safety-Compliant Positioner Type		ACON-CG-20I①-NP-2-0					—	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I①-NP-2-0	Pulse train input type with differential line driver support	(–)			—	
Pulse Train Input Type (Open Collector)		ACON-PO-20I①-NP-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated to serial communication	64 points			—	
Field Network Type		RACON-20①	Dedicated to field network	768 points			—	→ P503
Program Control Type		ASEL-C-1-20I①-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			—	→ P567

* This is for the single-axis ASEL.
* ① is replaced with the code "LA" when support for power-saving is specified.

Slider Type
Mini
andard
trollers egrated
Rod Type
Mini
andard
trollers egrated
able/Arm Flat Type
Mini
andard
Gripper/ tary Type
ar Servo Type
eanroom Type
ash-Proof
ontrollers
PMEC /AMEC
PSEP /ASEP
ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL
SSEL
XSEL
se Motor
vo Motor (24V)
vo Motor (200V)
Linear vo Motor

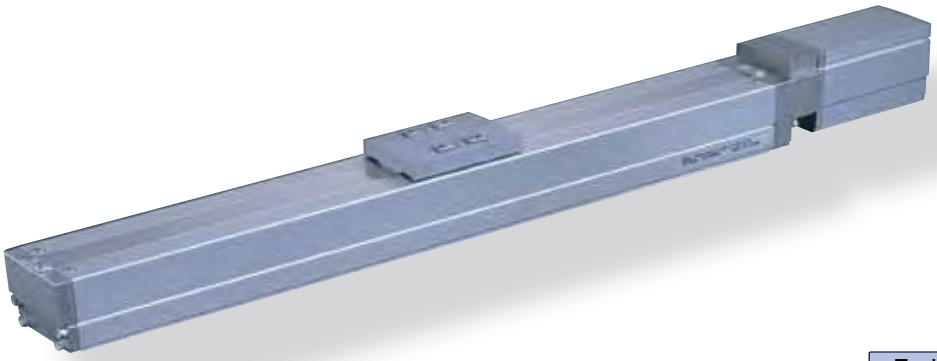
RCA2-SA6C ROBO Cylinder Slider Type 60mm Width Servo Motor Coupled

■ Configuration: **RCA2** – **SA6C** – **I** – **30** – [ ] – [ ] – [ ] – [ ] – [ ]

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
		I: Incremental * The Simple absolute encoder models are labeled as "I".	30P: 30W Servo motor	12:12mm 6: 6mm 3: 3mm	50: 50mm ~ 800:800mm (50mm pitch increments)	A1: ACON RACON ASEL A3: AMEC ASEP	N : None P : 1m S : 3m M : 5m X □□ : Custom Length	See Options below

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

Power-saving



Technical References P. A-5

POINT Notes on Selection

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

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

Actuator Specifications

■ Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated Thrust (N)	Stroke (mm)
RCA2-SA6C-I-30-12-①-②-③-④	30	12	4	1.5	26	50 ~ 800 (50mm increments)
RCA2-SA6C-I-30-6-①-②-③-④		6	7	2	53	
RCA2-SA6C-I-30-3-①-②-③-④		3	10	4	105	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

■ Stroke and Maximum Speed

Lead \ Stroke	50 ~ 550 (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	570	490	425	370	330
6	300	285	245	210	185	165
3	150	140	120	105	90	80

(Unit: mm/s)

① Stroke List

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

③ Cable List

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

* The standard cable for the RCA2 is the robot cable.
* For cables for maintenance, see page A-39.

④ Option List

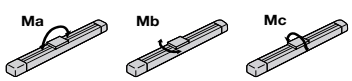
Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	–
Cable Exit Direction (Top)	CJT	→ A-25	–
Cable Exit Direction (Right)	CJR	→ A-25	–
Cable Exit Direction (Left)	CJL	→ A-25	–
Cable Exit Direction (Bottom)	CJB	→ A-25	–
Power-saving	LA	→ A-32	–
No Cover	NCO	→ A-33	–
Reversed-home	NM	→ A-33	–

Actuator Specifications

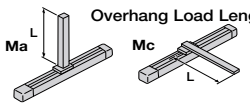
Item	Description
Drive System	Ball screw Ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 17.6N·m Mb: 25.2N·m Mc: 44.5N·m
Allowable Dynamic Moment(*)	Ma: 4.31N·m Mb: 6.17N·m Mc: 10.98N·m
Overhang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

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

Directions of Allowable Load Moments



Overhang Load Length



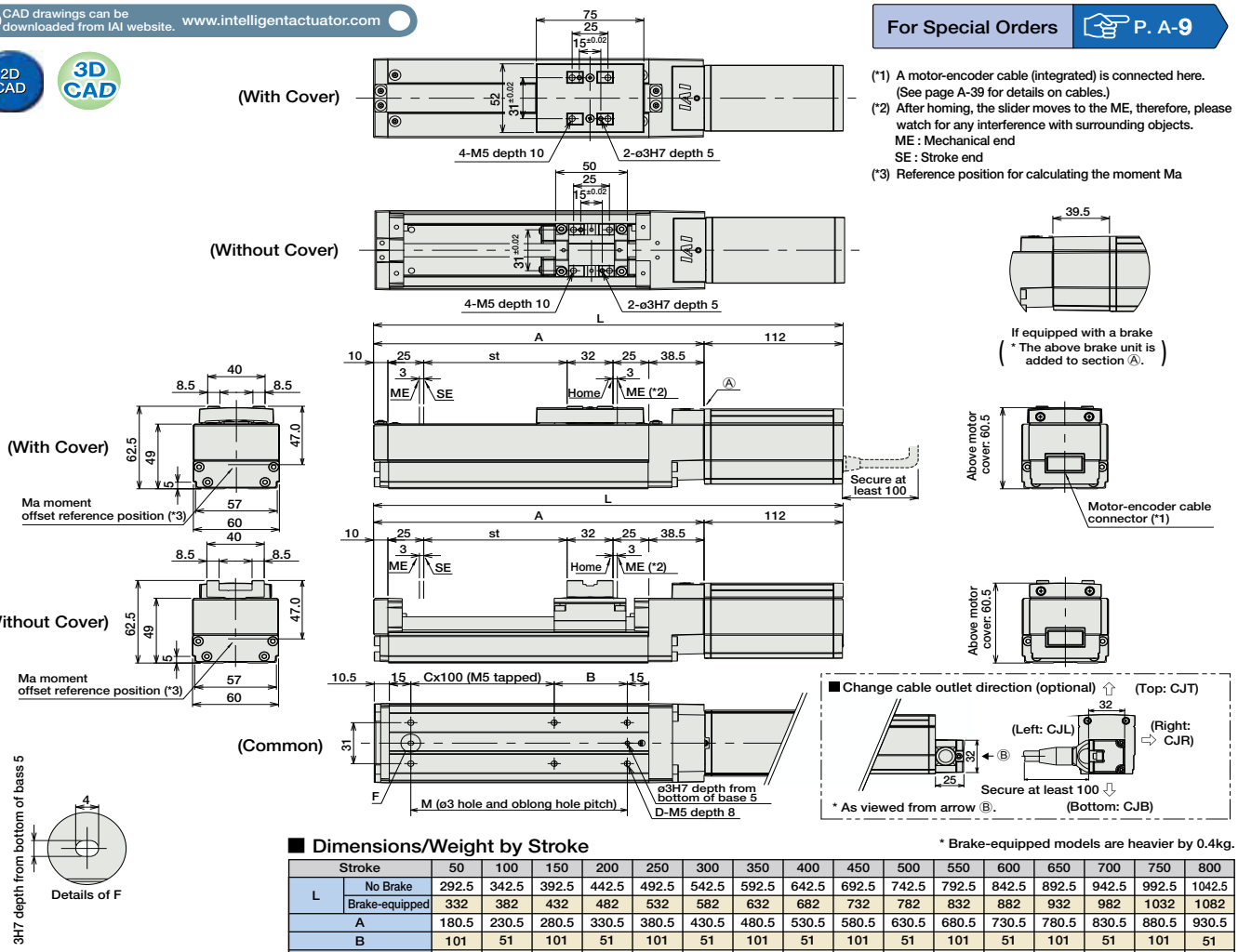
Dimensions

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

2D CAD 3D CAD

For Special Orders P. A-9

(*1) A motor-encoder cable (integrated) is connected here. (See page A-39 for details on cables.)
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
ME : Mechanical end
SE : Stroke end
(*3) Reference position for calculating the moment Ma



Dimensions/Weight by Stroke

* Brake-equipped models are heavier by 0.4kg.

Stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	No 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	892.5	942.5	992.5	1042.5
	Brake-equipped	332	382	432	482	532	582	632	682	732	782	832	882	932	982	1032	1082
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	780.5	830.5	880.5	930.5
B		101	51	101	51	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	6	7	7	8
D		4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
M		101	151	201	251	301	351	401	451	501	551	601	651	701	751	801	851
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	3.6	3.8	4.0	4.1
	No 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	3.2	3.4	3.5	3.7

② Compatible Controllers

The RCA2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type		AMEC-C-30I①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P477
		ASEP-C-30I①-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.		DC24V	(Standard) 1.3A rated 4.0A max. (Power-saving) 1.3A rated 2.2A max.	—	→ P487
Splash-Proof Solenoid Valve Type		ASEP-CW-30I①-NP-2-0					—	
Positioner Type		ACON-C-30①-NP-2-0	Positioning is possible for up to 512 points	512 points			—	→ P535
Safety-Compliant Positioner Type		ACON-CG-30①-NP-2-0					—	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-30I①-NP-2-0	Pulse train input type with differential line driver support	(–)			—	
Pulse Train Input Type (Open Collector)		ACON-PO-30I①-NP-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		ACON-SE-30I①-N-0-0	Dedicated to serial communication	64 points			—	
Field Network Type		RACON-30①	Dedicated to field network	768 points			—	→ P503
Program Control Type		ASEL-C-1-30I①-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			—	→ P567

* This is for the single-axis ASEL.
* ① is replaced with the code "LA" when support for power-saving is specified.

Slider Type
Mini
andard
trollers egrated
Rod Type
Mini
andard
trollers egrated
able/Arm Flat Type
Mini
andard
Gripper/ tary Type
ar Servo Type
eanroom Type
sh-Proof
ntrollers
PMEC /AMEC
PSEP /ASEP
ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL
SSEL
XSEL
se Motor
vo Motor (24V)
vo Motor (200V)
Linear vo Motor

RCA2-SA3R

ROBO Cylinder Slider Type 32mm Width Servo Motor Coupled

■ Configuration: **RCA2 – SA3R – I – 10 – ☐ – ☐ – ☐ – ☐ – ☐ – ☐**

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
		I: Incremental * Simple absolute encoder models are labeled as "I".	10: 10W Servo motor	6: 6mm 4: 4mm 2: 2mm	50: 50mm \ 300:300mm (50mm pitch increments)	A1: ACON RACON ASEL A3: AMEC ASEP	N : None P : 1m S : 3m M : 5m X ☐☐: Custom Length	See Options below * Be sure to specify which side the motor is to be mounted (ML/MR).

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

Power-saving

Technical References P. A-5

POINT Notes on Selection

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

Actuator Specifications

■ Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated Thrust (N)	Stroke (mm)
RCA2-SA3R-I-10-6-①-②-③-④	10	6	1	0.5	28	50～300 (50mm increments)
RCA2-SA3R-I-10-4-①-②-③-④		4	2	1	43	
RCA2-SA3R-I-10-2-①-②-③-④		2	3	1.5	85	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

■ Stroke and Maximum Speed

Lead \ Stroke	50 ～ 300 (50mm increments)
6	300
4	200
2	100

(Unit: mm/s)

① Stroke List

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

③ Cable List

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

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

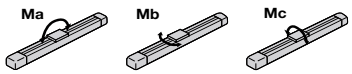
④ Option List

Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	—
Cable Exit Direction (Top)	CJT	→ A-25	—
Cable Exit Direction (Outside)	CJO	→ A-25	—
Cable Exit Direction (Bottom)	CJB	→ A-25	—
Power-saving	LA	→ A-32	—
Left-Mounted Motor (Standard)	ML	→ A-33	—
Right-Mounted Motor	MR	→ A-33	—
No Cover	NCO	→ A-33	—
Reversed-home	NM	→ A-33	—

Actuator Specifications

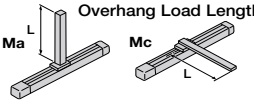
Item	Description
Drive System	Ball screw Ø6mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Load Moment	Ma: 5.0N·m Mb: 7.1N·m Mc: 7.9N·m
Allowable Dynamic Load Moment	Ma: 1.96N·m Mb: 2.84N·m Mc: 3.14N·m
Overhang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

Directions of Allowable Load Moments



5,000 km service life

Overhang Load Length

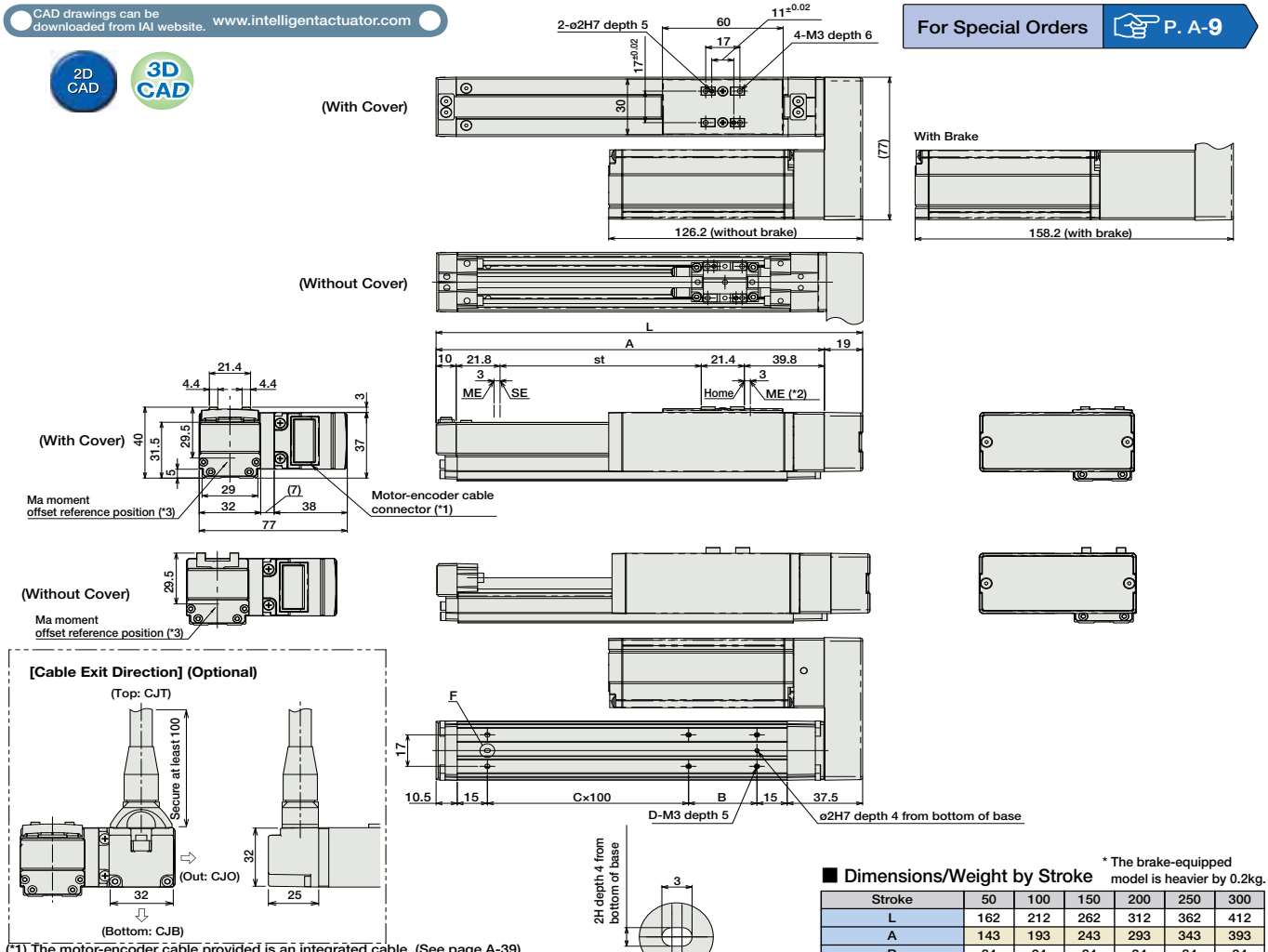


Dimensions

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

2D CAD 3D CAD

For Special Orders P. A-9



(*1) The motor-encoder cable provided is an integrated cable. (See page A-39)
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
ME : Mechanical end
SE : Stroke end
(*3) Reference position for calculating the moment Ma

Dimensions/Weight by Stroke

* The brake-equipped model is heavier by 0.2kg.

Stroke		50	100	150	200	250	300
L		162	212	262	312	362	412
A		143	193	243	293	343	393
B		84	34	84	34	84	34
C		0	1	1	2	2	3
D		4	6	6	8	8	10
Weight (kg)	With Cover	0.7	0.7	0.8	0.9	0.9	1.0
	No Cover	0.6	0.7	0.7	0.8	0.8	0.9

② Compatible Controllers

The RCA2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type		AMEC-C-10I①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P477
		ASEP-C-10I①-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.		DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P487
Splash-Proof Solenoid Valve Type		ASEP-CW-10I①-NP-2-0					—	
Positioner Type		ACON-C-10I①-NP-2-0	Positioning is possible for up to 512 points	512 points			—	→ P535
Safety-Compliant Positioner Type		ACON-CG-10I①-NP-2-0					—	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10I①-NP-2-0	Pulse train input type with differential line driver support	(–)			—	
Pulse Train Input Type (Open Collector)		ACON-PO-10I①-NP-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		ACON-SE-10I①-N-0-0	Dedicated to serial communication	64 points			—	
Field Network Type		RACON-10①	Dedicated to field network	768 points			—	→ P503
Program Control Type		ASEL-C-1-10I①-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			—	→ P567

* This is for the single-axis ASEL.
* ① is replaced with the code "LA" when support for power-saving is specified.

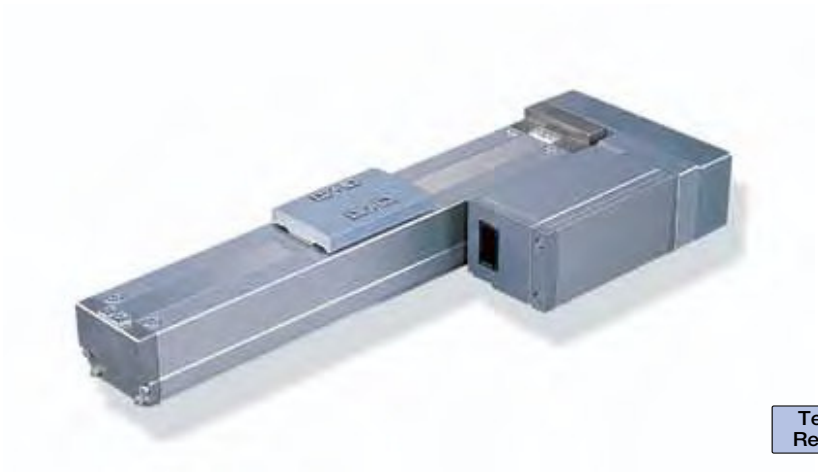
RCA2-SA4R ROBO Cylinder Slider Type 40mm Width Servo Motor Side-Mounted Motor

■ Configuration: **RCA2 – SA4R – I – 20 – [ ] – [ ] – [ ] – [ ] – [ ]**

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
		I: Incremental * Simple absolute encoder models are labeled as "I".	20: 20W Servo motor	10:10mm 5: 5mm 2.5:2.5mm	50: 50mm \ 500:500mm (50mm pitch increments)	A1: ACON RACON ASEL A3: AMEC ASEP	N : None P : 1m S : 3m M : 5m X □□: Custom Length	See Options below * Be sure to specify which side the motor is to be mounted (ML/MR).

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

Power-saving



Technical References P. A-5

POINT Notes on Selection

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

Actuator Specifications

■ Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated Thrust (N)	Stroke (mm)
RCA2-SA4R-I-20-10-①-②-③-④	20	10	2	1	34	50～500 (50mm increments)
RCA2-SA4R-I-20-5-①-②-③-④		5	4	1.5	68	
RCA2-SA4R-I-20-2.5-①-②-③-④		2.5	6	3	136	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

■ Stroke and Maximum Speed

Lead \ Stroke	50 ～ 500 (50mm increments)
10	500
5	250
2.5	125

(Unit: mm/s)

① Stroke List

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

③ Cable List

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

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

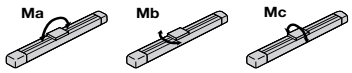
④ Option List

Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	—
Cable Exit Direction (Top)	CJT	→ A-25	—
Cable Exit Direction (Outside)	CJO	→ A-25	—
Cable Exit Direction (Bottom)	CJB	→ A-25	—
Power-saving	LA	→ A-32	—
Left-Mounted Motor (Standard)	ML	→ A-33	—
Right-Mounted Motor	MR	→ A-33	—
No Cover	NCO	→ A-33	—
Reversed-home	NM	→ A-33	—

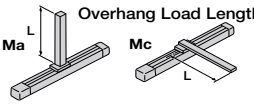
Actuator Specifications

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

Directions of Allowable Load Moments



Overhang Load Length



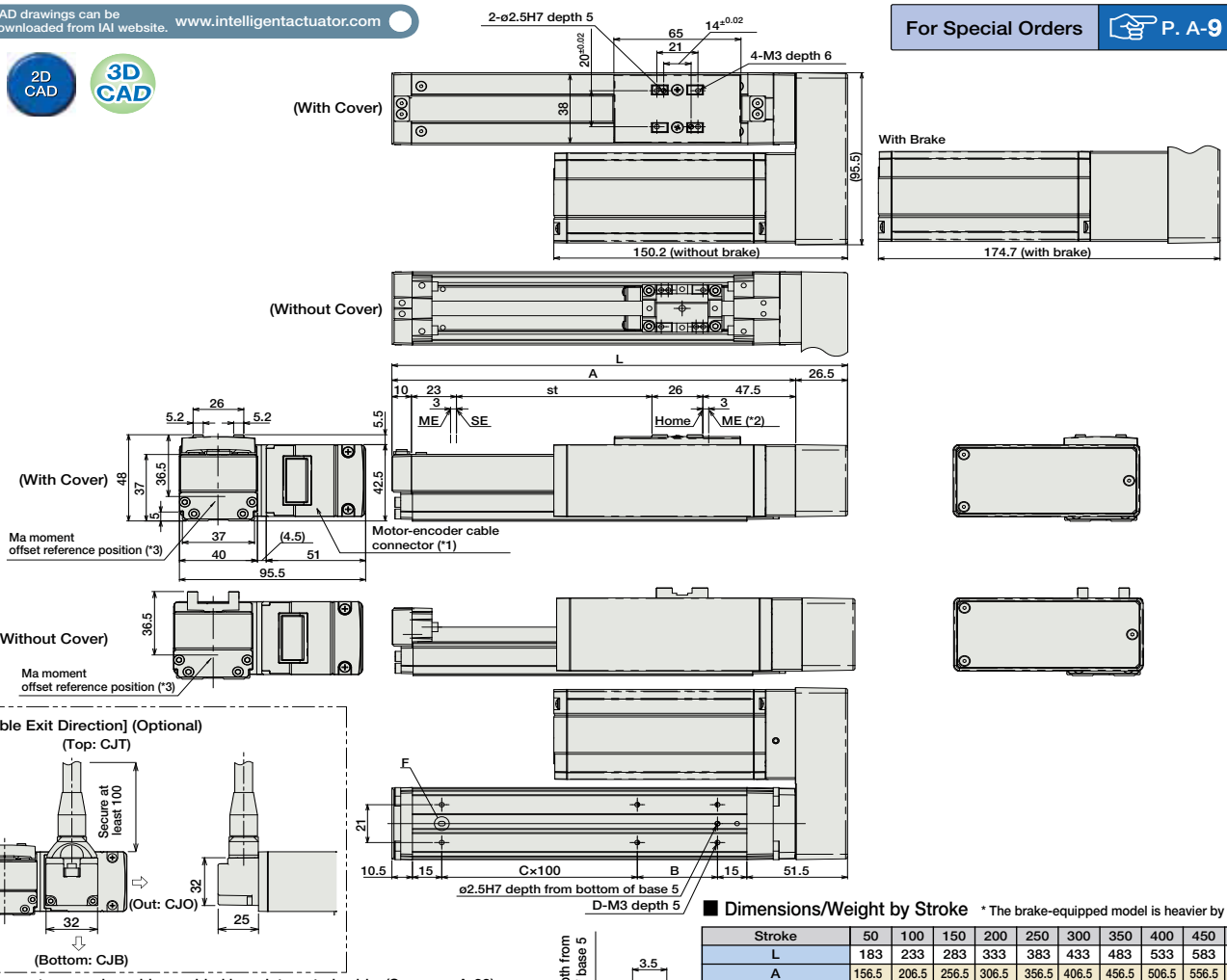
5,000 km service life

Dimensions

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

2D CAD 3D CAD

For Special Orders P. A-9



(*1) The motor-encoder cable provided is an integrated cable. (See page A-39)
(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.
ME : Mechanical end
SE : Stroke end
(*3) Reference position for calculating the moment Ma

■ Dimensions/Weight by Stroke

* The brake-equipped model is heavier by 0.3kg.

Stroke		50	100	150	200	250	300	350	400	450	500
L		183	233	283	333	383	433	483	533	583	633
A		156.5	206.5	256.5	306.5	356.5	406.5	456.5	506.5	556.5	606.5
B		91	41	91	41	91	41	91	41	91	41
C		0	1	1	2	2	3	3	4	4	5
D		4	6	6	8	8	10	10	12	12	14
Weight (kg)	With Cover	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.7	1.8	1.9
	No Cover	1.0	1.1	1.2	1.2	1.3	1.4	1.5	1.5	1.6	1.7

② Compatible Controllers

The RCA2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type		AMEC-C-20SI①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P477
		ASEP-C-20SI①-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.		DC24V	(Standard) 1.7A rated 5.1A max. (Power-saving) 1.7A rated 3.4A max.	—	→ P487
Splash-ProofSolenoid Valve Type		ASEP-CW-20SI①-NP-2-0					—	
Positioner Type		ACON-C-20SI①-NP-2-0	Positioning is possible for up to 512 points	512 points			—	→ P535
Safety-Compliant Positioner Type		ACON-CG-20SI①-NP-2-0					—	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20SI①-NP-2-0	Pulse train input type with differential line driver support	(–)			—	
Pulse Train Input Type (Open Collector)		ACON-PO-20SI①-NP-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		ACON-SE-20SI①-N-0-0	Dedicated to serial communication	64 points			—	
Field Network Type		RACON-20S①	Dedicated to field network	768 points			—	→ P503
Program Control Type		ASEL-C-1-20SI①-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			—	→ P567

* This is for the single-axis ASEL.
* ① is replaced with the code "LA" when support for power-saving is specified.

Slider Type
Mini
andard
trollers egrated
Rod Type
Mini
andard
trollers egrated
able/Arm Flat Type
Mini
andard
Gripper/ tary Type
ar Servo Type
eanroom Type
sh-Proof
ntrollers
PMEC /AMEC
PSEP /ASEP
ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL
SSEL
XSEL
se Motor
vo Motor (24V)
vo Motor (200V)
Linear vo Motor

RCA2-SA5R

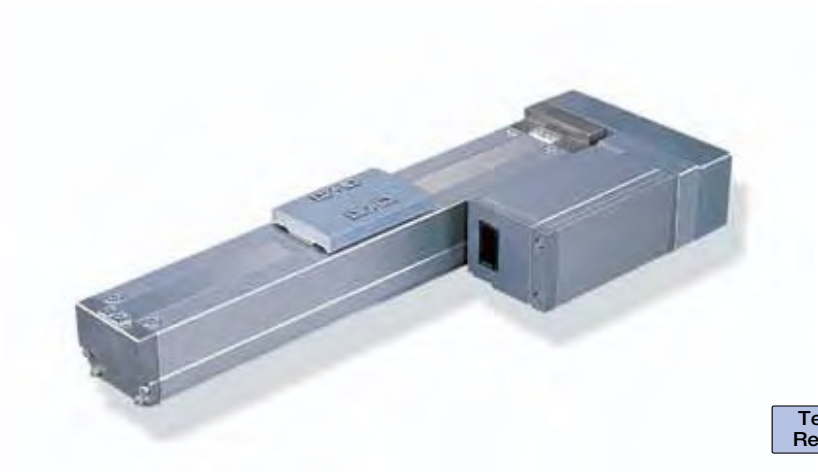
ROBO Cylinder Slider Type 50mm Width Servo Motor Side-Mounted Motor

■ Configuration: RCA2 – SA5R – I – 20 – [ ] – [ ] – [ ] – [ ] – [ ]

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
		I: Incremental * Simple absolute encoder models are labeled as "I".	20: 20W Servo motor	12:12mm 6: 6mm 3: 3mm	50: 50mm ~ 800:800mm (50mm pitch increments)	A1: ACON RACON ASEL A3: AMEC ASEP	N : None P : 1m S : 3m M : 5m X □□: Custom Length	See Options below * Be sure to specify which side the motor is to be mounted (ML/MR).

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

Power-saving



Technical References P. A-5

POINT Notes on Selection

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

Actuator Specifications

■ Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated Thrust (N)	Stroke (mm)
RCA2-SA5R-I-20-12-①-②-③-④	20	12	3	1	17	50~800 (50mm increments)
RCA2-SA5R-I-20-6-①-②-③-④		6	6	1.5	34	
RCA2-SA5R-I-20-3-①-②-③-④		3	9	3	68	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

■ Stroke and Maximum Speed

Lead \ Stroke	50 ~ 550 (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	570	490	425	370	330
6	300	285	245	210	185	165
3	150	140	120	105	90	80

(Unit: mm/s)

① Stroke List

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

③ Cable List

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

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

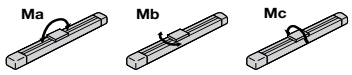
④ Option List

Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	—
Cable Exit Direction (Top)	CJT	→ A-25	—
Cable Exit Direction (Outside)	CJO	→ A-25	—
Cable Exit Direction (Bottom)	CJB	→ A-25	—
Power-saving	LA	→ A-32	—
Left-Mounted Motor (Standard)	ML	→ A-33	—
Right-Mounted Motor	MR	→ A-33	—
No Cover	NCO	→ A-33	—
Reversed-home	NM	→ A-33	—

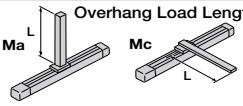
Actuator Specifications

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

Directions of Allowable Load Moments



Overhang Load Length



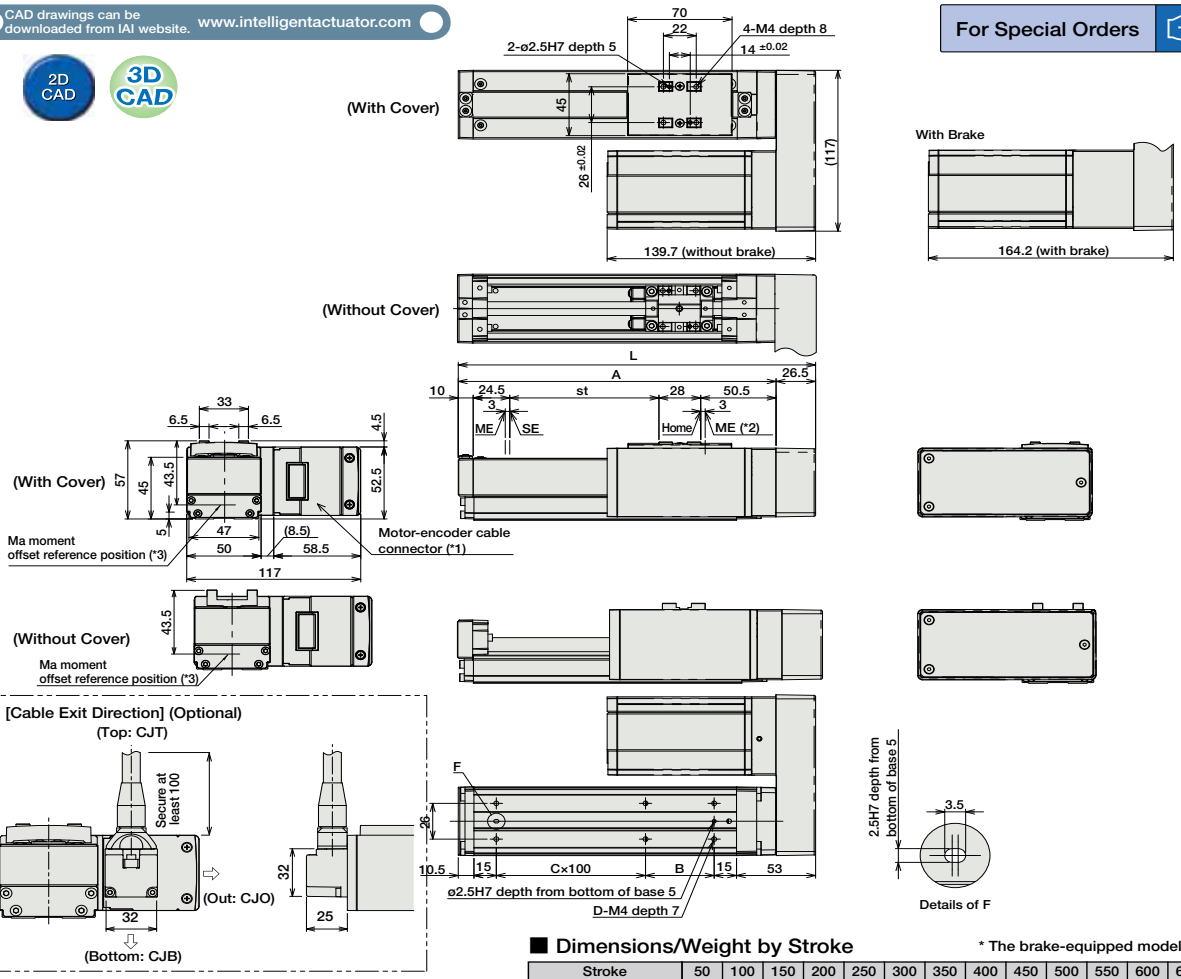
5,000 km service life

Dimensions

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

2D CAD 3D CAD

For Special Orders P. A-9



(*1) The motor-encoder cable provided is an integrated cable. (See page A-39.)

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

(*3) Reference position for calculating the moment Ma

Dimensions/Weight by Stroke

* The brake-equipped model is heavier by 0.4kg.

Stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L		189.5	239.5	289.5	339.5	389.5	439.5	489.5	539.5	589.5	639.5	689.5	739.5	789.5	839.5	889.5	939.5
A		163	213	263	313	363	413	463	513	563	613	663	713	763	813	863	913
B		96	46	96	46	96	46	96	46	96	46	96	46	96	46	96	46
C		0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
D		4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
Weight (kg)	With Cover	1.5	1.7	1.8	1.9	2.1	2.2	2.3	2.5	2.6	2.7	2.9	3.0	3.1	3.3	3.4	3.5
	No Cover	1.4	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0

② Compatible Controllers

The RCA2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type		AMEC-C-20I①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	—	→ P477
		ASEP-C-20I①-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.		DC24V	(Standard) 1.3A rated 4.4A max. (Power-saving) 1.3A rated 2.5A max.	—	→ P487
Splash-Proof Solenoid Valve Type		ASEP-CW-20I①-NP-2-0					—	
Positioner Type		ACON-C-20I①-NP-2-0	Positioning is possible for up to 512 points	512 points			—	→ P535
Safety-Compliant Positioner Type		ACON-CG-20I①-NP-2-0					—	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-20I①-NP-2-0	Pulse train input type with differential line driver support	(–)			—	
Pulse Train Input Type (Open Collector)		ACON-PO-20I①-NP-2-0	Pulse train input type with open collector support				—	
Serial Communication Type		ACON-SE-20I①-N-0-0	Dedicated to serial communication	64 points			—	
Field Network Type		RACON-20①	Dedicated to field network	768 points			—	→ P503
Program Control Type		ASEL-C-1-20I①-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			—	→ P567

* This is for the single-axis ASEL.
* ① is replaced with the code "LA" when support for power-saving is specified.

Slider Type
Mini
andard
trollers egrated
Rod Type
Mini
andard
trollers egrated
able/Arm Flat Type
Mini
andard
Gripper/ tary Type
ar Servo Type
eanroom Type
sh-Proof
ntrollers
PMEC /AMEC
PSEP /ASEP
ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL
SSEL
XSEL
se Motor
vo Motor (24V)
vo Motor (200V)
Linear vo Motor

RCA2-SA6R

ROBO Cylinder Slider Type 60mm Width Servo Motor Side-Mounted Motor

■ Configuration: **RCA2 – SA6R – I – 30 – [ ] – [ ] – [ ] – [ ] – [ ]**

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
		I: Incremental * Simple absolute encoder models are labeled as "I".	30: 30W Servo motor	12:12mm 6: 6mm 3: 3mm	50: 50mm \ 800:800mm (50mm pitch increments)	A1: ACON RACON ASEL A3: AMEC ASEP	N : None P : 1m S : 3m M : 5m X □□: Custom Length	See Options below * Be sure to specify which side the motor is to be mounted (ML/MR).

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

Power-saving

Technical References P. A-5

POINT Notes on Selection

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

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

Actuator Specifications

■ Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated Thrust (N)	Stroke (mm)
RCA2-SA6R-I-30-12-①-②-③-④	30	12	4	1.5	26	50～800 (50mm increments)
RCA2-SA6R-I-30-6-①-②-③-④		6	7	2	53	
RCA2-SA6R-I-30-3-①-②-③-④		3	10	4	105	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

■ Stroke and Maximum Speed

Lead \ Stroke	50～550 (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	570	490	425	370	330
6	300	285	245	210	185	165
3	150	140	120	105	90	80

(Unit: mm/s)

① Stroke List

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

③ Cable List

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

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

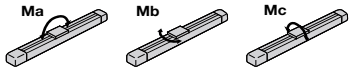
④ Option List

Name	Option Code	See Page	Standard Price
Brake-Equipped	B	→ A-25	—
Cable Exit Direction (Top)	CJT	→ A-25	—
Cable Exit Direction (Outside)	CJO	→ A-25	—
Cable Exit Direction (Bottom)	CJB	→ A-25	—
Power-saving	LA	→ A-32	—
Left-Mounted Motor (Standard)	ML	→ A-33	—
Right-Mounted Motor	MR	→ A-33	—
No Cover	NCO	→ A-33	—
Reversed-home	NM	→ A-33	—

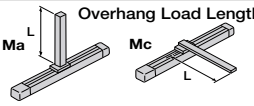
Actuator Specifications

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

Directions of Allowable Load Moments



Overhang Load Length



5,000 km service life